MIDSUMMER 1936

25°

RADEX INDEX

The All-wave DX Log of the World



Where and When to Tune for the Baseball Games

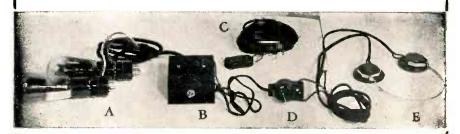
Experience Reports on Three Types of Receiver

Short Wave Stations of the World Broadcast Stations of North America

No. 100

The "Perfect" Phone Adapter

permits the use of head-phones on any radio receiver. It is easily attached by anyone without tools and will not affect the operation of the set in any way. It comes with either one or two small socket-adapters (A) which are placed under the last or power tubes. The hard of hearing may listen on the phones while others listen to the speaker. Or the speaker may be silenced when others in the house are asleep or ill.



When the Distant Volume Control (D) is connected to the Adapter in place of phones, the volume may be turned up or down or the advertising "blurbs" may be eliminated altogether—all without leaving your chair. The ten-foot extension cord (C) permits the use of phones and Volume Control from a distance. In this case the phones are connected to the Control as shown. If desired a second speaker in another room may be used in place of phones and either or both speakers used.

PRICES

Perfect Phone Adapter (A & B)	\$3.95
Adapter with 2000-ohm phones	
Adapter with "Featherweight" 24,000-ohm phones	12.00
Distant Volume Control	2.00
Extension cord and connector	.50

All prices postpaid. If you live in Ohio add 3% for state sales tax.

The 2000-ohm phones will give excellent service. The 24,000-ohm phones are perhaps the very finest made being especially light and extremely sensitive. They were developed especially for the hard of hearing, airplane pilots, short wave work, etc.

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

The Radex Press, Inc. Conneaut, Ohio



The Whole Colorful Kaleidoscope of Life-Yours — with a SCOTT!

IN the privacy of your own home or in the friendly atmosphere of your ham shack. you surround yourself with the things you prize. You never regret that they are the best there are. The thousands of people who have chosen the SCOTT for ownership have had this in mind

Unexcelled Tone

World famous for its clear, life-true realism. The diamond brilliant beauty of its

30 to 16,000 cycle high tidelity tone, has won it an envied place in the homes of celebrated musicians, broadcastersandamateurs in more than 146 countries. The SCOTT cap-tures the full range of overtones which enable the human ear to distinguish trumpet from trombone, cornet from clarinet, flute from voice. Exclusive SCOTT Volume Range Expander brings Program beauty which actually ex-ceeds the accuracy of the

broadcast, impossible as this appears. True separate Bass and Treble Controls no sacrificing one end of the musical scale for the other.

Compare Your DX List

Distance? - Here's a broadcast band teaser from C. H. Weyrich, Baltimore,

35 Watts "A" Power, 2 to 16 KC Variable Selectivity. 1 Microvolt Sensitivity Dual A.V.C 23 tubes

4424 Ravenswood Ave., Dept. 15K6. Chicago, III.

Send "PROOF" booklet of the SCOTT Superior Tone and Distance Performance.

E. H. SCOTT RADIO LABORATORIES, Inc.

4424 Ravenswood Avenue, Chicago 630 Fifth Ave., New York

115 N. Robertson Blvd., Los Aogeles

Md.: 4BH, 4BC (600 watts each) 2BL Aus-

tralia. 1YA New Zealand, KGU and

KGMB (250 watts) Hawaii - all with

verifications. Not only does the SCOTT get Hawaii, but Hawaii gets all the

world with a SCOTT! Says Otis Hill, of

Hilo, Hawaii: "Reception with the SCOTT

has been most remarkable . . . I get consistently perfect reception from

London, Paris, Rome, Berlin, Moscow

June 1, 1936



RADIO

Reg. U. S. Patent Office

FRED CLAYTON BUTLER Editor and Publisher

B. FRANCIS DASHIELL Technical Editor CARLETON LORD

DX Editor



PAGE TAYLOR Short Wave Editor

TWELFTH YEAR

NUMBER 100

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Printed in U. S. A.

Baseball Via RADIO

TELIEVING that most radio enthusiasts are also baseball fans, we are offering the following schedule of broadcasts of scores, resumes and play-by-play accounts of games in the various leagues throughout the country. By arranging the stations geographically, we feel that listeners will have little difficulty in obtaining last minute news concerning their favorite teams. RADEX is indebted to THE SPORT-ING NEWS, national baseball weekly. for this information. All times are

Judge Landis has asked the operators of all the baseball teams in major and minor leagues to make no further radio commitments until the matter of broadcasting play-by-play accounts of games can be studied. It is felt in some quarters that these broadcasts keep a large number of customers from the games. This order from the High Commissioner may effect some of the broadcasts listed below.

ALA	BAMA		
Birmingham	WBRC	930	Barons' out - of - town games, daily,
Decatur	WMFO	1370	Scores at 6:45.
Montgomery		1410	Scores on hour and half
	.,		hour in afternoon.
ARI	ZONA		nour in arternoon,
Phoenix	KTAR	620	Five-minute resume at 5:15 daily.
ARK	ANSAS		5 110 amily :
El Dorado	KELD	1370	Scores daily; play-by- play accounts of some
			games in Cotton States
Jonesboro	квтм	1000	League.
Jonesboro	KBIM	1200	Scores during afternoon, summaries at 6:00.
Little Rock	KLRA	890	Play-by-play accounts of
			Travellers' games.
Pine Bluff	KOTN	1500	Play-by-play of Sunday
			out-of-town games.
	ORNIA		
Chleo	KHSL	950	Scores 5:15-5:30, daily except Sunday.
Los Angeles	KECA	1430	Scores 6:00 daily, 9:00
			except Sunday.
	KFAC	1300	Play-by-play of Angels'
			games daily.
	KFI	640	Scores during news
CO1 (RADO		broadcast at 10:00 daily.
Denver			
Denver	KFEL	920	Scores every three inn-
CONNE	CTICUT		ings; summaries at 5:30.
Bridgeport	WICC	600	Play-by-play of Red Sox' and Bees' games daily.
Hartford	WDDC	1220	Dier bu ples of Ded Cont

WDRC 1330

Hartford

Waterbury	WATR	1190	Play-by-play of Red Sox and Bees' games daily.
Gainesville	WRUF	830	ville games; scores every
Tallahassee	WTAL	1310	Georgia-Florida games.
Tampa	WDAE	1220	with flashes on scores.
GE	ORGIA		0.00 dany.
Atlanta	WGST	890	Play-by-play of Crack- ers' out-of-town games.
Bloomington	WJBC	1200	Results and comments at
Chicago	WBBM	770	5:45. Play-by-play of Cubs'
	WCFL	970	and White Sox' games daily. Play-by-play of Cubs'
			and White Sox' games
	WGN	720	daily. Play-by-play of Cubs' and White Sox' games
	WJJD	1130	daily.
		1100	Resumes of Cubs' and White Sox' games at 6:00.
E. St. Louis	WTMV	1500	Scores and comments, daily, 6:15-6:30.
Harrisburg	WEBQ	1210	Socres and highlights 3:55 daily; also 7:30 Saturdays
Peorla	WMBD	1440	Scores and highlights 5:45 daily.
Quincy	WTAD	900	Scores and highlights 6:00-6:15 daily.
Rock Island	WHBF	1210	Play-by-play of Western League and some Cubs
			games; scores, interviews 6:05-6:20, daily.
	IANA		
Gary	WIND	560	Play-by-play of Cubs' and White Sox' games daily; re-broadcast of
			Cubs' games, 7:00-8:00.
Indianapolis	WIRE	1400	Play-by-play of all Indians' games daily.
South Bend		1360	Scores dally, 6:00 and 9:00.
10)WA		
Davenport	woc :	1370	Play-by-play of Cubs'. White Sox' games daily.
Des Moines	WHO 1	000	Play-by-play of Cubs', White Sox' games daily:
Shenandoah	KFNF	890	scores, highlights, 9:00 Scores and comment.
			6:30, weekdays.
KA	NSAS		
Coffeyville	KGGF 1	010	Inning-by-inning of ma- lors and A.A. at 4:30,
Hutchinson	KWBG 1	420	5:00 and 5:40. All home and road games of city's Western Associa- tion team.
Topeka	WIBW	580	Scores at 5:55, daily.
KEN'	TUCKY		
Ashland		310	Grover Alexander at 5:00; scores at 5:45.
	SIANA		
New Orleans		200	Play-by-play of night road games of Pelicans.
		1320	Play-by-play of all road games of Pelicans.
	WWL	850	Scores and comment at 6:25.
Shreveport	KRMD 1	310	Scores throughout after- noon.

Play-by-play of Red Sox' and Bees' games daily.

Bangor	WLBZ	620	Play-by-play of Red Sox' Bees' games daily.
Portland	WCSH	940	Scores, 6:40 daily; comments, 6:45-7:00.
MARY			
Baltimore Cumberland	WCBM	1370 800	Play-by-play of Orioles' games. Reviews, 5:45-6:00, daily
G	120		except Sunday.
MASSACI Boston	WBZ	990	Scores, highlights, Inter-
	WNAC	1230	views at 6:40 daily. Play-by-play of Red Sox', Bees' home games.
Lowell	WLLH	1370	Play-by-play of Red Sox', Bees' games daily
Needham	WORL	920	Resumes Red Sox', Bees' games at 6:15 daily.
New Bedford	$\mathbf{W}\mathbf{N}\mathbf{B}\mathbf{H}$	1310	Play-by-play of Red
Springfield	WMAS	1420	Sox', Bees' home games. Play-by-play of Red
Worcester	WORC	1280	Sox', Bees' home games. Play-by-play of Red Sox', Bees' home games.
MICH	IIGAN		Sox, Bees nome games.
Battle Creek	WELL	1420	Play-by-play of all De- troit games.
Bay City	WBCM	1410	Play-by-play of all De- troit games.
Detrolt	WJR	750	Play-by-play resume at 6:00.
	WWJ	920	Play-by-play of all De- troit games.
Flint	WFDF	1310	Play-by-play of all De- trolt games.
Grand Rapids	WOOD	1270	Play-by-play of all De- trolt games.
Ironwood	WJMS	1420	Scores and comments at 6:15 daily.
Jackson	WIBM	1370	Play-by-play of all De- troit games.
Kalamazoo	WKZO	590	Play-by-play of all De- troit games.
Marquette	WBEO	1310	Score at 4:20 daily.
Minneapolis	WCCO	810	Play-by-play of Minne-
Minneapons	wcco	910	apolis games dally; sum-
MISS	OURI		maries at 10:25.
Joplin	WMBH	1420	Play-by-play of home
			games of Western Assn.
Kansas City	W9XBY	1530	Play-by-play of Kansas City A.A. team at home and abroad.
St. Louis	кмох	1090	Play-by-play of Cardi-
			nals', Browns' home games, daily, except Sun- days, holidays. Scores,
			days, holidays. Scores, 6:00.
	KSD	550	Scores hourly after 2:00; resumes, 6:30-6:45.
	KWK	1350	Play-by-play of Cardi- nals', Browns' home
			games, daily except Sun-
			6:45, 9:00.
	WIL	1200	Scores, highlights, 3:30 and 6:35.
Springfield	KGBX	1230	Night road games of Springfield W.A. club and
	кwто	560	25 home games. Scores, 5:00; final scores.
NERI	RASKA		comment, 6:20-6:30.
Lincoln	KFAB	770	Re - creates Chicago Cubs', White Sox' games
NEW HA	MPSHIF	RE.	by wire.
Manchester	WFEA		Play - by - play of Red Sox', Bees' home games.



Joan Blaine studied to be a lawyer but became a concert singer and a harpist instead. Joan is the leading lady of "A Tale of Today," the popular serial heard each Monday at 8:30 p.m., EST, over the NBC-Blue Network.

NEW JERSEY

11211 3	LK3L!	
Asbury Park	WCAP 1280	and Saturday.
Trenton	WTNJ 1280	News and scores, 5:30- 5:45; scores 6:45-6:55.
NEW	YORK	
Binghamton	WNBF 1500	Play-by-play of Bing- hamton NYP League team on road and some
Buffalo	WGR 550	home games. Score, 6:45. Night games of Buffalo Bisons; scores, inter- views at 6:30.
	WKBW 1480	
Elmira	WESG 850	
New York	WINS 1180	Play-by-play of Newark Bears' games.
Olean	WHDL 1420	Scores and highlights, 6:15-6:30.
Rochester	WHAM 1150	Resume of majors, mi- nors, 6:00 daily except Sunday.
	WHEC 1430	er Red Wings' games.
Syracuse	WFBL 1360	Scores and comments, 6:30-6:45, 11:00-11:05.
NORTH	CAROLINA	
Asheville	WWNC 570	Home games of Asheville Piedmont League club.
Durham	WDNC 1500	mont League club; sport- cast at 6:55 daily.
High Point	WMFR 1200	Scores, 6:00-6:10, daily except Sunday.

NORTH	DAKOT	Α	
Fargo	WDAY	940	Scores at 6:00.
0	HIO		
Akron	WJW	1210	Sport stants, 6:15-6:30; may broadcast Akron M.A.L. games.
Canton	WHBC	1200	Scores, comments, 5:45-6:00 weekdays, 7:00-7:15 Sundays; may broadcast Canton M.A.L. games.
Cincinnati	WKRC	550	
	WSAI	1330	Play-by-play of Reds' games daily.
Cleveland	WHK	1390	Play-by-play of all In- dians' games, home and abroad
	WJAY	610	Scores and highlights, 5:45 daily.
Dayton	WHIO	1260	Play-by-play of all Reds' games daily, except those played in New York and Brooklyn.
PENNS	LVANIA	4	
Allentown Hazleton	$\begin{array}{c} \mathbf{WCBA} \\ \mathbf{WAZL} \end{array}$	$1440 \\ 1420$	Scores daily, 6:45. Play-by-play of Hazleton

Philadelphia WCAU 1170 All home games of A's, Phillies, daily except Sunday.

NYP League club; scores, 5:50; resume, 7:15-7:30.



Marion Talley, whose retirement was almost as sensational as her sudden rise to fame as a Metropolitan prima-donna, is now heard from Hollywood where she is making a picture over her own fifteen-minute program at 10:30 p.m., EDST on Fridays. Dial the NBC-Red Network.

	WIP	610	letics' and Phillies' home games, daily except Sun-
Pittsburgh	KDKA	980	day. Scores, 6:35 weekdays.
	KQV	1380	6:10 Sundays. Play-by-play of Pirates' road games, except in Brooklyn and delwy York;
	WJAS	1290	scores, 6:15 dally. Road games of Pirates except in Brooklyn and
	wwsw	1500	New York. Road games of Pirates where permitted; resume of home games when
RHODI	E ISLAN		over; scores, 7:30-8:00.
Providence	WEAN	780	Play-by-play of Red Sox', Bees' home games.
SOUTH	CAROLI	INA	
Anderson Spartanburg	WAIM WSPA	1200 920	Summaries daily at 7:15. Scores and comment daily at 6:45.
SOUTH Huron	DAKOT KGDY	A 1240	Scores and comment
		1340	dally at 5:30.
Jackson	WTJS	1310	Play-by-play of local
			Play-by-play of local Cotton States League club; scores at 5:00, 6:00, and 7:00.
Knoxville	WNOX	1010	Scores and comment,
Memphis	WNBR	1430	6:30-6:45 daily. All road games of Memphis Chicks; scores on the hour, 2:00-7:00; final
Nashville	WLAC	1470	Play-by-play of Nash- ville Vols' road games; resumes, scores, 6:30 and
TE	XAS		10:00.
Amarillo		1410	Scores, 2:45, 5:45, 7:45, 10:45; resumes, 7:15-7:30 daily.
Dallas	WRR	1280	Road games of Dallas Steers.
Fort Worth	KFJZ	1370	Play-by-play of Fort
	KFJZ KTAT	1370 1240	Worth games. Resume and scores, 7:15-
San Antonio Weslaco	KTAT WOAI KRGV		Worth games.
San Antonio Weslaco	KTAT WOAI KRGV	1240 1190 1260	Worth games. Resume and scores, 7:15-7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily
San Antonio Weslaco VIRC Charlottesville	KTAT WOAI KRGV GINIA WCHV	1240 1190 1260 1420	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily Scores, highlights, 6:15- 6:30.
San Antonio Weslaco VIRC Charlottesville Danville Roanoke	WOAI KRGV SINIA WCHV WBTM WDBJ	1240 1190 1260 1420	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 dally Scores, highlights, 6:15-
San Antonio Weslaco VIRC Charlottesville Danville Roanoke	WOAI KRGV GINIA WCHV	1240 1190 1260 1420 1370	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:31-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Scores 6:30-6:35 daily. Play-by-play of Pacific Northwest semi - pro
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI	KTAT WOAI KRGV GINIA WCHV WBTM WDBJ	1240 1190 1260 1420 1370 930	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Scores, 6:30-6:35 daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham	WOAI KRGV GINIA WCHV WBTM WDBJ INGTON KVOS	1240 1190 1260 1420 1370 930 1200	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Scores daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25;
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham Tacoma WEST \ Bluefield	WOAI KRGV SINIA WCHV WBTM WDBJ NGTON KVOS KMO	1240 1190 1260 1420 1370 930 1200	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:31-6:40 daily Scores highlights, 6:15- 6:30. Scores daily. Scores 6:30-6:35 daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league.
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham Tacoma WEST V Bluefield	WOAI KRGV SINIA WCHV WBTM WDBJ NGTON KVOS KMO	1240 1190 1260 1420 1370 930 1200	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:31-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Scores 6:30-6:35 daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25; resumes at 7:00. Scores by innings each half hour; final results at
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham Tacoma WEST V Bluefield WISC Green Bay	WOAI KRGV SINIA WCHV WBTM WDBJ NGTON KVOS KMO	1240 1190 1260 1420 1370 930 1200 1330 A 1410	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:31-6:30 daily Scores highlights, 6:15- 6:30. Scores daily. Scores 6:30-6:35 daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25; resumes at 7:00. Scores by innings each half hour; final results at 6:00. Scores and highlights,
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham Tacoma WEST V Bluefield WISC Green Bay	WOAI KRGV SINIA WCHV WBTM WDBJ NGTON KVOS KMO	1240 1190 1260 1420 1370 930 1200 1330 A 1410	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily Scores highlights, 6:15- 6:30. Scores daily. Scores daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25; resumes at 7:00. Scores by innings each half hour; final results at 6:00. Scores and highlights, 6:00-6:15.
San Antonio Weslaco VIRC Charlottesville Danville Roanoke WASHI Bellingham Tacoma WEST V Bluefield WISC Green Bay	WOAI KRGV WINA WOON KVOS KMO VIRGINIA VIRGINIA VIRGINIA VIRGINIA WHIS ONSIN WTAQ WKBH	1240 1190 1260 1420 1370 930 1200 1330 A 1410 1330	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:30-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Scores daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25; resumes at 7:00. Scores by innings each half hour; final results at 6:00. Scores and highlights, 6:00-6:15. Bulletin service during afternoon; review at 5:50. Scores in six 5-minute periods between 2:30 and 5:00:15-minute summary
San Antonio Weslaco VIRC Charlottesville Roanoke WASHI Bellingham Tacoma WEST V Bluefield WISC Green Bay LaCrosse Madison	WOAI KRGV GINIA WCHV WBTM WDBJ NGTON KVOS KMO VIRGINI WHIS ONSIN WTAQ WKBH	1240 1190 1260 1420 1370 930 1200 1330 A 1410 1330 1280 620	Worth games Resume and scores, 7:15- 7:30, daily except Sunday Resume at 10:15. Scores, 6:31-6:40 daily Scores, highlights, 6:15- 6:30. Scores daily. Play-by-play of Pacific Northwest semi - pro league. Play-by-play of Pacific Northwest semi - pro league. Scores daily at 6:25; resumes at 7:00. Scores by innings each half hour; final results at 6:00. Scores and highlights, 6:01-6:15. Bulletin service during afternoon; review at 5:50. Scores in six 5-minute periods between 2:30 and

Final MEETING of the Clan

• • • By THE DX EDITOR

S FATHER TIME tears another month from the calendar and Old Man Static releases an extra barrage of noise to cloak those distant signals from attentive ears, listeners North of the Equator decide to call it a season.

The time for the annual summer hibernation of DXers affords an opportunity to balance the logs, to check sleep lost against verifications received, and to arrive at a possible profit of personal pleasure or benefit derived from a winter of dial twisting.

The past season has not been outstanding from a reception standpoint. Static was abnormally severe most of the time, and signals appeared to have lost much of their punch. Reception of foreign stations was below the par of the past few years, and many listeners bewailed the generally unsatisfactory conditions.

However, the winter of 1935-36 did present a few high spots, the most prominent of which was the trial of the Inter-Club Cooperation Plan. This was the first time that all clubs worked out a definite scheme of cooperation, and the results seem to have justified the high hopes of the sponsors of the plan. As we go to press, most of the participating clubs have signified their intention to carry on the idea for another year, and we trust that the verdict will be unanimous.

While DXers turn to other fields of diversion, we are already busy formulating our plans for another season. Our annual poll of the broadcasters will be taken in the near future and many other items are receiving undivided attention.

Aside To Readers

In an early issue, we plan to present a comprehensive survey of the aerial and ground situation. Believing that all too little attention is paid to these important factors of good reception, we are asking all readers to submit their ideas on what constitutes an efficient aerial and ground installation.

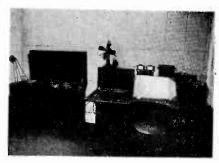
If some type of antenna is effective in a city location, where space is limited, we want the details. If a certain ground works better than any other in sandy soil, we want to know what it is. If some aerial design reduces man-made static without affecting volume, we want the facts. If a listener finds that the usual single wire, inverted "L" antenna and an ordinary water pipe ground beats any other installation, we want to know about it.

All information received will be sorted, tabulated and condensed, and we believe that the resulting article will be of great value to all readers who are interested in obtaining maximum reception from their receivers.

To facilitate handling, it would be well to put all such details on separate sheets of paper, away from reports and other comments, and mark them plainly "Aerial and Ground Data."

In the same vein, we would like to receive information on how to construct an inexpensive aerial mast. This is a very necessary item in many installations and very little has been written on the subject.

It is essential that all readers cooperate by sending in their own ideas. Don't let some one else do it! Do it now—today!



The announcers' studio at Warsaw No. 1 station, showing the "announcers delight," a device which cuts in and out several microphones by means of push-buttons operated by the speaker.

One of the high-lights of the past year was our first Mystery DX Contest. Most listeners have been unanimous in the opinion that it should be repeated next season. If such is to be the case, it will be necessary to ease the work of the judges by the use of a standard, printed report card and summary sheet. It has been suggested that we distribute an adequate supply of such cards and sheets to all contestants, charging a printing and handling fee of twenty-five cents, and limit the contest to listeners who use these standard forms. So, once again we must have the verdict of Radexers. Do we repeat the contest and charge this small entrance fee to everyone, or do we drop the idea entirely?

Concerning The All-Nighters

"During the past season," recalls Robert R. Rawstron, 16 Marconi Rd., Worcester, Mass., "all radio clubs asked their members to send letters to the F.C.C. protesting against the all night stations. My idea is along the same line, except that I suggest that all letters be sent to a central point and then forwarded to the Commission in one large bundle. I think this would attract more attention than having a few letters trailing in now and then.

If clubs and individuals cooperated in supplying these letters of pro-

test, would RADEX consent to act as the go-between by collecting and forwarding them to the F.C.C.? I realize that this would be a large undertaking, but I can think of no organization which is better fitted to handle the work and I trust that you will be able to take it on."

RADEX would be happy to cooperate with listeners in this manner, and if readers will send their letters to us, we will see that the F.C.C. receives a big bundle of protests.

Logging Contest Stations

During the recent Mystery DX Contest, Radexers invented many ingenious methods of logging stations. We know of one DXer who employed four members of his immediate family, tuning specified frequencies on three receivers. The fly in his ointment was the young son who became entranced by good dance music and failed to turn the dial frequently enough.

One of the contest winners, Earl R. Roberts, 2308 Roosevelt Ave., Indianapolis, Ind., brings a new meth-"Promptly at 2:00 A. od to light: M., EST, wherever I happened to be on the dial, I started logging selections-not stations-with a note of the frequency or station (if known) In this manner, I covered the dial from one end to the other every few minutes. Quite frequently, I ran into an announcement instead of a selection, and if it was a RADEX broadcast, that station was logged on a separate sheet of paper and was retuned every three minutes until three consecutive selections were heard. had figured beforehand that most DXers would tune one station and then hang on until they learned whether or not it was a contest broadcast. think that my method enabled me to tune a maximum number of stations and get a complete report on every one heard. It took a lot of dial twirling, though, and maybe my wrists

weren't tired from writing so fast!"

"Recently I sent in a daytime report to WHBL, Sheboygan, Wisc.," reports L. L. Moore, 310 Second Avenue South, Minneapolis, Minn, "and in their reply they stated that they were changing frequency from 1410 to 1300 kcys. They are installing a new RCA transmitter and would like to have reports covering reception on their new wavelength."

"A letter from Jack McLaren, Winnipeg, Man., advises of three Canadian shifts," postcards James L. Black. 2252 Bellfield Ave., Cleveland, Ohio. "CKY at Winnipeg is now on 910 with 15 KW power; CJRC, also of Winnipeg, has moved to 630 keys and is using 1000 watts; and CJGX, Yorkton, Sask., is using but 100 watts on 1390 kcys. According to the Cleveland papers, Samuel Insull's new network of 17 stations will have headquarters in Chicago's Civic Opera Building. The hook-up will be split into three divisions: the first running North through Wisconsin to Minneapolis: the second running Southeast to Evansville, Ind.; and the third running Southwest to St. Louis."

"During the week-end of the Mystery DX Contest, I was troubled with a lot of outside noises," complains Jacob N. Mitchell, Eugene Field Rd. and Ashland Ave., St. Joseph, Mo. "After fair results the first two mornings, my set developed a continual buzz and hum Sunday evening, and I was obliged to sign off permanently. I notice that Pat Reilly, Jamestown, N. Y., refers to a 'heavy buzz' on February 10th, and I am wondering if my trouble is in the set, is a local power noise, or is something outside the regular broadcast wave. Whatever it is, DXing is no good with it."

Corrections

"On page 14 of your March issue," finds G. B. Patteson, 202 Elgin St.,



Lyle Thackery, who has full charge of all DX programs from CFCO, is shown here at the speech input equipment of this Chatham, Ontario station. CFCO is the station which broadcast the RADEX Mystery Contest for four hours on February 22nd.

Ottawa, Ont., "you refer to the Canadian tax of so many dollars a tube. Tubes are not taxed in Canada. The receiving set is taxed \$2.00 a year. Some people dream things and others believe all they hear, but why do they not verify information before rushing into print?"

"On page 85 in the April RADEX, you state that KFRC does not verify," writes Kenneth Kaber, Orland, Cal. "This station does verify and I just received a confirmation from them to-day."

As we have pointed out before, the information which is given in the station listings comes from the broadcasters themselves. When a station notifies us that they will or will not verify reports, we assume that they are stating a definite policy. Even so, experience has shown that there are many exceptions.

"Though I would not class myself as a DXer," qualifies Lester E. Camp. 454 Malvern Rd., Akron, Ohio, "I believe that the bug is hitting me pretty hard. On the broadcast band, I have verified KGIW, WLB, KWK, KVOO. CMBX, WMBC, WOW, KPO, KFI. KMMJ, W9XBY, WIL and many oth-On short waves, veries have been received from 2RO, DJC, Pontoise, W2XAF and W2XAD, while letters are out tο VK3ME HJ1ABE".

"I have had an 8-tube RCA Victor receiver for a little over a month," states Albert W. L. Mueller, 405 Crestline Ave., Cincinnati, Ohio, "and would like to make the following report, not knowing whether my reception is unusual or not. I have an outside aerial, about 100 feet in length, to which another radio is attached. Although I have been told that such an arrangement would prohibit foreign reception, I have picked up numerous stations located in Germany, England, Italy and other countries. At times. I use only a 35-foot section of five-strand wire (not insulated) which is tacked along the baseboard, and my foreign reception comes in just as well. Finally, I even use my body as an aerial by placing a finger on the antenna post of the set, and reception holds up just the same. At no time do I use a ground."

"As the season is about to close, I thought I would give you a resume of my best catches," relates Robert Hyland, 216 E. Grand Ave., Springfield, Ohio. "Despite predictions of poor reception, 'I cannot kick. Instead, I am wondering what I might have heard if the season had been good. Some of the better catches heard this winter are 4QG, JOAK1, HJ3ABH, LR3, LR4, LR6, Radio Normandie, Bordeaux, Poste Parisien, KPPC, HIX, TIPG, LR1. LS5, PRF4, CP4, CMKX, WPRP, 4YA, 7NT. 3YA, 2FC, 3LO, 5CK, 2NR, 4QN and 2GZ.

My log now stands at 729 BCB stations, with 333 verified. I am still using my five-year-old Gloriton 5-tube receiver, Model 26, which is as good as ever."

"The Australian and New Zealand stations are coming through with excellent signal strength and perfect modulation," reports Okie Clark, Box 242, Merced, Cal. "On March 21st, I listened to programs from 5CL, 5CK, 4QG, 3GI, 2BL, 1YA, 3YA and 4YA. I use a 1934 6-tube Stewart Warner, Model R119A, for my DX-ing."

"I have just purchased a new Zenith all-wave receiver," supplies Howard Conrad, R.F.D. 1, Killingly, Conn., "and like it very much. I haven't done much DXing as yet, but have heard KFAC, TGW, LR5, LS2, CMQ, CKBI, Poste Parisien, Radio Normandie, Stuttgart, EAJ7, Rennes, Bordeaux, Florence and a London station testing on 877 kcys."

Reception Yardsticks

"In the thirteen months I have been DXing," contributes Billy Snow, 302 Harrington St., St. Joseph, Mo., "I have learned a few DX fundamentals from various sources, and I have the following tips to pass on: fore DXing, a careful study of the weather map will show what kind of reception to expect. A high-pressure area with clear weather spells good reception from that direction. Low pressure will mean poor reception. I may not be the first to discover this principle, but I have tested and proved it several times. pulled in KGMB, my best catch, when a high was on the West Coast with clear weather between. I pulled in CMBD between 8:15 and 8:30 P. M., when a low centered in Indiana and a high occurred in Louisiana."

"The trans-Pacific stations are yardsticks of reception for me," declares W. Russell DuCette, 633 Fourth Ave. West., Seattle, Wash. "If one of the JO's is tuned in shortly after midnight, I know that reception from the TP's will be very good. If they are not heard by 2:30 A. M., PST, I go to bed. One notable occasion was the reception of JOHK at 11:00 P. M."

"DXers who complain about not receiving verifications should pay attention to five fundamental rules," suggests Warren E. Winkley, Hugh-"First, make certain that son. Cal. you have enough material to warrant a confirmation; second, always include some information which will be useful to the station; third, write legibly; fourth, do not demand a verification, but remember that the station is doing you a favor; and fifth, never fail to enclose return postage. Out of 230 requests for verifications, I have been refused by three Mexicans. JOBK1. JFAK and MTCY. I



Nineteen-year-old Sally Foster is already a veteran of three years before the microphone. Sally is a city girl, coming from Milwaukee, but she likes the old-time songs and hillbilly and mountain tunes which she sings on the National Barn Dance every Saturday night over the NBC-Blue Network.

never give up hope of receiving a verie, however, for they come when least expected. JOXK took two years, but it was worth it when it arrived."

Grading DXers

"To eliminate the inevitable mixup which will be the result of so many radio clubs," submits R. A. Butts, Ellensburg, Wash., Rt. 2, Thrall, Wash., "I would suggest that a system be worked out where all DXers wishing to join a club would do so through a chain system. Let the idea be worked out like a school. Have 13 radio clubs, with the 13th being the highest grade available to a member of the DX fraternity. Start a DXer in the first grade and let him advance each year through the eight primary grades, the four years of 'high school,' and finally to the top of the DX world. I think this system would be beneficial to the clubs as well as the listeners. This is just a suggestion of my own, and I would like to learn the reaction of readers of RADEX."

A New Zealand reader, George E. Bott, who neglected to give his exact address, writes: "A reader near the East Coast of the United States wrote to me asking for my photo and a copy of my log. I received his letter just as I was going on a holiday and mislaid it. If he will write again, I will try to oblige."

"During the past season, my log and my total of veries swelled considerably," announces Kenneth I. Albrecht, 241 Palm St., Hartford, Conn. "Right now, I'm out for the NNRC Super Ace certificate, and hope to have it soon. The season started about the middle of September and was quite poor until December, when I picked up 30 new stations. January brought the four from Argentina, and my reports resulted in veries from LR1 and LR4. Also in January. I received my first letters from Europe—Rennes. Poste Parisien and Fecamp. The season has netted me 350 new stations, of which 250 have been verified. That brings my total heard to 650 and the verified log to 523. I use a McMurdo Silver Masterpiece 3 with a doublet antenna and no ground."

More About Logging

"Morton Meehan is entirely correct when he states that double call letters should be counted as two stations," affirms Nicholas J. Hock, 20 Burnet St., Newark, N. J. "However, as to hearing WHFC, and not WKBI or WEHS who use the same transmitter, I have this to say. WHFC is on until 2:00 A. M. every day, while WKBI is on only until 5:00 P. M. and WEHS signs off at 7:00 P. M. As to a change in frequency, I maintain that it has a great deal to do with one's chance of logging a station, particularly when there is a big change. On the lower frequencies, the service area is better than on the upper parts of the dial. WIP on 610, for example, uses only 1000 watts and is received here with local signal strength during the daytime. WCAU on 1170 with 50,000 watts never has the same strength as WIP and is only reliable under very favorable conditions. In the evening, WCAU fades badly and WIP is as steady as WOR. On the other hand, the lower frequencies don't seem to be as good for distance. KFBK and KGA put in better signals here than KFI, with one-tenth the power."

"Because a station changes frequency and power is not sufficient reason to count another catch," holds Paul Sampson, 1820 College Ave, Regina, Sask. "Exception might be taken in the case of CKY, Winnipeg. For a while, they operated on 780 keys with 5000 watts. but now they use 15,000 watts on 960 keys. By all means, count deleted calls. If rare stamps make a stamp collection



The small studio from which talks are broadcast from the Helsinski station at Helsingfors. Finland. Working on a frequency of 895 kcs. with 10,000 watts, this is the best of the Finnish stations.

valuable, it will be hard to get verifications which will make a log worth anything. I certainly am not going to drop deleted calls from my log."

"A verification is written proof from a radio station that the holder really heard a program from that station," defines Joel H. Armantrout, 602 E. Magnolia St., Fitzgerald, Ga. "Suppose a station—a rare catch verifies, later is deleted. It is closed. broken up and its equipment and parts sold to other stations. listener holding a verie from this former station would still call it a verification? What nonsense! A verie of a deleted station is a verie no longer when the station has ceased to exist. It is only a piece of paper describing a chapter of DX history.

It may be saved as a remembrance, but it is no verification."

DX On A Crystal

"In your September issue, you had a paragraph on the possibilities of DXing with a crystal set," reminds William Metcalfe, R.F.D. 3, Petro-"Within the last three lia, Ont. weeks, I have logged 52 stations on the BCB. Most of these were quite powerful transmitters, although there were a few 1000-watt stations such as KWK, WCAE, WJAS and WNEW. Six of my stations are over 1000 distant—XERA, XEAW, miles XENT, KNX, KOA and WWL-and requests for verification have been Could you sent to the latter three. inform me as to the record distance made by a crystal set?"

While no figures are available to show the greatest distance ever covered by a crystal set, Reader Metcalfe may well be proud of his excellent record with the lowly crystal.

"For those who like to tinker with radio parts, here is an item which may be of interest," offers H. Arbic, Acton, Ont. "In the May issue of Short Wave Craft, there is an article describing a regenerative R. F. amplifier. I built this rig for my T.R.F. short wave receiver, but got a little curious as to how it would work on my 8-tube superheterodyne. The first noon hour I tried it, I heard KRNT behind an R8 signal from WADC. Des Moines is over 700 miles from Acton and KRNT carries only 1000 watts during the day. I thought this was Since then, I have revery good. ceived R6-9 signals from such stations as WNEW, WFBL, KMOX, WHK. WSPD. WBT. WADC and WEBR at noon. I expect to log 1000 miles and more when the present high background noises decrease."

"I note that a listener on a steel tanker is having trouble with noise," comments Laurence B. Jones, S. S. Beaconlight, c/o Standard Oil Co. of New Jersey, Marine Dept., 30 Rock-efeller Plaza, New York City. "If he will get two good 2-mike condensers and tap them on to his power wire—hooking the positive lead of one to the positive power wire, the negative lead of the other to the negative power wire, and grounding the two free leads—he will cut the generator noise at least in half. For a few dollars more, he can buy a Dubilier interference filter which will eliminate nearly every bit of noise."

Mystery Stations

"Who can identify the Spanish speaking station on 980 kcys?" inquires Lamar Schlicher, 707 S. Tenth St., Allentown, Pa. "It ruins KDKA. There is another unknown station a few kilocycles below it. Both are received nightly with R8-9 volume."

Theodore Johnson, 821 W. Woodland Ave., Youngstown, Ohio, also asks about the station on 974 kcys, which drowns out WCFL at times, and goes on to inquire about another Spanish speaking transmitter on 1070 which can be heard faintly when WTAM announces. The latter station probably is LR1, Buenos Aires, which has been showing a potent wallop since boosting its power to 50 KW. The other stations are referred to our readers for possible identification.

"Our local station XEFE is on 1340, not 850," notifies Samuel A. Meyer, Jr., 1502 Victoria St., Laredo, Texas. "Their schedule is from 9:00 A. M. to 5:30 P. M., CST, and they do not broadcast at night under usual conditions. I understand that the owner may apply for a license to boost his present power of 250 watts to 500 and to install a short wave relay transmitter."

KVCV is the call assigned by the FCC to the new full-time 100-watt station on 1200 kc. operated by Golden Empire Broadcasting Co. at Redding, Cal.

Hearing Foreigners

 \bullet \bullet \bullet By E. E. ELY*

LANCING through the March RADEX, I note several fans who seem to doubt reports of distant reception. Most of the unbelievers are apparently newcomers to the game of DX, so daddy gets out his paddle again to instill into these doubting Thomases a little of the DXer's faith—Nothing in rado reception is impossible.

Here are a few unverified reports from the files of memory:

Sometime in the fall of 1914, at about 2:00 A.M., I sat at a ship's receiver about twenty miles up-river at the banana wharf of Almirante, Costa Rica. With my feet on the desk and headphones hung loosely over one ear, I pounded out press from Boston on a noisy old typewriter for a solid hour without missing a word. Equipment: a good pair of 10,000 ohm phones and a silicon crystal.

Four or five years before that, my boyhood partner, BillJackson, dragged in his first S.A. on our receiver in Southern Michigan, I believe it was a station in Colombia. (Check me on this Bill, if you read it.) My first reception was over the remarkable distance of 20 miles, but it was daytime reception and I have used more than one commercial receiver which wouldn't do as well. This was about the year 5 B.T. (before tubes).

Among modern records, I seem to recall that a U. S. Army officer once established communication from an island off the Western Coast of Canada with a friend in New Zealand, and repeated the contact nightly for three weeks, using a couple of 45-volt B-batteries to run his transmitter.

Nowadays, transmitter power is ereeping up towards a million kilowatts, and I read in this issue of



We believe this is our first television picture. This photo shows how a synchronized sight and sound program is broadcast. The sound is transmitted over W9XBY, 1530 kcs., Kansas City, Mo., and the pictures are transmitted from W9XAL, 2750-2850 kcs. The television scanning device is being operated by the man in the white coat.

Allan Ford's set which uses 230 tubes and don't doubt it a bit. When I read that someone drags in a signal and offers to prove that it went four times around the world before he picked it up, I mutter, "The lucky stiff!" and go on to the next one.

The laws of freak-work in radio have never been repealed for the simple reason that there never were any. You may expect to get anything, any time, on any set—but you probably won't!

*R.F.D. 1, Box 9, Astoria, Ore.

Jello's Jack Benny show ends its NBC-Blue network series June 21, but the popular comedian and his troupe will be back for the same sponsor next fall. Meanwhile, he will go to Hollywood to film "The Big Broadcast of 1937."

W. C. Birch, 22 Oneida St., E. Lynn, Mass., advises that LR3, Radio Belgrano, 950 kcys, broadcasts until 2:00 AM, EST, every Sunday morning. Between 1:00 and 2:00, when they are in the clear in the East, they come in with good volume. This schedule of dance programs will continue until October.

Closing Another Shortwave Season

● ● By PAGE TAYLOR

HIS is the One Hundredth Number of RADEX. This book has been read and enjoyed by thousands of radio fans in every part of the world for the past twelve years and is at the present time the oldest radio magazine in the country published by its original owner. Naturally, we are proud of our record and we hope our readers will continue to like RADEX as well as they have liked it for so many years past.

This edition of your favorite radio publication brings another DX season to a close. On the broadcast band the seasons are quite well defined and perhaps it was in part the fact that broadcast band DX is so difficult in the summer time that prompted us originally to suspend publication during the two warmest months.

On the shortwaves the seasons are not so well defined, judging them purely from a DX standpoint, as good distance is possible the year around. The definition of the seasons is apparent insofar as direction of signals and propogation characteristics are concerned. Generally speaking, one listens more to the lower frequencies during the winter and the higher frequencies during the summer; in the winter Europe is better at night and in the summer it is best in daylight; winter favors South America while warm weather favors Australia. Therefore, although our season is changing, it is not coming to a close. In many respects, the s.w. season is just commencing.

Unfortunately for this department, along with the opening of the best part of the s.w. season comes the opening of baseball, fishing, swimming and other more summer-like activities and the number of listeners drops, we believe, to half the number that listen

in the winter and good reports become scarce.

Frequency Deviations

Several lengthy letters full of information, particularly on Spanishspeaking stations, have come from R. B. Oxrieder, 122 E. Hamilton Ave., State College Pa. Mr. Oxrieder has his receiver so well calibrated that he can determine the correct operating frequencies of the stations he receives as close as 5 kilocycles, and in many cases, even closer. "I have been checking up on HIH," his report commences. "and I find that he has moved from 6814 to 6780. This station, in San Pedro de Macoris, D.R., still uses the slogan La Voz del Higuamo. HJ1ABJ. La Voz de Santa Marta, Colombia, is now announcing 6025 kcs. but they haven't quite reached this frequency yet, being on about 6023. HIIS, 6420. Puerto Plata, announces as La Voz de Hispaniola. HI3C, La Romana, 6900 kcs., is La Voz de Feria. HIT, 6630. Trujillo, says T for Texas, La Voz de RCZ-Victor. HIG, also in Trujillo, 6280, has a bawling calf and says G for Galveston. It seems that XEVI in Mexico City is now XEWI, as I had an



One of the lesser-known shortwave stations is CR6AA at Lobito, Angola, Portuguese West Africa. This small studio is the one from which announcements are made. CR6AA is on 7.175 megs. and has been reported a few times in this country.

XEWI on 11950 from 7:55 to 8:40 p.m.; this would seem to be the first harmonic of 5975 kcs. He announced in English his call letters, and box number as 2874. I have been getting a new Venezuelan station on about 6546; the first part of the call letter is YV8R—and I believe the last letter is D. The correct frequency for HI4D is 6558 kcs. This station is from 4-6 kilocycles removed from TIRCC, and TIRCC drifts between 6552 and 6554 kcs. HJ4ABE, La Voz de Antioquia, Medellin, Colombia, has moved to about 6092 kcs., which seems to be an attempt to get on to their assigned frequency of 6097.5 kcs. A W2XGP, experimental station of Press Wireless, Inc., located at Hicksville, L. I., put in an appearance the other night, on 6427 kcs. TIPG, La Voz de la Victor, San Jose, C. R., has been working for a long time on 6410, but his assigned frequency seems to be 6385. The other night he was heard on 6385 and this may be a permanent revision of his frequency. One of the most pronounced "drifters" of all the Colombians is HJ4ABD at Medellin, La Voz de Catia. This station opens up on about 5750 and before signing off has drifted to 5775 or 5780 kcs. This station used to change back and forth between 5760 and 6060 kcs, but I believe that now he has left 6060 permanently. There is a whose call is supposed to be HJ4ABC, Pereira, on about 6078 kcs. He is about 2 kcs. removed from HP5F at Colon, Panama.

"CO9WR. Sancti-Spiritus, Cuba, formerly on 11800, has moved up to 6280. Sometime ago I was hearing YNVA at Managua, Nicaragua, on 8657, but now I am hearing a station on 8590 which I believe is the same one. It is difficult to identify through the barrage of static and QRM, plus the fact his quality is not very good. HH3W has moved again. He started on 9595, moved to 9612, stayed there until HJ1ABP began messing things up, and then moved to 9617 where he is now."

Mr. Oxreider's receiver is a McMurdo Silver Masterpiece IV. He says the accuracy is obtained by means of a vernier passing over a dial through 360 degrees showing 200 dial divisions. The vernier moves only one-eighth as fast as the main indicator. On this receiver he has consistently separated stations 2 or 3 kilocycles apart so that the only trace of interference is on fades or pauses, and then it is very faint.



Two of the Italian shortwave transmitters are shown here. To the left is the 43-meter station and next to it is the one which works on 49.3 meters. In the center is the 5 kilowatt panel and at the right are the water-cooled output tubes which raise the power to 20 kilowatts in the aerial.

A New Australian

A new world-wide broadcasting station is under construction in Australia. Amalgamated Wireless, (a/sia), Ltd., operators of VK2ME at Sydney and VK3ME at Melbourne, are building a station to be known as VK6ME, at Perth, Western Australia, Further details at the present time are not known. When this station is on the air, shortwave listeners will have an opportunity of tuning for the maximum distance possible from this part the world. On The World Globe it measures 10288 miles from the center of the United States.

The Technical Supervisor of W3XAU, Mr. J. G. Leitch, sends us the revised schedule of this Philadelphia station. W3XAU on 9.590 megs. works daily from 12 noon to 8 p.m., Eastern Daylight Saving Time, and on 6.060 megs.

from 8 to 11 p.m., EDST. This is with the exception of one hour on Sundays, from 7 to 8 p.m., EDST, when the transmitter is shut down to prevent interference between W3XAU and PCJ in Holland, and to assist American shortwave listeners in receiving the Holland program.

"The DXing season thus far has been fairly successful for me considering the barrage of static one has had to contend with," recalls Graham, 1005 Allard Ave., Verdun, P. Q. "Atmospheric conditions in general were poor, and I have had trouble keeping my aerial erect as it blew down twice this past winter. I am using a Lynch cage running east to west and I find it very strong, especially on the s.w. It have added 78 stations to my s.w. log, making 176. LKJ1 on 9.53 megs, is beginning to come through here now during the afternoons. JVM at Nazaki, Japan on 10.74 megs, comes in well in the mornings. Some of the new stations in my log are HJ1ABP, Cartagena, Colombia, 9.600 megs. heard between 20 and 2330, EST. VE9DR, 6005 kcs. resumed activities April 8th with a new 75 watt transmitter, relaying our local CFCF from 8 a.m. until 1 a.m. the following day. HJ3ABX, Bogota, Colombia, "La Voz de Colombia, 6.125 megs. is heard with excellent strength. This station has a complicated 9-chime signal."

Walter Wallin, 89 Garvan St., E. Hartford. Conn., submits information on four stations. HIT, "La Voz de la RCA-Victor," Apartado 1105, Trujillo, D. R., 6.630 megs, 200 watts. The schedule is 1210-1340 and 1810 to 2040, EST. HJ1ABP, Apartado 37, Cartagena, Colombia, 9.6 megs daily from 2000 to 2330 EST. HRD, La Ceiba, Honduras, 6.235 megs., 200 watts. HRD works from 2000 to 2300, EST. HJ3ABD, now one of the oldest stations in Bogota, Colombia, has moved to 6.05 megs.

An African Tip

"Noting from time to time com-

plaints in your columns from DXers who have not logged Africa, I think someone may be interested in hearabout my favorite VQ7LO," surmises T. Farrell, Box 473, Sydney Mines, N. S. "VQ7LO comes in best around 2:15 p.m. and on Saturdays it is usually a good strong signal at 3 p.m., when they sign off. Reception is very good considering the small power of 500 watts. The frequency is 6083 kcs. A new station on the air is YSK at San Salvador, heard on their initial radiotelephone transmission to New York and also heard testing with Mexico. The frequency is 8.195 megs. Japan is now using JVN and JVP for special programs to the east coast of the U.S. A. on Mondays and Thursdays from 4 to 5 p.m. EST."

A special international conference was recently concluded in Paris, and, like most conferences, not much was accomplished. It was stated, however, that there seems to be an urgent need for wider shortwave broadcasting bands and the delegates will seek more channels near the 6000-6100 kc. band, and a wider band near 17780 kcs. when the next International Convention is held in Cairo, Egypt in February of 1938. This seems like a long time to wait for better s.w. reception.

From Suva to Warsaw

"I have had my radio only since January of this year, but already have a number of verifications of which I am very proud." contributes Gerald Grandmaison, 60 Palmer St., Salem, Mass. "My most recent veri is from HJ1ABP, Cartagena, Colombia, on 9600 kcs. They are on the air nearly every night from 1900 to 2100, EST. Other veries are in from HH3W, Port-au-Prince, Haiti, P. O. Box A-117. Station VPD at Suva, in the Fiji Islands comes in very well nearly every morning and

is much better than any of the Australians. British and German stations are like locals here. I have verified SPW at Warsaw, Poland on 13653 kcs., ORK, Brussels, Belgium on 10330, 2RO at Rome on 9635, HIZ at Trujillo City, D. R. on 6316 kcs., HAT4 at Budapest on 9125 and have cards from the French station on its three wavelengths."

The police station for the city of Sharon, Pa. on 2.482 megs. has finally had call letters assigned, WQFU. It is expected construction will be completed by June 20.

The State of Washington is certainly police-station-minded. Walla Walla has a construction permit for a municipal station to work with 50 watts on 2.414 megs., making the 39th police broadcaster in this state.

Siam was reported on the west coast last month and this month Eric Butcher of Cokeville, Wyo. reports it. The station is HS8PJ, 10.980 megs., Bangkok. Eric heard it on a Monday morning at 7 a.m., MST. "I am now using a PR16 receiver, which, so far is far superior for s.w. DX to anything I have tuned," pens Eric. "The dial is very accurate and the band spread is fine. I would be glad to hear from any Patterson set and get some ten and twenty-meter dope. I haven't gotten very far out of the United States on 10 meters yet. I am using 300 feet of aerial running north and south. I would like to exchange SWL cards, photos, stamps, correspondence and calendars with anyone."

For Puzzle Fans

Here is a puzzler. Paul Dreibelbis, 737 S. 10th St., Allentown, Pa., describes his troubles, saying, "I received a s.w. station on Saturday evening at about 11:10 p.m., EST., and it ceased transmitting at about 11:45 p.m., on about 9 megs or more. He announced he was using 25 watts

power, and at the time I heard them they were advertising fertilizer. It was located somewhere in Georgia. The program consisted of recordings." No shortwaver in Georgia exists near this frequency; an amateur could not broadcast recordings, and the probability of its being a harmonic is remote as there is no 25-watt station in Georgia.

"I wish to report a lot of unusual stations," prefaces Albert A. Duggan, 507 London St., San Francisco, Calif. "I am using a National SW-3 on shortwaves and a Skyrider 777. The shortwave section of the 777 is only fair, with VPD, YDB, VK3ME, VK3LR, VK2ME, JVM and JVT and the usual run of reception. On the SW-3, however, these unusual catches were recorded. KNHI, Alcatraz Prison, low power phone on 2466 kcs. works with NMC at Point Bonita.

"KGRW, sailing boat 'Adventuress', KGRV, 'Gracie S', WGDL, the 'California', all pilot boats on 2560 kcs. phoning in the daytime every half hour. United States Navy vessels use phone and cw during the daytime on 6600 kcs.

"On the ultra-shortwaves these have been logged: W10XFR, National Broadcasting Co., 111 Sutter St., San Francisco, on 31.6 megs. phones and tests daily with NBC programs. W9XAZ and W9XPD, also on 31.6, are often R9 signals. W4XT, location unknown, on 33.1 megs. comes in strong and several police stations, one as far east as Poughkeepsie, N. Y., come in with R8-9 signals on 9 meters.

"Last Sunday we picked up ETB at Addis Ababa, Ethiopia," asserts L. W. Leroi, 317 Crestwood Blvd., Coldwater, N. Y. "The announcer stated this station would be on every Sunday afternoon from 4:30 to 4:50 p.m., EST., on 11.950 megs. The receiver used here was a Midwest 18-tube set."

More Apex Reception

John W. Marchildon, 112 No. Edinburgh Ave., Los Angeles, Calif., our original ultra-shortwave reporter, has added W8XAI, Rochester, N. Y., and W9XPD, St. Louis, to his log of stations on 31.6 megs. Signals from these two stations reach Los Angeles with R7-8 strength.

Albert Steinmetz, 1235 N. Lawrence Ave., Philadelphia, Pa., now has HAT4 verified 22 times. "And here's a new catch," he says. "W2XGB, Press Wireless, Hicksville, L. I., was testing from 8 to 10 p.m. on about 6400 kcs. During the two hours they were on they played recordings and read two-day-old news. asked their observers in Cuba, Halifax and San Francisco to report on reception before the antennae were changed. Four minutes were required for the change, and reception did not seem to be any better afterwards in this locality."

Correspondence with users of Aircastle receivers is requested bv Charles Spielman, 415 So. Barstow St., Eau Claire, Wisc. He reports good reception of NY2AE, a 20-meter "Ham" located at the Submarine Base at Coco Solo, Canal Zone nearly every evening near 2230. EST. Reports to PRF5, he states, should be addressed to the Department of Propoganda, 305 President Wilson Ave., Rio de Janeiro.

Mr. Spielman, and C. F. Zimmer, Box 27, Coteau, P. Q., report a strange French-speaking station between 12150 and 12250 kcs. every morning between 2 and 2:30 a.m., EST.

"I have been DXing for a year and a half and so far have logged every continent except Africa," Richard P. Wilbur, Green Brook Road, N. Caldwell, N. J., tells us. "My log to date contains 130 s.w. stations, not counting amateurs, police or phones. Possibly by best catches are VIZ3, RKI, PLP, VPD, ORK, HAT4 and HBJ.

DZH comes in well from 1:45 pm on, and DZB has good volume after 4 pm, EST. I would like to correspond with users of Pilot Dragon Monarch receivers."

The Station's Side

• • • By R. B. Sutton*

ROM the standpoint of one who fills out the verification cards, the writer believes he is entitled to a few words on this much-discussed topic.

Reports from DX listeners do not particularly interest station KFPY; reports are answered purely as a good-will service to the listener. Reports on modulation, quality, carrier noise, etc., are usually just a waste of time as the modern radio station is able to make exact measurements of all these factors.

We have a genuine complaint to make as regards the quality of most reports received. Most of them are written on postal cards, but this type is immediately filed in the waste basket. We do not reply to incorrect or unacceptable reports unless return postage is included.

Correct reports are handled according to the amount of postage sent; a one-cent stamp brings a card mailed as a post card. For a three-cent stamp the card is mailed in an envelope, and for ten cents the listener receives a verification card and an Ekko stamp.

A large portion of our programs are received from the CBS or the Columbia Don Lee Networks and therefore we do not have a complete log of all the numbers transmitted with which to compare reports. KFPY will verify network programs if the listener gives an exact quotation of the words used by the local announcer while giving the station call letters. Quoting the portions of local commercial announcements during the station break is also acceptable as a means of verification.

The work of filling out the cards

at this station is done by the night operator and as a result, there is no wholesale issuance of cards to any and all who may ask for them.

The statements made here do not represent an official statement of policy by the management of this station, but are simply the personal opinions and views of this writer. Incidentally, the writer happens to be a shortwave DX "nut" with amateur license W7GZ, and holds down the chair at the transmitter of KFPY at night.

*Technical Department, KFPY, Spokane, Wash.

The Puerto Rico DX Season

● ● By Manuel Alberto Cadilla*

A MID a veritable roar of static, the DX season in Puerto Rico began on September 1, 1935. At that time, my log was reading zero. By the end of the first week, 38 stations had been heard. A stop was then necessary, and it was not until the end of October that DX activities were resumed.

My report for October 26th gave a total of 62 heard. By November 30th, 159 were logged. On December 29th. my log totaled 246, and that had jumped to 274 on January 26. My last report on February 29 showed 315 stations in the bag. With the addition of KGVO, WBRB, WHBB, WIBA. WJBW, WLNH, WMBO, WOC and WWSW, I closed the season on March 15th with a total of 324 stations heard on the BCB, I had aimed for 350, but conditions were decidedly unfavorable.

Comparing with last season's log. I find that I heard 58 more stations and that would indicate better DXing. However, considering that I wore earphones, had a longer antenna, a more powerful receiver and one more year of experience, besides having spent more time at the dials, I decided that the preceding season

was indeed better than the one now closing. So, the forecasters of poor DX on account of sunspots got away with that one.

It will again be September 1st before I get up in the mornings to hunt for stations on the BCB, but I shall try to be of some help to SW DXers during the hot months. I shall be waiting for the 1937 receivers to be on the market and hope then to be in a position to grab a good one. re-locate my aerial and otherwise rig myself up for better reception.

I cannot close without acknowledging the invaluable help which I have received from RADEX, and a word of commendation is due the Canadian DX Relay and the Universal DX Club for their excellent information. *P. O. Box 691, 1 Georgetti St., Rio Piedras, P. R.



Manuel Alberto Cadilla

The DE FOREST-CROSLEY Connaught Radio

• • • By EDWIN WORTHINGTON*

BOUGHT a DeForest-Crosley Connaught, table model receiver in January of this year. It has six Rogers metal-spray glass tubes, but according to the salesman it is supposed to give 11-tube performance. My aerial is a De Forest-Crosley dcublet with a twisted, shielded leadin, about 40 feet from the ground in a direction roughly ENE-WSW.

The controls are simple and usual. Wave-change switch is at the left, power and tone control at the center and volume control at the right. The tuning knob is at the center above the tone control; it is of good size so that the fingers do not cramp even after long "fishing" for an elusive s.w. station. With the vernier knob the pointer can be moved so slowly as to be hardly seen to move.

The dial is well lighted and has a correct tuning light which darkens when a station is brought in, the amount varying with the distance and power of the station. Some of the s.w. signals fail to visibly affect it at all

Calibration of the dial works out about as follows: On the BCB, 540 kcs. comes in at 530 and this remains constant to 1180 kcs., where it gradually gets less to 1220 kcs., at which point the calibration is perfect. To 1350 the readings run true, and then the reading becomes 10 kcs. off in the other direction to the end of the dial. On the shortwave section of the set the variation does not seem so marked, as the following figures will indicate: HRN at 5.875 comes in at 5.850; EAQ at 9.862 comes in at 9.8 and W8XK at 15.210 comes on 15.2

(As the frequencies of shortwave stations vary, even on some of the most reliable stations, it is difficult to judge the calibration of the s.w. section of any set.)

The tone of this machine is very good, sopranos and bassos coming in with equally good clarity. The high tones of the violin and low bass notes are round and clear, and a piano tinkles along as if it were in the same room.

Owing to the fact I work at night, most of the tuning is done by my sister, although I do my share on nights off and during the daytime. My sister tunes from 5 p. m. to 10:30 p. m. as a rule. Taking into account our tuning hours, we believe our reception is very good. On the broadcast band we have logged every frequency from 540 to 1550, excepting 660, 990, 1020, 1110, 1390 and 1440 kcs. No station has ever been logged unless the call was distinctly understood, either on BCB or s.w. The total number of broadcast stations heard is 107, of which the majority were logged during the first month of operation of The greatest distance has the set. been enjoyed from stations KGNC, KOMA, KTHS, WHAM, WAPI, WBT, WSM, WWL and WWVA; also two of the Hawaiian stations, KGMB and KGU, and a sprinkling of Mexicans, including XEAW, XEB and XEPN.

On the s.w. we have logged 80 stations. The Boundbrook, N. J., transmissions come in like locals and can be counted on at any time, any day. Pittsburgh and Cincinnati are often good, and we sometimes catch Bolinas, California with a point-to-point

2:10, the station announced its partransmission to Hawaii or Alaska. Of the South and Central Americans, owing to their high speed announcing, we have not counted many stations. We have heard HJN and HJ1ABE, PRADO, TIEP and TIPG, HRN, XEBT and XECR, and in the West Indies, CO9GC, COCO and HIZ.

Of the trans-Atlantics we hear England through GSA, GSB, GSC, GSD, GSF and GSP. France comes in on 11.72 and 11.88 megs. From Germany, DJI has been heard for certain and others have come in whose call letters we did not get. Italy 2RO and Madrid EAQ have nice signals, and a station which we believe is ORK is heard.

From across the Pacific we have VPD in Fiji, a number of Japanese, including JVM, JVN, JVE, and JVH; KTO at Manila, and in Hawaii, KKP and KKH.

I would willingly recommend this set to any of my friends, as in my opinion the results are very good for the number of tubes and the short time of operation.

*7203 Short St., Vancouver, B. C., Canada.



Mrs. A. C. Johnson of Honry, S. Dak., is the first feminine DXer to favor us with her picture.

Final Contest Notes

A NUMBER of readers have written in regarding a few points on the recent Mystery DX Contest. A typical query comes from Frank W. Hoxie, South Orrington, Maine.

"To report correctly on the seven stations which broadcast during the 3:00 to 4:00 AM period on February 23rd," he writes, "it seems to me that a DXer would have to spend at least nine minutes to get three successive selections on each of the stations. Nine times seven is 63 minutes, or three minutes over the hour the stations were on the air. As he didn't know what stations to tune for, this doesn't allow time to twirl the dials. Further, what about a burst of static and a period of fading which would make him miss a selection? I don't say that it was impossible to get all seven stations for 20 points each, since the winner seems to have been successful in this connection, but I don't see how he did it."

Reader Hoxie was correct in figuring that the average duration of three successive selections was nine minutes, and that to spend that amount of time on seven stations would occupy 63 minute's. However, we wonder if it is necessary to listen to the third selection after having heard its title announced.

In other words, it should take no more than seven minutes to hear three announcements and the two sandwiched selections. Seven minutes times seven stations makes a total of 49 minutes—with eleven minutes for tuning. And this assumes that it was necessary to hear all three announcements!

Let us consider a logical example of tuning. Suppose a DXer tuned in a station at 2:09 AM, in time to hear the last minute of a selection which he recognized as "Wahoo." At

ticipation in the RADEX Mystery Contest (if it was a good station and minded our instructions) and gave the following selection as "St. Louis At 2:13, the station announced again and identified the next number as "Alone." With this information, the DXer would be justified in reporting "Wahoo" at 2:07 and giving the other numbers as he heard them. Thus, he would be able to report the necessary three successive selections by spending no more than five minutes of his time. Five times seven is 35, leaving 25 This would be minutes for tuning. an exceptional case of good fortune, but by no means impossible.

Carrying on the idea, most DXers realize that it is not difficult or unusual to utilize two of the three minutes' duration of a selection to tune With any kind for other stations. of luck, a listener can practically tune two stations simultaneously. He may not do it all of the time, but it is still possible and quite probable that he can double up two or three times during an hour of listening.

Checking on the reports of some of the winners, we find that Lewis. Herman and Smith reported seven stations correctly during the hour in question. Roberts, Gordon, Tawzer, Arbic, Weaver and Sousa logged six. Sousa missed WTRC and the other five missed WBBR. Since the latter station failed to announce its participation frequently, the listeners may not be blamed for having missed it.

example οf outstanding An "double tuning" was afforded by Following is an Robert H. Weaver. extract from his log during the 3:00-4:00 period on February 23rd:

- 3:02-WIBM-Moon Over Miami
- 3:04-WIBM-You Are My Lucky Star 3:05-WTRC-Treasure Island
- 3:07—WIBM—Eenie Meenie Minie Moe 3:08—WTRC—Turn Your Face To The Sun 3:11—WTRC—Take Me Back To My Boots
- And Saddle 3:13—KOMA—We've Got Love And A Dime 3:14—KOMA—Moon Over Miami

- 3:15-WTFI-Listen To the Mocking Bird 3:17--KOMA--Rhythm In MvNursery Rhyme
 - 3:18-WTFI-news flashes
- 3:19-KOMA-I Want To Be A Mountain William 3:22--WTFI-Teetum Tiney Rag (?)
- 3:25-WTFI-How Beautiful Heaven Must
- Be 3:29-WAAW-When My Baby Smiles At
- Мe 3:30-WAAW-China Boy 3:32-WAAW-Wahoo

 - 3:33-WAAW-Moonglow

 - 3:35—WSYR—I'm A Gambler 3:39—WSYR—St. Louis Blues 3:42—WSYR—After You've Gone
 - 3:45-WSYR-Farewell Blues.

Reporting 22 identifying items in 45 minutes was a neat bit of tuning. It was too bad that the NRC president was unable to snare WBBR during the remaining 15 minutes of the hour.

A number of protests, many of them uncomplimentary, have been made in regard to the stations which were counted. As we pointed out in the May issue, no less than 57 nonparticipating stations were reported by contestants.

While nearly 200 stations received invitations and were invited to take part in the contest, the 40 broadcasters listed in the May RADEX were the only ones who agreed to come on for our readers and who received our special instructions. The either ignored or refused our requests.

While it is possible that some stations might have come on without notifying us, we feel that this is quite unlikely. The most frequently reported of the non-participating stations were KROC and WTAL, each of whom was claimed by 13 contest-Since other stations of equal power received several hundred reports, we doubt if either of these broadcasters actually announced their participation in the contest. As neither of them was invited, we are more certain of this contention.

We do believe that some of the non-participating stations may have dedicated a DX program to RADEX, something which is done regularly throughout the year. All contestants were keeping their ears open for mention of RADEX and not a few of them probably mistook a mere dedication for an announcement of participation. The penalty for such careless listening was time lost on a station worthless from the point of view of the contest.

We admit that the set-up of our first contest was not perfect and ask readers to send in suggestions on how a possible future event of this nature should be handled.

DX On The Mexican Border

● ● By SAMUEL A. MEYER, JR.*

HAVING DXed for several years in Rochester, N. Y., I naturally looked forward with interest to reception in Laredo. This city is 1500 miles from Rochester and I knew the old dial would be strange indeed in such a different location. Climatic conditions also affect reception, and I was anxious to find out those changes.

While XENT has put Laredo on a DXer's list of easily-received cities, it might be well to commence my observations by locating the city on the map. We are approximately 220 miles up the Rio Grande from the Gulf of Mexico and our position is 27° 30′ N, 90° 40′ W.

Despite the heat, reception during the daytime is quite good. Our locals are XEBK, XENT and XEFE, all in Nuevo Laredo. Next in volume come XEPN, XEAW, WOAI and KTSA. The Houston stations are received with good signal strength, KPRC and KTRH being R7 and R5 respectively. XET in Saltillo and XEOX in Monterrey are both fair. It is interesting to note that stations located so far from my home in Rochester suffer

far more interference and are much weaker between 9:00 A. M. and 4:00 P. M. Numerous small Texans are barely audible.

The other day, with the temperature in the eighties, WLW, WSM, WGN and WSB were easily heard at noon. It may not be sensational, but I do feel that 1100-mile reception at mid-day, with summer heat, is at least an interesting experience. On the same day, WFAA grew to the volume of WOAI and the smaller stations in Monterrey and Saltillo were audible for the first time in the five weeks I have been here.

Contrary to my expectations, the Mexican stations, with the exception of the giant border transmitters, are poorly received or are not heard at all after 5:00 P. M. XEW is a little better than in Rochester, while XENT spreads on my radio to spoil XEW on 890 and XEFO on 940. XEB is ruined by CMCY and CKLW! There are Spanish speakers all over the dial from 6:00 to 9:00 P. M., but they are all Cubans. At least 20 Havana stations are easily heard here and the logging of a small Mexican at night is quite a job. To date, none of the LR's or CX's have appeared, but I imagine that they cause the numerous heterodynes which I have not identified. CMQ sounds like a 50-kilowatter and sometimes is audible as early as 3:00 P. M.

I have been much impressed with the great clarity of the U. S. stations located over 1000 miles from Laredo. The average Laredoan tunes his radio to stations that distant for nightly entertainment, and usually they come in just as well as they do in the North, where they are so close to the listener.

XENT is but nine miles South of the two Laredos, and the few who listen to it locally must de-tune to 900 or 920 to receive the program with any degree of clarity. Right on 910, it is terribly distorted and is loud even at minimum volume. I think they are using 60 KW at present, although they are licensed for 150 KW. The least annoying of the border stations is XELO, Piedras Negras, 1110 kcys., which has just returned to the air after a long silent period.

*1502 Victoria St., Laredo, Texas.



Here are a couple peachy guys figuring out how to keep out of the White House and stuff. The reclining cherubin is none other than Col. Lemuel Q. Stoopnagle and his pul is Budd. If you're interested, tune for them 9:30 p.m. Thursdays on the CBS.

One of the most clever interval signals we have heard is the one used by CFAC in Calgary, Alta. Preceding the stations announcements, chimes are struck to the notes of C-F-A and C. There is only one other station in North America whose call letters fall within the musical scale. CFCF.

Having secured authority from the FCC to change its call letters to KCMO, the former KWKC, Kansas City 100-watter, has been reorganized under the direction of Lester E. Cox, operator of KWTO-KGBX, Springfield, Mo., and A. F. Schliecker has been named general manager.

Britain Looks Ahead

THREE months ago, the future of broadcasting in Great Britain was, theoretically at least, rather uncertain. With the Charter to the British Broadcasting Corporation due to expire at the end of the present year, no one could say with certainty whether the current system would continue or be abandoned in favor of some revolutionary change.

Of course, the possibility of an alteration of policy was more than remote. Arrangements once put into effect in England have a tendency to continue in force indefinitely, resisting attempts at modification with an almost savage ferocity.

Perhaps as a mere matter of form, the Government appointed a committee, under the Chairmanship of Lord Ullswater, to consider the future of broadcasting. It was the duty of this committee to study present conditions and to consider what changes, if any, should be made when the B. B. C. charter expired. The committee had an entirely free hand and could, if it so desired, recommend a reorganization of the very foundations on which British broadcasting has been built.

Officials of the B. B. C. championed their own cause neatly. Programs during the past year experienced a definite rise in entertainment The B. B. C. publications reminded listeners of the excellent radio fare being presented daily. Letters of approval from readers supplemented the applause in the editorial columns, while notes of criticism were conspicuous by their absence. Broadcasts burlesquing American programs stressed the vast superiority of the non-commercial British pol-

When the committee's report was released in March, broadcasting officials had cause to congratulate themselves. In addition to a eulogistic endorsement of the administration by the B. B. C., the committee advised the Government to continue the present general structure and to extend the Royal Charter for a term of ten years.

Worthy of attention are incidental recommendations concerning important items of policy and management.

Advertising

Although acknowledging that the B. B. C. had been hampered by lack of revenue in the presentation of varied programs and a more rapid extension of service, the committee ignored the possible income to be derived from sponsored programs and advocated the continued exclusion of direct advertisements.

Taking cognizance of British-sponsored programs from such continental stations as Poste Parisien, Radio Normandie and Luxembourg, the committee encouraged the efforts of the Post Office and the Foreign Office to prevent the broadcasting from foreign countries of programs in English which include advertisements.

Despite this definite stand against advertising, it was acknowledged that it might be necessary to finance the development of television through the sponsorship of early experimental broadcasts. However, it was emphasized that such a deviation from established principles should be limited to the initial stages of visual transmissions.

Ministerial Responsibility

A rather startling and important recommendation was the suggestion that supervision of broad questions of general policy and culture should in the future be allocated separately to a Cabinet Minister in the House of Commons, free from heavy departmental duties.

In other matters of control, it was recommended that the Postmaster

General should continue to deal with the licensing system and those technical matters arising from the Wireless Telegraphy Acts.

Subject to the right of the Government to ultimate control of broad issues of policy, the committee considers that the B. B. C. should, as in the past, be allowed as much freedom as possible in its domestic affairs and in details of management.

Propaganda

Appreciating the significance of the conspicuous development of broadcasting in English from other European countries, whose transmissions are received in all parts of the British Empire, the committee stresses the importance of developing more fully their own Empire service. Apparently aiming at the propagandic broadcasts from the Soviet, German and Italian short wave stations, they call attention to the necessity of effecting a "projection of England" around the world.

Concurrent with the release of the report and its recommendations, the Duke of Abercorn, Governor General of Northern Ireland, opened the new station of the B. B. C. at Lisburn, Northern Ireland, on March 20th. Situated about ten miles from the center of Belfast, this modern transmitting plant is the latest milestone in the steadily expanding B. B. C. service.

In appearance, the station differs considerably from the other British transmitters. Instead of being built in small units, it is constructed in one large unit and is sub-divided internally.

The insulated lattice steel mast, 475 feet high, has three sets of stays. each consisting of two separate pairs of parallel stays attached to the mast at half and at two-thirds its height respectively. A sliding top mast, in the form of a 75-foot steel tube operated by a winch, permits adjust-

ment of the electrical constants to the appropriate wavelength.

Power is supplied to the station by the Northern Ireland Electricity Board through a sub-station on the site. In an emergency, Lisburn is independent, for auxiliary equipment includes a 600 horsepower, six-cylinder Diesel engine driving an alternator.

A distinct improvement in the quality of reception in the Belfast area is confidently expected, and the new transmitter will doubtless provide a satisfactory service in other districts which were not served so well by the old Belfast transmitter.

Whether reception will be completely satisfactory in the extreme West of Northern Ireland remains to be seen, but the best service practicable has been provided by the use of the maximum permissible power in conjunction with the most efficient type of aerial.

The potential power of all Regional stations in Great Britain is 70 kilowatts, but until now the power actually used has not been more than 50 KW. With the increasing strength of foreign stations, however, it has been evident to the B. B. C. for some time that defensive action would have to be taken.

Some of the stations have had their power increases already, and within a few weeks all the Regional transmitters will be using 70 KW. The new Lisburn station will use 100 KW, the maximum allowed under the Lucerne Plan for their frequency of 977 kcys, as will the new Burghead station now being built in Scotland and the Northeastern transmitter at Northumberland.

Its six weeks of test operation completed, WBNY, new Buffalo station licensed to Roy Albertson, formerly manager of WEBR, Buffalo, was licensed for full operation April 14 by the FCC.

Why Verify?

By Howard L. Spies*

IN THE April RADEX there are two items which are worthy of comment. On page 8, bottom of the second column, a paragraph titled "A Veri That Isn't A Veri" and on page 20, fifth paragraph of the first column, the information concerning WJBK forwarding a veri in response to a request to get off the air. Both of these items concern a similar subject and raise a point which I haven't see discussed in RADEX.

Perhaps I am not qualified to discuss verifications, as I have never requested nor received one. However, the pages of RADEX are dotted with references to and discussions concerning verifications, and I have often wondered whether the expense and trouble involved in securing veris are justified.

To my mind, a veri is incontrovertible proof that a certain station was received. In the two cases mentioned above, it was not. Neither HJ1ABD nor WJBK was received, yet a verification was issued just the same.

While the F. C. C. requires that a station keep an accurate log of all broadcasts, it does not say that a station shall issue only authentic verifications. However, the fact that stations are swamped with requests for veris is evidenced by reports in RADEX that confirmations are received months and even years after being requested.

Suppose that a broadcaster does have an accurate record of all programs transmitted. How many stations will check back on each request to determine whether or not the report is correct? In the first year's broadcasting by a new station, they may receive 5000 verification requests covering some 300 different days. To check each of these reports

carefully would be a tremendous task. Therefore, a canvass to learn how many broadcasters issue only authentic confirmations would undoubtedly bring forth many frank statements to the contrary.

Let's look at the question from another angle. For commercial reasons, it is desirable for a station to maintain the good will of its audience. Regardless of the amount of inadequate incorrect information received, would it not be "good business" to grant a request for a veri anyhow? I venture to say that many confirmations have been issued in reply to such reports as: "I got your stations on May 15. Please send me a verification in the enclosed stamped envelope." I may be wrong here, but in view of the two items quoted above, I cannot be proven entirely wrong.

It may be discouraging, but it is nevertheless true that radio has passed the "romantic" stage. Business institutions are no longer interested in providing free radio entertainment as an expression of simple good will. By the same token, they can hardly be expected to maintain a clerical staff to inform the general public that their stations have been heard.

The general attitude in this respect is very similar to that of Doctor Brinkley: they desire reports on the coverage of their stations, but make no expensive provisions to acknowledge or certify the correctness of these reports.

From the above line of reasoning and from points raised in RADEX from time to time, I have come to discount the verification system in modern times as a very uncertain proof that stations were actually heard. A conscientious DXer does not need veris to compile a log. The more commercialized radio becomes, the

fewer veris will be sent out and a smaller percentage of these will be authentic.

As an example, after many tedious and discouraging attempts, I recently landed KOH. I can't say how many times I kept a weak station on 1380 for a period, only to be thwarted during an announcement by fading or noise. I do know that I could have made a comprehensive report of the musical selections heard on several occasions, and I probably would have been granted a verification on the basis of such a report.

This veri card would have been accepted by any DXer as proof that I had received KOH. However, for myself, I would have in mind such cases as the WJBK incident mentioned above, and the "veri" wouldn't have meant much to me until I had actually heard the call.

Recently, I was fortunate enough to tune in KOH as they were signing off, and during these ceremonies, the call was repeated several times. At no time was it very clear, but I definitely heard the call twice without any question and now the station is in my log. As this is the only way that a station ever gets into my log, I can point to it and say without qualm that I have heard every station listed.

Speaking of KOH, reception of this station increased my number of states received to 46—Delaware and Wyoming being the only ones missing. Also, since January 1st, I have heard 32 stations which I never had before on the present set. This has been a very gratifying season—and I haven't one verification.

*20998 Euclid Ave., Euclid, Ohio.

Announcers of KIRO, Seattle, have started a "feed fund", with members of the speaking crew paying ten cents into the fund each time they are caught in a microphone mistake.



This is Rochelle, one of the two pianists of Phil Spitalny's all-girl orchestra. Rochelle's solo work has brought a flood of compliments to the sponsors of the "Hour of Charm" program on which she is heard each Sunday over the CBS from 6 to 6:30 pm, EDST.

Reception with an A-K 337 By Raymond C. Corbett*

TURCHASING a new receiver offers difficulties. All sets these days are good and regardless of what one buys he will get at least good reception. A set must have appearance, tone, power, and selectivity to satisfy most listeners, and modern receivers have all these requirements; the difference is that these requirements are perfected to a finer degree in some sets. Competition always gives progress a strong push forward, and competition has given to the world the fine radio sets now on the market.

The receiver I selected for my radio journeys around the world is an Atwater-Kent; the model number is 337 and the tubes are seven in number. Employing an airplane-type dial, it has a tuning range from 540 to 20,000 kcs, covering continuously the standard broadcast band and all the shortwave bands. There are seven tuned circuits, the tone is rich in quality, two-speed selective tuning is provided and each tuning band is automatically lighted. It is the most compact, neat-looking set I have seen for many days.

The first thing anyone notices about this set is its excellent tone. This is unusual in a table model, but I have found that the tone of this receiver equals that of larger and more expensive sets.

After appearance and tone the listener looks for power. The ability to take weak signals from distant stations and present them loudly and clearly to the tuner is ever present in this radio. Stations all over the world are heard regularly with amazing volume. In the United States such stations as WTAM. WMAQ. WLW. WSM. WBBM, WBT and WJZ are heard nearly every night with the power and clarity of locals.

Another feature, and a most important one, is selectivity, and this set seems to have it. On most nights one or more stations can be heard on every channel from 550 to 1500 kcs. At noon, on any day, I can tune in KMTR, 390 miles away, with KFSO and KMJ banging away on both sides. Equal success is had on all shortwave bands.

My location is not very good for shortwaves. The success I have had on the high frequencies I attribute to the metal tubes. High-powered wires run only twenty-five feet away from the aerial and this made satisfactory tuning impossible until recent months. In my estimation metal tubes have an edge on the glass

tubes for shortwave tuning, but there seems to be no noticeable difference on the broadcast band.

Stations in England, France, Germany, Italy, Spain, Japan, Australia, Siberia and various South American countries have been regularly heard. During certain hours the Daventry stations equal the U.S. broadcasters in volume. I have hardly begun to identify the multitude of stations in the 49-meter band.

As for the broadcast band, one could hardly ask for more. WJW. WPAY, WROL, WDBO, WCAD, WJBK, WEXL, KFQG and others have been heard with excellent signal strength. The first time WNEL in Puerto Rico was heard, its signal equaled that of KFAC on the adjoining frequency. Reception from Hawaii, Alaska, Cuba, Australia, New Zealand, Japan, China, and South and Central America has been enjoyed several times.

When this receiver was purchased, results were expected of it, and I have never regretted the day I bought this set.

*619 Twelfth St., Sacramento, Calif.

The ZENITH 808 Gives Results

• • • By Ray W. Sahlbach*

B ACK in 1934 I brought home a Zenith table model 808 to try for the much talked-about shortwave stations. This set first attracted my attention because of its airplane dial and general good looks.

The broadcast band tunes from 550 to 1500 kcs. The next band covers the region from 1500 to 4600 kcs. The third band starts at 5300 kcs., skipping the frequencies which are used principally by the aviation services.

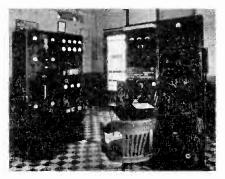
The cabinet of the Zenith 808 stands 1634 inches high, 13 inches wide and 91/2 inches deep, while the airplane dial is three inches in diameter. The slow speed of the dial enables the user to tune the shortwaves very accurately. This receiver employs six tubes, but considering the vast difference in power and cost between this and larger receivers, the Zenith 6-tube set cannot be beaten insofar as reception is concerned. The amplifying and triple filtering systems used in the 808, as well as a two step tone control which is perfectly matched with the speaker, all combine to make this set what I believe to be a perfect instrument for DX.

On the regular broadcast band I have heard 536 stations in every state, including Puerto Rico and Hawaii, but Rhode Island, Delaware and Alaska are missing at this writing.

On the second band, tuning from 1500 to 4600 kcs., I have logged some 300 stations, these being mostly police, Amateurs and aviation stations.

In the third band, the one which tunes the s.w. broadcasting and commercial frequencies, I have heard

The transmitter of 50-watt WEXL at Royal Oak, Mich. WEXL works on 1310 kes. and participated last February 22nd in the RADEX Mystery Contest. This is perhaps one of the most widely heard 50-watt stations in this country



transmitters on every continent, and all the principal countries of the world except India are numbered in my s.w. log. This list includes numerous hard-to-get stations, such as VPD at Suva in the Fiji Islands; RV15, Khabarovsk, USSR; TFJ at Reykjavik, Iceland; PLP in Bandoeng, Java, Netherland East Indies; and OPM, Leopoldville in the Belgian Congo.

*4423 Alaska St., St. Louis, Mo.

DX-ing for the Blind By Charles E. Comingore*

BEING a student at the Indiana School for the Blind, an ardent DX enthusiast, and also Editor-in-Chief of the school paper, I have become quite interested in radio as a suitable hobby for the blind.

There are some very good DXers here at the school. Frank Oens of Indianapolis, John Petty of Bridgeport and the writer are members of the Newark News Radio Club; Robert Auter from Covington, Robert Hindebrandt from Brookston and Morris Bitner from Anderson are among the DXers who are not attached to a club. The writer is not totaly blind but the other boys, in spite of their handicap, can in most cases tell the call letters, frequency and power of the stations they hear.

The school paper, of which the writer is the Editor, is known as the Indiana Reporter. Each month we try to include an article about radio and DXing, hoping to arouse interest among the blind in this hobby. It is our ambition to reproduce in Braille a club bulletin or part of a DX mag azine.

We constantly listen to the radio but never get a chance for any night DXing. We all endorse this hobby as clean and wholesome indoor sport. Naturally we look forward each month to receiving our copies of RADEX and the boys get a kick out of it. I have to read it through for them from cover to cover.

*Indiana School for the Blind, Indianapolis.

Beginning June 15 a series of informal hearings will commence before the Federal Communications Commission to discuss present radio station allocations throughout the entire frequency spectrum. No definite moves will result from the discussions but it is expected much valuable technical information will be advanced by leaders in various radio fields. Visual broadcasting (television) will no doubt be the most important matter under discussion, while ultra-shortwave broadcasting will also receive its share of attention.

Incidentally, broadcast band far. need not fear an immediate reallocation between 540 and 1550 kcs. because of agreements made at the last International Telecommunications Conference in Madrid. The next conference will be held in Cairo in 1938.

NBC President Lohr's intense interest in the technical side of radio. due probably to his own background as a military engineer, was manifested during the last fortnight in announcing NBC's plan to seek FCC authority to increase the power of WJZ, New York key of the Blue network, to 500,000 watts. The application, which will go to hearing before the Broadcast Division because it involves a question of policy in view of the present limitation of 50.-000 watts on the clear channels, cites the need of WJZ to increase its coverage of the metropolitan New York area and the thickly populated nearby sections.

Shall I Use a PRE-SELECTOR?

• • • By B. FRANCIS DASHIELL

ANY of our readers write from time to time asking for information on the construction and use of a pre-selector. It is a device that is connected between the antenna and the radio set. This question arises because it is the fact that a good pre-selector is a valuable asset in DX work, and the reception of short waves in particular.

A pre-selector is nothing more than an efficient radio-frequency amplifier and tuner circuit. It picks up the weak antenna signal, tunes it rather sharply, steps up its energy, and delivers it, greatly amplified, to the antenna input terminal of the radio receiver. This pre-amplification means that the antenna signal is made stronger than usual, which is the same as actually taking the receiver many hundreds of miles nearer the transmitting station.

Increases Volume

A good pre-selector or pre-amplifier makes it possible, therefore, to receive with more volume and selectivity, those weak, distant short-wave stations that have been mere whispers, hopelessly shut out by a blanket of atmospheric static. The pre-selector can be placed ahead of any superheterodyne or tuned-radiofrequency set, but its use is confined almost exclusively to the short waves.

According to the "R" scale of rating volume or intensity, those radiosignals that are classed as R2 and R3 can just barely be heard and are difficult to understand. But a good preselector system may bring many of these signals, at times, up to as high as R5, R6 and even R7! With a good design of coils and parts it is also practicable to secure good r-f amplification of frequencies as high as 25,000 kilocycles (25 megacycles). Often signals that normally are just

barely audible have been increased to comfortable room volume.

Factory-Designed Kits

Now that the summer season is here, perhaps many of the readers of RADEX will wish to make use of the dull radio season and assemble a preselector unit so as to be ready for those elusive DX signals when cold, clear weather arrives again, RADEX, because of its general nature, will not go into constructional details because it believes that an efficient preselector unit can be assembled from some of the manufactured kits. Sometimes the mere following of a diagram with some wire and parts cannot build such a delicate and balanced device as a radio-frequency amplifier.

RADEX suggests, instead, that its readers procure a kit containing the few parts which can quickly be connected together. There are several factory-designed pre-selectors which are very good, but a kit offers the opportunity to construct the unit without the grief and annoyance that accompanies such work. Then, too, the cost of a kit and doing the work yourself is very nominal.

The Miller Pre-Selector

After a study of the kits available RADEX presents a brief description of the Miller 3-tube kit. It contains an assembled antenna coil, r-f amplifier coil, r-f choke coil, three dual trimmer condensers, and a 6-pole 5-position wave-band change switch. These have been designed to work together for greatest efficiency, but any of the other parts, such as dial, transformers, tuning condensers, etc., may be purchased locally for they need not follow exact specifications.

The elimination of "image" frequency or repeat points in short-wave

superheterodynes seems almost impossible, but when some kind of preselector is used ahead of the detector-oscillator tube this trouble frequently can be prevented. And foreign stations, which are received fairly strong but cannot be understood without some type of pre-selection, due to the image-frequency interference from CW stations on the 49-meter band, can be cleared up very nicely.

High Gain Coils

This pre-selector is simple to operate; it has two stages of tuned radio-frequency amplification with high gain and low-loss coils; it eliminates image frequency; operates from single-wire or doublet antennas; has a fool-proof wave-band switch, powerful output system, and a self contained power supply. It is possible to switch the antenna away from the pre-selector direct to the radio receiver by turning the wave-band switch.

The high-gain coils are designed to cover the frequency bands from 12 to 200 meters, and also provision is made on the band switch to facilitate the incorporation of broadcast or long-wave coils. These coils provide extremely high gain on all frequencies, and maximum induction takes place between the primary and secondaries with the utmost selectivity.

Works With Any Set

The chassis layout has provision for a self-contained power supply. This greatly increases the convenience of the unit, for it is only necessary to plug the entire pre-selector into the nearest AC outlet. The pre-selector is impedance coupled to the receiver with an output choke coil and a carefully selected condenser, so as to assure maximum transfer of energy.

The pre-selector can be used with any short-wave or all-wave receiver, as well as the older types, provided the short-wave portion lies between



Among the many stations participating in the RADEX Contest last February was KFNF at Shenandoah, Iowa, which works on 890 kcs

12 and 200 meters. It does not work well below 12 meters for the ultrashort wave bands. The first and second radio-frequency amplifier tubes are both either 58s or 6D6s, according to the filament voltage it is desired to use. A type 80 is utilized as the rectifier.

In addition to the kit, which comes with complete instructions for building and operating, there is a chassis that is especially designed for use with the coils and parts. It has all necessary holes punched and requires no drilling. However, most any similar chassis may be used-even one from some old set with the power-pack intact. The most essential single item to be observed is a metal shield which must be located between the band-change switch, r-f coil, and trimmer condensers. This shield prevents capacity coupling between the tuned antenna circuit and the r-f circuit.

(Information as to cost and assembly of this kit may be procured from your local dealer or by addressing the J. W. Miller Co., 5917 South Main Street, Los Angeles, Calif., and mentioning RADEX).

WGRC is the call assigned to North Side Brdcstg. Co., New Albany, Ind., for a 250-watt daytime station on 1370 kc.

The Ultra-High Band

THE first application ever filed for "super-power" on the ultra-high frequencies was submitted to the FCC April 28 by Maj. Edwin H. Armstrong, noted inventor of the feedback and superheterodyne circuits. He asked for 40,000 watts peak power for a general experimental station in New York City to operate on the channels above 41,800, 86,500 and 111,000 kc.

Developer of the so-called "wave spreader" embracing a radically new system of frequency modulation, Maj. Armstrong seeks the 40 kw. experimental station to permit him to complete an elaborate developmental program he has outlined to test the efficacy of his "spectrum conserver" method.

Maj. Armstrong advances the theory that with power of 40,000 watts on the ultra-high frequencies, coverage exceeding that procured with 500,000 watts on the conventional broadcast band can be procured. Moreover, he contends that the quality of the transmission is infinitely better. To accomplish this transmission, a band width of about 150 kc. is needed, which is a dozen times broader than the bands normally used.

A new experiment in synchonization of broadcasting under which the "mother" station will have its signals intensified by the use of a "booster", was approved April 24 by the FCC. granted the application of WLLH. Lowell, Mass., to install a booster at Lawrence, Mass., 9 miles distant to operate on the same frequency of 1370 kc., with variable power of 10 to 100 watts. The experiment is until July 1. with likelihood of renewal. It is the first time the FCC has ever authorized synchronization on a local channel.

Three more new stations have been authorized by the FCC. The Democrat-News of Lewistown, Mont. has a construction permit to erect a station to work on 1200 kcs with 100 watts full time. (We hope no one writes in to correct us on the spelling of Lewistown; we always thought it was Lewiston until we looked it up in the Postal Guide.) The Abilene (Texas) Reporter will work on 1420 with 100 watts full time when construction is completed. and Mr. James R. Doss, Jr., owner of a station in Decatur, Ala, has been granted permission to erect a broadcaster in Tuscaloosa on 1200 kcs.

The new Hawaiian radio station, KHBC at Hilo, was formally dedicated as this issue of RADEX went to press. This station is owned by the same concern that operates KGMB in Honolulu, and the two stations are exact duplicates throughout except that the Hilo transmitter is rated at only 250 watts while the one in Honolulu uses 1 kilowatt. The studios of these two buildings are made of sugar cane.

WNOX, Knoxville, Tenn., operated by Continental Radio Co., Scripps-Howard Newspapers subsidiary, has leased a building in the business section of the city to house its new studios. The five-story building, leased for five years, will house an auditorium studio seating 850 and will have three other studios and a client audition room as well as business offices.

Operation with 5,000 watts daytime was begun April 28 by WSPD, Toledo, marking the second power increase for the station within a year. Last August the station, a CBS outlet, installed a new Western Electric transmitter, together with a vertical radiator, and increased its power from 1,000 to 2,500 watts by FCC authority.

Network Changes

A NUMBER of changes in Network affiliations are expected to take place during the next six or seven months. Information on ten of these stations is available now and is given here. The dates of the changes are approximate; the actual changes will be made as soon as present commitments have expired.

KMJ, Fresno, Calif., will change from the CBS-Don Lee Network to the NBC Red and Blue about Jan. 1, 1937.

WEEI, Boston, Mass., now on the NBC will become a CBS outlet about April 1, 1937.

WICC, Bridgeport, Conn., will broadcast Blue Network programs after Jan. 1st. Now on the CBS.

WPRO, Providence, R. I., now on the Yankee Network, will join the CBS about Jan. 1.

WEAN, Providence, will go from the CBS to the Blue about Jan. 1.

KWG, Stockton, Calif., Don Lee to Red and Blue, Jan. 1.

WNAC in Boston will change from the CBS to the Red about October 10, 1936.

In Bakersfield, Calif., KERN

changes from CBS to the Blue about Jan. 1.

KOH, Reno, Nevada, long a CBS outlet, will join the NBC about Feb. 15, 1936.

KFBK in Sacramento, Calif., goes to the NBC about Jan. 1.

THE MONTH'S CHANGES IN STATION DATA

		NEW
610	XEXM	Mexico City, D. F.
650	TIGPH	San Jose, Costa Rica
780	KEHE	Los Angeles, Calif.
800	TIX	San Jose, Costa Rica
1200	KVCV	Redding, Calif.
		Lewistown, Mont.
		Tuscaloosa, Ala.
		Waycross, Ga.
1210		St. Augustine, Fla.
		Wichita, Kans.
1220	TIVCA	San Jose, Costa Rica
1370	WGRC	New Albany, Ind.
	WMIN	St. Paul, Minn.
1420		Abilene, Texas
1500		Big Spring, Texas
		New London, Conn.
		Paris, Texas
		FREQUENCIES
960	CHNC	New Carlisle, P. Q., from 1410
1070	CMBX	Havana, Cuba, from 1060
1340	XEFE	Nuevo Laredo, Tams, from 850
		POWER
960	CHNC	New Carlisle, P. Q., 1000 from 500
1070	CMBX	Havana, Cuba, 500 from 200
1120	CMKM	Manzanillo, Cuba, 50 from 200
1320	CMOX	Havana, Cuba, 200 from 250
		CALL LETTERS
1370	KCMO	Kansas City, Mo., from KWKC
		DELETE
6(X)	WCAC	Storrs, Conn.
780	KELW	Burbank, Calif.
	KTM	Los Angeles, Calif.
930	KGBZ	York, Nebr.

WHAT'S ON THE AIR TONIGHT

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

COLUMBIA(C)		
Call	Dial	

NATIONA	L, Red (R)
Call	Diat

NATIONAL, Blue (B)		
Call	Dial	

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

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

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

Due to change to Daylight Saving Time on April 26, some of the stations listed will be unable to carry particular features.

MONDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C - Buck Rogers 25th Century WAAB WABC WBBM WCAO WCAU WFBL WHK WJAS WJSV WKBW

WKRC WOKO ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C - Bobby Benson Sunny Jim

WAAB WABC WCAU WDRC WEAN WFBL WGR WHEC WOKO

ED-6:45 p.m., E-5:45, C-4:45, M-3:45 C - Renfrew of the Mounted

KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTUL KWKH WABC WADC WBBM WBNS WCCO WDRC WFBM WGR WHEC WHK WIBX WICC WISN WJR WJSV WKBN WMAS WMBG WNAC WNBH WOC WREC WSMK WSPD

B --- Lowell Thomas

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 - Ann Leaf at the Organ

CFRB KFH KFPY KGKO KLZ KOH KOMA KRLD KSCJ KTRH KTSA KVOR WABC WACO WALA WBIG WBRC WCAO WDAE WDBJ WDBO WDRC WEAN WESG WFBL WFBM WFEA WGR WHP WJAS WKRC WLAC WLBZ WNAC WOC WORC WQAM WREC WSJS WSMK WSPD WTOC

R — Amos 'n' Andy KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WJAR WLW WMAQ WRC WTAG WTIC

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 Uncle Ezra's Radio Station

KPRC KTBS KTHS KVOO KYW WBAP WBEN WCAE WCKY WCSH WDAF WEAF WEEL WFBR WGY WHIO WIRE WJAR WKY WMAQ WRC WSAI WOAL WOOD WOW WTAG WTAM WTIC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 Ted Husing and Charioteers KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KMJ KMOX KOIN

KOL KSL KVI KWG WABC WBBM WCAO WCAU WCCO WEAN WFBL WFBM WGR WHK WIAS WJR. WJSV WKRC WNAC WOKO

B -- Lum and Abner WBZ WBZA WENR WJZ WLW WMC WSM WSYR

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

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Guy Lombardo and Orchestra KLRA KWKH WABC WBIG WBT WCAI WCAU WCHS WCSC WDBJ WDNC WDOD WDRC WEAN WFBC

WFBL WGR WHEC WHP WIBX WICC WJAS WJSV WLAC WLBZ WMAS WMBG WNAC WNBF WNOX WOKO WORC WPG WREC WSJS WWL WWVA

R — Hammerstein's Music Hall KSD KYW WBEN WCAE WCSH WDAF WEAF WEEL WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B - Fibber McGee and Molly

KDKA KDYL KFI KFSD KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTBS KVOO WAVE WBAL WBZ WBZA WCKY WDAY WEBC WFAA WFIL WGAR WHAM WIBA WIRE WJDX WJZ WKY WLS WMAL WMC WMT WOAI WREN WSB WSM WSMB WSYR WIMJ WXYZ

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

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

R - Voice of Firestone

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

B - Evening in Paris

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

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C - Lux Radio Theatre

CFRB CKAC KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLO KRNT KSL KTRH KTSA KTUL KVI KWG WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WNAC WNAX WOKO WORC WQAM WREC WWL

R — A. & P. Gypsies KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WGY WHO

WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC ww.i

B - Sinclair Greater Minstrels

KDKA KDYL KFYR KOA KOIL KPRC KSO KSTP KTBS KTHS KVOO KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWNC WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 R — Sigmund Romberg; Barrymore KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEL WFAA WFBR WGY WIIO WIBA WJAR WKY WLW WMAQ WOAI WOW WRC WTAG WTAM WTIC WTMJ WWJ

A Tale of Today

KDKA*KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSYR WXYZ

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

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

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 \ C — The March of Time

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WABC WADC WBBM WBT WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WNAC WOKO WQAM WSPD WWL

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 Public Opinion

KERN KFBK KFH KFPY KFRC KGB KGKO KIIJ KMBC KOH KOL KSCJ KTRH KTSA KVOR WAAB WABC WALA WBBM WBIG WBNS WBRC WCAO WDAE WDBJ WDBO WDRC WFBL WFBM WFEA WGR WIBW WIBX WICC WJAS WHP WKRC WLAC WLBZ WMBD WMBC WMBR WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSPD WTOC

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

CFRB CKAC WAAB WABC WADC WCAO WCAU WDRC WFBL WFEA WHEC WHK WIBX WJAS WKBN WKBW WLBZ WMAS WOKO WORC WPG WSBT WSPD

R - Amos 'n' Andy

KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD WBAP WDAF WHO WKY WLW WMC WOAI WOW WSB WSM WSMB WTAM WWJ

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

C — Renfrew of the Mounted KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

ED-11:30 p.m., E-10:30,C-9:30,M-8:30 C — Dance Orchestra CRFB CKAC KLRA WAAB WABC

MONDAY (Continued)

WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

C -- Pick and Pat

KDB KERN KFBK KFPY KFRC KFB KGKO KHJ KLRA KLZ KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTUL KVI KWG KWKH WACO WBRC WCCO WFBM WHAS WLAC WREC

R — Voice of Firestone

KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR

TUESDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C --- Benay Venuta, Songs

KPIL KGKO KLRA KIZ KMBC KOMA KRLD KRNT KSCJ KTRII KTSA KVOR KWKH WABC WACO WALA WBBM WBIG WBRC WCAU WDAE WDAE WBSG WFBL WR WR WGR WGST WHEC WHP WIBX WJR WKBN WLAC WLBZ WMAS WMBD WMBG WMBK WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC WWL

ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C — News of Youth

KMOX WABC WADC WBBM WBNS WCAO WCAU WDRC WEAN WFBL WHK WIBX WICC WJR WKBN WLBZ WNAC WOKO WORC WWYA

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

C — Renfrew of the Mounted KFAB KFH KLRA KMBC KMON KOMA KRLD KRNT KSCJ KTUL KWKH WABC WADC WBBM WBNS WCCO WDRC WFISM WGR WHEC WIK WIBN WICC WISN WJR WJSV WKBN WMAS WMBG WNAC WNBH WOC WREC WSMK WSPD WWVA

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

B — Easy Aces

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C — Krueger Musical Toast

WABC WBIG WBT WDAE WDBJ WDBO WDNC WDRC WEAN WFBL WFEA WGR WGST WIBX WICC WJSV WLBZ WMAS WMBG WMBR WNAC WNBF WNOX WOKO WORC

R — Human Side of the News

KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Kate Smith

KFAB KMBC KMOX KRLD KRNT KTRH WABC WADC WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKBN WKRC WLBZ WMAS WMBG WMBR WNAC WOKO WORC WWL WWYA

B — Lum and Abner, See Monday

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Lazy Dan, Minstrel Man CFRB KFAB KMOX KOMA KRNT

CFRB KPAB KMOX KOMA KRNT WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WJK WKRC WMAS WJK WJSV WKRC WMAS WJBG WNAC WOKO WSPD WWL

R—Leo Reisman and Orchestra KFYR KPRC KSD KSTP KTBS KYOO KYW WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WPLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Eno Crime Clues

KDKA KOIL KSO WBAL WBZ WBZA WFIL WGAR WHAM WJZ WIS WLW WMAL WMT WREN WSYR WXYZ

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

C — Russ Morgan; Ken Murray
CFRB K KDB KERN KFAR KFBK
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMON KOIN KOL
KOMA KRLD KRNT KSL KTRH
KTSA KTUL KVI KWG WARC
WADC WBBM WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDRC WEAN WFBL WFBM WGR
WGST WHAS WHEC WHK WICC
WISN WJAS WJR WJSV WKRC
WLAC WNAC WNAX WOKO WORC
WQAM WREC WSPD WWL

R—Wayne King and Orchestra
KFYR KPRC KSD KSTP KTBS
KVOO KYW WAVE WBAP WBEN
WCAE WCKY WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WGY
WHO WHIO WIBA WIRE WJAR
WJDX WKY WMAQ WMC WOAI

B — Edgar Guest, Welcome Valley KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

WOW WRC WSB WSM WSMB WTAG

WTAM WTIC WTMJ WWJ

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

WMBR WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

R - Vox Pop; Sidewalk Interviews

KSD KYW WBMN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHO WHO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

B — Ben Bernie and Orchestra

KDKA KDYL KFI KFSD KFYR
KGW KHQ KOA KOIL KOMO KPO
KPRC KSO KSTP KTAR KTBS
KTHS KVOO KWK WAVE WBAL
WBAP WBZ WBZA WDAY WEBC
WFIL WPLA WGAR WHAM WIBA
WIOD WIS WJAX WJDN WJZ
WKY WLS WLW WMAL WMC
WMT WOAI WPTF WREN WRVA
WSB WSM WSMB WSOC WSYR
WTAR WTMJ WWNC WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — Frod Waring's Pennsylvanians
CFRB CKAC KFAB KFI KGKO
KLRA KLZ KMBC KMON KOMA
KRLD KRNT KSL KTRIH KTSA
KTUL KVOR KWKH WABC WACO
WADC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAU
WCOA WDAE WDBJ WDBO WDNC
WCOA WDAE WDBJ WDBO WDNC
WDOD WDRC WEAN WFBL WFBM
WFEA WGST WHAS WHEC WHK
WHP WIBW WIBX WICC WISN
WJAS WJR WJSV WKBN WKBW
WÖRC WLAC WLBZ WMAS WMBD
WMBG WMBR WNAC
WNAS
WNBF WNOX WOC WOKO WORC
WOWO WPG WQAM WREC WSBT
WSFA WSST WSS WSPD WTOC WMM

R - Ed Wynn; Lennie Hayton

EDYL KÖI KFYR KGHL KGIR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTAR KTBS KVOO
KYW WAVE WBAP WBEN WCAE
WCSC WCSH WDAF WDAY WEAF
WEBC WEEI WFBC WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAL WOOD WOW WPTF
WRC WRVA WSB WSM WSMB
WSOC WSUN WTAG WTAM
WTIC WTMJ WWJ WWNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C — Parties at Pickfair

KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KRNT KSL KTRH
KTSA KTUL KVI KWG KWKH
WABC WACO WADC WBBM WBNS
WBRC WBT WCAO WCAU WCCO
WDAE WBBJ WDOD WDRC WFBL
WFBM WGST WHAS WHEC WHK
WIBW WISN WJAS WJR WJSV
WKBN WKBW WKRO WLAC WMAS
WMBG WMBR WNAC WNBF
WOKO WQAM WREC WSMK WSPD
WTOC WWL

R - Elgin Swing Time Revue

KDYL KFI KFYR KGW KHQ
KOMO KPO KPRC KSD KSTP
KTBS KTHS KYW WAPI WAVE
WBAP WBEN WCAE WCKY WCSH
WDAF WDAY WEAF WEBC WEEJ
WFBR WFLA WGY WHO WHIO
WIBA WIOD WIRE WIS WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOW WPTF WRC WRVA
WSB WSM WSMB WSOC WTAG

TUESDAY (Continued)

WTAM WTAR WTIC WTMJ WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — March of Time, See Monday

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

CKAC WAAB WABC WADC WCAO WCAU WDRC WFBL WFEA WHEC WHK WIBX WJAS WJSV WKBW WLBZ WMAS WOKO WORC WSBT WSPD

R - Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 C-Renfrew of Mounted, See Monday

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

CFRB CKAC KLRA KSCJ WAAB WABC WADC WALA WBBM WBNS WBRC WBT WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

Walter O'Keefe; Glen Gray KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOH KOIN KOL KSL KVI KVOR KWG

 Leo Reisman and Orchestra KDYL KFI KFSD KGHL KGIR KGW KHQ KOA KOMO KPO KTAR

ED-12:00p.m., E-11:00, C-10:00, M-9:00 C - Fred Waring's Pennsylvanians KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOH KOIN KOL KVI KWG

WEDNESDAY

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

ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C — Bobby Benson, See Monday

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 R - Amos 'n' Andy, See Monday B - Easy Aces, See Tuesday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 R — Uncle Ezra, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Kate Smith, See Tuesday

B - Lum and Abner, See Monday

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

C - Renfrew of Mounted, See Mon.

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 Cavalcade of America

KDB KERN KFAB KFBK KFPV KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WABC WACO WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WLAC WMBG WNAC WOKO WORC WOWO WPG WQAM WREC WSPD WWI.

R — Your Hit Parade

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 – Burns and Allen

CKAC KFAB KFH KLRA KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD

R — Wayne King, See Tuesday

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

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

– Town Hall; Fred Allen

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

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — Ray Noble and Orchestra CFRB KDB KERN KFAB KFBK

KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKBH WKBW WKRC WMBD WLBZ WMBG WILAC WMBR WNAC WNOX WOC WOKO

WSFA WSPD WTOC WWL

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

KFAB KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WAAB WABC WBBM WBNS WBRC WBT WCAO WCAU WCBL WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WMBG WOKO WORC WOW.O WMBR WQAM WREC WTOC WWL

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — March of Time, See Monday

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

ED-11:15 p.m., E-10:15,C-9:15,M-8:15 C—Renfrew of Mounted, See Monday

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

CKAC KLRA WAAB WABC WADO WALA WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOI WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WICC WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNOX WOKO WORC WQAM WREC WSPD WTOC

C — Burns and Allen

KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KVOR KWG

ED-12:00p.m..E-11:00.C-10:00.M-9:00 R - Town Hall: Fred Allen KDYL KFI KGW KHQ KOA KOMO KPO

THURSDAY

ED-6:15 p.m., E-5:15, C-4:15, M-3:15 - News of Youth, See Tuesday

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

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

B - Easy Aces, See Tuesday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C - Musical Toast, See Tuesday

- Edwin C. Hill, See Tuesday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C - Kate Smith, See Tuesday

B - Lum and Abner, See Monday

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Chrysler Airshow KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG KWKH WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WMBR WNAC WOKO

WQAM WWL

THURSDAY (Continued)

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

B -- Pittsburgh Symphony

KDKA KOIL KPRČ KSO KŤBS KWK WAPI WAVE WBAL WBAP WBZ WBZA WCKY WENR WFAA WFIL WFLA WGAR WHAM WIOD WIRE WIS WJAX WJDX WJZ WKY WLS WMAL WMC WOAI WPFF WREN WRVA WSB WSM WSMG WSOC WSUN WSYR WTAR WWNC WXYZ

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

R — Maxwell House Show Boat EDYL KEI KFSD KFYR KGHL KGIR KWK KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC

WTMJ WWJ WWNC

B — Death Valley Days

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

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — Stoopnagle and Budd

RDB KERN KFAB KFBK KFIK
KFPY KFRC KGB KBKO KIIJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KRNT
KSCJ KSL KTRH KTSA KTUL KVI
KVOR KWG KWKII WABC WCAO
WADC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAO
WDAE WDBJ WDBO WDNC WDOD
WDBC WEAN WFBL WFBM WFEA
WGST WHAS WIIEC WHK WIIP
WIBW WIBN WICC WISN WJAS
WJR WJSV WKBN WKBW WKRC
WLAC WLEZ WMAS WMBD WMBG
WMBR WMMN WNAC WNAX
WNBF WNON WOC WOKO WORC
WQAM WREC WSFA WSJS WSPD
WTOC WWL

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C — Horace Heidt and Orchestra

KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KIIJ KLRA KLY
KMBC KMJ KMOX KOIN KOL
KRLD KRNT KSL KTRH KTSA
KTUL KVI KWG WABC WBBM
WBNS WBRC WBT WCAO WCAU
WCCO WDBO WDRC WFBL WFBM
WGST WILAS WHK WISN WJAS
WJR WJSV WKBW WKRC WLAC
WMBG WNAC WNAN WOC WOKO
WQAM WREC WWIJ

R—Bing Crosby; Jimmy Dorsey
CFCF CRCT KDYL KFI KFYR
KGW KHQ KOA KOMO KPO KPIRC
KSD KSTP KTAR KTBS KTIB
KVOO KYW WAVE WBAP WBEN
WCAE WCSH WDAF WDAY WEAF
WEBE WEEI WFBR WFLA WGY
WHO WIBA WIDD WIS WJAR

WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — March of Time, See Monday

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

WAAB WABC WADC WCAU WFBL WHK WIBX WJSV WKBN WKBW WLBZ WMAS WOKO WORC WPG WSBT WSPD

R - Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15,C-9:15,M-8:15 C—Renfrew of Mounted, See Monday

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

CFR CKAĆ KLRA WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFEA WISZ WIGC WIAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBR W NOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

C - Walter O'Keefe, See Tuesday

FRIDAY

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

ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C — Bobby Benson, See Monday

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

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 R — Uncle Ezra, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Paris Night Life KFAB KRNT WABC WBBM WBT WCAO WCAU WDRC WEAN WFBL WGR WHK WJAS WJSV WKRC WNAC WOKO WORC WWL

B - Lum and Abner, See Monday

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Flying Red Horse Tayern

KFAB KEII KMBC KMOX KRNT WABC WADC WBBM WBNS WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBW WICC WJAS WJR WJSV WKRC WLBZ WMAS WMBD WNAC WOC WOKO WORC WSPD

R—Cities Service Concent CRCT KFYR KOA KPRC KSD KSTP KTBS KTHS KVOO KYW WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEET WFAA WFBR WGY WHO WHO WIBA WIOD WJAR WKY WMAQ WOAI WOW WRC WRYA WSAI WTAG WTAM WTIC WTMJ WWJ

B — Irene Rich; Drama WSFA KDKA KDYL KFI KGW KHO KOIL WWL

KOMO KPO KSO KTAR KWK WAVE WBAL WBZ WBZA WCKY WFIL WGAR WHAM WIRE WJZ WLS WMAL WMC WMT WREN WSB WSM WSYR WXYZ

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

C — Broadway Varieties
KDB KERN KFAB KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRNT
KSL KVI KWG WABC WADC
WBIM WBNS WBRC WBT WCAO
WCAU WCCO WDRC WEAN WFBL
WFBM WGR WGST WHAS WHK
WJAS WJR WJSV WKRC WMAS
WMBG WNAC WOKO WSPD WWL

ED-9:00 p.m., E-8:00, C-7:00,M-6:00 C — Hollywood Hotel

CFRB CKAC KDB KERN KFAB
KFBK KFH KPPY KFRC KGB KHJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KRNT
KSCJ KSL KTRH KTSA KTUL KVI
KVOR KWG KWKH WABC WADC
WBM WBNS WBRC WBT WCAO
WCAU WCCO WDAE WDIJ WDBO
WDRC WEAN WFBL WFBM WFEA
WGST WHAS WHEC WHAS WJR
WJSV WKRW WKRC WLAC WLBZ
WMAS WMBD WMBG WMBR
WNAC WNAX WNON WOKO WORC
WPG WQAM WREC WSPD WWL

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

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 R — Trus Story Court

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

B—Fred Waring's Pennsylvanians
KDKA KDYL KFYR KOA KOLL
KPRC KSO KSTP KTBS KTHS
KWK WAPI WAVE WBAL WBZ
WBZA WCKY WDAY WEBC WENR
WFAA WFIL WFLA WGAR WHAN
WHO WIBA WIOD WIRE WIS
WJAX WJDX WJZ WKY WMAL
WMC WMT WOAI WOOD WPTF
WREN WRVA WSB WSM WSMB
WSOC WSYR WTAR WTMJ WWNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C — Andre Kostelanetz

C—ANDRE NOSTRIBAREZ
KDB KERN KFAB KFBK KFII
KFPY KFRC KGB KGKO KGMB
KHJ KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSA
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDOC WDOD WDRC WADN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBW WKRC WLAC WLBZ WMAS
WMBD WMBG WMBR WNAC
WNAX WNBF WNOX WC WOKO
WORC WOWO WPG WQAM WREC
WSFA WSJS WSMK WSPD WTOC

FRIDAY (Continued)

R --- Richard Himber and Orchestra KDYL KFYR KOA KPRC KSD KSTP KTBS KTHS KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEL WFAA WFBR WGY WHO WIBA WJAR WKY WLW WMAQ WOAL WOW WRC WTAG WTAM WTIC WTMJ WWJ

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C - March of Time, See Monday - Marion Talley and Orchestra KDYL KEI KEYR KGW KHO KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHIO WIBA WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

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

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

CFRB CKAC KLRA KSCJ WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFEA WGST WHEC WHK WIBX WISN WJAS WJR WKBW WLAC WLBZ WMBD WMBG WMAS WMBR WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

C - Renfrew of Mounted, See Mon.

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Paris Night Life

KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KSL KVI KWG WFBM WHAS

ED-12:00p.m.,E-11:00,C-10:00,M-9:00 B — Fred Waring's Pennsylvanians KFI KFSD KGHL KGIR KGW KHQ KOMO KPO KTAR

SATURDAY

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

KERN KFBK KFH KFPY KFRC KGB KGKO KHJ KLZ KMBC KOH KOL KOMA KRLD KSCJ KSL KTRH KVI KVOR WAAB WABC WACO WALA WBBM WBIG WBNS WCAO WDBJ WDBO WDRC WESG WFBL WFBM WGST WHAS WHEC WHK WHP WIBW WIBX WJSV WKRC WLAC WLBZ WMBD WMBG WMBR WNOX WOC WOKO WORC WQAM WREC WSJS WSMK WSPD WTOC WWVA

ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C - News of Youth, See Tuesday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C — Atlantic Family; Frank Parker WARC WADC WBIG WBNS WBRE WBT WCAO WCAU WCBA WDAE WDBJ WDBO WDRC WEAR WHEC WTBL WGBI WGR WGST WHEC WHR WHP WIBX WICC WJAS WMBR WNAC WNBF WOKO WORC WORK WQAM WRAK WSJS WTOC WWVA

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 R - Edwin C. Hill, See Monday

ED-8:00 p.m., E-7:00, C-6:80, M-5:00 C — Ziegfeld Follies; Fannie Brice CKAC CKCL KFAB KLZ KMBC

KMOX KOMA KRLD KRNT KSL ED-11:30 p.m., E-10:30, C-9:30, M-8:30 KTRH KTSA KTUL KWKH WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WEBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WLBZ WMBR WNAC WOKO WMBG WORC WOAM WREC WTOC WWL

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 R - Shell Chateau

KDYL KFI KFSD KFYR KGIIL KGIR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WIBA WJAR WLW WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

National Barn Dance KDKA KOIL KPRC KSO KTBS KTBS KVOO KWK WAPI WAVE WBAL WBAP WBZ WBZA WFIL WGAR WHAM WIRE WJDX WJZ WHK WLS WMAL WMC WMT WOAL WOOD WREN WSB WSMB

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

WSYR WXYZ

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

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 R - George Olsen; Ethel Shutta

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WMBC WEEI WFBR WGY WHIO WIBA WIRE WJAR WJDX WMAQ WMC WOW WRC WSB WSMB WTAG WTAM WTIC WTMJ WWJ

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

CFRB CKAC KFH KGKO KLRA KLZ KMBC KMOX KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBBM WBNS WBRC WBT WACO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFBM WFEA WGST WHAS WHEC WHK WIBW WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WQAM WREC WSHT WSJS WSMK WSPD WTOC

B - National Barn Dance

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

C — Dance Orchestra

CFRB CKAC KFH KGKO KLRA KLZ KMBC KMOX KOMA KSL KTRII KTSA KVOR KWKH WABC WACO WADA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBW WIBX WICC WJAS WJR WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

ED-12:00p.m., E-11:00, C-10:00, M-9:00 C - Ziegfeld Follies; Fannie Brice KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KVI KWG

SUNDAY

ED-11:30 a.m., E-10:30,C-9:30,M-8:30 C—Salt Lake Tabernacle Choir KFH KGKO KLRA KLZ KMBC KOMA KRLD KSCJ KSL KTRH KTSA KWKH WACO WADO WALA WBIG WBNS WBRC WBT WCCO WDBO WDNC WDOD WDRC WFBL WEDA WEST WHAS WFBW WFBM WFEA WGST WHAS WIBW WIBX WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WNOX WOKO WORC WQAM WREC WSBT WSMK WSPD WTOC

R — Major Bowes' Capitol Family CFCF CRCT KDYL KFI KFYR KGW KIIQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KVOO KYW WAPI WAVE WBAP WBEN WCAE WCSC WCSH WDAF WDAY WEAF WESC WEST WIDAY WEAT WEST WEST WEST WEST WHO WISA WIDD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WOSC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

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

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

ED-12:45 p.m., E-11:45, C-10:45, M-9:45

- Trans-Atlantic Broadcast CFRB CKAC KFII KGKO KLRA KLZ KMBC KRLD KSCJ KTRII KTSA KVOR WABC WACO WADC WALA WBIG WBRC WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WESG WFBL WFBM WFEA WGR WHAS WIBX WJAS WJSV WKBN WLAC WLBZ WMBD WMBR WNAC WOC WOKO WORC WPG WQAM WREC WSJS WSMK WSPD WTOC WWL

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

KERK KEH KEPY KERC KGB KHJ KMOX KOH KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KVI KVOR KWG WABC WALA WBNS WBT WCAO WCCO WDAE

SUNDAY (Continued)

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

ED-1:30p.m., E-12:30, C-11:30, M-10:30 C - Poet's Gold: David Ross

KFH KFPY KFRC KGB KLZ
KMBC KMOX KOH KOMA KRLD
KRNT KSCJ KSL KTRH KTSA
KVI KVOR WABC WALA WBIG
WBRC WBT WCCO WDAE WDBJ WDBO WDRC WESG WFBM WHAS WHP WIBX WJAS WJSV WKBN WKBW WKRC WLAC WLBZ WMBR WNOX WOC WOKO WORC WPG WQAM WREC WSJS WSPD WTOC

ED-2:00 p.m., E-1:00, C-12:00, M-11:00 B — Magic Key of RCA

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

ED-3:00 p.m., E-2:00, C-1:00, M-12:00 C - Everybody's Music.

CFRB CKAC KERN KFH KFPY KFRC KGB KGKO KHJ KLZ KMBC KMOX KOH KOL KOMA KRNT KSCJ KSL KTRH KTSA KVI KVOR KWG WAAB WABC WALA WBIG WBNS WBRC WBT WCAO WCCO WDAE WDBJ WDRC WEAN WESG WFBL WFBM WFEA WGST WHAS WHK WHP WIBW WIBX WICC WJAS WKBN WKBW WKRC WLAC WMBD WMBG WMBR WNBF WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

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

Rev. Charles E. Coughlin KFEL KNX KSFO KSTP KVOD KWK WATR WCAO WCAU WDRC WEAN WFBL WFEA WGAR WGR WHB WHO WICC WISN WJAS WJJD WJR WLBZ WILH WLW WMAS WNAC WNBH WOKO WOL WOR WORC WOW WRDO

ED-5:00 p.m., E-4:00, C-3:00, M-2:00 C — Abe Lyman and Orchestra

CFRB KFAB KMBC KMOX KRNT WAAB WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WOKO

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

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 ED-7:45 p.m., E-6:45, C-5:45, M-4:45

KGKO KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWKH WAAB WABC WADC WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBR WNAX WNOX WOC WOKO WORC WPG WQAM WREC WTOC WWL WWVA

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Smiling Ed McConnell KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WAAB WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDBJ WDRC WEAN WFBL WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WWL WWVA

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

KMOX WAAB WABC WADC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WREC WHK WJAS WJR WKBW WKRC WSPD WWVA

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 B — Jack Benny; Johnny Green

CFCF CRCT KDKA KFYR KOIL KPRC KSO KSTP KTBS KVOO KWK WAVE WBAL WBZ WBZA WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WIBA WIOD WIS
WJAX WJDX WJZ WKY WLW
WMAL WMC WMT WOAI WPTF
WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C -- Phil Baker; Hal Kemp

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

R — Fireside Recitals
KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ B — Ozzie Nelson; Robt. L. Ripley KDKA KDYL KFI KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTAR KVOO KWK WBAL WBZ WBZA WCKY WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WJAX WJDX WJZ WKY WLS WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSYR WTMJ WWNC WXYZ

C — Phil Spitalny and Orchestra R—Sunset Dreams; Morin Sisters KFAB KFII KFPY KFRC KGB CFCF CRCT KSD KYW WBEN

WCAE WCSH WDAF WEAF WFBR WGY WHO WHIO WIRE WJAR
WLW WMAQ WOAI WOOD WOW
WRC WTAG WTAM WTIC WWJ

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 – World Dances; Lud Gluskin KFAB KFH KFPY KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWG KWKH WABC WADC WALA WBBM WBNS WBRC WBT WCAO WCAU WCCO WDOD WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WHP WICC WJAS WJR WJSV WKRC WLAC WNAC WNAX WOC WOKO WOWO WREC WSPD WWL

R — Major Bowes' Amateur Hour CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KVOO KYW WAVE WBEN WBZ WBZA WCAE WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 R - Manhattan Merry-Go-Round CFCF KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEL WFAA WFBA WEAF WEBC WEEL WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WIAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B - Jack Hylton; Pat O'Malley KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

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

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

B - Walter Winchell

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

ED-9:45 p.m., E-8:45, C-7:45, M-6:45 **B-Paul Whiteman's Musical Varieties** KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSAI WSYR WXYZ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 R - General Motors Concert

CFCF CRCT KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KPRC KSTP KTAR KTBS KTHS KYW

SUNDAY (Continued)

WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WFTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-11:00 p.m., E-10:00,C-9:00,M-8:00 R — Sunset Dreams; Morin Sisters KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WBAP WDAF WKY

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 B — Walter Winchell KDYL KFI KFSD KGHL KGIR

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Voice of Experience KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG B - Jack Benny; Johnny Green

KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR

B-Paul Whiteman's Musical Varieties KECA KEX KFSD KGA KGO KJR KPRC KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

ED-12:00p.m., E-11:00, C-10:00, M-9:00 B — Jack Hylton; Pat O'Malley KDYL KFI KGW KHQ KOA KOMO KPO

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Daylight Saving

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

CONCERTS

Everybody's Music. 3 p.m. Sunday, C General Motors Concert, 10:00 p.m. Sunday, R Pittsburgh Symphony, 8:00 p.m. Thurs., B Radio City Music Hall, 12:30 p.m. Sunday, B

DANCE BANDS

Victor Arden, 8:30 p.m. Friday, C Ben Bernie, 9:00 p.m. Tuesday, B Ray Block, 7:15 p.m. Tues, and Thurs., C Jimmy Dorsey, 10:30 p.m. Thursday, R Eddie Duchin, 9:30 p.m. Tuesday, R Lud Gluskin, 8:30 p.m. Sunday, C Al Goodman, 8:00 and 12:00 p.m. Sat., C Benny Goodman, 10:00 p.m. Tuesday, R Glen Gray, 9:00 and 11:30 p.m. Tuesday and Thursday, C.

day, C Johnny Green, 7:00 and 11:30 p.m. Sunday, B Louis Gress, 7:00 p.m. Sunday, C Lennic Hayton, 9:30 p.m. Tuesday, R. Horace Heidt, 10:00 p.m. Thursday, C. Richard Himber, 10 p.m. Friday, R Jack Hylton, 9 and 12 p.m. Sun., B Hal Kemp, 7:30 p.m. Sunday, C Wayne King, 8:30 p.m. Tuesday and Wednesday, R Andre Kostelanetz, 10 p.m. Friday, C Benny Kruger, 8:30 p.m. Mon., C Guy Lombardo, 8:00 p.m. Monday, C Abe Lyman, 5:00 p.m. Sunday, C Al Lyons, 10:00 p.m. Tuesday, C Russ Morgan, 8:30 p.m. Tues., C Ozzie Nelson, 7:30 p.m. Sunday, B Ray Noble, 9:30 p.m. Wednesday, C George Olsen, 10:30 p.m. Saturday, R Raymond Paige, 9:00 p.m. Friday, C Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R Freddie Rich, 10 p.m. Sat., C; 8:00 p.m. Friday, C Phil Spitainy, 6:00 p.m. Sun., C Rudy Vallee, 8:00 p.m. Thursday, R Fred Waring, 9:30 and 12:00 p.m. Tuesday, C: 9:30 and 12:00 p.m. Friday, B Paul Whiteman, 9:45 and 11:30 p.m. Sunday, B

Victor Young, 9:30 p.m. Saturday, R. DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R Amos 'n' Andy, 7:00 and 11:00 p.m. daily, except Sat. and Sun, R Phil Baker, 7:30 p.m. Sunday, C

Phil Baker, 7:30 p.m. Sunday, C Jack Benny, 7:00 and 11:30 p.m. Sunday, B Burns and Allen, 8:30 and 11:30 p.m. Wednesday, C Easy Aces, 7:00 p.m. Tues, Wed., and Thurs, B Fibber McGee and Molly, 8:00 p.m. Monday, B Lum and Abner, 7:30 p.m. dally, except Sat. and Sun., B Ken Murray, 8:30 p.m. Tues, C Waiter O'Keefe, 9:00 and 11:30 p.m. Tuesday and

Thursday, C Pick and Pat, 8:30 and 11:30 p.m. Monday, C Stoopnagle and Budd, 9:30 p.m. Wed., C Ed. Wynn, 9:30 p.m. Tuesday, R

DRAMA

Cavalcade of America, 8:00 p.m. Wednesday, C Crime Crusade, 10:00 p.m. Wednesday, C Death Valley Days, 9:00 p.m. Thursday, B Eno Crime Clues, 8:00 p.m. Tuesday, B Phillips Lord, 10:00 p.m. Wednesday, C Lux Radio Theatre, 9:00 p.m. Monday, C News of Youth, 6:15 p.m. Tues, Thur., Sat., C Parties at Pickfair, 10:00 p.m. Tues., C Renfrew of the Mounted, 6:45 and 11:15 p.m. Mon. thru Fri., C Tene Rich, 8:00 p.m. Friday, B Buck Rogers, 6:00 p.m. Mon., Wed., and Fri., C A Tale of Today, 9:30 p.m. Mon., B True Story Court, 9:30 p.m. Friday, R

True Story Court, 9:30 p.m. Friday, R Welcome Valley, 8:30 p.m. Tuesday, B POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p.m. Monday, R Album of Familiar Music, 9:30 p.m. Sunday, R Allantic Family, 7:00 p.m. Saturday, C Major Bowes, 11:30 a.m. and 8:00 p.m., Sunday, R Broadway Varieties, 5:30 p.m. Friday, C Camel Program, 9:00 and 11:30 p.m. Tues, and Thurs.

Chesterfield Program, 9:00 p.m. Wed., C Chrysler Airshow, 8:00 p.m. Thursday, C Cities Service Concert, 8:00 p.m. Friday, R Contented Program, 10:00 p.m. Monday, R Elgin Swing Time, 10:00 p.m. Tues., R Evening in Paris, 8:30 p.m. Monday, B Fireside Recitals, 7:30 p.n. Sunday, R Fleischmann Variety Hour, 8:00 p.m. Thursday, R. Flying Red Horse Tavern, 8:00 p.m. Friday, R Flying Red Horse Tavern, 8:00 p.m. Friday, C Hammerstein's Music Hall, 8:00 p.m. Monday, R Hit Parade, 8:00 p.m. Wed., R; 100 p.m. Sat., C Hollywood Hotel, 9:00 p.m. Friday, C Krueger Musical, 7:15 p.m. Tuesday, and Thursday, C Marie Key of PCA, 2:00 p.m. Sunchus, R Magic Key of RCA, 2:00 pm. Sunday, B Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R March of Time, 10:30 p.m. Mon. thru Fri., C Maxwell House Show Boat, 9:00 p.m. Thursday, R. Musical Footnotes, 1:30 p.m. Sunday, C National Barn Dance, 9:30 and 11:00 p.m. Saturday, B. Paris Night Life, 7:30 and 11:30 p.m. Friday, C Poet's Gold, 1:30 p.m. Sun., C Shell Chateau, 9:30 p.m. Saturday, R. Sinclair Minstrels, 9:00 p.m. Monday, B Swift Studio Party, 9:30 p.m. Mon., R Town Hall Tonight, 9:00 and 12:00 p.m. Wed., R Uncle Ezra, 7:15 p.m. Mnn., Wed., and Fri., R Voice of Firestone, 8:30 and 11:30 p.m., Monday, R. Vox Pop, 9:00 p.m. Tuesday, R Ziegfeld Follies, 8:00 and 12 p.m. Sat., C SINGERS

Arnida, 7:15 and 11:15 p.m., Wednesday, C Smith Ballew, 9:30 p.m. Sat., R Connie Boswell, 9:30 p.m. Wednesday, C Fannie Brice, 8:00 and 12:00 p.m., Sat., C Patti Chapin, 8:00 and 12:00 p.m., Sat., C

Chariotteers, 7:15 p.m. Monday, C Vivian Della Chiesa, 1:30 p.m. Sunday, C Bernice Claire, 5:00 p.m. Sunday, C, and 9:00 p.m. Friday, R Jerry Cooper, 7:15 p.m. Tuesday and Thursday, C Bing Crosby, 10:00 p.m. Thursday, R. Crumit-Sanderson, 5:30 p.m. Sunday, C Jessica Dragonette, 8:00 p.m. Friday, R Phil Duey, 8:00 and 11:30 p.m. Tuesday, R Alexander Gray, 8:00 p.m. Thursday, C Frances Langford, 9:00 p.m. Friday, C La Prelie Bros., 8:30 p.m. Monday, C Lazy Dan, S p.m. Tuesday, C Pierre LeKreune, 7:15 and 11:15 p.m. Wed., C Elizabeth Lennox, 8:30 p.m. Friday, C James Melton, 8:00 p.m. and 12:00 p.m. Sat., C Lucy Monroe, 9:30 p.m. Sunday, R Morin Sisters, 7:45 and 11:00 p.m. Sunday, R Frank Munn, 9:30 p.m. Sunday and 9:00 p.m. Friday, R Donald Novis, 9:30 p.m. Tuesday, R Frank Parker, 7:00 p.m. Saturday, C Pickens Sisters, 8:30 p.m. Monday, B Llly Pons, 9:00 p.m. Wednesday, C Carmella Ponselle, 8:30 p.m. Friday, C

Dick Powell, 9:00 p.m. Friday, C Lanny Ross, 9:00 p.m. Thursday, R Fritzi Scheff, 8:00 p.m. Tuesday, C Oscar Shaw, 8:30 p.m. Friday, C Ethel Shutta, 10:30 p.m. Sat , R Smiting Ed McConnell, 6:30 p.m. Sunday, C Kate Smith, 7:30 p.m. Tues., Wed., and Thurs., C Oliver Smith, 5 p.m. Sunday, C Marion Talley, 10:30 p.m. Fri., R Benay Venuta, 6:00 p.m. Tuesday, C Helen Ward, 10:00 p.m. Tues., R Boake Carter, 7:45 p.m. dally except Sat. and Sun., C Rev. Charles E. Coughlin, 4:00 p.m. Sunday Edwin C. Hill, 7:15 p.m. Tues., Thurs., Sat., R Ted Husing, 7:30 p.m. Monday, C Public Opinion, 10:45 p.m. Monday, C Robert L. Ripley, 7:30 p.m. Sunday, B Sidewalk Interviews, 9:00 p.m. Tuesday, R Lowell Thomas, 6:45 p.m. daily except Sat. and Sun., B Trans-Atlantic Broadcast, 12:45 p.m. Sunday, C Voice of Experience, 6:45 and 11:30 p.m. Sunday, C Frederic William Wile, 6:00 p.m. Saturday, C Walter Winchell, 9:30 and 11:15 p.m. Sunday, B

Short Wave Stations By Frequencies

Police broadcasters shown in Italics. Time indicated is Eastern Standard.

1.510 megs. 198.56 m. CJD, Campbell River, B. C. 300 W. Minister of Lands for B. C.

CJK, Knight Inlet, B. C. 100 W. Anglo British

Columbia Packing Co., Ltd. VAC, Cape Lazo, B. C. 50 W. Dominion Gov. Sun.. 0610-0640; 1010-1040; 1710-1740. Other days 0500-1945.

VAF, Alert Bay, B. C. 50 watts. Dominion Gov. YDA8, Tandjongpriok, N. E. I. 500 W. N. V. Nederlandsch Indische-Radio Omroep Moatschappij, Konigsplein W. 5, Batavia-Centrum, Java, N. E. I. Daily, 0530-1100; 1745-1845; 2230-0130.

1.520 megs. 197.25 m. VIA, Adelaide, Australia. 175 w. Police VKO, Sydney, Australia. 1.4 kW. Police.

1.530 megs. 195.96 m. YDB7, Sourabaya, N. E. I., 75 watts. Address, see YDA8 above. Daily, 0530-1100; 1745-1845; 2230-0130.

194.69 m. 1.540 megs. CJD, Campbell River, B. C. 300 watts. Minister of Lands for B. C.

VBY, Lunenburg, N. S. 100 watts. Lunenburg Sea Products, Ltd. (Station operated by Canadian Marconi).

1.550 megs. 193.43 m, YDA4. Soekaboemi, N. E. I. 25 watts. For address and schedule see YDA8, 1.510 megs.

1.566 megs. 191.46 m. WIED, Broadcast pickup. 50 watts. National Broadcasting Co., 30 Rockefeller Plaza, N. Y. City WIEX, Broadcast pickup. 50 watts. Address, see WIED above.

> 1.570 megs. 190.96 m.

WPEQ, Baton Rouge, La. Police. YDB6, Malang, N. E. I. 100 watts. For address and schedule see YDA8, 1.510 megs.

190.48 m. 1.574 megs. KGPY, Shreveport, La. Police.

1.580 megs. 189.76 m. CJM, Borden, P. E. I. 100 watts. Works ships. Canadian National Railway.

> 1.585 megs. 189.16 m.

YDD3, Batavia (C), Java, N. E. 1. 50 watts. N. V. Nederlandsch Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

> 1.595 megs. 187.98 m.

YDB5, Solo, N. E. I. 25 watts. For address and schedule see YDD3, 1.585 megs.

1.596 megs. 187.84 m

CFC, Cub Lake, Sask. 100 watts. Dept. of Natural Resources, Govt. of the Province of Sask. CGQ, Lac la Ronge, Sask. 100 watts. Address, see CFC above.

CGV, Emma Lake, Sask. 100 watts. Address CFC above.

CZJ, Isle-a-la-Crosse, Sask. 100 watts. Address CFC above.

VYP, Prince Albert, Sask. Address CFC above. WPGG, Findlay, Ohio. 500 W. State of Ohio. Highway police.

WPGQ, Columbus, Ohio. 400 W. WPHC, Massillon, Ohio. 100 W. State of Ohio,

Dept. of Highways.
WPHK, Wilmington, Ohio. State of Ohio.
WPHT, Cambridge, Ohio.
WQFT, Portable in Ohio. 100 W.

1.606 megs.

186,69 m. KGXW, Port Alexander, Alaska. Karl Ha KNED, Broadcast pickup. 50 watts. (WBAP). Karl Hansen.

WHER, Broadcast pickup. (KDKA).
WIEO, Broadcast pickup. 50 watts. NBC, 30 Rockefeller Plaza, N. Y. City.
WIEW, Broadcast pickup. 20 watts. NBC.

WIEX, Broadcast pickup. National Broadcasting Co. WMEF, Broadcast pickup. 150 W. National Broadcasting Co.

...... Funter Bay Camp, Alaska.

1.610 megs. 186.22 m. WQPC, Chicago, Ill. 1 kw. State of Ill., Bu-reau of Police.

WOPD, DeQuoin, Ill. 1 kw. State of Ill., Bureau of Police.

WQPF, Effingham, Ill. 1 kic. State of Ill., Bureau of Police

WOPG, Sterling, Ill. 1 kw. State of Ill., Bureau of Police.

WQPP, Pontiac, Ill. 1 kw. State of Ill., Bureau of Police.

WQPS, Springfield, Ill. 1 kw. State of Ill., Bureau of Police. Macomb, Ill.

1.615 megs. 185.65 m,

YDB4, Tlepoe, N. E. I. 25 W. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, N. E. J. 0530-1100; 1745-1845; 2230-0130.

> 185.07 m. 1.620 megs.

CFD, Kenora, Ont. 150 W. Ontario Dept. of Lands and Forests.

CFJ, Red Lake, Ont. Address CFD above.

CFL, Tabouret, P. Q. 100 W. Laurentian Forest Protective Association, Ltd., 126 St. Peter St., Quebec, P. Q.

CFM, Manicouagan River Estuary, P. Q. 100 W. Address CFL above.

CZB, Bellevue, P. Q. 100 W. Address CFL above. CZY, Riviere du Chef, P. Q. 100 W. Address CFL above.

CZZ, St. Felecien, P. Q. 100 W. Address CFL above.

1.622 megs. 184.85 m.

KGXU, Port Armstrong, Alaska. Buchan & Heinen. KHP, Deep Cove, Alaska. (KIJV) Atlas Packing Co. KIED, Broadcast pickup. (KFWB). KIFI, Broadcast pickup. (WDGY).

KIJI, Port Conclusion, Alaska. Northwestern Herring

Co. KIJK, Washington Bay, Alaska. Storfold & Grondahl. KIJO, Port Herbert, Alaska. P. H. Packing Co.

KIJS, Newport Walter, Alaska. Chatham Strait Fish Co.

KIJV, Deep Cove, Alaska. 50 watts. (KHP) Atlas Packing Co.

KIOG, Red Bluff, Alaska. 50 watts. Richmond Fisheries Co.

WIEH, Broadcast pickup. (WMCA).

WKEM, Broadcast pickup. (WINS).

1.630 megs. 183.94 m. WEY, Boston, Mass. Marine Fire Station. WKDT, Detroit, Mich. Marine Fire Station.

YDD2, Bandoeng, Java, N. E. I. 100 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappil, Tcgallegan O. 23, Bandoeng. 0530-1100; 1745-1845; 2230-0130.

1.634 megs. 183.48 m WPHE, Marion County, Ind. 1 kW. Indiana State Police.

WPHS, Culver, Ind. 1 kW. Municipal police. WPHU, Jasper, Ind. 1 kW. State of Ind.,

WPHU, Jasper, Ind. 1 kW. State of Ind., WPHU, Jasper, Ind. 1 kW. State of Ind., Dept. of Safety. WQFE, Seymour. Ind. 1 kW. State of Ind., Dept. of Public Safety. WQFW, Columbia City, Ind. 1 kW. State of

Ind. ..., Indianapolis, Ind. 100 watts. State

police. 132.82 m. 1.640 megs. YDA3, Buitenszorg, N. E. I. 25 watts. N. V. Neder-

landsche Indische Radio Omroep Moats-chappij, Koningsplein W. 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

182.59 m. 1.642 megs. WRDS, E. Lansing, Mich. 1 kW. night: 5 kW.

day. State police. 1.646 megs. 182.15 m.

KNEC, Broadcast pickup, 40 w. (KVI). WIEK, Broadcast pickup. Columbia Broadcasting System, 485 Madison Ave. at 52nd St., N.Y. City.

WIEL, Boradcast pickup. Address WIEK above. WLEB, Broadcast pickup. (WOKO).

1.650 megs. 181.71 m. VBY, Lunenburg, N. S. Works ships. Lunenburg Sea Products Ltd. Operated by Canadian Marconi.

1.658 megs. 180.83 m. KNHD, Redwood Falls, Minn. 400 w. State

KSW, Berkeley, Calif. Municipal police. WPGC, S. Schenectady, N. Y. 1 kW. night; 5 kW. day. State police.

of Minn.

1,660 megs.

YDB3, Djokjokarta, N. E. I. 100 watts. N. V. Nederlandsch Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java, N.E.I. 0530-1100; 1745-1845; 2230-0130.

> 1.666 megs. 179.96 m.

WMP, Framingham. Mass. 1 kW.

police. WPEL, W. Bridgewater, Mass. 1 kW. State police.
WPEV, Portable in Mass. 50 watts. State

police.
WPEW. Northampton, Mass. 1 kW. State

police. , Nashville, Tenn. Municipal police.

> 1.668 megs. 179.75 m.

CFC, Cub Lake, Sask. Dept. of Nasural Resources. Govt. of the Province of Saskatchewan.

CGQ, Lac la Ronge, Sask. Address CFC above. CGV, Emma Lake, Sask. Address CFC above. CZJ, Isle-a-la-Crosse, Sask. Address CFC above. VYP, Prince Albert, Sask. Address CFC above.

> 179.10 m. 1.674 megs.

KGHK, Palo Alto, Calif. 20 watts. Municipal

police. KGZT, Santa Cruz, Calif. 100 watts.

KIUK, Jefferson City, Mo. State police. WPSP, Harrisburg, Pa. 1 kW. State police.

178.25 m. 1.682 meas.

KACC, Fairfield, Iowa. 500 w. State of Iowa. KACD, Atlantic, Iowa. 500 w. State of Iowa. KGHO, Des Moines, Ia. State of Iowa, Bureau

of Investigation. KNFN, Waterloo, Iowa. 400 watts.

KNFO, Storm Lake, Iowa. 400 watts. W8XA, Portable in Ohio. 50 watts. Dept. of Highways, Div. of State Highway Patrol.

1.692 megs. 177.19 m, WOFT, Portable in Ohio. 100 w.

> 1.698 meas. 176.57 m.

KNGG, Phoenix, Ariz. 1 kW. Arizona State Highway Dept. WAKJ, Duval County, Fla. 350 w. State of F.

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1.706 megs.
                                         175.74 m.
                                                                                         1.960 megs.
                                                                                                                  152.97 m.
KGPC. St. Louis, Mo. City of St. Louis.
WKDU, Cincinnati, Ohio. City of C.
WPET, Lexington, Ky. City of L.
                                                                          YDH8, Bandoeng, N. E. I. E. A. van der Heyden, van
                                                                                    Heemskerkstraat 3.
                                                                                         1.980 megs.
                                                                                                                  151.42 m.
                                                                          YDO8, Sourabaya, N. E. I. Het Gazellehuis.
               1.712 megs.
                                        175 13 mg
CMPN, Havana, Cuba Police.
CZG, Prince Rupert, B. C., 150 watts. B. C.
                                                                                         2.020 megs.
                                                                                                                  148.43 m
                                                                          KNED, Broadcast pickup. 50 watts. (WBAP).
           Provincial police.
KGHY, Whittier, Calif. 50 watts. City of W. KGHY, Whittier, Calif. 400 watts. City of P. KGPJ, Beaumont, Tex. 100 w. City of B. KGPL. Los Angeles, Calif. City of Los A. KGPO, Honolulu, T. II. 500 w. City and
                                                                          WIEO, Broadcast pickup. 50 watts. N. B. C., 30
Rockefeller Plaza, N. Y. City.
                                                                          WMEF, Broadcast pickup. 150 watts. Address WIEO
                                                                                    above.
KGZY, San Bernardino, Culif. 500 w. City and County of H.
KGPR, Fort Worth, Texas. City of Ft. W. KGZB, Houston, Tex. City of H. KGZL, Shreveport, La. City of S. KGZQ, Waco, Texas. City of W.
                                                                                         2.050 megs.
                                                                                                                  146.25 m.
                                                                          W9XAK, Manhattan, Kans. Television. Mon., 1945-
                                                                                    2030. Wed. 2100-2200.
                                                                                         2.060 megs.
                                                                                                                  145.54 m.
                                                                          KIIQ, Broadcast pickup. (KMTR).
                                                                          WNER, Broadcast pickup. 100 watts. (WAIU).
           of San B.
KNFJ, Pomona, Calif. 50 watts. City of P. KNGE, Cleburne, Tex. 50 watts. City of C.
                                                                                         2.070 megs.
                                                                                                                  144.84 m.
KNGL, Gleveron, Tex. 50 watts. City of C. KNGL, Galveston, Tex. 50 watts. City of G. KNIF, Denton, Texas. 50 w. City of D. KVP, Dallas, Tex. 500 watts. City of D. VYR. Montreal, P.O. 400 watts. Police calls in French and English. City of M.
                                                                          YDO7, Soerabaja, N. E. I. Owner: v. Wingen.
                                                                                         2.090 megs.
                                                                                                                  143.45 m.
                                                                          KNEC, Broadcast pickup. (KVI).
                                                                          YDG5, Batavia, Java, N. E. I. Batavia Radio Vereenig-
in French and English. City of M. Police Dept.

WAKF, Everett, Mass. 50 w. City of E. WPDB, Chicago, Ill. City of C. WPDD. Chicago, Ill. City of C. WPDD. Chicago, Ill. City of C. WPDD, Chicago, Ill. City of P. WPED, Arlington, Mass. Town of A. WPEH, Somerville, Mass. City of S. WPEI, E. Providence, R. I. E. Prov. Police Dept.

WPEI Republica Mass. City of R.
                                                                                    ing.
                                                                                         2.102 megs.
                                                                                                                  142.64 m.
                                                                          KIGA, Broadcast pickup. (KSTP).
                                                                          KIGW, Broadcast pickup.
                                                                          KNED, Broadcast pickup. 50 watts. (WBAP).
                                                                          WHER, Broadcast pickup. (KDKA).
                                                                          WIEO, Broadcast pickup. 50 watts. Address WIEO,
                                                                                    2.020 megs.
                                                                          WIEW, Broadcast pickup. Address WIEO, 2.020 megs.
WPE1, Brookline, Mass. City of B.
WPFA, Newton, Mass. City of N.
WPFN, Fairhaven, Mass. Address: City
New Bedford Police.
WPGF, Providence, R. I.
WPGV, Boston, Mass. 500 watts. City of B.
WPHE, Madford Mass. 50 watts. City of B.
                                                                          WIEX, Broadcast pickup. Address, WIEO, 2.020 megs.
                                                                          WJER, Broadcast pickup. (WTMJ).
WMEF, Broadcast pickup. 150 watts. Address WIEO.
                                         "Address: City of
                                                                                   2.020 megs.
                                                                                         2.110 megs,
                                                                                                                  142.09 m.
WPHG, Medford, Mass. 50 watts. City of M. W QFL, Oak Park, Ill. 50 w. City of O. P. W QFX, Waukegan, Ill. 100 w. Lake Co. Police
                                                                          W1XH, Boston, Mass.
                                                                          YD12, Soekaboemi, N. E. I., Batavia Radio Vereenig-
       , Gladewater, Texas.
                                                                                         2.150 meas.
                                                                                                                  139.45 m
1.715 megs. to 2.000 megs. 174.82 m. to 149.91 meters
                                                                         KIED, Broadcast pickup. (KFWB).
Amateur Band. Phones in following countries work
                                                                          KIEO, Broadcast pickup. (KFSD).
          between 1.875 and 2.000 megs. (149.91 m. to
                                                                         KIFI, Broadcast pickup. (WDGY).
KIFT, Broadcast pickup. (KJBS).
          159.90 meters). Australia, Argentina, Canada,
          Ecuador, Estonia, Union of South Africa,
                                                                         KIIQ, Broadcast pickup. (KMTR).
          United States of America.
                                                                         WIEG, Broadcast pickup. (WMCA).
                                                                         WKEM, Broadcast pickup. (WINS).
               1.840 meas.
                                       162.95 m.
                                                                         WLEZ, Broadcast pickup. (WJAG).
YDJ4, Cheribon, N. E. I. Batavia Radio Vereeniging.
                                                                                        2.190 megs.
                                                                                                                  136.90 m.
                                                                         KIIH, Broadcast pickup. (KFAB).
               1.850 meas.
                                       162.06 m.
                                                                         KNEC, Broadcast pickup. 40 w. (KVI).
WIEK, Broadcast pickup. Columbia Broadcasting
YDU5, Padang, Sumatra, N. E. I. Amateur Radio
          Omroep Padang.
                                                                                   System, 485 Madison Ave. at 52nd St., New
                                                                                    York City.
               1.860 megs.
                                        161.19 m.
                                                                         WIEL, Broadcast pickup. Address WIEK above.
YDK6, Semarang, N. E. I. Radio Vereeniging Midden
          Java. Heerenstraat 25.
                                                                                        2.212 megs.
                                                                                                                  135.54 m.
                                                                         VYZ, High Falls, P. Q. 50 watts. James McLaren
               1.880 megs.
                                        159.47 m.
                                                                                   Co., Ltd.
YDO9, Sourabaya, N. E. I. Owner: Holvast.
                                                                                        2.284 megs.
                                                                                                                 131.22 m.
               1.900 megs.
                                        157.80 m.
                                                                         CFT, Learnington, Ont. 14 watts. Dept. of Public
YDG6, Batavia, N. E. I. Batavia Radio Vereeniging,
Koningsplein Z12,
                                                                                   Works.
                                                                         CFX, Pelee Island, Ont. 22 watts. Dept. of Public
                                                                                   Works.
               1.920 megs.
                                       156.16 m.
                                                                         CKB, Pictou, N. S. 15 watts. Dept. of Public Works.
YDH9, Buitenzorg, N.E.I. Batavia Radio Vereeniging.
                                                                         CKO, Crane Island, P. Q. 15 watts. Dept. of Public
                                                                                   Works.
               1.940 megs.
                                        154.55 m
                                                                         CKP, Montmagny, P. Q. 15 watts. Dept. of Public
YDN2, Kediri, N. E. I. Owner; Goldberg.
                                                                                   Works.
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CKU, Pictou Island, N. S. 15 watts. Dept. of Public

130.93 m. 2.290 megs. CFV, Namu, B. C. 100 watts. British Columbia Packers, Ltd.

CFW, Bones Bay, B .C. 100 watts. Canadian Fishing Co., Ltd.

CJE, Ceepeecee, B. C. 10 watts. Canadian Packing Corp.

CJX, Margaret Bay, B. C. Canadian Fishing Co., Ltd. CZL, Humpback Bay, B. C. 100 watts. Chatham Sound Fishing & Packing Co., Ltd. VFJ, Homalko, B. C. 100 watts. Homalko Logging

Co., Ltd.

2.304 megs. 130.13 m. KBAI, Ketchikan, Alaska. Forestry. KMYA, Juneau, Alaska. Forestry.

129,34 m. 2.318 megs. CYQ, Toronto, Ont., police. 400 w.

128.02 m. 2.342 megs. CGZ, Vancouver, B. C. 400 w. Corp. of the City of V.

2.350 megs. 127.58 m. VBQ, Halifax, N. S. 25 watts. Works ships in harbor. YDES, Djokjakarta, N. E. 1. 25 watts. N. V. Nederlandsche Indische Radio Omroep Moats-chappij, Koningsplein W. 5, Batavia-Centrum, Java. 0530-1100; 1745-1845; 2230-0130.

WAKC, Freehold, N. J. 100 w. Monmouth County Welfare House, Brier Hill Rd.

125.87 m. KGHT, Brownsville, Tex. 25 watts. City of B. KGHY, Corpus Christi, Texas. 50 watts. City of C. C.

KNFE, Dulath, Minn. City of D. Police.
KNIIB, Green Bay, Wisc. 50 w. City of G. B.
WAKE, Oshkosh, Wisc. 100 w. Winnebago
County Police.
WPDN, Auburn, N. Y. Police.
WPEM, Syracuse, N. Y. City of S. Police.
WPFM, Birmingham, Ala. 100 watts. City
of R. Police.

of B. Police.
W GW, Mobile, Ala. 400 watts. City of M. Police.

..... , Hibbing, Minn.

2.385 megs.

YDA2, Batavia (C), Java, N. E. I. 150 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia Centrum, Java, N.E.I. 0539-1100; 1745-1845; 2230-0130.

125.45 m. 2.390 megs.

CJW, Saint John, N.B. 15 watts. Dept. of Public Safety.
C.IZ, Verdun, P.O., 20 watts. City of V. Police. WIED, Broadcast pickup. 50 watts. N. B. C., 30 Rockefeller Plaza, N. Y. City.

WIEX, Broadcast pickup. 50 watts. Address WIED above.

> 2.396 meas. 125.14 m.

VYW, Winnipeg, Man. 600 watts. Board of Police Commissioners. Tests 15, 35 and 55 minutes past each hour.

2.406 megs. 124.61 m. KGHZ, Little Rock, Ark. City of L. R. Police. KGPW, Salt Lake City, Utah. City of S. L. C. Police. KNHE, Fort Smith, Ark. 50 w.

124,20 m. 2.414 megs.

2.414 megs. 124.20 m.

KACE, Olympia, Wash. 50 w. City of O.

KACJ, Wenatchee, Wash. 250 w. Chelan

County Police.

KACK, Bellingham, Wash. 50 w. City of B.

KACN, Buenaventura, Calif. 50 w. City of B.

KACO, Tracy, Calif. 15 w. City of T.

KACS, Bakersfield, Calif. 500 w. Kern County.

KGHS, Spokane, Wash. 100 w. City of S.

KGIW, Centralia, Wash. 50 watts. City of

C. Police.

KGPA, Seattle, Wash., Seattle Police Dept.

KGPA, Seattle, Wash., Seattle Police Dept. KGPF, Santa Fe, N. Mex. 25 watts. Police. KGPS, Bakersfield, Calif. 50 w. City of B. KGZA, Fresno, Calif. 500 watts. City of F.

KGZM, El Paso, Texas. City of E. P. Police. KGZN, Tacoma, Wash. City of T. Police. KGZO, Santa Barbara, Calif. City of S. B. Police.

KGZV, Aberdeen, Wash. 150 watts. City of A. Police.

Albuquerque, N. Mex. City of A. KGZX, Police.

KNFA, Clovis, N. Mex. 50 watts. City of C. Police. KNFI, Mt. Vernon, Wash. 50 watts. Skagit

County Police. KNFP, Everett, Wash. 50 watts. City of E.

Police. KNGU, Yakima, Wash. 100 watts. KNGY, Lodi, Calif. 10 w. City of L. WCK, Detroit, Mich. D. City Police. WMO, Highland Park, Mich. City of H. P.

Police.

WPDA, Tulare, Calif. 150 watts.
WPDJ, Passaic, N. J.
WPDX, Detroit, Mich. City of D. Police.
WPPY, Atlanta, Ga. 400 w. City of A. Police.
WPFH, Baltimore, Md. City of B. Police.
WPFH, Columbus, Ga. City of C. Police.
WPGII, Albany, N. Y. 300 watts. City of A.
Police.
WPCLI Litica N. Y. 100 watts. City of U.

WPGJ, Utica, N. Y. 100 watts. City of U.
Police.

WPGM, La Grange, Ga. 50 watts.
WOFB, Macon. Ga. 50 watts.
WOFJ, Oneonta, N. Y. 50 w. City of O.
WOFV, Augusta, Ga. 250 w. City Council of A.
WRDR, Grosse Pointe, Mich. Township of

G. P.

124.15 m. 2.415 meas.

YDE4, Sourabaya, Java, N. E. I. 75 w. NIROM, **Embong Malang 65**

> 124.09 m. 2.416 meas.

CZG, Prince Rupert, B. C. 150 watts. B. C. Provincial Police.

> 2.422 megs. 123.79 m.

2.422 megs. 123.79 m.

KACA, Atchison, Kans. 50 w. City of A.

KACI, Eureka, Calif. 100 w. Humboldt
County Police.

KGPE, Kansas City, Mo. City of K.C. Police.

KGPG, Vallejo, Calif. City of V. Police.

KGC, Topeka, Kans. City of T. Police.

KNGF, Sacramento, Calif. 500 watts.

KNGV, Salina, Kans., 50 w. City of S.

WMJ, Buffalo, N. Y. City of B. Police, 757 E.

Perry St.

WNFP, Niagara Falls, N. Y. 135 watts. City
of N. F.

of N. F.

WPDR. Rochester, N. Y. City of R. Police. WPDW, Washington, D. C. Municipal Police. WPFU, Portland, Me. City of P. Police. WPHB, Nashua, N. H. 50 watts. City of N. Police.

2.430 megs. WPDK, Milwaukee, Wisc. City of M. Police.
WPEE, Brooklyn, N. Y. City of New York
Police. 123.38 m. KGPB, Minneapolis, Minn. 500 watts. City of M. KGZJ, Phoenix, Ariz. Municipal Police. WPEF, Bronx, N. Y. City of New York Police.
WPEG, New York, N. Y. City of N. Y. Police.
WPEP, Kenosha, Wisc. 100 watts. City and
County of K. Police.
WPHF, Richmond, Va. 150 watts. City of R.
Police. KNGP, Shreveport, La. 100 watts RNGP, Shreveport, La. 100 watts RNHG, Prescott, Aris. 10 w. City of P. WAKII, Bloomfield, N. J. 50 w. Town of B. WCPD, Charleston, S. C. 50 w. City Council of C.
WPDI, Columbus, Ohio. Franklin County WQFG, Roanoke, Va. 100 watts. WQFH, Lynchburg, Va. 50 watts. City of WQFH, Petersburg, Va. 250 w. City of P. WPDI, Columbus, Unio. Frankin Count., Police. WPDM, Dayton, Ohio. City of D. Police. WPDS, St. Paul, Minn. City of S. P. Police. WPEK, New Orleans, La. 250 watts. City of N. O. Police. WPFD, Highland Park, Ill. WPFK, Hackensack, N. J. 500 w. Bergen County Police Dept. WPGI Portemparth Ohio. 100 watts. City of City of L. YDB2, Semarang, N. E. I. 150 watts. N. V. Neder-landsche Indische Radio Omroep Moats-chappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-2100; 1745-1845; 2230-0130. Milwaukee, Wis, WPGI, Portsmouth, Ohio. 100 watts. City of WPHO, Zanesville, Ohio. 50 watts. WQFO, Lancaster, Ohio. 50 watts. City of 2.458 megs. 121.97 m KACM, Big Spring, Texas. 50 w. City of B. S. KGZI, Wichita Falls, Tex. City of W. F. Police KGZW, Lubbock, Tex. 150 w. City of L. Police L. Police. KGZW, Lubbock, Tex. 150 w. City of L. Police KNFB, Idaho Falls, Idaho. 500 watts. KNGW, Brownwood, Tex. 50 watts. WPDG, Youngstown, Ohio. 250 w. City of Y. WPDO, Akron, Ohio. 250 w. City of A. Police. WPDY, Charlotte, N. C. 250 w. City of C. WPFS, Asheville, N. C. 200 watts. Buncombe County Police. WPCD. Rockford Ill. City of R. Police KGIIU. Austin Texas, 100 watts. City of A. KGPP, Portland, Ore. City of P. Police. KGPX, Denver, Colo. City and County of D. Police. KGZII. Klamath Falls, Ore. City of K. F. WPGD, Rockford, Ill. City of R. Police. WPHD, Steubenville, Ohio. 100 watts. WQFZ, Ottawa, Ill. 250 w. La Salle County Police. Police. Police.
KGZR, Salem, Ore. 59 watts. City of S. Police.
KNIM, Fargo, N. Dak. 50 w. City of F.
WMDZ, Indianapolis, Ind. Municipal Police.
WPDE, Louisville, Ky. City of L. Police.
WPDH, Richmond. Ind. City of R. Police.
WPDH, Richmond. Ind. City of R. Police.
WPDH, Lansing, Mich. City of L. Police.
WPBB, Grand Rapids, Mich. 500 watts. City
of G. R. WRBII, Cleveland, Ohio. City of C. 50 2.466 megs. 121.58 m. KGOZ, Cedar Rapids, Iowa. 50 watts. City WPED, Grand Rapids, Mich. 500 leatts. City of G. R.
WPES, Saginaw, Mich. City of S. Police.
WPFC, Muskegon, Mich. City of M. Police.
WPFG, Reading, Pa. City of R. Police.
WPFG, Jacksonville, Fla. City of J. Police.
WPFT, Lakeland, Fla. 50 watts. City of L. of C. R. KGPD, San Francisco, Calif. City and County of S. F. Police. KGPI, Omaha, Nebr. City of O. Police. KGPK, Sioux City, Iowa. City of S. C. Police. KGPK, Stoux City, towa. City of 5. C. rouce. KGPM, San Jose, Calif. KGPN, Davenport, Jova. City of D. Police. KGZG, Des Moines Iowa. City of D.M. Police. WAKB. New London, Com. 50 w. City of N.L. WAKG, Clearwater, Fla. 50 w. Pinellas Police. WPFX, Palm Beach, Fla. 50 watts. Town of County. WPEC, Memphis, Tenn. City of M. Police. WPEM, Woonsocket, R. I. City of W. Police. WPFV, Pawtucket, R. I. City of P. Police. WPFW. Bridgeport, Conn. 50 v. City of B. WPGP, Muncie, Ind. 100 watts. City of M. Police. Police WPHM, Orlando, Fla. 50 watts. City of O. Police. WPGA, Bay City, Mich. City of B.C. Police. WPGB, Port Huron, Mich. City of P.H. Police. WPGK, Cranston, R.I. 50 w. City of C. Police. WQFM, Wilkes-Barre, Pa. 100 w. City of W-B. WQFQ, Lafayette, Ind., 50 w. City of L., Winter Haven, Pa. WPGX. Worcester, Mass. 100 watts. City of W. Police.
WPHA, Fitchburg, Mass. 50 watts. City of 2.450 megs. 122.38 m.
KACF, Chickasha, Okla., 50 w. City of C.
KACL, Altus, Okla. 50 w. City of P. C.
KACR, Ponca City, Okla. 50 w. City of P. C.
KACR, Seminole, Okla. 50 w. City of S.
KGIIN, Hutchinson, Kas. 50 w. City of H.
KGIIP, Lawton, Okla. 50 w. City of L.
KGPI, Oklahoma City, Okla.
KGPO, Tulsa, Okla. City of Tulsa Police.
KGPZ, Wichita, Kans. 250 weatts. City of W.
Police. WPHA, Fitchburg, Mass. 50 watts. City of F. Police.
WPHN, Tampa, Fla. 100 w. City of T. Police.
WPHP, Jackson, Mich. 50 w. City of J. Police.
WQFA, New Haven, Conn. 100 watts.
WQFC, Gainesville, Fla. 50 watts.
WQFK, Clearwater, Fla. 50 w. City of C. 2.474 megs. **X-2.474 megs. 121.19 m.

KGHG. Las Vegas, Nev. 50 vatts.

KGHM, Reno, Nev. 50 vv. City of R. Police.

KNFH, Garden City, Kans. 50 vatts.

KNGH, Dodge City. Kans. 50 vatts.

WAKI, Sandusky, Ohio. 50 vv. City of S.

WPDP, Philadelphia, Pa. City of P. Police.

WPFO, Knoxville, Tenn. City of K. Police.

WPFO, Swarthmore, Pa. Borough of S. Police.

WPFS, Asheville, N. C. 500 vatts. Buncombe

County Police.

WPGZ, Johnson City, Tenn. 50 vv. City of J. C. 121.19 m. Police. KGZF, Chanute, Kans. City of C. Police. KGZP, Coffeyville, Kans. City of C. Police. KNGK, Duncan, Okla. 50 watts. KNGM, Rapid City, S. Dak. 50 watts. City of R. C. Mobile in Airplane, Oklahoma State KNGO, Mobile in Police. 50 watts. KNGT, Muskogee, Okla. 50 watts. KNHC, Ada, Okla. 25 w. City of A.

WPHY, Elizabethton, Tenn. 100 watts. Carter County Police. WQFY, Mansfield, Ohio. 50 w. City of M. WRDQ, Toledo, Ohio. 400 watts. City of T. Police.

> 2.482 megs. 120.80 m.

KGZE, San Antonio, Tex. City of S. A. and State of Texas Police.

WPGT, New Castle, Pa. 50 watts. City of N. C. Police.

WPHZ, Oil City, Pa. 50 watts. City of O. C.

Police. WQFF, Monessen, Pa. 50 watts. WQFU, Sharon, Pa.

2.490 megs. 120.41 m.

KACQ, Kalaloch, Wash. 10 w.

KGHA, Snowplow No. A232, 10 watts. State

of Wash. KGHB, Snowplow No. A227, 10 watts. State

KGHC, Portable State of W. of Wash Portable in Washington. 10 watts.

KGHD, Seattle, Wash. 50 w. State of Wash. KGHE, Snoqualmie Pass, Wash. State of W., Highway & Police Dept.
KGHQ, Chinook Pass, Wash. 10 watts. State

of W., Highway & Police.
KGHR, Portable in Wash. 10 watts. State of
Wash.

KGHX, Santa Ana, Calif. 400 w.
County Police.

KGZD, San Diego, Calif. City of S. D. Police. Two transmitters, one 50 watts and another, 100 watts.

KGZU, Lincoln, Neb. City of L. Police. KNFC, Pt. Angeles, Wash. State Highway. KNFG, Olympia, Wash. 50 watts. State of W. Police.

KNFK, Bellingham, Wash. 50 watts. State of Wash.

10 watts.

KNFL, Shuksan Camp, Wash. 10 State of Wash. Highways. KNFM, Compton, Calif. 25 watts. KNFR, Rotary Snow Plow. 10 watts.

KNFI, Rotary Snow Flow. 10 watts. State of Wash., Highway and Police Dept. KNFS, Rotary Snow Plow. 10 watts. State of Wash., Highway and Police Dept. KNFU, Skykomish, Wash. 10 w. State of W. KNFX, Ellenburg, Wash. 10 watts. Address KNFS, Ellenburg, Wash. 10 watts.

KNFS above.

KNFY, Bear River Camp, Wash. KNFZ, Hells Crossing Camp, Wash. 10 watts. KNGA, Satus Pass Camp, Wash. 10 watts. KNGB, Yakima, Wash. 50 watts.

KNGA, Satus Pass Camp, Wash. 10 watts. KNGB, Yakima, Wash. 50 watts. KNGC, Vancouver, Wash. 50 watts. KNGD, Walla Walla, Wash. 10 watts. KNGJ, El Centro, Calif. 50 watts. KNGN, Norfolk, Nebr. 25 watts. KNGO, Wenatchee, Wash. 50 watts. Address KNFS.

KNFS.
KNGR, Spokane, Wash. 50 w. Address KNFS.
KNGZ, Ephrata, Wash. 10 w. State of W.
WAKA, Huntington, Ind. 50 w. City of II.
WAKK, Frankfort, Ind. 50 w. City of F.
WPDT, Kokomo, Ind. City of K. Police.
WPDT, Fort Wayne, Ind. City of F.W. Police.
WPFP, Clarksburg, W.Va. City of C. Police.
WPGN, South Bend, Ind. 100 watts. City
Of S.B. Police.
WPGO Unstington N. Y. 25 yeatts. Town

WPGO, Huntington, N. Y. 25 watts. Town

of II. Police.

WPGS, Mineola, N. Y. County of Nassau
Police.

WPHI, Charleston, W. Va. 50 watts. City of

WPHJ, Fairmont, W. Va. 100 watts
WPHJ, Fairmont, W. Va. 100 watts
WPHQ, Parkersburg, W. Va. 50 watts. City
of P. Police.

2.506 megs. 119.64 m.

KLH, San Rafael, Calif. Pacific Telephone & Telegraph Co.

WOU, Marshfield, Mass. Phones fishing vessels. New England Telephone & Teleg. Co.

> 2.510 megs. 119.45 m.

HII, Trujillo, D. R. 500 w. Works Hialeah. Dominican Teleph. Co.

> 2.512 megs. 119.36 m.

KGM, Ketchikan, Alaska. Alaska Pacific Salmon Co. KLB, Port Althorp, Alaska. Address KGM above.

KLC, Kako, Alaska. Address KGM above. KLE, Rose Inlet, Alaska. Address KGM.

SHIPS owned by Alaska Pacific Salmon Co. as follows: KGJK, Jeannette E.; KGNM, Doris E.; KGNX, Yes Bay; WDEM, Wm. T. Mulr; WFFR, Frances E.; WIDL, Leonine; WIDM, Sally S.; WIDN, Virginia E.; WNFM. Alco.

2.522 megs.

118.88 m.

KOW, Edmonds, Wash. Pacific Telephone & Telegraph Co.

> 2.538 megs. 118.13 m.

KDH, Port Alexander, Alaska. Karl Hansen. KDK, Wrangell, Alaska. Works KIJB, KLA, KFF, KLD daily at 0130. Owner: A. R. Brueger. KDV, Cordova (Eyak River), Alaska. Pioneer Sea Foods Co.

WNFG, M. S. Arb No. 3. Owner: A. R. Brueger.

2.550 megs.

WMES, Lorain, Ohio. 500 watts. Public Coastal Station. Lorain County Radio Corp.

> 2.566 megs. 116.84 m.

KFF, Union Bay, Alaska. Works KDK. Nakat Pack-Ing Corp.

KHV, Nakeen, Alaska. Nakat Packing Corp.

KLA, Waterfall, Alaska. Works KDK. Address above. KLD, Hidden Inlet, Alaska. Works KDK. Address above.

KOU, Wilmington, Calif. Southern Calif. Telephone Co.

WLFP, M. S. "Alaskan". Works KDK. number of Motorships owned by the Nakat Packing Corp. work on this frequency

> 2.590 megs. 115.76 m.

WOX, St. George, Staten Island, N. Y. Harborphone. New York Telephone Co.

2.604 megs.

KNIA, Glacler National Park, Montana. KNKS, Yesemite National Park, Calif. KNKU, Yesemite National Park, Calif.

KNKX, Deer Camp, Yosemite, Calif. KNKY, Devil's Post Pile Nat'l Monument, Calif. WVD, Seattle, Wash. 500 watts. Alaskan Telephone

Co., 517 Federal Office Bidg., Seattle.
WXH, Ketchikan, Alaska, Works WVD.
WYBF, Napoleon, Mo. 500 watts. United States

Armv.

2.616 megs.

114.61 m.

KAEB, Hydaburg, Alaska. 40 w. Territory of A. KAED, Angoon, Alaska. 40 w. Territory of A.

KAEF, Jack Wade, Alaska. 40 w. Territory of A. KHON, Tin City, Alaska. 20 w. American Tin Fields.
KION, Tin City, Alaska. 200 w. American Tin Fields.
KIOX, Deerlng, Alaska. 40 w. Terr. of A.
KIOZ, Kasilof, Alaska. 40 w. Terr. of A.
KIUQ, Igloo, Alaska. 50 w. H. H. Burkher.
KIUW, Kenal, Alaska. 40 w. Terr. of A.

KIUX, Wales, Alaska. 10 w. Carroll E. Black.

..... Homer, Alaska. Umnak, Alaska. 2,632 meas. 113.91 m.

KAJQ, Halibut Bay, Alaska. 50 w. Alas. Red Salmon Packers, Inc.

KGI, Nellie Juan, Alaska. (KIQD) Copper River Packing Co.

KGX, Port Wakefield, Alaska. (KIOC) Apex Fish Co. KIJW, Shearwater Bay, Alaska. Kadiak Fisheries Co. KIJX, Kadiak Island, Alaska. Kadiak Fisheries.

KIMA, Port Hobron, Alaska. American Pacific Whaling Co.

KIOC, Port Wakefield, Alaska. (KGX) Apex Fish Co. KIOD, Nellie Juan, Alaska. 50 watts. Phones Anchor-

age and ships. Copper River Packing Co. KIOH, Iron Creek (Raspberry Straits), Alaska. 50 watts. Southwestern Herring Co.

KIOI, Akutan, Alaska. 50 watts. American Pacific Whaling Co. Funter Bay Camp, Alaska.

> 2.670 megs. 112,29 m.

NMC, Point Bonita, Calif. 200 watts. United States Coast Guard.

NMD, Cleveland, Ohio. 200 watts.

NMF, Winthrop, Mass. 200 watts. U. S. Coast Guard.

NMG, Mobile, Ala. U. S. Coast Guard.

NMN, Cape Henry, Va. 200 watts. U. S. Coast Guard.

NMP, Wilmette, III. 200 watts. NMV. Fort Lauderdale, Fla. 200 watts. U. S. Coast Guard.

NMW, Grays Harbor, Wash. 200 watts. NMY, Rockaway Point, N. Y. 200 watts. U. S. Coast

Guard. NOB, Buffalc, N. Y. 200 watts. U. S. Coast Guard.

NOF, St. Petersburg, Fla. 200 watts. U. S. Coast

NOG, Gloucester, Mass. 50 watts. U. S. Coast Guard Base 7.

NOJ, San Pedro, Calif. 200 watts. U. S. Coast Guard Base 17.

NOM, Miami, Fla. NOP, Woods Hole, Mass. 50 watts. U. S. Coast

Guard, Section Base 18.

NOR, Sault Ste. Marie, Mich. 200 watts. NOU, New London, Conn. 200 watts. U. S. Coast Guard.

NOV, Cape May, N. J. 200 watts. U.S. Coast Guard. NOY, Galveston, Texas. 200 watts.

NOZ, Port Townsend, Wash. 200 watts., Yaquina Bay, Ore. U. S. C. G.

> 2.698 megs. 111.13 m.

NMD, Cleveland, Ohio. 200 watts.

NMP, Wilmette, III. 200 watts. NOB, Buffalo, N. Y. 200 watts. U. S. Coast Guard. NOR, Sault Ste. Marie, Mich. 200 watts.

....., Arena Cove, Calif. Works NMC, U. S. C. G.

2.710 megs.

YDK5, Semarang, N. E. I. Radio Vereniging Midden-Java.

> 2,726 meas. 109.98 m.

KIIW, San Gabriel Dam No. 2, Calif. 200 watts. Los Angeles County Flood Control District, 205 S. Broadway, L. A.

KIIX, Tujunga Dam No. 1, Calif. Address KIIW above KIIY, Los Angeles, Calif. 400 watts. Address KIIW above.

KINT, Portable, Los Angeles County, Calif. 50 watts. Address above.

WAJN, Portable. 100 w. State of Fla.

WANB, Dinsmore, Fla. 100 w. Fla. Board of Forestry.

2.728 megs.

KIJY, Hood River, Ore. 100 watts. Special emergency station owned by Crag Rats, Inc., a mountain-climbing organization.

KIJZ, Portable in Oregon. See above.

2.738 megs. 109.50 m.

KLGK, M. S. La Merced. Alaska Southern Packing Co.

VGBQ, Yacht Seyelyn II. Capt. Paul F. Johnson. WDDQ, "Zapora." Wills Navigation Co.

WDFL, "El Ferrito." Ben S. McGlashan, KGFJ, 1417 S. Figueroa, Los Angeles.

WIFI, S. S. Cadrew, in Seattle Harbor, Wash. Works ships in harbor. Owner, A. E. Griswold. WLFJ, "Onawa." C. M. Poncin.

WLFQ, Yacht "HolJim." 40 w. J. V. Griffith, Tacoma. Wash.

WLFS, "Uganik." San Juan Fishing & Packing Co. WOFM, "Principia." L. A. Macomber. WOFW, Yacht "Gallant Lady." 40 w. M. C. Riggs,

Tacoma, Wash.

above.

2.750 megs. 109.03 m. YDL6, Djokjokarta, N. E. I. Owner: v. Wingen.

108.63 m. 2.760 mags.

WIEO, Broadcast pickup. 50 watts. N. B. C., 30 Rockefeller Plaza, N. Y. City. WMEF, Broadcast pickup. 150 watts. Address WIEO

107.46 m. 2.790 meas. YDJ3, Tegal, Java, N. E. I. van Wingen.

YDN3, Madioen, N. E. I. Owner: v. Wingen.

2.810 megs. 106.70 m. YDQ6, Malang, N. E. I. Owner: v. Wingen.

2.830 megs.

KNEC, Broadcast pickup. 40 w. (KVI). KNEF, Broadcast pickup. 200 w. (KSL). YDU4, Medan, Sumatra, N. E. I. Owner: Avrom.

105.20 m. 2.850 megs. YDG4, Batavia, Java, N. E. I. Owner: Lindeteves Stokvis.

2.870 megs. 104.47 m YDA6, Cheribon, N. E. 1. 15 watts. YDJ5, Cheribon, Java, N.E.I. 15 w. Firma van Wingen

2.890 meas. 103.74 m. YDK4, Magelang, Java, N.E.I. Firma van Wingen.

103.03 m. 2.910 megs.

YDE3, Semarang, N. E. I. 15 watts. YDK3, Semarang, N. E. I. Owner: v. Wingen.

2.912 megs. 102.96 m. KHW, Akutan, Alaska. American Pacific Whaling Co. KHZ, Port Hobron, Alaska. Address KHW KIJW, Shearwater Bay, Alaska. 50 w. Kadiak Fisheries, 412 Lowman Co., Seattle.

2.930 megs. WMEP, Suffield, Ohio. 400 watts. WMEU, St. Petersburg, Fla. 400 watts. WMEV, Opa Locka, Fla. (Goodyear Zeppelin Base). 400 watts.

YDO5, Soerabaja, N. E. I. Owner: Goldberg.

2.950 megs. YDQ5, Malang, N. E. I. Owner: Vis.

2.980 megs. 100.61 m. CZA, Drummondville, P. Q. 4 kW. Phones ships. Canadlan Marconi Co., Box 1690, Montreal, P. Q.

2.986 megs. 100.41 m. KDX, M. S. LeMerced (vessel moored in vicinity of False Pass, Alaska). 50 watts. Alaska Southern Packing Co.

KGQ, Todd, Alaska. Peril Straits Packing Co. KIJP, Uganik, Alaska. Works KIJR, KIJU. San Juan Fishing & Packing Co.

KIJR, Port San Juan, Alaska. Works KIJP, KIJU. 3.152 megs. 95.12 m. CGM, Montreal, P. Q. Canadian Marconi Co., Box Address KIJP. 1690, M. Phones CGY. KIJU, Todd, Alaska. Works KIJR, KIJP, Peril CGY, Yamachiche, P. Q. Phones CGM. Address Straits Packing Co. KIUW, Kenai, Alaska. 40 w. Terr. of A. WNFJ, M. S. Sunset. Alaska Southern Packing Co. CGM above., Homer, Alaska. 3.155 megs. 95.03 m. KBCJ, San Francisco, Calif. Weather Bureau. 2.994 megs. 100.14 m. KAEF, Jack Wade, Alaska. 40 w. Territory of A. KDY, Pillar Bay, Alaska. Fidalgo Island Packing Co. 3.170 megs. 94.58 m. YDO4, Sourabaya, N. E. I. Java Radio Import Co. . KIEJ, Poorman, Alaska. 50 watts. Owner: W. N. Kaliasin 20a. Growden. KIIJ, Tanana, Alaska. Northern Commercial Co. KIIK, Circle, Alaska. 50 watts. Phones Fairbanks, 3.190 megs. 93.99 m. KIIJ, Tanana, Alaska. Northern Commercial Co. KIIK, Circle, Alaska. 50 watts. Phones Fairbanks Anchorage, etc. Northern Commercial Co. KILL, Fort Yukon, Alaska. 50 watts. Phones WXP, and Anchorage. Northern Commercial Co. Fairbanks, and WXE Anchorage. Northern KIIL, Fort Yukon, Alaska. 50 watts. See KIIK above. Commercial Co. KIIM, Hot Springs, Alaska. 50 watts. See KIIK. KIIN, Eagle, Alaska. 50 watts. See KIIK above. KIIM, Hot Springs, Alaska. 50 watts. See KIIL KIIO, McGrath, Alaska. 50 watts. See KIIK above. KINT, Portable. 50 w. Los Angeles Flood Control District, 205 So. Broadway, L. A. above. KIIN, Eagle, Alaska. 50 watts. See KIIL above. KIIO, McGrath, Alaska. 50 watts. See KIIL above. KIJB, Cape Pole, Alaska. 59 watts. A. R. Brueger. WAJJ, Portable, 100 w. State of Fla. KILY, Excursion Inlet, Alaska. 50 watts. Astoria & WAJK, Portable, 50 w. Same. Puget Sound Canning Co. WAJL, Portable, 50 w. Same. KNBZ, Pillar Bay, Alaska. (KDY) Address KDY above. WAJM, Portable, 25 w. Same. WAJN, Portable, 100 w. Same. 2.998 megs. 100.00 m. YDK2, Semarang, N. E. I. Owner: Wels. WXE, Anchorage, Alaska. 3.200 megs. 93 69 193 3.040 megs. 98.62 m. KBAL, North Bend, Wash. Forestry. KBAP, Seattle, Wash. Forestry. CFQ, Edmonton, Alta. Edmonton Journal, Ltd. CGE, Calgary, Alta. 100 watts. Calgary Herald, Ltd., KBCC, Mt. Shasta, Calif. Forestry. Southam Bldg. CKS. Portable. 100 watts. Calgary Herald; see above. YDA, TandJongpriok, N. E. I. 10 kW. N. V. Neder-3.210 megs. 93.40 m. YDL5, Djokjakarta, N. E. I. Owner: Helant Muller. landsche Indische Radio Omroep Moatschappij. Koningsplein West 5, Batavia-Cent-3.230 megs. rum, Java, N. E. I. 0530-1100; 1745-1845; YDQ4, Malang, N. E. I. Owner: Radinova. 2230-0130. 3.250 megs. 92.25 m. 3.070 megs. 97.66 m. YDH5, Garoet, Java, N. E. I. Bandoeng Radio CJU, Winnipeg, Man. Canadian Airways, Lt (Western Lines), 60 Brock St., Winnipeg. Canadian Airways, Ltd. Vereeniging. WKDL, Miami, Fla. (airway). 91.83 m. 3.265 meas WMDU, San Juan, Puerto Rico. (airway). KAEB, Hydaburg, Alaska. 40 w. Territory of A. KIBZ, Waterfall, Alaska. Nakat Packing Corp. KICE, Nakeen, Alaska. Nakat Packing Corp. 3.093 megs. 96.94 m. KAED, Angoon, Alaska. 40 w. Territory of A. KICG, Union Bay, Alaska. Nakat Packing Corp. KIAP, Rose Inlet, Alaska. 100 watts. Alaska Pacific KIDE, Hidden Inlet, Alaska. Nakat Packing Corp. Salmon Co. KIKY, Saldovia, Alaska. 40 watts. Adam W. Lipke. KIAW, Port Althorp, Alaska. Address KIAP above. KIAY, Ketchikan, Alaska. Address KIAP above. 3.270 megs. KIBA, Kake, Alaska. Address KIAP above. KICI, View Cove, Dall Island, Alaska. YDA7, Pekalongan, N. E. I. 15 watts. YDJ2, Pekalongan, N. E. I. Owner: v. Wingen. 50 watts. Superior Portland Cement Co. KIKN, Eyak River, Alaska. 50 watts. Pioneer Sea 3.290 megs. 91.13 m Foods Co. YDO3, Socrabaja, N. E. I. Owner: Radio Electric. KIOM, Chevak, Alaska. 25 w. Geo. A. Sheppard. KIUZ, Hoonah, Alaska. 40 w. Territory of A. 3.300 megs. 3.100 megs. CZV, Waterloo Mine, B. C. Waterloo Gold Mines Ltd. KIIP, Luckyshot, Alaska. 30 w. W. E. Dunkle, Willow KBAT, Olympia, Wash. Forestry. Creek Mines. KBAU, Quilcene, Wash. Forestry. KBCQ, Boise, Idaho. Forestry. YDG7, Batavia, Java, N. E. I. N. V. Pianohandel 3.125 megs. 95.94 m. Kok, Rijswijk 19. SHIPS work between 3.125 and 3.147 megs. (95.27 to 95.94 meters). A number of SHIPS are listed on 4.413 megs. 3.310 meas. 90.58 m. and 4.430 megs. We do not know definitely YHD4, Bandoeng, Java, N. E. I. Owner: Luyks. which of these ships work also on 3.125-3.147 megs. Reports of actual reception from 3,320 megs. 90.31 m. YDM2, TJopoe, N. E. I. Radio Vereeniging. listeners are invited. 3.330 megs. 3.130 megs. 95.79 m. 90.04 m. YDH6, Bandoeng, N. E. I. Owner: Prot. Kerk. YDV2, Bandjermasin, Borneo, N. E. I. Eureka. 3.150 megs. 95.18 m. YDG3, Batavia, Java, N. E. I. 30 w. Firma C. M. Luyks, Noordwijk 27. 3.340 megs. 89.77 m. CGD, Drummondville, P. Q. Private station of

Canadian Marconi Co., P. O. Box 1690, Montreal, P. Q. CGM, Montreal, P. Q. Private CMC station. Address CGD above.

3.345 megs. 89.63 m. SP33, Weaverville, Calif. Forestry.

3.350 megs. 89.50 m. YDQ3, Malang, N. E. I., operated by Malangsche Radio Verceniging. Owner: W. Lammerce. c/o Radio-Technisch Bureau Lammerce, Bromostraat 21a, Malang.

> 3.385 megs. 88.57 m.

KBAA, Portland, Ore. Forestry. KBCA, Santa Barbara, Calif. KBCB, Santa Barbara, Calif.

KBCG, Yreka, Calif. KBCH, Oakland, Calif.

3.387 megs. 88.50 m.

KGYA, Longmire, Wash. Forestry station. Address Mr. R. D. Waterhouse, Mount Rainler National Park, Longmire.

KGYB, Longmire, Wash. Address KGYA above. KGYC, Paradise Inn, Mt. Ralnier National Park, Longmire, Wash.

KGYD, Sunrise Lodge, Mt. Rainler Park, Longmire Wash.

KGYE, White River, Wash. Address KGYA above. KGYF, Carbon River, Wash. Address KGYA above.

KGYG, Portable station of the Forestry Dept. of the State of Washington.

KGYH, same as KGYG above. KGYI, Seattle, Wash. Forestry.

KNDI, Pt. Angeles, Wash.

KNDK, Mt. Olympus Natl. Mon., Wash. Forestry. KNDL, Mt. Olympus Natl. Mon., Wash. Forestry. KNDM, Mt. Olympus Natl. Mon., Wash.

KNDP, Anderson Park, Mt. Olympus Mon., Wash. KNDS, Low Divide, Mt. Olympus Mon., Wash. KNDT, Mt. Olympus Natl. Mon., Wash.

KNLS, Gobblers Knob, Mt. Rainier Park, Wash.

KNLT, Cataract Creek, Wash. Forestry.

KNLU, Tolmie Peak, Mt. Rainier Park, Wash, KNLV, Fremont, Wash. Forestry.

KNLX, Shriners Peak, Mt. Rainier Natl. Park, Wash.

3.390 megs. 88.44 m. YDQ2, Djember, N. E. I. Owner: v. Wingen.

3.410 megs.

KBAO, Spokane, Wash. KNKG, Ash Mt., Sequoia Natl. Park, Calif.

KNLO, Death Valley National Monument, Calif.

KNLP, Wild Rose Canyon, Death Valley, Calif.

KNLQ, Trona, Death Valley, Calif. KNLR, Lone Pine, Death Valley, Calif. WRJ, Pee Reef Lighthouse, Mich. Dept. of Com-

merce, Bureau of Lighthouses. WST, Dry Tortugas Lighthouse, Fla. Address WRJ above.

WWAJ, Manitou Island Lighthouse, Mich. Address WRJ above.

WWAL, Passage Island Lighthouse, Mich. Address

WRJ above, WWAM, Rock of Ages Lighthouse, Mich. Address

WRJ above. WWAO, Huron Island Lighthouse, Mich. Address WRJ above.

WWE, Fourteen Foot Shoals Lighthouse, Mich. Address WRJ.

WWG, Cheboygan Range Lighthouse, Mich. Address WRJ above.

WWH, Stannard Rock Lighthouse, Mich. Address WRJ above.

WWHJ, Delaware Breakwater Station, Philadelphia, Pa. Address WRJ.

WWM, Marquette Lighthouse, Mich. Address same as WRJ above.

WWN, Detroit River Lighthouse, Mich. Address WRJ above.

WWR, Detroit, Michigan. Address WRJ. Lighthouse station.

WWZ, Key West, Fla. Lighthouse. Address WRJ ahove.

YDL4, Djokjakarta, N. E. I. Owner: Vadera.

3.423 megs. 87.59 m. WOZ, New York, N. Y. American Telephone & Telegraph Co., 32 Sixth Ave., N. Y. City. American Telephone &

3.430 megs. 87.41 m. YDO2, Soerabaja, N. E. I. Owner: Soekaradio.

YDO6, Sourabaya, Java, N. E. I. 70 w. Algemeene Radiovereeniging Oost-Java, Lombokstraat 1.

> 3.445 megs. 87.03 m.

KBAM, Grants Pass, Ore. Forestry. KBCD, North Fork, Calif. C. C. C. Co. 988. KBCE, North Fork, Calif. KBCF, North Fork, Calif.

3.450 megs. 86.90 m. YDL3, Solo, N. E. I.

3.452 megs. 86.85 m.

CJU, Winnipeg, Man. Canadian Airways Ltd. (Western Lines) 60 Brock St., Winnipeg.

3.470 megs. 86.40 m. YDG2, Batavia, Java, N. E. I. Owner: Batavia Radio Vereeniging.

3.490 megs. 85.91 m. YDH3, Bandoeng, Java, N. E. I. Owner: de Kort.

> 3.493 meas. 85.83 m.

W7XK, Seattle, Wash. 80 watts. Northern Radio Co., Kulien Bldg.

AMATEURS WORK BETWEEN 3.500 and 4,000 megs. (74.96 to 85.56 meters). Phones between 3.900 and 4.000 megs.

> 3.750 megs. 79.95 m.

CT1CT, Lisbon, Portugal. 50 watts. "Radio Eddy-stone." Sr. Oscar G. Lomelino, Rua Gomez Friere 79, 2-D, Lisbon. Daily, 0900-1100.

3.800 megs. ZP11, Asuncion, Paraguay.

78,90 m.

4.000 megs. 74.96 m. CT2AJ, Ponta Delgada, Azores, 50 watts, Mr. H. E. J. Smith, St. Michael, Ponta Delgrada. Wed., Sat., 1700-1900.

> 4.098 megs. 73.16 m.

WND, Hialeah, Fla. 400 watts. Phones ZFS Nassau.

4.122 meas. 72.74 m.

AIRWAY GROUND STATIONS, as follows: WEEA Atlanta; WEEB, Baltimore; WEEC, Charleston; WEEF, Spartanburg, S. C. WEEH McRae, Ga.; WEEJ, Jacksonville; WEEM, Miami; WEEN, Linden, N. J.; WEEO, Or-lando; WEER, Richmond; WNEZ, Camden; WOER, Raleigh; WOES, Savannah; WOET, Charlotte; WOEV, Louisville.

4.124 megs. 72.70 m. KIFM, Fairbanks, Alaska, Airway,

> 4.178 megs. 71.76 m.

WOO, Ocean Gate, N. J. 20 kW. Phones ships. American Telephone & Telegraph Co., Long Lines Dept., 32 Sixth Ave., N. Y. City.

WOY, Lawrenceville, N. J. 20 kW. Address WOO DOAI, S. S. Europa. Address DOAH, above. W4XBG, Tavernier, Fla. FNSM, S. S. Paris. French Lines, Pier 57, Hudson River, New York City. FNTQ, S. S. Ile de France. Address FNSM above. GFWV, S. S. Majestic. International Marine Radio 4.200 megs. 71.39 m. YT2, Fort Lewis, Wash. Army Airway. Co., Ltd., Connaught House, 63 Aldwych, London WC2, England. 4.243 megs. W4XBH, Tavernier, Fla. GMBJ, S. S. Empress of Britain. 4.253 megs. 70.50 m. 4,415 megs. 67.91 m. WKF, Lawrenceville, N. J. A. T. & T. Address WOO GBZW, S. S. Berengaria. above. GLRZ, S. S. Aquitania. WOG, Ocean Gate, N. J. 4.430 meas. 67.68 m. 4.273 megs. 70.16 m. GDLJ, S. S. Homeric RV15, Khabarovsk, USSR (Siberia). 20 kW. "Far VQJM, S. S. Monarch of Bermuda. East Radio Station." Announcements in VQJP, S. S. Queen of Bermuda, Russian, Chinese, English. 4.436 megs. 4.276 megs, 70.11 m.
WIR, Rocky Point, N. Y. 30 kW, Works Port-au-VDO, Vancouver, B. C. 400 w. North-West Telephone Co., 768 Seymour St. Prince, Santo Domingo. Address R. C. A., Central Frequency Bureau, 66 Broad St., 4.465 megs. 67.14 m. N. Y. C. CFA2, Drummondville, P. Q. Canadian Marconi 4.280 megs. 70.05 m.
These Ships work IAC and WOC. All owned by Italian Line, 1 State St., N. Y. C. Co., Box 1690, Montreal, P. Q. 4.470 megs. 67.07 m. YDB, Soerabaja, N. E. I. 1 kW. IBEJ, S. S. Conte Rosso. IBGI, S. S. Conte Verde. 4.490 meas. 66.78 m. IBLI, S. S. Conte di Savoia. VDC, Calgary, Alta. Two Bros. Valley Gold Mines, ICEJ, S. S. Rex. Ltd. VDV, Two Brothers Lake, B. C. Address VDC, Calgary. 4.295 megs. 69.81 m. WTDV, St. Thomas, Virgin Islands. 250 watts. Mr. H. M. McKenzie. 4.505 meas. 66.55 m. WTDW, St. Croix, Virgin Islands. 250 watts. WTDX, St. John, Virgin Islands. 250 watts. CGO, Ocean Falls, B. C. 400 w. North-West Telephone Co., 768 Seymour St., Vancouver, B. C CZO, Prince George, B. C. 50 w. Same address. 4.320 megs. 69.40 m. CZP, Claydon Bay, B. C. Address CGO above. DAF, Norden, Germany. Phones ships. Hauptfunkstelle Norddeich, Norden-Land, Germany. 4.512 meas. GDB (G6RX), Rugby, England. 15 KW. Engineer-in-Chief, GPO (Radio Section), Armour ZFS, Nassau, Bahamas. Works WNC Hialeah, Office of Supt. of Telegraphs, Central Bay St., House, St. Martins Le Grand, London EC1, Nassau N. P., Bahamas. England. 66.11 m. 4.535 meas. 4.348 megs: 68.92 m. WDG, Rocky Point, N. Y. 40 kW. R. C. A., Central CGA9, Drummondville, P. Q. Canadian Marconi Co., Box 1690, Montreal, P. Q. Frequency Bureau, 66 Broad St., N. Y. C. 4.355 megs. 68.84 m. IAC, Coltano, Italy. 56 kW. Phones ships. Radio-marittimo Coltano Radio IAC, Piza, Italy. WDN (W2XBJ), Rocky Point, N. Y. Address WDG. 4.535 megs. 4.580 megs. 65.46 m. FNSK, S. S. Normandie. Works Paris. French Lines, DJG, Zeesen, Germany. Reichs-Rundfunk-Gesell-schaft, Haus des Rundfunks, Masurenatiee, Pier 88, North River, Foot of W. 48th St., N. Y. C. Berlin-Charlottenburg 9, Germany. 67.99 m. 4.410 meas. 4.600 megs. FNSK, S. S. Normandie. Works WOO. Address 4390 HC2ET, Guayaquil, Ecuador. Interval sig.: 12 chimes. meas. P. O. Box 249. Fri., Sat., 2130-2300. 4.413 megs. 67.94 m. 4.610 meas. All these ships work with WOO. The German ships KMYA, Juneau, Alaska. Forestry, also work DAF; British ships with GBC: DDBR, S. S. Berlin. North German Lloyd, Pier 42, 4.710 meas. 63.66 m. North River. Foot of Morton St., N. Y. City. YDU2, Medan, Sumatra, N. E. I. Owner: Avrom. DDCP, S. S. Cap Polonio. DDFF, S. S. Reliance. 4.753 megs. 63.08 m. DDFT, S. S. Oceana. DHAO, S. S. Hansa. Hamburg American Lines, Pier 86, North River, W. 46th St., N. Y. C. WOO Ocean Gate, N. J. Phones ships. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. C.

DHDL, S. S. Cap Arcona. DHEY, S. S. Deutschland.

DHJZ, S. S. Hamburg. Address DHAO above. DHRL, S. S. New York. Address DHAO above.

Foot of 58th St., Brooklyn, N. Y.

DOAH, S. S. Bremen. North German Lloyd, Pier 4,

WOY, Larenceville, N. J. 20 kW. Address WOO

CFU, Rossland, B. C. Consolidated Mining & Smelt-

63.05 m.

4.755 megs.

ing Co.

4.785 megs. 5.260 megs. 62.66 m. 57.00 m. CZA, Drummondville, P. Q. Phones ships. Canadian YDU3, Medan, Sumatra, N. E. I. Owner: Meyer. Marconi, Box 1690, Montreal. 5.265 megs. 56 96 m WQN, Rocky Point, N. Y. Address WDG, 4.535 megs. 4.795 megs. 62.53 m. VE9BK, Vancouver, B. C. 250 w. Radio Sales Service Ltd., 780 Beatty St. 5.300 megs. 57.57 m. ZFO, Cat Cay, Bahamas. 50 watts. Address ZFS, 4.810 megs. 4.512 megs. 62.33 m. YDE2, Solo, N. E. I. 100 watts. YDL2, Solo, N. E. I. Owner: Solosche Radio Vereenig-5.375 megs. 55.78 m. RSB, Stalinsk, USSR. 2 kW. 4.820 megs. 62.20 m. 5.400 megs. 55.52 m. GDW, Rugby, England. Phones N. Y. Engineer-in-Chief, GPO, (Radio Section), Armour House, CGP, Prince Rupert, B. C. North-West Telephone Co., 768 Seymour St., Vancouver. CZQ, Anyox, B. C. Address CGP above. HAT, Szekesfehervar, Hungary. 6 kW. "Justice for St. Martins Le Grand, London EC1. 4.840 megs. 61.95 m. Hungary!" Announcements French, English, CZV, Waterloo Mines, B. C. Waterloo Gold Mines, Hungarian by lady. Address: Magyar Kiralyi Postakiserleti Allomas, IX Kerulet Gyall Ut Inc. 22, Budapest, Hungary. 4.860 megs. 61.69 m. HJA7, Cucuta, Colombia. Colombian Petroleum CZ5L, Mud Lake, P. Q. Dominion Skyways, Ltd. Corporation. 5.405 megs. 4.865 megs. 61 63 m 55.47 m. VXX, Sage Creek, B. C. N. W. Telephone Co., 768 CGT, Campbell River, B. C. North-West Telephone VOO, Vancouver, B. C. 400 w. North-West Telephone Seymour St., Vancouver. WKDL, Miami, Fla. Airways. Co., 768 Seymour St. WMDU, San Juan, Puerto Rico. Airways. 4.875 megs. 61.50 m. RKF, Moscow, USSR. 20 kW. 5.415 megs. 55.37 m. IAF, Fiumicino, Italy. 5 kW. 4.975 megs. 60.27 m. GBC. Rugby, England. 5kW. Phones ships. Address GDW, 4.820 megs. 5.435 mens 55.16 m. LSH, Buenos Aires, Argentina. Compania Radiotelegratica Arg., San Martin 301-329. 4.988 megs. 60.11 m. WWAD, S. S. Violet. Works Lighthouses on Great 5.440 megs. Lakes RSN, Sverdlovsk, USSR. 10 kW. 5.000 megs. 59.96 m. 5.490 megs. 54.61 m. WWV. Beltsville, Md. 1 kW. Standard frequency service, Wed., 1430-1530. Nat'l Bureau of ROI, Sverdlovsk, USSR, 15 kW. Standards, Washington, D. C. 5.505 megs. 54.46 m. WQN, Rocky Point, N. Y. Address WDG, 4.535 megs. 5.015 megs. 59.78 m. 163, Bolling Field, Va. United States Army airport. 5.520 megs. 54.32 m. TI5HH, San Ramon, Costa Rica. 200 w. "La Voz de San Ramon." Address Sres. Herrera. Daily 5.025 megs. 59.67 m. ZFA St. George (Hamilton) Bermuda. 1.5 kW. 1530-1700; 2000-2130. Phones WOB nights. 5.540 megs. 54.11 m. VXU, Regina, Sask. Dept. of Natural Resources, 5.040 megs. 59.59 m. Govt. of the Province of Sask. RIR, Tiflis, USSR. 4 kW. VXV, Hudson Bay Junction, Sask. Address VXU VXW, Portable. Address VXU above. 5.078 megs. 59.06 m WCN, Lawrenceville, N. J. Works GDW nites. AT&T, 32 Sixth Ave., N. Y. C. 5.550 megs. 54.02 m. W4XBI, Big Pine Key, Fla. 12RO, Rome Italy. Ente Italiano per le Audizioni Radiofoniche, Via Montello 5, Rome. 5.138 megs. 58.35 m, 5.600 megs. KIIO, McGrath, Alaska. Northern Commercial Co. KGUD, San Antonio, Texas. WAES, Syracuse, N. Y. 5.140 megs. PMY Bandoeng, N. E. I. 600 watts. Bandoeng Radio 5.660 megs. 52.97 m. Vereeniging, Nillmy Bldg., Bandoeng. 0040-CFD, Kenora, Ont. 150 watts. Ont. Dept. of Lands 0240; 0640-0940. and Forests. 5.165 megs. CFJ, Red Lake, Ont. Address CFD above. 58 05 m KNBD, Alameda, Calif. 200 w. Pan American Air-5.705 megs. ways CFN, Slate Creek, B. C. Consolidated Mining & KNBE, Glendale, Calif. Ditto. Smelting Co. of Canada, Ltd. KNBF, Mokapu, Oahu, Hawaii. Ditto. CFU, Rossland, B. C. Address CFN above. KNBG Sumay, Guam. Ditto. KNBH, Sand Island, Midway. Ditto. 5.710 meas. 52.51 m. KNBI, Wake Island. Ditto. JDZ, Darien. Works JVU Nazaki. 5.198 megs. 57.68 m. TGS, Guatemala City, Guat. 200 w. "de la Casa W4XBJ, Big Pine Key, Fla. Presidencial."

5.720 megs. 52.42 m. YV10RSC, San Cristobal, Venezuela. "La Voz de Tachira." Jesus M. Diaz. Gonzalez.

5.725 megs. 52.37 m.
HC1PM, Quito, Eduador. "El Palomar". J. L.
Ponce, Box 664.
12RO, Rome Italy. Address EIAR, 5.550 megs.

5.730 megs. 52.32 m.

JVV, Nazaki, Japan. Works JIA, JIB, JIC at Taiwan. Address: Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

5.760 megs. 52.05 m. HJ4ABD, Medellin, Colombia. "La Voz de Catia."

5.764 megs. 52.00 m.
KZGF, Manila, P. I. Inter-Island phone. Philippine
Long Distance Telephone Co.

5.780 megs. 51.87 m.
CMB2, Havana, Cuba. Cuba Transatlantic Radio
Corp.

OAX4D, Lima, Peru. "Radio DUSA." Interval sig.: 2 cuckoos. "The Voice of Peru." Sign off: "A Perfect Day." All America Cables, Box 2336. Wed., Sat., 2100-2330.

5.790 megs. 51.78 m. JVU, Nazaki, Japan. 10 kW. Works JZA-B-C. Address JVV, 5.730 megs.

5.795 megs. 51.74 m.
KZGH, Iloilo, P. I. (Iloilo Island). Inter-Island
phone. Philippine Long Distance Tele. Co.

5.800 megs. 51.69 m. YV2RC, Caracas, Venezuela. 1 kW. "Radio Caracas." "La Habla a la Nacion." Int sig: 4 chimes, sign off: "March 1BC" address: Apartado 2009.

5.810 megs. 51.60 m. YV7RMO, Maracaibo, Venez. "Radiodifusora Maracaibo."

5.820 megs. 51.52 m. CEC, La Granja (Santiago) Chile. Compania Internacional de Radio, Casilla 16-D, Santiago de Chile.

TIGPH, San Jose, Costa Rica. "Alma Tica."

5.825 megs. 51.47 m. HJA2, Bogota, Colombia.

KZGG, Cehu, Isl. of Cehu, P. I. Inter-Island phone. Philippine Long Distance Telephone Co. WQN, Rocky Point, N. Y. R. C. A., Central Frequency Bureau, 66 Broad St., New York City.

5.830 megs. 51.43 m.

CWD, Montevideo, (Cerrito), Uruguay. 1.5 kW. JZC, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works JVI, JVO, JVU. Address: Manchukuo Telephone & Telegraph Co., Ltd.

5.850 megs. 51.25 m.

WOB, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. C.

YVSRMO, Maracaibo, Venezuela. "Ecos del Caribe."
(member Gadena Indo-Americana.) One
gong precedes station announcement. Programs close with Blue Danube March.
Address: Sr. Santiago M. Vegas, Apartado
214. Daily exc. Sun., 1130-1300: 1730-2130.

5.865 megs. 51.12 m.

HIIJ, San Pedro de Macoris, D. R. 40 w. Fausto M. Donastorg, Aptdo. 204.

5.875 megš. 51.03 m. HRN, Tegucigalpa, Honduras. 400 w. "La Voz de Honduras." Daily 2000-2200.

5.880 megs. 50.99 m.
ETG, Addis Ababa. Ethiopia. 3.5 kw. Frank Hammar, Chief Engineer, Box 283.

5.885 megs. 50.95 m.

HCK, Quito, Ecuador. 200 w. "Radiodifusora del Estado".

5.890 megs. 50.90 m. JIC, Taihoku (Chureki) Taiwan. Works JVG, JVL,

5.895 megs. 50.86 m. YV8RB, Barquisimeto. Venez. "La Voz de Lara."

5.915 megs. 50.69 m.
HH2S, Port-au-Prince, Haiti. Societe Haitienne de Radiodiffusion, Boite Post. 103. S/O: "Eleqie".

5.930 megs. 50.56 m. HJ4ABE, Medellin, Colombia. 1 kW. (relays HJ4ABK) "La Voz de Antioquia." Owner: Jose M. Acevedo F. 3 chimes precede announcement.

5.940 megs. 50.47 m. TG2X, Guaternala City, Guat. 200 w. "Policia

Nacional."

5.950 megs. 50.39 m.

HJN, Bogota, Colombia. (freq. varies). Ministerio de
Correos y Telegrafos

Correos y Telegrafos. YNLF, Managua, Nicaragua. "La Voz de Nicaragua".

5.970 megs. 50.22 m.

HVJ, Vatican City. 10 kW. Interval sig: clock ticking for 10 minutes preceding xmission; bells of St. Peters at 3 o'clock. Announcement "Laudatur Jesus Christus". Talks as follows: Mon., Italian; Tues., English; Wed., Spanish; Thurs., French; Fri., German; Sat., Dutch; Sun., Latin. Address: Stazione Radio-Vatican, Pontificia Accademia Della Scienze, Roma-Castina Pio IV, Citta del Vaticano.

5.975 megs. 50.18 m.

HJ2ABC, Cucuta, Colombia. 250 watts. "La Voz de Cucuta." Interval sig: chimes C-D-E-F-C, Address, J. Alejandre Sanchez. 1100-1200; 1830-2100. Week days,

5.980 megs. 50.14 m.

HIX, Trujillo, D. R. J. R. Saladin, Director. 5003w. HJ2ABD, Bucaramanga, Colombia. 670 w. &Sr. Hector McCormick, Calle 2a, No. 1205.

XEVI, Mexico City, D. F. Apartado 2874.

5.995 megs. 50.01 m.

RPT, Tashkent, USSR. 1 kW. WVD, Seattle, Wash. 500 watts. Phones Alaska. Alaskan Telephone Co., 517 Federal Office Bldg., Seattle.

5.996 megs. 50.00 m.
, "Radio-Tananarive," Tananarive, Madagascar. Theme song: Ramona. 500 watts.
Administration des Postes des Telegraphes
et des Telephones. Sun., 0230-0400; daily
exc. Sun. and Mon., 0300-0345.

RV59. Moscow, USSR. 20 kW. Kremlin chimes at 4 p.m. EST. sign off: l'Internationale. Add. Inna Marr, Central Radio Committee Petrovka 12, Moscow.

6.000 megs.

49.97 m

TGWA, Guatemala City, Guat, 300 w. "Radio Naccional" Relays TGW. address: Ministerio de Fomento.

XEBT, Mexico City, D. F. 1kW. Interval sig.: cuckoo, rooster, bugle, auto horn, fire bell. Relays XEB. Add: El Buen Tono S. A., Apartado 79-44. Daily 1000 to 0115.

XGOX, Nanking, China (proposed). Administration of Central Broadcasting Stations, Central Executive Committee of Kuomintang, Nanking.

ZEC, Salisbury, South. Rhodesia. 500 w., Goderich, Ont. 15 w. (outlaw).

6.005 megs.

CFCX, Montreal, P. Q. 75w. Relays CFCF. Canadian

HP5K, Colon, Panama. Aptdo, 33,

VE9DN, Drummondville, P. Q. Canadian Marconi Co., P. O. Box 1690, Montreal.

6.006 megs.

HJ1ABJ, Santa Marta, Colombia. 50 watts. "La Voz de Santa Marta," Member Cadena Indo-Americana. Sr. Julio A. Sanchez T.

> 6.010 megs. 49.89 m.

CJCX, Sydney, N. S. 1 kW. Relays CJCB. N. Nathanson.

COCO, Havana, Cuba. 300 w. P. O. Box 98. HJIABC, Quibdo, Colombia. 100 w. "La Voz del Choco." Direccion de Educacion.

> 6.012 megs. 49.87 m.

HJ3ABH, Begota, Colombia. 1.2 kW. "La Voz de la Victor." Member, Cadena Indo-Americana. Add: Manuel J. Gaitan, Almacenes Victor, Apartado 565. Sun., 1200-1400; 1600-2100. Other days, 1130-1400; 1800-2300.

> 6.020 megs. 49.80 m.

DJC, Zeesen, Germany. 8 kW. Programs close with "Deutschland Ueber alles" and "Horst Wessellied." Programs preceded by a music box tune, "Ever be True and Honest." Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunks, Masurenallee, Berlin-Charlottenburo 9.

XEUW, Veracruz, Mexico. 50 w. "El eco de Sotavento des de Veracruz." Radiodifusora Comercial XEU, Independencia 98.

> 6.030 megs. 49.72 m.

HP5B, Panama City, Panama. 100 watts. "Estacion Miramar". Address: Estacion Radiodifusora Miramar de la Radio Panama S. A., Apartado 910. Daily, 1900-2200.

VESCA, Calgary, Alta. 100 watts. "The Voice of the Prairie." Add: Voice of P., Ltd., Calgary. Thurs., 0900-0200; Sun., 1200-2400; other days, 0900-2400.

> 6.040 megs. 49.64 m.

PRA8, Pernambuco, Brazil. 3 kW. "A Vox do Norte." Radio Club Pernambuco, Ave. Cruz Cabaga

W1XAL, Boston, Mass. Address: Educational Director, University Club, Boston. Tues., Thurs., 1930-2130; Sun., 1700-1900.

W4XB, Miami, Fla. (transmitter on Collins Island). 2500 watts. Relays WIOD. Isle of Dreams Broadcasting Co. Sun., 1130-1500; 1700-2400. Weekdays, 1200-1400; 1730-2400.

YDA, Tandjongpriok, N. E. I. 10 kW. Key Station, NIROM Network. N. V. Nederlandsche

Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-1100: 1745-1845: 2230-0130.

6.042 meas. 49.62 m.

HJ1ABG, Barranquilla, Colombia. 150 watts. "Emisora Atlantico." Member, Cadena Indo-Americana. Interval sig: 4-note chime. Address: Sr. Andres Jimeno, Apartado 445.

49.60 m. HI9B, Santiago, D. R. Hotel Mercedes.

6.050 megs.

49.56 m.

GSA, Daventry, England. 20 kW. "A for Aerial." Interval sigs: Bow Bells and Big Ben. Sign off: God Save the King. British Broadcasting Corp., Broadcasting House, London W. 1, England.

6.055 megs.

49.50 m.

HJ3ABD, Bogota, Colombia. 50 w. "Colombia Brdcstg." Apartado 509.

6.060 megs. 49.48 m.

OXY, Skamlebaek, Denmark (Copenhagen). watts. Chimes at 6 p.m. EST. Add: Harold J. Rud, Press Secretary, Statsradiofonien, Heibergsgade 7, Copenhagen. Daily 1300-1830.

VQ7LO, Nairobi, Kenya Colony. Cable & Wireless Ltd. Box 777. Tues., 0300-0400; Mon., Wed., Ltd. Box 111. 1ues., 0500-0500; Sat., 1100-1530; daily exc. Sat., 1100-1400.

Philadelphia (Newton Square), Pa. Relays

W3XAU, Philadelphia (Newton Square), Pa. WCAU, CBS, WCAU Building, 1622 Chestnut St. 2100-2300.

W8XAL, Cincinnati (Mason), Ohio. 10 kW. Relays NBC-WLW. Crosley Radio Corp., 1329 Arlington St. Daily exc. Sun., 0630-2000; Sun., 0800-2000; daily exc. Sat., 2300-0200; Sat., 2300-0300.

ZHI, Singapore, Straits Settlements. 180 watts. Technical Director, Radio Service Co. of Malaya, Broadcast House 2 and 4, Orchard Road. Sat., 2300-0130; Mon., Wed., Thurs., 0600-0830.

6.065 megs. HH2F, Port au Prince, Haiti.

49.43 m.

6.070 megs.

CFRX, Toronto, Ont. 1 kw. Relays CFRB. Rogers Majestic Corp.

VE9CS, Vancouver, B. C. 2-10 watts. Radio Service

Engineers Ltd., 734 Davie St. Daily 2000-2200.

OER2, Vienna, Austria. 1.5 kW. Oesterr. Radioverkehrs A. G., Wien I, Johannesgasse 4b. Sat., 0900-1800; Sun., silent; other days, 0900-1700.

6.080 megs. 49.31 m.

CP5, La Paz, Bolivia. "Radio Illimani." Compania Radio Boliviana, Casilla 637. Daily, 2000-2100. DJM, Zeesen, Germany. Address, DJC, 6.020 megs. HP5F, Colon, Panama.

W9XAA, Chicago, III. 500 watts. Relays NBC-WCFL. Daily exc. Sun., 0930-1800; Sun., 1130-2100. Mr. Maynard Marquardt, Chicago Fdderation of Labor, 666 Lake Shore Drive.

ZHJ, Penang, Straits Settlements. 49 watts. Hon. Secy., Penang Wireless Society, 40 Perak Road. Dally exc. Sun., 0640-0840.

> 6.085 megs. 49.27 m.

HJ5ABD, Cali, Colombia. "La Voz dei Valle." Apartado 270.

12RO, Rome, Italy, Address EIAR, 5,550 megs.

6.090 megs.

49.23 m.

CRCX, Toronto, Ont. 1 kw. Relays Canadian Radio Commission-CRCT. Address: R. R. No. 4. Daily 1830-2330.

VE9BJ, St. John, N. B. 50 watts. New Brunswick Brdcstg. Co., Admiral Beatty Hotel.

6.100 megs.

49.16 m.

HJ4ABL, Manizales, Colombia. 150 watts. "L for Lady." "Ecos dei Occidente." Chimes at

midnight. Apartado 50. Sat., 2300-0100.
W3XAL, Bound Brook, N. J. 20 kW. N.B.C., 30
Rockefelier Plaza, N. Y. C. Relays NBC-WJZ. s/o "Star Spengled Banner."

W9XF, Chicago (Downers Grove), III. 5 kW. Relays NBC-WENR, N. B. C., Merchandise Mart, Chicago.

ZTJ, Johannesburg, U. of So. Africa, 5 kW, s/o God Save The King. African Brdcstg. Co., Box 4559. Johannesburg.

> 6.110 megs. 49.07 m.

CHNX, Halifax, N. S. Maritime Broadcasting Co., Ltd., Box 998.

GSL, Daventry, England. "L for Liberty." Int. sigs: Bow Bells and Big Ben. Sign off: God Save the King. Address GSA, 6.050 megs. Daily, 2200-2300.

HJ4ABB, Manizales, Colombia. 300 watts. "Radio Manizales," Sr. Ernesto Villegas.

6.112 megs.

VUC, Calcutta, India. Indian State Broadcasting Service, 1 Garstin Place.

6.115 megs.

49.03 m

HJ1ABE, Cartagena, Colombia. 180 watts. "La Voz de los Laboratorios Fuentes." Address: Laboratories Fuentes L., Apartado 31.

6.120 megs.

48.99 m

W2XE, New York, N. Y. (Wayne, N. J.) 10 kW. Relays CBS-WABC. Columbia Broadcasting System, 485 Madison Ave. at 52nd St., N. Y. C. s/o "Star Spangled Banner."

XEFT, Veracruz, Ver. 20 w. "La Voz de Veracruz." Jose Rodriguez Lopez, Manager, Av. Independencia 28.

YDAS, Bandoeng, Java, N. E. I. 1.5 kW. N. V. Neder-landsch Indische Radio Omroep Moat-schappij, Tegallegah 0.23, Bandoeng. 0530-1100; 1745-1845; 2230-0130.

6.125 megs.

48.95 m.

ZGE, Kuala Lampur, Federated Malay States. 180 watts. Hon. Secy., the Malayan Amateur Radio Society, Mercantile Bank Bldg., K. L. Sun., Tues., Fri., 0640-0840.

> 6.130 meas. 48.91 m.

COCD, Vedado, Havana, Cuba. 350 watts. Voz del Aire." Int. sig.: 4 chimes. Relays CMCD. Address: Hotel Palace, Calle 25 y G. Vedado, Havana. Sun., 1700-2300. Weekdays, 1100-2400.

LCL, Jeloy, Norway. Director General, Administration des Telegraphes du Royaume de Norvege, Oslo, Norway.

TGXA, Guatemala City, Guat. 20 w. Liberal Pro-

gresista. XEOK, Tijuana, L. C., Mex. Relays XEOK. Car de la Sierra, Box 1441, San Diego, Calif.

6.132 meas.

CT1GO, Parede, Portugal. Sun., 1130-1300; Sun., Tues., Wed., Thurs., Fri., 1920-2030.

6.135 megs. HJ4ABP, Medellin, Colombia. 48.87 m.

RKK, Moscow, USSR. 20 kW.

6.140 megs. 48.83 m. W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays

NBC-KDKA. 6.145 megs. 48.79 m.

....., Villejust, France. 120 kW. (Under constr.)

6.147 megs. 48.78 m. ZEB, Bulawayo, South, Rhodesla. 500 w.

6.150 megs. 48.75 m.

CB615, Santiago, Chile. "Radiodifusora Pilot." s/o Rhapsody in Blue. Compania Internacional de Radio, Casilla 16-D.

CJRO, Winnipeg, Man. (Middlechurch). Relays CRC programs. James Richardson & Sons, Ltd., Royal Alexandria Hotel, Winnipeg. Daily, 2000-2400.

CSL, Lisbon, Portugal.

HI5N, Santlago, D. R. 100 w. Sr. M. Smester. HJ5ABC, Cali, Colombia.

6.155 megs. 48.74 m. COKG, Santiago, Cuba. 50 w. "Ask for Bacardi." Sres. Grau y Caminero, Aptdo. 137.

YV3RC, Caracas, Venezuela. "Radiodifusora Venez." Bajos Pasaje Rameila.

6.170 megs.

HJ2ABA, Tunja, Colombia. 50 watts. "Ecos de Boyaca." Member: Cadona Indo-Americana. Sr. Pompelio Sanchez.

HJ3ABF, Bogota, Colombia. 50 w. "HKF, La Voz de Bogota." s/o Song of the Islands. int. sig.: 6 chimes.

> 6.182 meas. 48.50 m.

XEXA, Mexico City, D. F. s/o March of the Toys. Secretaria de Educacion Publica.

> 6.185 megs. 48.48 m.

HI1A, Santiago de los Caballeros, D. R. "La Voz del Yaque."

> 6.230 megs. 48.13 m.

OAX4G, Lima, Peru. Relays OAX4B. R. Grellaud y Cia.

> 6.235 hiegs. 48.09 m.

HRD, La Ceiba, Honduras. 250 w. "La Voz de Atlantida."

47.74 m.

CO9WR, Sancti-Spiritus, Cuba. 150 w. Welss y Ramirez, Independencia 33. HIG, Trujillo, D. R. 50 w. Int. sig: a bawling calf.

Sr. A. Cordero P.

6.285 megs. 47.70 m. CZA. Drummondville, P. Q. Works ships,

> 6.300 megs. 47.59 m.

HJ1ABH, Cienaga, Colombia. 48 watts. Sergio Martinez Aparicio, Jr. Tues., Fri., 1945-2200. YV12RM, Maracay, Venezuela. Luis y Victor Croquer.

6.315 meas.

HIZ. Trulillo, D. R. 100 watts. "La Voz de los Muchachos." Frank Hatton, Calle Duarte No. 68.

6.330 megs. JZG, Nazaki, Japan. 10 kW. Works ships. Kokusal-

Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

6.356 megs. 47.17 m. HRP1. San Pedro Sula. Honduras.

47.03 m. 6.375 megs. YV4RC, Caracas, Venezuela. "Ecos del Avila." Member: Cadena Indo-Americana. Address: Estacion SAR, Este 10, Bis No. 71, Caracas. Daily, 1630-2230.

6.380 megs. 46.99 m. HI3U. Santiago, D. R. "La Voz del Comercio."

6.385 megs. 46.94 m. WO9, Mitchell Field, Mineola, Long Island. Army airport.

WTR, Albrook Field, Canal Zone. Army airport.

46.85 m. YV9RC, Caracas, Venez. "Ondas Populares." Teatro Municipal, calle Este 8.

6.410 megs. 46.77 m. TIPG (TI2PG), San Jose, Costa Rica. 1 kW. "La Voz de la Victor." Perry Girton, Apartado 224. Sun., 0600-0700; 1100-2230. Weekdays, 1100-1300; 1730-2230.

6.420 megs. 46.70 m. HI1S, Puerto Plata, D. R. 29 w. Sr. G. Sarnelli.

6.425 megs. CZG, Prince Rupert, B. C. B. C. Provincial Police. VE9AS. Fredericton, N. B. Address, C/o Electrical Engineering Dept., University of New Bruns-

wick. VK1, Selfridge Field, Mt. Clemens, Mich. Army

airport. W3XL, Bound Brook, N. J. 100 kW. NBC Control station and cue station for nearly all special "stunt" broadcasts. Address NBC, 30 Rockefeller Plaza, N. Y. City.

W9XBS, Chicago (Downers Grove), III. 2.5 kw. NBC, Merchandise Mart.

W9XF, Chicago (Downers Grove), III. 2.5 kw. NBC.

6.440 megs. 46.56 m. RTA, Novosibirsk, USSR. 15 kW.

6.445 megs. 46.52 m. PD1, Maxwell Field, Montgomery, Ala. Army airport PE2, Wright Field, Dayton, Ohio. Army airport.

6.447 megs. 46.50 m. HJ1ABB, Barranquilla, Colombia. 300 watts. "La Voz de Barranquilla." Relays HJ1ABA. Address: Elias J. Pellet B., Apartado 715. Daily, 1700-2200.

6.450 megs. 46.48 m. HJ4ABC, Ibague, Colombia. "Ecos de Combeima."

Mario M. Barrios, Aptdo. 39.

46,27 m. 6.480 meas. HI4V, Trujillo, D. R. 25 w. "La Voz de la Marina." Aptdo. 771.

46.13 m. 6.500 meas.

HIL. Trujillo, D. R. 50 watts. HI4D, Trujillo, D. R. "La Voz de Quisqueya."

YV6RV, Valencia, Carabobo, Venezuela. "La Voz de Carabobo." Sres. Hermann y Williams Degwitz.

45.98 m.

45.81 m. 6.545 megs. YV11RB, Bolivar, Venez. "Ecos del Orinoco."

45.76 m. 6.550 megs. TIRCC, San Jose, Costa Rica. 500 watts. "Radioemisora Catolica Costaricense." Box 1064.

45.36 m. CWE, Cerrito (Montevideo) Uruguay. 1.5 kW.

6.615 megs.

KIKL, Los Angeles, Calif.
WMEP, Suffield, Ohio. 400 watts. Airways.
WMEQ, Wheeling, Ill. Airways.
WMEU, St. Petersburg, Fla. 400 watts. Airways. WMEV, Opa Locka, Fla. (Goodyear Zeppelin Base).

400 watts. WNEK, Jackson Heights, L. I.

> 6.618 megs. 45.31 m.

WVD, Seattle, Wash. Phones Alaska. Alaskan Telephone Co., 517 Federal Office Bldg.

6.620 meas. 45,29 m. PRADO, Riobamba, Ecuador. "Estacion El Prado." Member: Cadena Indo-Americana. Apartado 98.

Thurs., 2100-2330 and other nights irregularly. 6.630 megs. 45.22 m.

HIT, Trujillo, D. R. 200 w. "La Voz de la RCA-Victor." Box 1105.

6.645 megs. FG7, Langley Field, Va. Army airport.

WYV, Patterson Field, Ohio. Army Airway.

6.650 meas.

"Quinta Piedad." HC2RL, Guayaquil, Ecuador. "Quinta Piedad." Address: Dr. Roberto Levi, Apartado 759. Tues., 2114-2314; Sun. 1745-1945.

45.09 m.

IAC, Coltano, Italy. 14 kW. Works ships. Address IAC, 4.355 megs. This frequency has been assigned to certain SHIPS but it is not known whether or not voice is used. Reports from readers of actual VOICE reception are requested.

6.662 megs. 45.00 m.

WXH, Ketchikan, Alaska. Phones Seattle. 6.666 megs. 44.98 m.

ZP10, Asuncion, Paraguay. 6.672 megs. 44.94 m.

YVQ, Maracay (Santa Rita), Venezuela. Address: Estados Unidos de Venez., Servicio Radiotelegrafico.

6.675 megs. 44.91 m. DGK, Nauen, Germany. Address: Reichspostzen-

tralamt, Telegraphentechnisches Reichsamt, Schoneberger Strasse 11-15, Berlin-Tempel-

44.82 m.

CGA6, Drummondville, P. Q. Address VE9DN. 6.005 meas.

44.75 m. 6.700 meas. TIEP, San Jose, Costa Rica. "La Voz del Tropico." Sr. Eduardo Pinto Hernandez, Apartado 257. Member: Cadena Indo-Americana. Daily,

1900-2200 6.718 megs. 44.62 m.

KBK, Manila, P. 1. 50 kW. Radio Corp. of the Philippines, Plaza Moraga, Manila.

WDB, Rocky Point, N. Y. Works Havana. Radio Corp. of A., Central Frequency Bureau. 66 Broad St., N. Y. City.

6.720 megs 44.62 m. CFU, Rossland, B. C. Consolidated Mining & Smelting Co. 44.57 m. 6.725 megs. 44.57 m. WQO, Rocky Point, N. Y. Address WDB, 6.718 megs. 44.53 m. KEQ, Kahuku, Oahu, Hawaii. Works California. 6.750 megs. 44.42 m. JVT, Nazaki, Japan. 20 kW. Works Dixon and broadcasts. Address JZG, 6.330 megs. 6.755 megs. 44.38 m. WOA, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City. 6.760 megs. CJA6, Drummondville, P. Q. Address VE9DN, 6.005 meas. 6.814 mens. 44.00 m. HIH, San Pedro de Macoris, D. R. 150 w. "La Voz del Higuamo." Sr. Domingo Dominguez. 6.860 megs. 43.71 m.
KEL, Bolinas, Calif. RCA Communications, Inc. Pacific Division, 28 Geary St., San Francisco, Calif. 6.870 megs. 43.64 m. RKF, Moscow, USSR. 20 kW. 43.58 m. 6.880 megs. CGA7, Drummondville, P. Q. Address VE9DN, 6.005 megs. RKF, Moscow, USSR. 20 kW. 6.900 megs. 43.45 m. HI3C, La Romana, D. R. 25 w. "La Voz de la Marina." R. P. Bernardo. RKF, Moscow, USSR. 20 kW. 6.905 megs. 43.42 m. GDS, Rugby, England. 15 kW. Phones N. Y. nights Address GDW, 4.820 megs. 6.935 megs. 43.23 m. WEB, Rocky Point, N. Y. Works Paris. Address WD 3, 6.718 megs. 6.950 megs. 43.13 m. WKP, Rocky Point, N. Y. Address WDB, 6.718 megs. 42.89 m. 6.990 megs. JVS, Nazaki, Japan. Works Shanghai. Address JZG, 6.330 megs. 7.000 megs. 7.300 m. 41.07 meters to 42.83 meters. Amateur Band. Foreign amateurs use phone in this band. USA, code only. 7.005 megs. 42.80 m HB9H, Berne, Switzerland. Swiss Shortwave Association, 30 Neuengasse, Berne. First Monday each month, 1500-1615. 7.080 megs. 42.35 m. VP3MR, Georgetown, Br. Guiana. "The Voice of Guiana." Sun., 0745-1015; Mon., 1545-1645; Thurs., 1700-1845; Mon., Wed., Sat., 1845-

1945

7.090 megs.

7.175 megs.

Nacional de San Bartolome.

HKE, Bogota, Colombia. 138 watts. Observatorio

CR6AA, Lobito, Portuguese West Africa. "Radio

42.29 m.

41.78 m.

Eddystone," The Manica Trading Co., Ltd., Caixa Postal 118, Lobito. 7.220 megs. 41.53 m. HAT2, Szekesferhervar, Hungary. 6 kW. "Justice for Hungary!" Announcements Hungarian, French, English by lady. Address: Magyar Kiralyi Postakiserleti Allomas, IX Kerulet Gyali Ut 22, Budapest. 7.225 megs. RPK, Moscow, USSR. 20 kW. 41.50 m. 7.260 megs. 41.30 m. RFF, Kharkov, USSR. 1kW. 7.275 megs. 41.23 m. RTZ, Irkutsk, USSR. 15 kW. 41.18 m. 7.280 megs. HJ1ABD, Cartagena, Colombia. 100 w. "Ondas de la Heroica." Int. sig., gong. s/o Stars and Stripes Forever. Ignacio de Villarreal, Apartado 252. Daily, 1945-2115. 7.370 megs. 40.68 m. WJN, Rocky Point, N. Y. Address WDB, 6.718 megs. 40.63 m. 7.380 megs. XECR, Mexico City, D. F. Announcements: Spanish, English. Address: Departamento de Publicidad de la Secretario de Relaciones Exteriores. 7.390 megs. 4 0.57 m. JVR, Nazaki, Japan. Works Hongkong. Address JZG, 6.330 megs. ZLT2, Wellington, N. Z. 1 kW. Works VLJ. Address: Supt. of Post and Telegraphs, G. P. O. 7.400 megs. 40.51 m. WEM, Rocky Point, N. Y. Works London, Honolulu. Address WDB, 6.718 megs. 7.465 megs. 40.16 m. HJP, Bogota, Colombia. Works Hialeah nights. 7.470 megs. 40.14 m.
JVQ, Nazaki, Japan. 10 kW. Works PLE, PLV.
Address JZG, 6.330 megs. 40.14 m. 7.510 megs. JVP, Nazaki, Japan. 20 kW. Works Europe. Address JZG, 6.330 megs. 7.520 megs. 39.87 m. KKH, Kahuku, Oahu, Hawaii. Works Dixon. RKI, Moscow, USSR. 20 kW. 7.550 megs. 39.71 m. CFQ, Edmonton, Alta. The E. Journal, Ltd. CGE, Calgary, Alta. The Calgary Herald, Southam Bidg. CKS, Portable. Address CGE above. TI8WS, Puntarenas, Costa Rica. "Ecos del Pacifico." Aptdo. 75. 7.565 megs. 39.63 m. KWY, Dixon, Calif. Address: Transpacific Communication Co., Ltd., 140 New Montgomery St., San Francisco. 7.575 megs. 39.58 m. XGO. Shanghai, China. Chinese Govt. Radio Administration, Sassoon House, Jinkee Road. 7.610 megs. 39.40 m.

KWX, Dixon, Calif. Address KWY, 7.565 megs.

ETD, Addis Ababa, Ethiopia. 2 kW. Frank A. Ham-

7.620 megs.

39.35 m.

mar, Chief Wireless Engineer, Dept. of Com-8.075 megs. 37.13 m. munications. WEZ (W2XBJ), Rocky Point, N. Y. Works Paris. 7.626 megs. 39.32 m. 8.095 megs. 37.04 m. RIM, Tashkent, USSR. Works RKI. 20 kW. VLK, Pennant Hills (Sydney) Australia. Address VLZ, 7.960 megs. 7.680 megs, YBZ, Menado, Celebes, N. E. I. Works PNI, Macassar. 8.120 megs. Address: Mr. H. Van der Veen, Engineer-In-charge, Post-Telegraafen Telefoondienst, 36,92 m. KTP, Manila, P. I. Phones Dixon near 1000. Address KBK, 6.718 megs. Bedriff der Radiostations op Java, Bandoeng. 8.180 megs. 36.65 m. 7.685 megs. 39.01 m. PSK, Rio de Janeiro (Marapicu) Brazil. Phones HJA3, Barranquilla, Colombia. TIR, Cartago, Costa Rica. Address: Compania Radio-N. Y. and Buenos Aires. Companhia Radio Internacional do Brasil, Caixa Postal 709, grafica Internacional de C. R., San Jose. Rio de Janeiro. 7.715 megs. 8.220 megs. 36.47 m. KEE, Bolinas, Calif. Address KEL, 6.860 megs. WNED, Tampa, Fla. Pan American Airways, Inc. ZSV, Walvis Bay, Union of South Africa, 1 kW. 7.740 megs. 38.74 m. CEC, La Granja (Santiago) Chile. Address CEC, 8.225 megs. 36.45 m. 5.820 megs. RRD, Moscow, USSR. 20 kW. 7.797 mens. 38.47 m. 8.396 megs. 35.71 m. HBP, Prangins (Geneva) Switzerland. 20 kW. "Radio Nations." Works USA and broadcasts. HSP, Bangkok, Siam. 20 kW. Address HSP, 7.968 Programs consist of talks in English, French, meas. Spanish. Address: M. G. Gallarati, Information Section, League of Nations, Geneva. 8.455 meas. 35.46 m. Sat., 1730-1815. CWF, Montevideo (Cerrito) Uruguay. 1.5 kW. 7.820 megs. 38.34 m. 8.464 meas. OCO, Lima (Valverde), Peru. DAF, Norden, Germany. Works ships. Address Hauptfunkstelle Norddeich, Norden-Land. 7.850 megs. 38.19 m. HC2JSB, Guayaquil, Ecuador. Interval sig.: one gong. "Ecuador Radio." Juan S. Behr. 8.500 megs. 35.47 m JZF, Nazaki, Japan. 10 kW. Works ships. Address JZG, 6.330 megs. 7.880 megs. 38.05 m. JYR, Kemikawa-Cho, Chiba-Ken, Japan. 5 kW. 8.515 megs. Experimental. 35.21 m. CZA, Drummondville, P. Q. Works ships. CMC, 7.900 megs. 37.95 m. Box 1690, Montreal. VE9EW, Toronto, Ont. J. E. Watson, 60 Rochester IAC, Coltano, Italy. 60 kw. Radio Marittimo Col-Ave. tano, Piza. 7.920 megs. 37.86 m. 8.560 meas. 35.03 m. GDP, Rugby, England. Address GDW, 4.820 megs. WOG, Ocean Gate, N. J. Works London. WOO, Ocean Gate, N. J. 20 kW. Works ships, Amer-7.960 megs. ican Telephone & Telegraph Co., Long Lines VLZ (VK2ME), Pennant Hills (Sydney), N. S. W., Dept., 32 Sixth Ave., N. Y. C. Australia. 3.5 kW. Address: Amalgamated Wireless (A/sia) Ltd., 47 York St., Sydney. WOY, Lawrenceville, N. J. 20 kW. Address WOO above. XGL, Shanghai, China. Address: XGO, 7.575 megs. 8.565 megs. 35.00 m. 7.968 megs. 37.63 m. HSP, Bangkok, Siam. 20 kW. Address Post and HAT3, Szekesfehervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, Telegraph Dept. English by lady. Address HAT2, 7.220 megs. 7.980 megs. 37.57 m. VLZ (VK2ME), Pennant Hills (Sydney), Australia. 8.575 megs. Address VLZ, 7.960 megs. TYD2, Pontoise, France. Phones Rabat. YCP, Balikpapan, N. E. I. 3 kW. Address YBZ, 8.020 meas. 37.38 m. 7.680 meas. HSJ, Bangkok, Siam. 20 kW. Address HSP, 7.968 8.590 megs. 34.90 m. meas. YNVA, Managua, Nicaragua. 8.035 megs. 37.31 m. 8.620 meas. 34.78 m. CNR, Rabat, Morocco. 12 kW. Phones Paris. rection de l'Office des Postes, des Tele-WVD, Seattle, Wash. Works Alaska at 2400. Alaskan Telephone Co., 517 Federal Office Bldg., graphes et des Telephones du Maroc, Rabat. Seattle 8.050 megs. 37.24 m. WXA, Juneau, Alaska. Works WVD at 2400. 8.625 megs. 34.76 m. HC2CW, Guyaquil, Ecuador. "Ondas del Pacifico." 8.070 megs. 37.15 m. IRF, Rome, Italy. Works N. Y. Societe Italo Radio, 8.665 megs.

CO9JQ, Camaguey, Cuba. 150 watts. Rafael Grimany.

Calle General Gom ez No. 4.

Servizi Radioelectrici, Via Calabria No. 46-48,

Roma 125, Italy.

8.680 megs. 34.54 m. GBC. Rugby, England. Works ships. Address GDW, 4.820 megs. 8.690 megs. 34.50 m. VWZ, Kirkee, Poona, India. 10 kW. Works also on freqs. 8.691, 8.693, 8.700 megs. Phones London. 8 708 meas. 34.43 m. VWZ, Kirkee, Poona, India. 10 kW. Phones London. 8.710 megs. 34.42 m. CEC, La Granja, (Santiago) Chile. 800 watts. Address CEC, 5.820 megs. 34.26 m. 8.750 megs. ZBW, Hong Kong, 500 w. The Secy., Hong Kong Brdcstg. Committee, P. O. Box 200.

8.775 megs.

RSZ. Irkutsk, USSR. 15 kW. Tests with RNE.

34.19 m.

34.11 m.

8.770 megs.

8.790 megs.

HJA3, Barranquilla, Colombia.

PNI, Macassar, Celebes, N. E. I. 3 kW. Phones Bandoeng. Address YBZ, 7.680 megs.

8.810 megs. 34.03 m. FNSK, S. S. Normandie. Works Paris nights. French Lines, Pier 88, North River, Foot of W. 48th St., N. Y. C.

33.95 m. 8,830 meas. SHIPS. For address of these ships refer to 4.413 megs., 4.415 megs and 4.430 megs. All these ships work with WOO. The German ships work also DAF; British ships with GBC and CZA; Furness-Bermuda ships with ZFA-B.

DDBR, S. S. Berlin. DDCP, S. S. Cap Polonio. DDFF, S. S. Reliance. DDFT, S. S. Oceana. DHAO, S. S. Hansa

DHDL, S. S. Cap Arcona. DHEY, S. S. Deutschland. DHJZ, S. S. Hamburg.

DHRL, S. S. New York. DOAH, S. S. Bremen.

DOAI, S. S. Europa. FNSK, S. S. Normandie. Works WOO nights. Address 8.810 megs.

FNSM, S. S. Paris. FNTQ, S. S. He de France. GBZW, S. S. Berengaria. GDLJ, S. S. Homeric. GFWV, S. S. Majestic. GLRZ, S. S. Aquitania.

GMBJ, S. S. Empress of Britain. VQJM, S. S. Monarch of Bermuda.

VQJP, S. S. Queen of Bermuda.

33.69 m. 8.900 meas. HCJB, Quito, Ecuador. 150 watts. "La Voz de los Andes." Interval sig.: 4 strokes on gong. Address Clarence W. Jones, Casilla 691,

ZLS, Wellington, N. Z. Address Supt. of Post and Telegraphs, GPO.

8.930 megs. 33.57 m. WAD, Rocky Point, N. Y. R. C. A., Central Frequency Bureau, 66 Broad St., N. Y. City. WEC, Rocky Point, N. Y. Address WAD above.

> 33.54 m. 8.940 meas.

KZGG, Cebu, Island of Cebu, P. I. Inter-Island phone. Philippine Long Distance Telephone Co.

WKL, Rocky Point, N. Y. Address WAD, 8.930 megs.

33.50 m. 8.950 meas. WEL, Rocky Point, N. Y. Address WAD, 8.930 megs.

8.960 megs. 33.46 m. FVA, Algiers, Algeria. Phones Paris.

megs.

9.010 megs. 33.28 m. KEJ, Bolinas, Calif. 20-40 kW. Address KEL, 6.860

9.020 megs. 33.24 m. GCS, Rugby, England. 15 kW. Phones N. Y. night.

9.040 megs. 33.17 m. TYA2, Pontoise, France. Phones Algeria. Service

de la TSF, 5 rue Froidevlaux, Paris. 33.15 m. 9.045 megs.

VWY, Kirkee, Poona, India. Indian Radio & Cable Comm. Co., Poona 6.

9.050 megs. 33.13 m. TFK, Reykjavik, Iceland. 8.5 kW.

32.88 m. 9.120 meas. CP6, La Paz, Bolivia. "Illimani Radio." Compania Radio Boliviana, Casilla 637.

9.125 meas. 32.86 m. HAT4, Szekesfehervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, English by lady. Address HAT2, 7.220 megs.

9.168 megs. 32.70 m. YVR, Santa Rita, Maracay, Venezuela. YVQ. 6.672 megs.

32.70 m. 9.170 megs. KZGF, Manila, P. I. Inter-Island phone. WNA, Lawrenceville, N. J. Works London. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City

32.66 m. 9.180 megs. ZSR, Capetown (Klipheuval), Union of S. Af. Over-

seas Communication Co., Kodak House, Shortmarket St.

32.31 m. 9.280 megs. GCB, Rugby, England. 15 kW. Phones Canada. Address Engineer-in-Chlef, G.P.O. (Radio Section), Armour House, St. Martins le Grand, London EC1.

32.13 m. 9.332 meas. CGA4, Drummondville, P. Q. Phones London. Address VE9DN, 6.005 megs.

9.380 megs. CSW. Lisbon, Portugal.

9.450 meas.

31.84 m. 9.415 mens. PLV, Bandoeng, Java, N. E. I. 80 kW. Works Dixon and JVB, JVE, JVQ. Address Mr. H. Van der

Veen, Post-Telegraafen Telefoondienst, Bedrilf der Radiostations op Java, Bandoong.

9.428 megs. COCH, Vedado, Havana, Cuba. 150 w. "Cuba, the Evergreen Land." Address: No. 2, B. Street.

31.74 m. 9.448 meas. WES, Rocky Point, N. Y. Address WAD, 8.930 megs.

31.73 m.

TG1X, Guatemala City, Guat. 200 watts. Ministerio de Fomento.

9.460 megs. 31.69 m WKJ, New Brunswick, N. J. Address WNA, 9.170 megs.

9.470 megs. 31.66 m. WET, Rocky Point, N. Y. Works Buenos Aires, Caracas. Address WAD, 8.930 megs.

9.480 megs. 31.63 m. KES, Bolinas, Calif. RCA Communications, Inc.

9.490 megs. 31.59 m. KZGH, Iloilo, P. I. Inter-Island phone. Philippine

Long Distance Telephone Co. OXY, Copenhagen, Denmark. Not used at present. VK3ME, Melbourne, Victoria, Australia (Braybank). 5 kW. Amalgamated Wireless (A/sia) Ltd., Box No. 1272L, Elizabeth St. P. O., Melbourne.

9.500 megs. 31.56 m. PRF5, Rio de Janeiro, Brazil. "Radio Journal." Program consists of talks in Portuguese, Spanish, English and sometimes French, German. Address: Director of the Imprensa Nacional.

XGOX, Nanking, China. See 6.000 megs.

9.510 megs. 31.53 m. GSB, Daventry, England. 20 kW. "B for Broad-casting." Interval sig.: Bow Bells and Big Ben. Sign off: God Save the King. Address GSA, 6.050 megs. Daily, 0115-0315; 1215-1500; 1515-1645.

HJU, Buenaventura, Colombia. National Railways.

9.520 megs. 31.49 m.

XEDQ, Guadalajara, Jal. Relays XED. Address Cia. Radiofonografica, Apartado 197. Daily, 0800-0900: 1200-2400.

XEME, Merida, Yuc. "La Voz de Yucatan." Calle 59 No. 517.

> 9.530 megs. 31.46 m.

W2XAF, Schenectady, N. Y. 40 kW. Relays NBC-WGY. The General Electric Co., Schenectady. "The Voice of Electricity." Programs commence with electrical discharge of 10,000,000 Volts (man-made lightning). Sun., 1615-2400; Thurs., 1700-2300; other days, 1730-2300.

> 9.540 megs. 31.43 m.

DJN, Zeesen, Germany, 8 kW. Programs close with "Deutschland ueber alles" and "Horst Wessellied." Programs preceded by a music box tune, "Ever be True and Honest." Address DJC, 6.020 megs.

LKJ1, Jeloy, Norway. 500 watts. Address LCL. 6.130 megs. Daily, 0500-0800.

> 9.550 megs. 31.39 m.

HH2R, Port au Prince, Haiti.

9.560 megs. 31.36 m.

DJA, Zeesen, Germany. For details see DJN, 9.540 megs.

> 9.565 megs. 31.35 m.

VUB, Bombay, India. Indian State Broadcasting Service, Irwin House, Sprotts Road, Ballard Estate, Bombay. Sun., 0700-0900 approximately.

> 9.570 megs. 31.33 m.

2 2 W1XK, Millis (Boston), Mass. 10 kW. Relays WBZ-WBZA, NBC programs. "These are the New England Westinghouse stations WBZ, WBZA, WIXK."

W8XK, Pittsburgh (Saxonburg), Pa. This frequency loaned to W1XK.

9.575 megs. 31.31 m. VUC, Calcutta, India. Refer to VUC, 6.112 megs.

9.580 megs. 31.30 m. GSC, Daventry, England. 20 kW. "C for Corpo-ration." For other details see GSB, 9.510

megs. Daily, 1800-2000; 2200-2300. LRX, Buenos Aires, Argentina. "Radio El Mundo." Relays LR1. 5 kw.

VK3LR, Melbourne, Australia. , Melbourne, Australia. Research Section, P. M. G. Dept., 61 Little Collins St., C1, Melbourne. Daily, 0400-0800.

9.585 meas. 31.28 m VK2ME, Sydney (Pennant Hills), Australia. 12 kW. "The Voice of Australia." Laughing notes of the kookaburra, the Laughing Jackass, various times during program. Sign off: God Save the King. Address: Amalgamated Wireless (A/sia) Ltd., 47 York St., Sydney. Sundays, 0100-0300: 0500-1100.

..., Villejust, France. 120 kW. (Under construction.)

9.590 megs.

9.590 megs, 31.26 m. HP5J, Panama City, Panama. 1 kW. "La Voz de Panama." Manuel Diaz Doce, Apartado 867. Daily, 1145-1300; 1930-2200.

W3XAU, Philadelphia (Newton Square), Pa. Relays CBS-WCAU. 750 watts. Address W3XAU, 6.060 megs. Daily, 1200-2000.

9.595 megs. 31.25 m. HBL, Prangins (Geneva), Switzerland. 18 kW. "Radio Nations." Works USA and broadcasts. Programs consist of talks in English, French, Spanish. Address HBP, 7.797 megs. Sat., 1730-1815.

9.600 megs. 31.23 m.

CB960. Santiago, Chile. "Radiodifusora Pilot." s/o Rhapsody in Blue. Compania Internacional de Radio, Casilla 16-D.

LQA, Buenos Aires, Argentina. Compania Inter-nacional de Radio, Defensa 143, B. A.

9.610 megs. 31.19 m. DGU, Nauen, Germany. Phones Egypt irreg. Address DGK, 6.675 megs.

HJ1ABP, Cartagena, Colombia. Cartagena." Aptdo. 37.

9.617 megs. 31.18 m. HH3W, Port-au-Prince, Haiti.

9.635 megs.

31.12 m. 12RO, Rome, Italy. Address Ente Italiano Audizioni Radiofoniche, Via Montello 5, Rome. American Hour broadcast Mon., Wed., Fri., 1800-1930

9.650 megs. 31.07 m. CT1AA, Lisbon, Por: ugal. 2kW. "Radio Colonial."
Interval sig.: 3 cuckoos. Address: Senhor
Abilio Nunes dos Santos, Jr., Av. Antonio

d'Aguiar 144. 9.675 megs. 30.99 m.

9.700 megs. 30.91 193 CQN, Macau. 500 w.

DZA, Zeesen, Germany.

9.710 megs. 30.88 m.

GCA, Rugby, England. 15 kW. Phones N. Y. and Buenos Aires. Address GCB, 9,280 megs,, Hallowell, Maine.

9.750 megs. RKF, Moscow, USSR. 20 kW. 30.75 m. VLJ, Sydney (Pennant Hills), Australia, 3.5 kW.

Phones Bandoeng. Address VK2ME, 9.585 10.160 megs. 29.51 m. RIO, Baku, USSR. Works RIR, RNE mornings. megs. WOF, Lawrenceville, N. J. Address WNA, 9.170 megs. 10.165 megs. 29.50 m. HS8PJ, Bangkok, Siam. 10 kw. 9.790 megs. 30.63 m. Phones N. Y. eve-GCW, Rugby, England. 15 kW. 10.200 megs. 29.34 m. nings. Address GCB, 9.280 megs. PSH, Rio de Janeiro (Marapicu), Brazil. 12 kW. Works Buenos Aires. Cia. Radiotelegraphica 30.56 m. 9.810 meas. Brasileira, Caixa Postal 500. DFE, Nauen, Germany. 10.250 meas. 29,25 m. 9.830 megs. 30.50 m. IRM. Rome, Italy. "Italo Radio" LSL, Buenos Aires (Hurlingham), Argentina. 5 kW. 9.840 megs. 30.47 m. 10.260 megs. JYS, Kemikawa-Cho, Chiba-Ken, Japan. Experi-mental. 10 kW. PMN, Bandoeng, N. E. I. 3 kW. Works Sydney. Address PLV, 9.415. 30.40 m. 9,862 megs. 10.285 megs. 29.15 m. EAQ, Madrid (Aranjuez), Spain. 20 kW. "La Voz de DZC, Zeesen, Germany. Address DGK, 6.675 megs. Espana." Transradio Espanola, S. A., Departamento de Radiodifusion Ibero-Ameri-10,290 megs. cana, Apartado 951. Programs close with HPC, Panama City, Panama. National Hymn, "Himno de Riego." Daily, 1730-1900; Sat., 1200-1400. 10.330 megs. 29.02 m. 30.38 m. ORK, Brussels (Ruysselede), Belgium. 11 kW. Works 9.870 megs. WON, Lawrenceville, N. J. 20 kW. Works London. Add.: WNA, 9.170. OPM irregularly; broadcasts daily. Ann.: Radio I.N.R. Sign off: La Brabaconne. Address: Regie des Telegraphes et des Tele-9.895 megs. 30.30 m. phones, Direction des Radiocommunications. LSN. Buenos Aires (Hurlingham), Argentina. Works Bruxelles. N. Y. Address LQA, 9.600 megs. 29.01 m. 10.335 megs. 9.920 megs. 30.22 m. ZFD, St. George, Bermuda. 1.5 kW. Address reports JDY, Darien. Works JVU, Nazaki. on special transmissions to Town Clerk, St. George. 9.930 megs. 30.19 m.
HJY, Bogota, Colombia. Phones CEC, OCI evenings. 30.19 m. 10,350 megs. 28.97 pg. LSX, Buenos Aires (Monte Grande), Argentina. 20 kW. Transradio Internacional, Compania 9.950 megs. GCU, Rugby, England. 15 kW. Works N. Y. nights. Radiotelegrafica Argentina S. A. San Martin Address GCB, 9.280 megs. 329. 9.990 megs. KAZ, Manila, P. I. 40 kW. Works Dixon. Radio Corp. of the Philippines, Plaza Moraga. LSL, Buenos Aires, Argentina. Address LQA, 9.600 10.370 meas. 28.91 m. EHZ, El Tablero, Canaries. Works EHX. 10.375 megs. meas. JVO, Nazaki, Japan. 10 kW. Works JZA, JZB, JZC. 10.000 megs. Harbin. Address JZG, 6.338 megs. 29.98 m. WWV, Beltsville, Md. 20 kW. Standard Frequency Station. Dept. of Commerce, National Bureau of Standards, Washington, D. C. 10.380 megs. 28.88 m. WCG, Tuckerton, N. J. 40 kw. Tues., Fri., 1315-1415. 10.400 megs. 29.86 m. 10.040 megs. KEZ, Bolinas, Calif. 40 kW. RCA Communications, Htt, Trujillo, D. R. Cia. Dominicana de Telefonos, Inc., Pacific Division, 28 Geary St., San Fran-Aptdo. 577. cisco, Calif. 10.042 meas. 29.85 m. 28.80 m. 10.410 megs. DZB, Zeesen, Germany. KET, Bolinas, Calif. 40 kW. Address KEZ, 10.400 megs PDK, Kootwijk, Netherlands. 60 kW. Address Radio-29.82 m. 10.055 megs. SUV, Cairo (Abu Zabai), Egypt, 10 kW. Marconi Radio Telegraph Co., of Egypt, S. A., Box laboratory, Neth. State Telegraphs, Park-straat 29, S'Gravenhage. 795, Cairo. 10.420 megs. ZFB, Hamilton (St. George) Bermuda. * 1.5 kW. XGW, Shanghai, China. 20 kW. Address XGO. Phones N. Y. days. 7.575 megs. 18.070 megs. 29.77 m. EHY, Madrid (Pozuelo del Rey), Spain. Phones YVR afternoons. Compania Telefonica Nacional de Espana, S. A., Margall 2, Madrid. 10.430 meas. 28.75 m. YBG, Medan, Sumatra, N. E. I. 3 kW. Works Bandoeng. Director of Govt. Radio Service, Telegraaf en Telefoondienst, Serdangweg 2, 10.080 megs. 29.74 m. Medan. Daily, 0430-0530; 2030-2300. RIR, Tiflis, USSR. Works RIO, RNE mornings. 28,64 m. 10.465 megs.

WKC, Rocky Point, N. Y. 100 kW. Address WAD,

8.930 megs.

29.58 m.

10.135 megs.

OPM, Leopoldville, Belgian Congo. 12 kW. Works ORK. Address Leopoldville Radio Station.

10.520 megs. 28.50 m. 11.595 megs 25.86 m. CFA4, Drummondville, P.Q. CMC, Box 1696, Montreal VRR4, Stoney Hill, Jamaica. Works WNC. VLK, Pennant Hills (Sydney), Australia. 16 kW. Address VK2ME, 9.585 megs. 11.660 megs. 25.71 m. JVL, Nazaki, Japan. 10 kW. Works JIA, JIB, JIC 10.530 megs. 28.47 m. Taiwan. Address JZG, 6.330 megs. GBX, Rugby, England. 8 kW. Address GCB, 9.280 megs. 11.670 megs. 25.69 m. JIB, Taihoku (Chureki), Taiwan. Works Tokyo. 6 PPQ, Rio de Janeiro (Santa Cruz), Brazil. 5 kW. Adkw. Kokusal Denwa Kaisha, Chureki Gai, dress, see PSH, 10.220 megs. Shinchiku, Taiwan. 11.680 megs. 25.67 m. 10.550 megs. 28.42 m. KIO, Kahuku, Oahu, Hawaii. Works Bolinas. WOK, Lawrenceville, N. J. 20 kW. Address WNA, 9.170 meas. 11.710 meas. 25.60 m. HJ4ABA, Medellin, Colombia. "Ecos de la Montana" 10.610 megs. 28.25 m. WEA, Rocky Point, N. Y. W2XBJ 40 kW. Address 11.715 megs. 25.59 m. Ministere des Postes, TPA4, Pontoise, France. WAD, 8.930 megs. Telegraphes et Telephones, 98 bis. Blvd. 10.620 megs. Haussmann. 28.23 ma. EHX, Madrid (Pozuelo del Rey), Spain. 11.720 megs. 25.58 m. CJRX, Winnipeg, Man. (Middlechurch). James 10.660 megs. 28.13 m. Richardson & Sons, Royal Alexandra Hotel. JVN, Nazaki, Ibaraki-Ken, Japan. 20 kW. Works Daily, 2000-2400. Europe and broadcasts to America. Sign off: Japanese National Anthem. Address, see 11.725 megs. 25.57 m. JZG, 6.330 megs. Mon., Thurs., 1600-1700; 11.725 megs. 25.57 m.
PHI, Hilversum, Netherlands. 23.6 kW. (Winter frequency). Philips' Omroep Holland-Indie, Emmasingel 29, Eindhoven. Andaily, 0000-0100. 10.670 megs. 28.10 m nounces in Dutch, Malay, German, French, CEC, La Granja, (Santiago) Chile. 4 kW. Compania English, Spanish, Portuguese. Close: Dutch Internacional de Radio S. A. (Chile), Casilla National Anthem. 16-D. Santiago. PLQ, Bandoeng, N. E. I. 60 kW. 11.750 megs. 25.52 m. GSD, Daventry, England. 20 kW. "D for Daventry." 10.675 megs. 28.09 m. Interval sig.: Bow Bells and Big Ben. Sign WNB, Lawrenceville, N. J. 500 watts. Phones Beroff: God Save the King. Address, see GSA, 6.050 megs. Daily, 0115-0315; 1215-1600; muda. Address, WNA, 9.170 megs. 1800-2000: 2200-2300. 10.740 meas. 27.92 m. 11.770 megs. 25.47 m.
DJD, Zeesen, Germany. 8 kW. Programs preceded
by a music box tune, "Ever be True and JVM, Nazaki, Ibaraki-Ken, Japan. 20 kW. Other details identical JVN, 10.660. 14,7 Honest." Address DJC, 6.020 megs. 10.770 meas. 27.84 m. GBP, Rugby, England. 15 kW. Address GCB, 9.280 11.790 megs. megs. HH2T, Port-au-Prince, Haiti. W1XAL, Boston, Mass. 5 kW. 10.840 megs. 27.66 m. KWV, Dixon, Calif. 20 kW. Address: Transpacific 11.795 megs. 25.42 mg. DJO, Zeesen, Germany. Communication Co., Ltd., 140 New Montgomery St., San Francisco, Calif. 11.810 megs. 25.39 m. I2RO, Rome, Italy. Address I2RO, 9.630 megs. 10.850 meas. 27.63 m. DFL, Nauen, Germany. 11.820 megs. 25.37 m. GSN, Daventry, Great Britain. Int sig.: Big Ben. 10.960 megs. 27.36 m. s/o, God Save The King. British Brdcstg. JZB, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works Corp., London W1. JVI, JVO, JVÚ. Add: Manchukuo Tele-phone & Telegraph Co., Ltd., Shinkio. 11.830 megs. 25.34 m. W2XE, New York, N. Y. (Wayne, N. J.) Relays CBS, 11.000 megs. 27.26 m. WABC. 10 kW. s/o Star Spangled Banner. C.B.S., 485 Madison Ave., N. Y. C. PLP, Bandoeng, Java, N. E. I. 3 kW. XBJQ, Mexico City, Mexico. Relays XEW irreg. W9XAA, Chicago, III. Int. sig.: 4 chimes. National Bank of Mexico. Box 2825. 25.31 m. 11.845 meas. ZLT4, Weilington, N. Z. , Villejust, France. 128 kW. Under con-11.140 megs. 26.91 m. struction. XGB, Shanghai, China. 15 kW. (Existence doubtful). 11.855 megs. 25.29 m. DJP, Zeesen, Germany. 11.370 meas. 26.38 mg. CWG, Cerrito (Montevideo), Uruguay. 1.5 kW. 11.860 meas. 25,28 m. GSE, Daventry, England. 28 kW. "E for Empire." 11.495 megs. Interval signal: Westminster Chimes and Big Ben. Sign off: God Save the King. Address: see GSA, 6.050 megs. Daily, 1100-1200. VIZ3, Rockbank (Melbourne), Australia. Tests with Canada. Address VK3ME, 9.503 megs.

11.870 megs. 25.25 m. W8XK, Pittsburgh (Saxonburg), Pa. 40 kW, Relays NBC-KDKA.	JZG, 6.330 megs. RKK, Moscow, USSR. 20 kW.
11.880 megs. 25.24 m. TPA3. "Radio Coloniale." Pontoise, France. 15 kW. Address, see 11.715 megs. Daily, 1115-	12.325 megs. 24.33 m. DAF, Norden, Germany. 5 kW. Phones ships, mornings. For address see DAF, 8.464 megs.
1415; 1500-1800.	12.500 megs. 23,99 m. RKF, Moscow, USSR. 20 kW. ZSV, Walvis Bay, Union of South Africa. 1 kW.
11.940 megs. 25.11 m. FTA, Ste. Assise, France. Works Salgon. Societe Francaise Radio-Electrique, 79 Blvd. Hauss- mann, Paris VIII.	12.660 megs. 23.68 m. CZA, Drummondville, P. Q. Works Ships. CMC, Box 1696, Montreal.
11.950 megs. 25.08 m. KKQ. Bolinas, Calif. Address KEZ, 10.400 megs.	12.745 megs. 23.60 m. DAF, Norden, Germany. 5 kW. Works ships. Ad-
11.955 megs. 25.07 m. ETB, Addis Ababa, Ethiopia. 2 kW. Frank A. Ham-	dress DAF, 8.464 megs. 12.780 megs. 23.46 m.
mar, Chief Wireless Engineer, Dept. of Communications.	GBC, Rugby, England. 5 kW. Works ships. Address GCB, 9.280 megs.
11.990 megs. 25.00 m. FZS2, Saigon, French Indo-China. 15 kW. Phones	12.795 megs. 23.45 m.
Paris. Cie Generale de Telegraphie Sans FII, Boite Postale 238.	IAC, Caltano, Italy. 14 kW. Works ships. Address IAC, 4.355 megs.
12.000 megs. 24.99 m. RNE, Moscow, U.S.S.R. 20 kW. Kremlin Chimes	12.830 megs. 23.36 m.
at 1600 EST. Programs in English, Russian, German, French, Czech, Hungarian, Dutch, Spanish, Swedish. Address: Mme. Inna Marr, Central Radio Committee, Petrovka	CNR, Rabat, Morocco. Works Paris. Address, CNR, 8.035 megs. HJA3, Barranquilla, Colombia.
12, Moscow.	12.840 megs. 23.35 m.
12.020 megs. 24.94 m. JVK, Nazaki, Japan. Works Shanghal. Address JZG, 6.330 megs.	WOO, Ocean Gate, N. J. 20 kW. Works ships. Address WNA, 9.170 megs. WOY, Lawrenceville, N. J. 20 kW. Address WNA, 9.170 megs.
12.030 megs. 24.92 m. HBO. Prangins, (Geneva), Switzerland. 20 kW. "Radio Nations." Address: see HBP, 7.797 megs.	12.862 megs. 23.31 m. WOEH, Broadcast pickup. NBC, 30 Rockefeller Plaza, NYC.
12.035 megs. 24.91 m. DJK, Nauen, Germany. 7.2 kW. Address DGK, 6.675 megs.	12.865 megs. 23.30 m. IAC, Coltano, Italy. 30 kw.
12.050 megs. 24.88 m. PDV, Kootwijk, Netherlands. 60 kW. Address: PDK, 10.410 megs.	12.930 megs. 23.18 m. WAW, Hialeah, Fla.
12.130 megs. 24.72 m. DZE, Zeesen, Germany.	12.955 megs. 23.14 m. GMBJ, S. S. Empress of Britain. Works WOO, IAC, DAF, GBC, CZA, etc.
12.150 megs. 24.68 m. GBS, Rugby, England. 15 kW. Phones N. Y. afternoons. Address: GCB, 9.280 megs.	12.985 megs. 23.09 m. DFC, Nauen, Germany.
12.160 megs. 24.66 m. FQO, Ste. Assise, France.	13.020 megs. 23.03 m. JZE, Nazaki, Japan. 10 kW. Works ships. Address , JZG, 6.330 megs.
12.215 megs. 24.55 m.	13.040 megs. 22.99 m.
TYA, Paris, France. Phones Algeria. Address: FTA, 11.940 megs.	SHIPS. For address of these ships refer to 4413, 4415 and 4430 megs. All these ships work
12.225 megs. 24.53 m. TFJ. Reykjavík, Iceland. 8.5 kW. Icelandic State Brdcstg. Serv., Box 547.	with WOO, and DAF. DDBR, S. S. Berlin. DDCP, S. S. Cap Polonio. DDFF, S. S. Relianca.
12.240 megs. 24.49 m. GBU. Rugby, England. Phones N. Y. Address: GCB, 9.280 megs.	DDFT, S. S. Oceana. DHAO, S.S. Hansa. DHDL, S. S. Cap Arcona. DHEY, S. S. Deutschland.
12.250 megs. 24.43 m. TYB, Pontoise, France. Works JVH and Ships.	DHJZ, S. S. Hamburg. DHRL, S. S. New York. DOAH, S. S. Bremen.
12.260 megs. 24.43 m. FTN, Ste. Assise, France. Address: FTA, 11.940 megs.	13.050 megs. 22.97 m.
12.270 megs. 24.52 m.	These ships work with IAC and WOO. All owned by the Italian Line, 1 State St., N. Y. C.
12.270 megs. 24.52 m. JVJ. Nazaki, Japan. Works Hongkong. Address	IBEJ, S. S. Conte Rosso.

13.745 megs.

Box 1690, Montreal, P. Q.

CGA2, Drummondville, P. Q. Canadian Marconi Co.

21.81 m.

IBGI, S. S. Conte Verde IBLI, S. S. Conte di Savoia. ICEJ. S. S. Rex. 13.075 megs. 22.93 m. VPD, Suva, Fiji. "Radio Suva." Amalgamated Wireless, (A/sia) Ltd., Suva. Daily exc. Sunday. 0030-0130. 13.105 megs. 22.88 m IRJ. Rome, Italy. 13.140 megs. 22.82 m. CWH, Montevideo (Cerrito), Uruguay. 1.5 kW. 13.190 megs. 22.73 m. FNSK, S. S. Normandie. Works Paris afternoons. Address FNSK, 8.810 megs. 13.200 megs. 22.71 m. CFU, Rossland, B. C. Consolidated Mining & Smeltina Co. 13.210 megs. 22.70 m. DOA!, S. S. Europa. 70 w. Works DAF-WOO. FNSK, S. S. Normandie. Works WOO, afternoons Address FNSK, 8.810 megs. 13,320 meas. 22.51 m. GBZW, S. S. Berengaria. GDLJ, S. S. Homeric. GFWV, S. S. Malestic. GLRZ, S. S. Aquitania. 13.337 megs. 22.48 m. YVQ, Maracay (Santa Rita), Venezuela. Phones Hialeah days. 13.380 megs. IDU, Asmara, Eritrea. Phones Rome. 13.390 meas. 22.39 m. WMA, Lawrenceville, N. J. Works London. Address WNA, 9.170 meas. 13.395 megs. FNSM, S. S. Paris. 22.39 m. FNTQ, S. S. Ile de France. 13.410 megs. 22.36 m. WCT, San Juan, Porto Rico. 400 w. Phones WNC. Radio Corp. of P. R. 13.415 megs. 22,35 m. GCJ, Rugby, England. Works JVH, Nazaki. Address GCB 9.280 megs., 0300-0800. 13.435 megs. 22.31 m. WEL, Rocky Point, N. Y. Phones London. Address WAD, 8.930 megs. 13.560 megs. 22.11 m. JVI, Nazaki, Japan. 10 kW. Works JZA, JZB, JZC Harbin. Address: Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo. 13.595 megs.

22.05 m.

22.05 m.

22,00 m.

GBB2, Rugby, Great Britain. Phones Canada, Egypt.

JYK, Kemikawa-Cho, Chiba-Ken, Japan. Esperi-

SPW, Warsaw, Poland. 10 kW. Polskie Radjo, Spolka

13.690 megs. 21.90 m. KKZ, Bolinas, Calif. Works Honolulu, Hsinking,

Akcylna, Warszawa UI, Mazowiecka 5.

New York. Address: KEZ, 10.400 megs.

Address GCB, 9.280 megs.

13.600 megs.

13.630 megs.

mental.

13.780 megs. 21.75 m. KKW, Bolinas, Calif. Address: KEZ, 10.400 megs. 13.810 megs. HRM, Tela, Honduras. Tela Railroad Co. SUZ, Cairo (Abu Zabal), Egypt. 10 kW. Uses any freq. between 13.810 and 13.830 megs. Address SUV, 10.055 megs. HRF, Tegucigalpa, Honduras. Mr. Ellingson, Cia. Agricola de Ulua, La Lima. 13.870 megs. 21.61 m. WIY, Rocky Point, N. Y. Address: WPE, 13.840 megs. 13.880 megs. 21.60 m. VJZ, Raboul, New Guinea. 13.900 megs. 21.57 m. WQP (W2XBJ), Rocky Point, N. Y. Address: WPE, 13.840 megs. 13.980 megs. 21.45 m. LCO, Jeloy, Norway, 1kW. Address LCL, 6.130 megs. 13.990 megs. 21.43 m. GBA2, Rugby, England. Address GCB, 9.280 megs. 14.000 to 14.400 megs. 20,82 to 21.42 meters. AMATEURS. Phones work between 14.150 and 14.250 megs. 14.000 megs. 21.42 m. HJ5ABE, Cali, Colombia, Apartado 50, Daily 1900-2280. 14.236 megs. 21.06 m. HB9B, Berne, Switzerland. Swiss Shortwave Association, 30 Neuengasse, Berne. First Monday every month 1510-1615; 1800-1900. 14.290 megs. HB9AT, Berne, Switzerland. Address HB9B above. First Monday each month, 1800-1900. HB9J, Berne, Switzerland. Address HB9B above. First Monday each month, 1510-1615. 14.410 mens 20 81 *** DIP, Zeesen, Germany. 14.440 megs. 20.76 m. GBW, Rugby, England. 15 kW. Address GCB, 9.280 meas. 14.460 megs. 20.73 m. DZH, Zeesen, Germany. 14.470 megs. 20.72 m. WMF, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City. 14.480 megs. LSN, Buenos Aires (Hurlingham), Argentina, Phones N. Y. Address: Compania Internacional de Radio, Defensa 143. YNA, Managua, Nicaragua. Phones Hialeah days. 14.535 megs. 20.63 m. HBJ, Prangins (Geneva), Switzerland. 20 kW. "Radio Nations." Address: M. Gallarati, Information Section, League of Nations,

Geneva.

14,545 megs. 20.69 m. HPF, Panama City, Panama. Phones Hialeah days. TGF, Guatemala City, Guat. Phones Hialeah days. TIN, Cartago, Costa Rica. Phones Hialeah days. Compania Radiografica Internacional de C. R., San Jose. TIU, Cartago, Costa Rica, See TIN above. 14.590 meas. 20.55 m. WMN, Lawrenceville, N. J. 20 kW. Address WMF, 14.470 megs. 14.640 megs. 20.42 m. JVH, Nazaki, Japan. 20 kW. Address JVI, 13.560 megs. Works GCJ, 0200-0600. 14.665 meas 20.44 m DFD, Nauen, Germany. 14.690 megs. 20.41 m. PSF, Rio de Janeiro, Brazil. Phones Madrid and Buenos Aires. Companhia Radio Internacional do Brasil, Caixa Postal 709. 14.740 megs. 20.34 m. IRG. Massawa, Eritrea. 14.790 meas. 20.27 m. ROU, Omsk, USSR. 14.800 megs. 20.26 m. WQV, Rocky Point, N. Y. 40 kW. Address WPE, 13.840 megs. 20.23 m. 14.815 megs. WQL, Rocky Point, N. Y. 40 kw. 20.21 m. 14.830 meas. WKU, Rocky Point, N. Y. 40 kW. Address WPE 13.840 megs. 14.845 mens. 20.20 m. OCJ2, Lima (Valverde) Peru. 20.11 m. JVG, Nazaki, Japan. 10 kW. Works JIA, JIB, JIC Taiwan. Address: JVI, 13.560 megs. 14.920 megs. KQH, Kahuku, Hawaii. 20.08 m. 14.930 megs. HJB, Bogota, Colombia. Phones Hialeah, days. 14.935 megs. 20.07 m. PSA, Rio de Janeiro, Brazil. Phones Buenos Aires and Madrid. Address: PSF, 14.690 megs. 14.960 megs. 20.04 m. YSL, El Salvador. 14.970 meas. 20.03 m. LZA, Sofia, Bulgaria. 14.980 meas. 20.01 mg. KAY, Manila, P. I. 40 kW. Radio Corp. of the Philippines, Plaza Moraga, Manila. 15,000 meas. 19.99 m.

15.040 megs. 19.93 m.

WWV. Beltsville, Md. 1 kW. National Bureau of Standards, Washington, D. C. Wed, 1200-

RKI, Moscow, USSR. 20 kW. Works RIM Tashkent. WQG, Rocky Point, N. Y. 40 kW.

15.055 megs. 19.91 m. WNC, Hialeah, Fla. 400 watts. Works HJB, HJP. HPF, HRM, TGF, TIN, TIU, YNA, YVQ and ZFS daily; other S. Americans irregular-Iv.

15.070 megs. 19.89 m. PSD, Rio de Janeiro (Marapicu), Brazil. 12 kW. Works Madrid and Buenos Aires mornings. Address: PSF, 14.690 megs.

15.090 megs. 19.87 m. RKI, Moscow, USSR. 20 kW. Works Rocky Point.

15.104 megs. 19.85 m. RAU. Tashkent, USSR. Phones Moscow mornings.

19 84 ms.

15.110 meas. DJL. Zeesen, Germany.

> 15.120 megs. 19.83 m.

HVJ, Vatican City. 10 kW. Interval sig.: clock ticking for 10 minutes preceding transmission; bells of St. Peter's at 3 o'clock. Announcement: Laudatur Jesus Christus. Talks as follows: Mon., Italian; Tues., English; Wed.. Spanish; Thurs., French; Fri., German; Sat., Dutch: Sun., Latin. Address: Stazione Radio-Vatican, Pontificia Accademia Della Scienze, Roma-Castina Pio IV, Citta del Vaticano. Schedule: 1000-1045.

15.140 megs. 19.80 m. GSF, Daventry, England. 15 kW. "F for Fortune."
Interval sig.: Westminster chimes and Big Ben. Sign off: God Save the King. Address. 6//3 Bent. Sign off: Good Save the Mily. Assault British Broadcasting Corp., Broadcasting House, London W.1. Daily, 0900-1200; daily exc. Sun., 0600-0845; Sun., 0630-0845.

15.180 megs. 19.75 m. GSO, Daventry, Great Britain. Int. sig: Big Ben. S/O: God Save The King. Address GSF above.

15.200 megs. 19.73 m.
DJB, Zeesen, Germany. 8 kW. Programs preceded
by a music box tune, "Ever be True and Honest." Address DJC 6.020 megs.

15.210 megs. 19.71 m. W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KDKA.

> 15.220 megs. 19.70 m.

PCJ. Hilversum, Netherlands, Philips' Omroep Holland-Indie, Emmasingel 29, Eindhoven. Announcements in Dutch, English, French, German, Malay, Portuguese, Spanish. Sign off: Dutch National Anthem. Irregular in operation.

TPA2, Pontolse, France. "Radio Coloniale." Address, 11.715 megs.

15.250 megs.

LRU, Buenos Aires, Argentina. "Radio El Mundo." Relays LR1.

W1XAL, Boston, Mass. 5 kW.

15.260 megs. GSI, Daventry, England. "I for Island." For other details see GSF, 15.140 megs.

19.65 m.

15.270 megs.

W2XE, New York, N. Y. (Wayne, N. J.). 10 kW. Relays WABC-CBS, For address see 6.120 megs. Daily 1100-1300.

15.280 megs. 19.62 m. DJQ, Zeesen, Germany.	Peru, afternoons. Address CEC, 10.670 megs
15.295 megs. 19.60 m. , Villejust, France. 120 kW. Under con- struction.	15.880 megs. 18.88 m. FTK, Ste. Assise, France. Phones Salgon. Address FTA, 11.940 megs.
15.300 megs. 19.60 m.	15.950 megs. 18.80 m. PLG, Bandoeng, Java, N. E. I.
CP7, La Paz, Bolivia. Compania Radio Boliviana, Casilla 637.	15.970 megs. 18.77 m. WKO, Rocky Point, N. Y. Address WPE, 13.840 megs
15.310 megs. 19.58 m. GSP, Daventry, Gr. Britain. "P for Progress."	16.030 megs. 18.71 m. KKP, Kahuku, Oahu, Hawaii.
15.330 megs. 19.56 m. W2XAD, Schenectady, N. Y. 20 kW. The General Electric Co. Relays NBC-WGY. "The Voice of Electricity." Program commences	16.050 megs. 18.68 m. JVC, Nazaki, Japan. Works Hongkong. Address JVI, 13.560 megs.
with electrical discharge of 10,000,000 volts of man-made lightning. Sunday, 1030-1600; other days, 1400-1500.	16.118 megs. 18.60 m. IRY, Rome, Italy. Societe Italiana per i Servizi Radioelettrici, Via Calabria 46-48.
15.340 megs. 19.55 m. DJR, Zeesen, Germany.	16.150 megs. 18.56 m.
15.350 megs. 19.53 m. CT1AA, Lisbon, Portugal. 2kW. Int. Sig.: 3 cuckoos. Address CT1AA, 9.600 megs.	GBX, Rugby, England. Phones Sydney. Address Engineer-in-chief, G.P.O. (Radio Section), Armour House, St. Martins le Grand, London EC1.
15.355 megs. 19.52 m. KWU, Dixon, Calif. 20 kW. Address KWV, 10.840 megs	16.200 megs. 18.51 m. FZR, Saigon, French Indo-China. Phones Paris. Address FZS2, 11.990 megs.
15.370 megs. 19.51 m. HAS3, Szekesferhervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, English by lady. Address, see HAT2, 7.220 megs.	16.240 megs. 18.49 m. KTO, Manila, P. I. Phones Dixon. Radio Corp. of the Philippines, Plaza Moraga, Manila.
15.415 megs. 19.45 m. KWO, Dixon, Calif. 20 kW. Address KWV, 10.840 megs	16.270 megs. 18.48 m. WLK, Lawrenceville, N. J. Works London. Address WMF, 14.470 megs.
15.440 megs. 19.42 m. PRADO, Riobamba, Ecuador. "Estacion El Prado." Apartado 98. This freq. used in summer	16.380 megs. 18.30 m. XGN, Shanghal, China. Address XGO, 7.575 megs.
only, Sundays, 1700-1800. 15.445 megs. 19.41 m.	16.460 megs. 18.22 m. DHEY, S. S. Deutschland. Works WOO, DAF. Address, North German Lloyd, Pier 4, Foot of
WKW, Rocky Point, N. Y. Address WPE, 13.840.	58th St., Brooklyn, N. Y.
15.475 megs. 19.37 m. KKL, Bolinas, Calif. Address KEZ, 10.400 megs.	16.600 megs. 18.06 m. DOAI, S. S. Europa. Phones WOO, DAF. Address DHEY above.
15.510 megs. 19.33 m. JDX, Darien. Works JVU Nazaki.	16.910 megs. 17.73 m.
15.620 megs. 19.19 m. JVF, Nazaki, Japan. 20 kW. Works Dixon, nights. Address JVI, 13.560 megs.	JZD, Nazaki, Japan. 20 kW. Works ships. Address JVI, 13.560 megs.
15.660 megs. 19.15 m.	17.080 megs. 17.55 m. GBC, Rugby, England. 5 kW. Works ships. Address GBX, 16.150 megs.
JVE, Nazaki, Japan. 10 kW. Works Bandoeng nights. Address JVI, 13.560 megs.	17.120 megs. 17.51 m.
15.680 megs. 19.12 m. JZA, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works JVI, JVO, JVU. Add.: Manchukuo Tele- phone & Telegraph Co., Shinkio.	WOO, Ocean Gate, N. J. 20 kW. Works ships. Address WMF, 14.470 megs. WOY, Lawrenceville, N. J. 20 kW. Address WMF. 14.470 megs.
15.750 megs. 19.04 m. JtA, Taihoku (Chureki) Taiwan. Works JVG, JVL, JVV.	17.260 megs. 17.37 m. DAF, Norden, Germany, 5 kW. Works ships. Address DAF, 8.464 megs.
15.760 megs. 19.02 m. JYT, Kemikawa-Cho, Chiba-Ken, Japan. 5 kW.	17.310 megs. 17.32 m.
15.860 megs. 18.90 m. JVD, Nazaki, Japan. Works Shanghal. Address JVI, 13.560 megs.	CZA, Drummondville, P. Q. Works ships. Address CGA2, 13.745 megs. W3XL, Bound Brook, N. J. 20 kW. National Broad- casting Co., 30 Rockefeller Plaza, N. Y. C.
15.865 megs. 18.89 m. CEC, La Granja (Santiago), Chile. 800 watts. Phones	17.480 megs. 17.15 m. VWY2, Kirkee, Poona, India. Phones London.

Indian Radio & Cable Communication Co., 18.190 megs. 16.48 m. Poona 6. JVB, Nazaki, Japan. 10 kW. Works PLE, PLV. Address: Kokusai-Denwa Kaisha, Ltd... 17.520 megs. 17.11 m. Osaka Bidg., Kojimachiku, Tokyo. DFB, Nauen, Germany, Works S. America mornings. Address DGK, 6.675 megs. 18.200 megs. 16.47 m. GAW, Rugby, England. 15 kW. Works N. Y. Address: GBX, 16.150 megs. 17.710 megs. 16.93 m. CJA3, Drummondville, P. Q. Works London. Address CGA2, 13.745 megs. 18.270 megs. 16.41 m. ETA, Addis Ababa, Ethiopia. 2 kW. Frank Hammar, 17.740 megs. Chief Engineer, Box 283. 16.90 m. HSP, Bangkok, Siam. 20 kW. Post & Telegraph Dept. 18.296 megs. 16.39 m. 17.760 megs. 16.88 m. YVR, Maracay (Santa Rita), Venezuela. Works Berlin. Estados Unidos de Venezuela. DJE, Zeesen, Germany. 5 kW. W2XE, Wayne, N. J. CBS, 485 Madison Ave., N. Y. C. Servicio Radiotelegrafico. 17.765 megs. 16.88 m. 18.304 megs. 16.38 m. , Villejust, France. 120 kW. Under con-GAS, Rugby, England. Works N. Y. mornings. struction. Address: GBX, 16.150 megs. 17.775 megs. 16.87 m. 18.330 megs. 16.36 m. PHI, Hilversum, Netherlands. 23.6 kW. For details FTE, Ste. Assise, France. Societe Francaise Radiosee PCJ, 15.220 megs. Mon., Thurs., Fri., Electrique, 79 Blvd. Haussmann, Paris VIII 0730-0930; Sat., Sun., 0730-1030. 18.342 megs. 16.35 m. FZS, Saigon, French Indo-China. Works Paris. Address: FZS2, 11.990 megs. 17.780 megs. 16.86 m. W3XAL, Bound Brook, N. J. 14 kW. Relays WJZ-NBC programs. Address W3XL, 17.310 megs. 18.350 megs. s/o Star Spangled Banner. 16.34 m. WLA, Lawrenceville, N. J. A. T. & T. Long Lines W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Not used at present. Dept., 32 Sixth Ave., N. Y. City. W9XAA, Chicago, III. Not used at present. 18.400 megs. 17.790 megs. PCK, Kootwijk, Netherlands. Works Java. Address: GSG, Daventry, England, 15 kW, "G for Greeting," PCV. 17.830 meas. For other details see GSF, 15.140. Daily. 0900-1045; daily exc. Sun., 0600-0845; Sun., 18.444 megs. 16.25 m. 0630-0845. HJY, Bogota, Colombia. Works CEC, LSR, OCI days. 17.830 megs. 16.82 m. 18.450 megs. 16.25 m. PCV, Kootwijk Netherlands. Works Java, mornings. HBH, Prangins, Switzerland. 20 kW. Address: HBJ, Radiolaboratory Neth. State Telegraphs, Parkstraat 29, S'Gravenhage. 14.535 megs. 18.600 megs. 16.12 m. 17.850 megs. 16.80 m. PLF, Bandoeng, Java, N. E. I. PCM, Kootwijk, Netherlands. Address: PCV, 17.830 meas. 17.900 megs. 16.75 m. WLL, Rocky Point, N. Y. 20 kW. Address WPE, 13.840 megs. 18.620 meas. 16.10 m. GAU, Rugby, England. 15 kW. Address: GBX, 16.150 megs. 17.920 megs. 16.73 m. WQF, Rocky Point, N. Y. 40 kW. Address WPE, 18.670 megs. 16.06 m. 13.840 megs. OCI, Lima (Valverde), Peru. Works HJY, CEC, LSR, WNC days. Compania Peruana de Telefonos, 17.940 megs. 16.71 m. Apartado 986, Lima. WQB (W2XBJ), Rocky Point, N. Y. 40 kW. Address WPE, 13.840 megs. 18,690 meas. 16.04 m. XGK, Shanghai, China. 18,020 megs. 16,64 m. KQJ, Bolinas, Calif. 40 kW. Address KEZ, 10.400 18.830 megs. 15.92 m. megs PLE, Bandoeng, Java, N. E. I. 40 kW. Works Dixon nights, Tokyo mornings, Address: PMC, 18.115 megs. 16.55 m. 18.135 megs. LSY3, Buenos Aires (Monte Grande), Argentina. Transradio Internacional, San Martin 329, 18.860 megs. 15.89 m. WKM, Rocky Point, N. Y. 40 kW. Address: R. C. A., 66 Broad St., N. Y. City. 18.135 megs. 16.53 m. PMC, Bandoeng, Java, N. E. I. 40 kW, Works Neth., 18.890 meas. 0330-0900. Address: Mr. H. Van der Veen, Engineer in Charge, Post-Telegraaf-en Tele-foondienst, Bedrijf der Radiostations op ZSS, Capetown (Klipheuvel), Union of South Africa. 5kW. Works London. Overseas Communication Co., Kodak House, Shortmarket St.. Java, Bandoeng. Capetown.

67

15.86 m.

18,900 megs.

WDS, Rocky Point, N. Y. Address WKM, 18.860 megs.

18.180 megs.

Box 1690, Montreal, P. Q.

CGA, Drummondville, P. Q. Canadian Marconi Co.,

16.49 m.

18.910 megs. 15.86 m. JVA, Nazaki, Japan. 20 kW. Works Europe. Address JVB, 18.190. 18.920 megs. 15.84 m.	20.020 megs. 14.98 m. DHO, Nauen, Germany. 7.2 kW. Works S. America. Reichsport-zentralamt, Telegraphentech- nlsches Reichsamt, Schoneberger Strasse 11-15, Berlin-Tempelhof.
WQE, Rocky Point, N. Y. Address WKM, 18.860 megs.	20.040 megs. 14.97 m.
18.950 megs. 15.82 m. HBF, Prangins (Geneva), Switzerland. 20 kW. Address HBJ, 14.535 megs.	OPL, Leopoldville, Belgian Congo. 9 kW. Works ORG. 20.100 megs. 14.91 m. WQY, Rocky Point, N. Y. 40 kW. Address: WKM.
18.958 megs. 15.82 m. LSR, Buenos Aires, Arg.	18.860 megs.
18.960 megs. 15.81 m. WQD, Rocky Point, N. Y.	20.260 megs. 14.79 m. WQQ (W2XBJ), Rocky Point, N. Y. 40 kw.
18.970 megs. 15.80 m. GAQ, Rugby, England. Works Capetown 0800. Address GBX, 16.150 megs.	20.380 megs. 14.71 m. GAA, Rugby, England. 15 kW. Address: GBX, 16.150 megs.
19.120 megs. 15.68 m. LSM, Buenos Aires, Argentina. Works Europe.	20.606 megs. 14.55 m. PMB, Bandoeng, Java, N. E. I. Works PCK. Address: PMC, 18.135 megs.
19.200 megs. 15.62 m. ORG, Brussels (Ruysselede), Belgium. 8 kW. Works Leopoldville. Address ORK, 10.330 megs.	21.020 megs. 14.27 m. LSN6, Buenos Aires (Hurlingham), Argentina. Works N. Y. Address: LSN, 14.480 megs.
19.220 megs. 15.60 m. WKF, Lawrenceville, N. J. 20 kW. Address WLA, 18.350 megs.	21.060 megs. 14.24 m. KWN, Dixon, Calif. 20 kW. Address KWV, 10.840 megs WKA, Lawrenceville, N. J. 20 kW. Address: WLA, 18.350 megs.
19.240 megs. 15.58 m. DFA, Nauen, Germany.	21.080 megs. 14.22 m. PSA, Rio de Janeiro (Marapicu), Brazil. 10 kW. Works N. Y. Address: PSF, 14.690 megs.
19.270 megs. 15.57 m. PPU. Rio de Janeiro, Brazil. Works Paris, 13.5 kW. Address: Cia Radiotelegraphica Brasileira, Caixa Postal 500, Rio de Janeiro.	Works N. Y. Address: PSF, 14.690 megs. 21.128 megs. 14.19 m. LSM, Buenos Aires (Monte Grande). Argentina. Address: LSY3, 18.115 megs.
19.345 megs. 15.50 m. PMA, Bandoeng, Java, N. E. I. 40 kW. Address; PMC, 18.135 megs.	21.410 megs. 14.00 m. WKK, Lawrenceville, N. J. Address: WLA, 18.250 megs.
19.355 megs. 15.46 m. FTM, Ste. Assise, France. Address: FTE, 18.330 megs.	21,460 megs. 13.97 m. W1XAL, Boston, Mass. 5 kW.
19.480 megs. 15.39 m. GAD, Rogby, Gt. Britain. Works Kenya.	21 470 mens 13 96 m
19.520 megs. 15.36 m. IRW. Rome, Italy. Works Argentina. 20 kW. Address: Societe Italo Radio, Servizi Radioelectrici, Via Calabria No. 46-48, Roma 125.	GSH, Daventry, England. "H for Home." Interval sig: Westminster Chimes and Big Ben. Sign off: God Save the King. Address: British Broadcasting Corp., Brdcsting. House, London W.1.
19.600 megs. 15.30 m. LSF, Buenos Aires (Monte Grande), Argentina. 7 kW. Address: LSY3, 18.115 megs.	21.490 megs. 13.95 m. , VilleJust, France. 120 kW. Under con- struction.
19.630 megs. 15.27 m. VGQ, Nairobi, Kenya. Phones GAD.	21.520 megs. 13.93 m. W2XE, Wayne, N. J. CBS, 485 Madison Ave New York City.
19.650 megs. 15.26 m. LSN5, Buenos Aires, Arg.	21.530 megs. 13.93 m.
19.680 megs. 15.24 m.	GSJ, Daventry, England. "J for Justice." See GSH 21.470 megs.
CEC. La Granja (Santiago), Chile. 4 kW. Compania Internacional de Radio S. A. (Chile), Casilla 16-D, Santiago.	21.540 megs. 13.92 m. W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KDKA.
19.820 megs. 15.13 m. WKN, Lawrenceville, N. J. Address: WLA, 18.350.	22.290 megs. 13.45 m. GBU, Rugby, England, Works N. Y. Address: GBX,
19.900 megs. 15.06 m.	16.150 megs.
LSG, Buenos Aires (Monte Grande), Argentina. 7 kW. Address: LSY3, 18.115 megs	26.100 megs. 11.49 m. GSK, Daventry, England. "K for King." See GSH, 21.470 megs.
19.980 megs. 15.01 m. KAX, Manila, P. I. Radio Corp of the Philippines,	29.820 megs. 10.05 m.
Plaza Moraga, Manila.	IAF, Fiumicino, Italy, 5 kW.

		BERMUDA (ZF-)	Ceepeecee CJE 2.290	Kenora	Hudson Bay	Cartagena HJ1ABD 7.280 HJ1ABE 6.115	
Alaiore		(AF-)		CFD 1.620 CFD 5.660	Junet. VXV 5.540	HILADE CASE	
			Claydon Bay	CFD 3.660		HJ1ABE 6.115	
		Hamilton	CZP 4.505	Leamington	Isle-a-la-Crosse	HJ1ABP 9.610	
	ZFA 5.025		Homalko	CFT 2.284	CZJ 1.596	Cienaga	
ARGENTINA ZFB		ZFB 10.055	VFJ 2.290	Pelee Island	CZJ 1.668		
(LOA-LVZ) C+		St. George	Humpback Bay	CFX 2.284	Lac la Ronge	Cucuta	
	ZFD 10.335		CZL 2.290 Red Lake		CGQ 1.596	HJA7 5.400 HJ2ABC 5.975	
Buenos	Aires	2.0	Knight Inlet	CFJ 1.620	CGQ 1.596 CGQ 1.668	HJ2ABC 5.975	
	9.600	B &	CJK 1.510	CF 5.660	Prince Albert	Ibague	
LRU	15.250		Margaret Bay	Toronto			
		(CPA-CPZ)	CJX 2.290	CBCY	VYP 1.596 VYP 1.668	Manizales	
LEE	19.600			CRCX 6.090		Manizales	
LSF	19.600	La Paz	Namu	CYQ 2.318 VE9EW 7.900	Regina	HJ4ABB 6.110	
LSG	19.900	CP5 6.080 CP6 9.120	CFV 2.290	VE9EW 7.900	VXU 5.540	HJ4ABL 6.100	
LSH	5.435	CP6 9.120	Ocean Falls	PRINCE		Medellin	
LSL	9.990	CP7 15.300	CGO 4.505	PRINCE	CANAL ZONE	HJ4ABA 11.710	
LSL	10.250	20.000	Prince George	EDWARD	(W)	HJ4ABD 5.760	
LSM	19.120	PDATH	CZO 4.505	ISLAND .		HJ4ABE 5.930	
LSM	21.128	BRAZIL (PPA-PYZ)	Prince Rupert		Albrook Field	HJ4ABP 6.135	
LSN	9.895	(PPA-PTZ)	CGP 5.400	Borden	WTR 6.385	Quibdo	
LSN	14.480		CZG 1.712		WIK 0.383	HJ1ABC 6.010	
LSN5	19.650	Pernambuco		CJM 1.580		MITABL 6.010	
		PRA8 6.040	CZG 2.416 CZG 6.425		CANARIES	Santa Marta	
LSN6	21.020	Rio de Janeiro	CEG 0.425	QUEBEC		HJ1ABJ 6.006	
LSR	18.958		Rossland		El Tablero	Tunja	
LSX	10.350	PPQ 11.670	CFU 4.755 CFU 5.705	Bellevue	EHZ 10.370	HJ2ABA 6.170	
LSY3	18.115	PPU 19.270	CFU 5.705	CZB 1.620			
		PRF5 9.500	CFU 6.720	Crane Island	CHILE	COSTA RICA	
AUSTE	RALIA	PSA 21.080	CFU 6.720 CFU 13.200	CKO 2.284	(CAA-CEZ)	(TIA-TIZ)	
(VHA-		PSD 15.070	Sage Creek	Drummondville	(CAA-CLE)	(11A-11Z)	
(-114-		PSE 14.935	VXX 5.405			Castona	
A	aide	PSF 14 690		CFA2 4.465	Santiago	Cartago	
Adel	1.520	PSH 10.220 PSK 8.180	Slate Creek	CFA4 10.520	CB615 6.150	TIN 14.545	
		PCK 8 180	CFN 5.705 Two Brothers VDV 4.490 Vancouver	CGA 18.180	CB960 9.600	TIU 14.545 TIR 7.685	
	ville		Two Brothers	CGA2 13.745	CEC 5.820 CEC 7.740		
	11.495	BRITISH	VDV 4.490	CGA4 9.332 CGA6 6.690		Puntarenas	
	urne	BRITISH	Vancouver	CGA6 6.690	CEC 8.710	T18WS 7.550	
VK3LR	9.580	GUIANA (VP3)	CC7 2.343		CEC 10.670	San Jose	
VK3ME	9.490	(VP3)	CGZ 2.342 VDO 4.436	CGA9 4.348	CEC 15.865	TIEP 6.700	
e.,,	dney		VD0 4.436	CGA9 4.348 CGD 3.340	CEC 19.680	TIGPH 5 820	
VKO 3	4 520	Georgetown	VDO 4.865	CJA3 17.710		TIPG 6.410	
VKO	1.520 9.585	VP3MR 7.080	VE9BK 4.795	C14C C 7C0		TIPG 6.410 TIRCC 6.550	
VK2ME	9.585		VE9CS 6.070	CJA6 6.760	(YCA YUZ)	San Ramon	
٧LJ	9.750 8.095	BULGARIA	Waterloo Mine	CZA 2.980 CZA 4.785 CZA 6.285	(XGA-XUZ)		
VLK	8.095	(LZA-LZZ)	CZV 3 300	CZA 4.785		T15HH 5.520	
VLK	10.520		CZV 3.300 CZV 4.840	CZA 6.285	Nanking		
VLZ	7.960 7.980	C - 4: -	CZV 4.840	CZA 8.515		CUBA	
VLZ	7.980	Sofia		CZA 12.660	XGOX 9.500		
		LZA 14.970	MANITOBA	CZA 17.310	Shanghai	COA-COZ)	
AUST	T ED I A			VE9DN 6.005	XGB 11.140		
(DAE-	TRIA OEZ)	CANADA	Winnipeg	VE9DN 6.005 VE9DN 11.780	XGK 18.690	Camaguey	
OAL	OEZ)	(CFA-CKZ;	CJRO 6.150 CJRX 11.720	High Falls	XGL 7.960	CO9JQ 8.665	
		CYA-CZZ;	CJRX 11.720	VYZ 2.212			
Vier	ına	VAA-VGZ;	CJU 3.070 CJU 3.452 VYW 2.396		XGO 7.575	Havana	
OER2	6.072	VXA-VYZ	C1U 3.452	Manicouagan	XGU 1.5/5	CMB2 5.780	
			VVW 2 396	CFM 1.620	XGW 10.420	CMPN 1.712	
AZO	RES		2.350	Montmagny		CMPN 1.712 COCD 6.130 COCH 9.428	
(CT	2-)	ALBERTA		CKP 2.284	COLOMBIA (HJA-HKZ)	COCD 6.130 COCH 9.428	
			MEAA	Montreal	(HJA-HKZ)	COCO 6.010	
Ponta D	elgada	Calgary	NEW BRUNSWICK	CGM 3.152		0.010	
CT2A I	4.000			CGM 3.152 CGM 3.340	Barranquilla HJA3 7.685 H 1A3 8.790	Sancti Spiritus	
	000	CGE 7.550	Fredericton		HJA3 7.685	CO9WR 6.280	
DALJA	MAAC	VDC 4.49n	VE9AS 6.425	VE9DR 6.005 VYR 1.712	HJA3 8.790	Santiago	
BAMA	MAS	CGE 7.550 VDC 4.490 VE9CA 6.030	St. John	Mariel Lake	MIA2 12 920		
(ZF	-)		CIW 2 200	CZ5L 4.860	HJA3 12.830 HJ1ABB 6.447	0.133	
		Edmonton	CJW 2.390 VE9BJ 6.090	Riviere du Chef	HJ1ABG 6.042	DARIEN (J)	
Cat	Cay	CFQ 3.040	A E287 6.030			DARTEN (J)	
ZFO	5.300	CFQ 7.550	N. C	CZY 1.620	Bogota		
	sau		NOVA SCOTIA	St. Felecien	HJA2 5.825	Darien	
	4.512	BRITISH		CZZ 1.620	HJB 14.930	JDX 15.510 JDY 9.920	
3	4.312	COLUMBIA	Halifax	Tabouret	HJN 5.950	JDY 9.920	
prio	LAM	COLUMBIA	CHNX 6.110	CFL 1.620	HJB 14.930 HJN 5.950 HJP 7.465	JDZ 5.710	
RFTC	IAN		CHNX 6.110 VBQ 2.350	CFL 1.620 Verdun CJZ 2.390			
CON	G0 P-)	Alert Bay		CJZ 2.390	HJY 9.930 HJY 18.444	DENMARK	
(OF	P-)	VAF 1.510	Lunenburg	Yamachiche	HJY 18.444 HJ3ABD 6.055	(OUA-OZZ)	
		Anyox	VBY 1.540 VBY 1.650	CGY 3.152	HJ3ABF 6.170	(UUA-ULL)	
Leopol	dville			3.132	HJ3ABH 6.012	Copenhagen	
OPL	20.040		Pictou	SASKATCHE-	HKE 7.000	OVV CACA	
OPM	10.135	Bones Bay	CKB 2.284		HKE 7.090	OXY 6.060	
OFM	10.135	CFW 2.290		WAN	Bucaramanga	OXY 9.490	
n=		Campbell River	Pictou Island		HJ2ABD 5.980		
BELG			CKU 2.284	Cub Lake	Buenaventura	DOMINICAN	
(ONA-	OTZ	CGT 4.865		CFC 1.596	HJU 9.510	REPUBLIC	
		CJD 1.510	ONTARIO	CFC 1.596 CFC 1.668	HJU 9.510 Cali	(HIA-HIZ)	
Brus	sels	CJD 1.540		Emma Lake	HJ5ABC 4 6.150		
ORG	19.208	Cape Lazo	Goderich		HJ5ABD 6.490	La Romana	
		VAC 1.510	Goderich 6.000	CGV 1.668			
ORK	10.330						

SHORT WAVE STATIONS BY LOCATIONS

Puerto Piat	a	FRA		GSD	11.750	HONK		JVG	14.910	PCM	18.600
HI1S 6.	420	(F; TY	A-TZZ)	GSE	11.860 (Z)		:)	JVH	14.640	PCV 17.83	
San Pedro	de			GSF	15.140			JVI	13.560	PDK 10.41 PDV 12.05	
Macoris	- 1	Pont		GSG	17.790	Honk		JAT	12.270	PDV	12.050
	-014	TPA2	15.245	GSH	21.470	ZBW	8.750	JVK	12.020	METHE	RLAND
HI1J 5.		TPA3 TPA4	11.880	GSI	15.260	HUNG	ADV	JVL	11.660 10.740		INDIES
Santiago de		TYA	11.715 12.215	GSJ GSK	21.530 26.100	(HAA-		JVN	10.740	(PKA-POZ;	
Caballeros	5	TYA2	9.040	GSL	6.110	(1144	1174.)	140	10.375	YBA-YHZ)	
	.185	TYB	12.250	GSN	11.820	Buda	pest	JVP	7.510		
	.380	TYD2	8.575	GSO	15.180	HAS3	15.370	JVQ	7.470	Bor	neo
	.150	Ste. A		GSP	15.310	HAT	5.400	JVŘ	7.390	Bandje	rmasin
H19B 6.	.045	FQO	12.160	Ru		HAT2	7.220	JVS	6.990	YDV2	3,339
Trujillo		FTA	11.940	GAA	20.380	HAT3	8.565	JVT	6.750		bes
		FTE	18.330	GAD	19.480	HAT4	9.125	JVU	5.790	Mac	
		FTI	9.840	GAQ	18.970			JAA	5.730	PNI	8.775
		FTK	15.880	GAS	18.304	ICEL		JZD	16.910	Mer YBZ	7.688
		FTM FTN	19.355 12.260	GAU	18.620	(TFA-	IFZ)	JZE JZF	13.020 8.500	Ja	
	.980	r I N Ville		GAW	18.200	Reyk	lavik	JZG	6.330	Balik	
		6.145;	9.585;	GBA2	13.990	TEL	12.225	JZG	0.330	YCP	8.575
		11.845:	15.295;	GBB2	13.595	TFK	9.050	KENYA	(VQ7-)		doeng
		17.765;	21.490	GBC	4.430	11.1	0.000		(()	PLE	18.830
				GBC	4.975	IND	IA	Nai	robi	PLF	17.850
ECUADOR		FRE	NCH	GBC	8.680 12.780	(VTA-		VQG	19.630	PLG	15.950
(HCA-HCZ		INDO-	CHINA	GBC	17.080			VQ7L0	6.060	PLP	11.000
		(F		GBP	10.770	Bom				PLQ	10.670
Guayaqui				GBS	12.150	VUB	9.565	MA	CAU	PLV	9.415
HC2CW 8.	.625	Saig		GBU	12.240	Calc				PMA	19.345
HC2ET 4. HC2JSB 7.		FZR	16.200 18.342	GBU	22.290	VUC	6.112 9.575		cau	PMB PMC	20.606 18.135
		FZS	18.342	GBW	14.440	Kirl		CUN	9.700	PMN	10.260
	.030	FZS2	11.990	GBX	10.530	VWY	9.045	MADAC	ASCAR	PMY	5.140
Quito		GERMA	NV (D)	GBX	16.150	VWY2	17.480	(F		YDA5	6.120
	.900	GERMA	(D)	GCA	9.710	vwz	8.690	(*	,	YDD2	1.630
	.885	Nau	len	GCB	9.280	vwz	8,693	Tana	narive	YDH3	3.490
Riobamba		DFA	19.240	GCI	13.415 7.920	vwz	8.700		5.996	YDH4	3.310
	.620	DFB	17.520	GCP	9.020	vwz	8.708			YDH6	3.130
PRADO 15.	.440	DFC	12.985	GCU	9.950	l		MANCI	IUKUO	YDH8	1.960
EL SALVADO		DFD	14.665	GCW	9,790	ITAL	Y (1)		(J)	Bat	
Er SALVAD		DFE	9.810	GDB	4.320					YDA2 YDD3	2.385
San Salvade		DFL	10.850	GDB	6.795	IAC Colt	ane 4.355	Shir JZA		YDG2	1.585 3.470
YSL 14.	000	DGK DGU	6.675 9.610	GDS	6.905	IAC	6.650	JZB	15.680 10.960	YDG3	3.150
		DHO	20.020	GDW	4.820	IAC	8.515	JZC	5.830	YDG4	2.850
EGYPT		DIK	12.035	I		IAC	12.795	320	3.633	YDG5	2.090
(STA-SUZ)	Nor		GUATE	MALA	IAC	12.865	MEX	100	YDG6	1.900
		DAF	4.320	(TGA-	TGZ)	Fiumi	cino		-XFZ)	YDG7	3.300
Caire SUV 10.		DAF	8.464			1AF	5.415			Buite	
		DAF	12.325	Guatem	ala City	IAF	29.820	Guada		YDA3	1.640
SUZ 13.810 13.830	10	DAF	17.260	TGF	14.545	Ror		XEDQ	9.520	YDH9	1.920
		Zee		TGS	5.710	IRF	8.070	Mer		Cher	
ERITREA		DIP	14.410	TGWA	6.000	IRJ	13.105	XEME		YDA6	2.870 1.840
		DJA DJB	9.560 15.200	TGXA	6.130	IRM	9.823 19.520	Mexico XBJQ	11.000	YDJ4 YDJ5	2.870
Asmara		DIC	6.020	TG1X	9.450	IRY	16.118	XEBT	6.000	Djen	
IĐU 13.		סנם סנם	11.770	TG2X	5.940	12RO	5.550	XECR	7.380	YDQ2	3.390
190 13.	.380										
Massawa		DJE	17.760			12RO	5.725	XEVI	5.985	Djokje	
Massawa				НА	ITI	12R0 12R0		XEVI XEXA	5.985 6.182	YDB3	1.660
Massawa	.740	D]C D]E	17.760 4.580 15.110	НА	ITI	12R0 12R0	5.725 6.085 9.635	XEXA TiJu	6.182 ana	YDB3 YDE5	2.350
Massawa IRG 14.	.740	DIM DIC DIG DIE	17.760 4.580 15.110 6.080	HA Port au		12RO	5.725 6.085	XEXA TiJu XEOK	6.182 ana 6.130	YDB3 YDE5 YDL4	2.350 3.410
Massawa	.740	DIN DIM DIC DIG DIE	17.760 4.580 15.110 6.080 9.540		Prince	12RO 12RO 12RO	5.725 6.085 9.635 11.810	XEXA Tiju XEOK Vera	6.182 ana 6.130 cruz	YDB3 YDE5 YDL4 YDL5	2.350 3.410 3.210
Massawa IRG 14.	.740	DIO DIN DIC DIC DIE	17.760 4.580 15.110 6.080 9.540 11.795	Port au		12R0 12R0	5.725 6.085 9.635 11.810	XEXA Tiju XEOK Vera XEFT	6.182 ana 6.130 cruz 6.120	YDB3 YDE5 YDL4 YDL5 YDL6	2.350 3.410 3.210 2.750
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18.	.740 A Da .270	DJB DJO DJW DJC DJE	17.760 4.580 15.110 6.080 9.540 11.795 11.855	Port au	Prince 6.065	I2RO I2RO I2RO JAMA	5.725 6.085 9.635 11.810	XEXA Tiju XEOK Vera	6.182 ana 6.130 cruz	YDB3 YDE5 YDL4 YDL5 YDL6 Gar	2.350 3.410 3.210 2.750
Massawa IRG 14. ETHIOPIA Addis Abah ETA 18. ETB 11.	.740 A Da .270	DIG DIO DIM DIC DIC DIC	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280	Port au HH2F HH2R HH2S HH2T	9.550 5.915 11.790	I2RO I2RO I2RO JAMA	5.725 6.085 9.635 11.810	XEXA TiJu XEOK Vera XEFT XEUW	6.182 ana 6.130 cruz 6.120 6.020	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5	2.350 3.410 3.210 2.750 oet 3.250
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7.	.740 A .270 .955	DIR DIG DIO DIN DIC DIC DIC	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340	Port au HH2F HH2R HH2S	6.065 9.550 5.915	I2RO I2RO I2RO JAMA	5.725 6.085 9.635 11.810	XEXA Tiju XEOK Vera XEFT XEUW	6.182 ana 6.130 cruz 6.120 6.020	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee	2.350 3.410 3.210 2.750 oet 3.250 diri
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7.	.740 A .270 .955 .620	DJE DJG DJM DJN DJO DJP DJR DJR DJR	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675	Port au HH2F HH2R HH2S HH2T	9.550 5.915 11.790	JAMA Stoney VRR4	5.725 6.085 9.635 11.810 AICA Hill 11.595	XEXA TiJu XEOK Vera XEFT XEUW	6.182 ana 6.130 cruz 6.120 6.020	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5.	.740 .270 .955 .620	DJE DJG DJN DJO DJP DJQ DJR DJR DJR	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042	Port au HH2F HH2R HH2S HH2T HH3W	9.550 5.915 11.790 9.617	I2RO I2RO I2RO JAMA	5.725 6.085 9.635 11.810 AICA Hill 11.595	XEXA TiJu XEOK Vera XEFT XEUW MORG (CNA-	6.182 6.130 cruz 6.120 6.020 OCCO	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940
Massawa IRG 14 ETHIOPIA Addis Abab ETA 18 ETB 11 ETD 7 ETG 5.	.740 .270 .955 .620 .883	DJE DJG DJU DJN DJO DJP DJQ DJR DZA DZB DZC	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042	Port au HH2F HH2R HH2S HH2T HH3W	9.550 5.915 11.790 9.617	JAMA Stoney VRR4	5.725 6.085 9.635 11.810 AICA Hill 11.595	XEXA Tiju XEOK Vera XEFT XEUW	6.182 6.130 cruz 6.120 6.020 OCCO	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Ker YDN2 Mad YDN3	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5.	.740 	DJE DJG DJN DJO DJP DJQ DJR DJR DJR	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042	Port au HH2F HH2R HH2S HH2T HH3W	9.550 5.915 11.790 9.617	JAMA Stoney VRR4	5.725 6.085 9.635 11.810 AICA Hill 11.595	XEXA Tiju XEOK Vera XEFT XEUW MORG (CNA-	6.182 ana 6.130 cruz 6.120 6.020 DCCO CCNZ)	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad YDN3 Mage	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790
Massawa IRG 14. ETHIOPIA Addis Ababi ETA 18 ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES	.740 .270 .955 .620 .883	DJE DJG DJL DJM DJO DJP DJQ DJR DJR DJR DZR DZB DZC DZE	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042 10.285 12.130	Port au HH2F HH2R HH2S HH2T HH3W	6.065 9.550 5.915 11.790 9.617	JAMA Stoney VRR4 JAPAI Kemika	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J)	XEXA Tiju XEOK Vera XEFT XEUW MORI (CNA- Rai	6.182 ana 6.130 cruz 6.120 6.020 DCCO CNZ) Dat 8.035	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad YDN3 Mage YDK4	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5.	.740 .270 .955 .620 .883	DJE DJG DJM DJM DJN DJO DJP DJQ DJR DZA DZA DZA DZA DZC DZC DZC DZC	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042 10.285 12.130 15.360	Port au HH2F HH2R HH2S HH2T HH3W	6.065 9.550 5.915 11.790 9.617	JAMA Stoney VRR4 JAPAI Kemika	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840	XEXA TIJU XEOK Vera XEFT XEUW MORG (CNA- Rai CNR CNR	6.182 anna 6.130 cruz 6.120 6.020 DCCO CNZ) Dat 8.035 12.830 RLANDS	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Ket YDN2 Mad YDN3 Mage YDK4	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-)	.740 A .270 .955 .620 .883	DJE DJG DJL DJM DJN DJO DJO DJQ DJR DJR DZA DZB DZC DZE DZC DZC GZE DZG DZC GRI	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	6.065 9.550 5.915 11.790 9.617 PURAS -HRZ)	JAMA Stoney VRR4 JAPAI Kemikas JYK JYR JYS JYT	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760	XEXA TIJU XEOK Vera XEFT XEUW MORG (CNA- Rai CNR CNR	6.182 ana 6.130 cruz 6.120 6.020 DCCO CNZ) pat 8.035 12.830	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad YDN3 Mage YDK4 YDB6	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-) Kuala Lamp	.740 .270 .955 .620 .889	DJE DJG DJL DJM DJN DJN DJP DJQ DJR	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	6.065 9.550 5.915 11.790 9.617 OURAS -HRZ) Ceiba 6.235	JAPAI Kemika JYK JYK JYS JYT Naz	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760 aki	XEXA TIJU XEOK Vera XEFT XEUW MORI (CNA- Rai CNR CNR NETHEI	6.182 ana 6.130 cruz 6.120 6.020 DCCO CCNZ) Dat 8.035 12.830 RLANDS -PIZ)	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kec YDN2 Mad YDN3 Mag; YDK4 M2 YDB6 YDQ3	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890 alang 1.570 3.350
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-) Kuala Lamp	.740 A .270 .955 .620 .883	DJE DJG DJL DJM DJN DJO DJO DJQ DJR DJR DZA DZB DZC DZE DZC DZC GZE DZG DZC GRI	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	6.065 9.550 5.915 11.790 9.617 CURAS -HRZ) Ceiba 6.235 Iro Sula 6.356	JAMA Stoney VRR4 JAPAI Kemika JYK JYR JYS JYT Naz	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760 aaki	XEXA TIJU XEOK Vera Vera XEFT XEUW MORG (CNA- Rai CNR CNR NETHEI (PAA Hilve	6.182 ana 6.130 cruz 6.120 6.020 DCCO CNZ) Dat 8.035 12.830 RLANDS -PIZ)	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kev YDN2 Mad YDN3 Magr YDK4 YDB6 YDQ3 YDQ3	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 tioen 2.790 elang 2.890 alang 1.570 3.350 3.230
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-) Kuala Lamp ZGE 6.	.740 	DJE DJG DJL DJM DJN DJN DJO DJP DJQ DJR DJQ DJR DZA DZB DZC DZE DZC DZE DZC GRI BRII (G;	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 9.675 10.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	e Prince 6.065 9.550 5.915 11.790 9.617 PURAS -HRZ) Ceiba 6.235 Iro Sula 6.356	JAMA Stoney VRR4 JAPAI Kemikas JYK JYK JYS JYT Naz JVA JVA	5.725 6.085 9.635 11.810 NICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760 aki 18.910	XEXA Tiju XEOK Vera XEFT XEUW MORI (CNA: CNR CNR NETHEI (PAA Hilve PCJ	6.182 iana 6.130 cruz 6.120 6.020 DCCO CNZ) bat 8.035 12.830 RLANDS -PIZ) rsum 15.220	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad YDN3 Mage YDK4 YDK4 YDR6 YDQ3 YDQ4 YDQ5	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 1.570 3.350 3.230 2.950
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-) Kuala Lamp	.740 .270 .955 .620 .889 .ED	DJE DJG DJL DJM DJN DJO DJO DJP DJQ DJR DZA DZB DZC DZE DZC DZE DZC GRI GRI (G;	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 15.340 9.675 10.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	Prince 6.065 9.550 5.915 11.790 9.617 PURAS HRZ) Ceiba 6.235 Iro Sula 6.356 igalpa 13.827	JAMA Stoney VRR4 JAPAI Kemika JYK JYR JYS JYT Naz JVA JVB JVC	5.725 6.085 9.635 11.810 AICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760 aki 18.190 18.190 16.050	XEXA Tiju XEOK Vera XEST XEUW MOR (CNA- Rai CNR CNR NETHEI (PAA Hilve PCJ PHI	6.182 iana 6.130 cruz 6.120 6.020 DCCO CNZ) Dat 8.035 12.830 RLANDS -PIZ) rsum 15.220 11.725	YDB3 YDL4 YDL5 YDL6 Gar YDH5 Kei YDN2 Mad YDN3 Mag YDK4 YDB6 YDQ3 YDQ4 YDQ5	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890 3.130 3.230 2.950 2.810
Massawa IRG 14. ETHIOPIA Addis Abab ETA 18. ETB 11. ETD 7. ETG 5. FEDERATE MALAY STATES (ZG-) Kuala Lamp ZGE 6.	.740 .270 .955 .620 .883 	DJE DJG DJL DJM DJN DJN DJO DJP DJQ DJR DJQ DJR DZA DZB DZC DZE DZC DZE DZC GRI BRII (G;	17.760 4.580 15.110 6.080 9.540 11.795 11.855 15.280 9.675 10.042 10.285 12.130 15.360 14.460	Port au HH2F HH2R HH2S HH2T HH3W HOND (HRA-	9 Prince 6.065 9.550 5.915 11.790 9.617 PURAS -HRZ) Ceiba 6.235 Iro Sula 6.356 digalpa 13.827 5.875	JAMA Stoney VRR4 JAPAI Kemikas JYK JYK JYS JYT Naz JVA JVA	5.725 6.085 9.635 11.810 NICA Hill 11.595 N (J) wa-Cho 13.600 7.880 9.840 15.760 aki 18.910	XEXA Tiju XEOK Vera XEFT XEUW MORI (CNA: CNR Rai CNR NETHEI (PAA Hilve PCJ PHI	6.182 iana 6.130 cruz 6.120 6.020 DCCO CNZ) bat 8.035 12.830 RLANDS -PIZ) rsum 15.220	YDB3 YDE5 YDL4 YDL5 YDL6 Gar YDH5 Kee YDN2 Mad YDN3 Mage YDK4 YDK4 YDR6 YDQ3 YDQ4 YDQ5	2.350 3.410 3.210 2.750 oet 3.250 diri 1.940 lioen 2.790 elang 2.890 3.130 3.230 2.950 2.810

SHORT WAVE STATIONS BY LOCATIONS

Samara											
		Panama	City	SOUTH		0 ms		Halibut	Bay	Rose In	
/DB2	2.450	HPC	10.290	RHODE	ESIA	ROU	14.790				3.093
/DE3				(ZE-	. 1	Stalin		Hidden	Inlet	KLE	2.512
		HPF	14.545	(3.265	Saldovi	
YDK2	3.190	HP5B	6.030			RSB	5.375				3.265
YDK3	2.910	HP5J	9.590	Bulaw		Sverdl		KLD	2.566		
YDK5	2.710			ZEB	6.147		5.490	Heona		Shearwater	
/DK6	1.860			Salisb				KIUZ	3.093	KIJW	2.632
Soekabo		PARAG	UAY	ZEC		RSN	5.440	Hot Spri	nus	KIJW	2.912
		(ZPA-	ZPZ)		0.000	Tachk	ame I	KIIM	2.994	Tanan	
	1.550	\	/								
/D12	2.110			SPA		RAU		KIIM	3.190	KIIJ	2.994
Sole	. 1	Asunc	ion	(EAA-E	HZ)	RIM	7.626	Hydabi		KIIJ	3.190
DB5	1.595	ZP10	6.666			RPT	5.995	KAEB	2.616	Tin Cit	tv
			3.800	Madi		Tifl		KAEB	3.265	KION	
DE2	4.810	ZP11	3.000								
/DL3	3.450			EAQ EHY	9.862	RIR	5.040	Igloo		Todd	
C I		PER	11	EHY	10.070	RIR	10.080	KIUQ		KGQ	2.986
Sourab	aya							Iron Cr	eek	KIJU	2.986
Y DB	4.470	(OAA-C	OCZ)	STRA	1TC	UNIO	405	KIOH	2.632	Ugani	
/DB7	1.530										
YDE4	2,415	Lim	ıa	SETTLE	MENIS	SOUTH A		Jack W		KIJP	
			_	(ZH	-)	(ZSA-	ZUZ)	KAEF	2.616	Union B	Bay
YDO2	3.430	OAX4D	5.780					KAEF	2.994	KFF	2,566
YDO3	3.290	OAX4G	6.230					Junea		KICG	3.265
YDO4	3,170		18.670	Pena	ing	Capet	own				
	2.930	OCI		ZHJ	6.080	ZSR	9.180		2.304	View Co	OVB
YDO5	2.530	OCJ2	14.845	Singa	nore	ZSS	18.890	KMYA	4.610	KICI	3.093
VDO6	3.430			7116	5 050	Labana	achura	WXA	8.050	Wales	
/ DO7	2.070			ZHI	0.000	Johann	espury			TT AIC:	- 0 000
DO8	1.980	PHILIP				ZTJ	6.100	Kadiak I	siano	KIUX	
		ISLAN	NDS	SWITZE	RLAND	Walvis	Bay	KIJX		Washingto	on Bay
YDQ9	1.880	(K			HBZ)	zsv	8.220	Kak			1.622
Tandjon	anriak	(**	,	(IIIDA-			12.500	KIBA	3 002	Waterf	
. anujon	2040					ZSV	12.500	AIDA	3.873	water	411
	3.040	Ceb	u	Ber	ne			KLC	2.512	KIBZ	3.265
YDA	6.040		5.825	HB9AT	14.290	UNI1	ΓED	Kasil	of	KLA	2.566
YDA8	1.510			НВ9В	14.236	STA		KIOZ		Wrang	
		KZGG	8.940								
Teg	al	Hoi	la.	нв9н	7.005	(K; N	; **)	Kena		KDK	2.530
YDJ3	2.790			HB9J	14.400	l—		KIUW	2.616		
		KZGH	5.795	Gen	eva	ALAB	AMA	KIUW	2.986	ARIZO	NA
Tjep	0 0	KZGH	9.490	HBF	18.950			Ketchi	kan		
YDB4	1.615							KBAI	2 204	Phoen	
YDM2	3.320	Man	iila	нвн	18.450	Birmin	ignam				
			19.980	HBJ	14.535	WPFM	2.382	KGM	2.512	KNGG	1.698
Suma	itra	KAX		HBL	9.595	Maxwel	l Field	KIAY	3.093	KGZJ	2.430
Med		KAY	14.980	НВО	12.030	PD1		WXH	2.604	Presco	ott
YBG	10.430	KAZ	9.990		7.797	Mol		WXH	6.662	KNHG	2.430
	4.710	KBK	6.718	HBP	1.191	MIOI	one .			KNING	2.430
YDU2	4.710				often -	NMG	2.670	Luckys			
YDU3	5.260	KTO	16.240	TAIWA	AN (J)	WPGW	2.382	KIIP	3.100	ARKAN	ISAS
YDU4	2.830	KTP	8.120		(- /			McGr	ath		
		KZGF	5.765			ALAS		KIIO	2.994	Fort Sr	
Pada	ng	KZGF	9.170	Taih	oku	ALA:	NA.		3,190		
YDU5	1.850	KZGI	3.2.0	JIA	15.750			KIIO	2	KNHE	2.400
				JIB	10.530	Aku	tan	KHO	5.138	Little R	₹ock
NEW G	HINEA	POL	AND	JIC	5.890	KHW	2.912	Nake	en	KGHZ	2.40
MEN G	UINEA		-SRZ)	310	3.030	KIOL	2.632	KHV	2.566		
		(SUA-	-3KZ)								
Rab				UNIO			orage	KICE	3.265	CALIFO	KNIA
VJZ	13.880	War	saw	SOCIA	ALIST	WXE	2.998	Nellie .	luan		
		SPW	13.630	SOV	IFT	Ang	oon	KGI	2.632	Alame	eda
NEW ZE	AL AND	SPW	13.630	REPU		MAED	2 616	KIOD	2.632	KNBD	5.16
						KAED	2.010	Newport			
(ZKA-	ZIVIZ)	PORT	HGAL	(R;	U)	NALD	3.093			Bakersi	
						Cape	Pole	KIJS	1.622	KACS	2.41
Wellin	aton	(CSA-	CUZ)	Ва	ku	KIJB	2.994	Pillar	Bay	KGP5	2.41
ZLS	8.90 0 7.390	1			10.160		vak	KDY	2.994	Berke	
71.70	7 300	List	on				3.093		2.994	KSW	1.65
				Irku							
XLT4	11.000		6.150		8.770	Cir		Poorn		Bolin	
		CSW	9.380	RTZ	7.275	KIIK	2.994	KIEJ	2.994	KEE	7.71
NICAR	AGUA	CT1AA	9.650		arovsk	KIKK	3.190	Port Ale	kander	KEJ	9.01
			15.350					KDH		KEL	6.86
	A-YNZ)	CT1AA			4.273	Cor		KOKW			
(1147		CT1CT	3.750		rkov		2.538	KGXW	1.608	KES	9.48
	. 20112	Par	odo	RFF	7.260	Deep	Cove	Port Al		KET	10.41
Mar		OTC OF		Mar	COW	KAP	1.622	KIAW	3.093	KEZ	10.40
Mar			6.132	DK-	4 075			KLB	2.512		15.47
Mar YNA	14,480	CIIGO			4.875	Dee	ring				
Mar YNA YNLF	14.480 5.950				6.870	KIOX	2.616	Port Arn			11.95
Mar YNA	14.480 5.950		n T	RKF		KIJV	1,622	KGXU	1 677	KKW	13.78
Mar YNA YNLF	14.480 5.950	PO	RT.	RKF	6.880						
Mar YNA YNLF YNVA	14.480 5.950 8.590		RT. FRICA	RKF	6.880						13.69
Mar YNA YNLF YNVA	14.480 5.950 8.590 WAY	PO	RT. FRICA	RKF RKF	6.880 6.900	Ea	gle	Port Con	clusion	KKZ	
Mar YNA YNLF YNVA	14.480 5.950 8.590	W. A	FRICA	RKF RKF RKF	6,880 6.900 9.750	KIIN Ea	gle 2.994	Port Con KIJI	clusion 1.622	KKZ	18.02
Mar YNA YNLF YNVA NOR (LAA-	14.480 5.950 8.590 WAY -LNZ)	W. A	FRICA 	RKF RKF RKF RKF	6.880 6.900 9.750 12.500	KIIN KIIN	2.994 3.190	Port Con KIJI Port He	clusion 1.622 erbert	KKZ KQJ Comp	18.02 ton
Mar YNA YNLF YNVA NOR (LAA-	14.480 5.950 8.590 WAY -LNZ)	W. A	FRICA 	RKF RKF	6.880 6.900 9.750 12.500 7.520	KIIN KIIN Excursio	2.994 3.190 on Inlet	Port Con KIJI Port He KIJO	clusion 1.622 erbert 1.622	KKZ KQJ Comp KNFM	18.02 ton 2.49
Mar YNA YNLF YNVA NOR (LAA-	14.480 5.950 8.590 WAY -LNZ)	W. A	FRICA 	RKF RKF RKF RKF RKI	6.880 6.900 9.750 12.500 7.520	KIIN KIIN Excursio	2.994 3.190 on Inlet	Port Con KIJI Port He KIJO	clusion 1.622 erbert 1.622	KKZ KQJ Comp KNFM	18.02 ton 2.49
Mar YNA YNLF YNVA NOR (LAA-	14.480 5.950 8.590 WAY -LNZ)	W. Al	FRICA oito 7.175	RKF RKF RKF RKF RKI RKI	6.880 6.900 9.750 12.500 7.520 15.040	Ea KIIN KIIN Excursio KILY	2.994 3.190 on Inlet 2.994	Port Con KIJI Port Ho KIJO Port H	clusion 1.622 erbert 1.622 obron	KKZ KQJ Comp KNFM Death \	18.02 ton 2.49 Valley
Mar YNLF YNVA NOR (LAA- Jel LCL LCO	14.480 5.950 8.590 WAY -LNZ) loy 6.130 13.980	POI W. Al Lot CR6AA	FRICA oito 7.175 AM	RKF RKF RKF RKF RKI RKI	6.880 6.900 9.750 12.500 7.520 15.040	Ea KIIN KIIN Excursio KILY Eyak	2.994 3.190 on Inlet 2.994 River	Port Con KIJI Port Ho KIJO Port H KHZ	clusion 1.622 erbert 1.622 obron 2.912	KKZ KQJ Comp KNFM Death \	18.02 ton 2.49 Valley 3.41
Mar YNA YNLF YNVA NOR (LAA-	14.480 5.950 8.590 WAY -LNZ)	POI W. Al Lot CR6AA	FRICA oito 7.175	RKF RKF RKF RKF RKI RKI RKI RKK	6.880 6.900 9.750 12.500 7.520 15.040 15.090 6.135	Ea KIIN KIIN Excursio KILY Eyak KIKN	2.994 3.190 on Inlet 2.994 River 3.093	Port Con KIJI Port Ho KIJO Port H KHZ KIMA	clusion 1.622 erbert 1.622 obron 2.912 2.632	KKZ KQJ Comp KNFM Death \ KNLO KNLP	18.02 ton 2.49 Valley 3.41 3.41
Mar YNLF YNVA NOR (LAA- Jel LCL LCO	14.480 5.950 8.590 WAY -LNZ) loy 6.130 13.980	POI W. Al Lot CR6AA	FRICA oito 7.175 AM	RKF RKF RKF RKF RKI RKI	6.880 6.900 9.750 12.500 7.520 15.040	Ea KIIN KIIN Excursio KILY Eyak KIKN	2.994 3.190 on Inlet 2.994 River	Port Con KIJI Port Ho KIJO Port H KHZ	clusion 1.622 erbert 1.622 obron 2.912 2.632	KKZ KQJ Comp KNFM Death V KNLO KNLP KNLQ	18.02 ton 2.49 Valley 3.41 3.41
Mar YNA YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1	14.480 5.950 8.590 WAY -LNZ) 6.130 13.980 9.540	POI W. Al Lot CR6AA SI/ (H5A	FRICA oito 7.175 AM -HSZ)	RKF RKF RKF RKF RKI RKI RKI RKK	6.880 6.900 9.750 12.500 7.524 15.040 15.090 6.135	KIIN KIIN Excursion KILY Eyak KIKN Fairl	2.994 3.190 on Inlet 2.994 River 3.093 banks	Port Con KIJI Port H KIJO Port H KHZ KIMA Port Sai	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan	KKZ KQJ Comp KNFM Death V KNLO KNLP KNLQ	18.02 eton 2.49 Valley 3.41 3.41
Mar YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1	14.480 5.950 8.590 WAY -LNZ) 6.130 13.980 9.540	PO W. Al Lot CR6AA SI/ (HSA	FRICA oito 7.175 AM -HSZ)	RKF RKF RKF RKI RKI RKI RKI RKK RKK	6,880 6,900 9,750 12,500 7,520 15,040 15,090 6,135 12,270	Ea KIIN KIIN Excursic KILY Eyak KIKN Fairl	2.994 3.190 on Inlet 2.994 River 3.093 banks 4.124	Port Con KIJI Port Ho KIJO Port H KHZ KIMA Port Sai	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986	KKZ KQJ Comp KNFM Death \ KNLO KNLP KNLQ KNLR	18.02 eton 2.49 Valley 3.41 3.41 3.41
Mar YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1	14.480 5.950 8.590 WAY -LNZ) 6.130 13.980 9.540	W. A Lot CR6AA SI (H5A Ban HSJ	FRICA 7.175 AM -HSZ) gkok 8.020	RKF RKF RKF RKI RKI RKI RKI RKK RKK	6,880 6,900 9,750 12,500 7,520 15,040 6,135 12,270 12,000 7,225	KIIN KIIN Excursic KILY Eyak KIKN Fair KIFM	2.994 3.190 3.190 on Inlet 2.994 River 3.093 banks 4.124 e Pass	Port Con KIJI Port Ho KIJO Port H KHZ KIMA Port San KIJR P, Wak	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986 tefield	KKZ KQJ Comp KNFM Death \ KNLO KNLP KNLQ KNLR Devils Po	2.49 Valley 3.41 3.41 3.41 pst Pil
Mar YNA YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1	14.480 5.950 8.590 WAY -LNZ) 6.130 13.980 9.540	PO W. Al Lot CR6AA SI/ (HSA	FRICA 7.175 AM -HSZ) gkok 8.020 7.968	RKF RKF RKF RKI RKI RKI RKK RKK RKK	6,880 6,900 9,750 12,500 7,520 15,040 15,090 6,135 12,270	KIIN KIIN Excursic KILY Eyak KIKN Fair KIFM	2.994 3.190 on Inlet 2.994 River 3.093 banks 4.124	Port Con KIJI Port H KIJO Port H KHZ KIMA Port Sar KIJR P, Wak	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986 sefield 2.632	KKZ KQJ Comp KNFM Death V KNLO KNLP KNLQ KNLR Devils Po	18.02 oton 2.49 Valley 3.41 3.41 3.41 2.60
Mar YNA YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1 PAN (HPA-	14,480 5,950 8,590 WAY -LNZ) 6,130 13,980 9,540 AMA -HPZ)	PO W. A Lot CR6AA SI, (HSA Ban HSJ HSP	FRICA 7.175 AM -HSZ) gkok 8.020 7.968	RKF RKF RKF RKI RKI RKI RKK RKK RKK	6,880 6,900 9,750 12,500 7,520 15,040 15,090 6,135 12,270 12,000 7,225 8,225	KIIN KIIN Excursit KILY Eyak KIKN Fairl KIFM Fals KDX	2.994 3.190 3.190 on Inlet 2.994 River 3.093 banks 4.124 e Pass 2.986	Port Con KIJI Port Ho KIJO Port H KHZ KIMA Port San KIJR P, Wak	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986 tefield	KKZ KQJ Comp KNFM Death V KNLO KNLP KNLQ KNLR Devils Po	18.02 oton 2.49 Valley 3.41 3.41 3.41 5st Pi 2.60
Mar YNA YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1 PAN (HPA-	14,480 5,950 8,590 WAY -LNZ) 6,130 13,980 9,540 AMA -HPZ)	PO W. A Lot CR6AA SI, (HSA Ban HSJ HSP	FRICA 7.175 AM -HSZ) gkok 8.020 7.968 8.396	RKF RKF RKF RKI RKI RKI RKK RKK RNE RKK RNE RPK RPK RV59	6,880 6,900 9,750 12,500 7,520 15,040 15,090 6,135 12,270 12,000 7,225 8,225 5,996	KIIN KIIN Excursit KILY Eyak KIKN Fairl KIFM Fals KDX Fort	2.994 3.190 on Inlet 2.994 River 3.093 banks 4.124 e Pass 2.986 Yukon	Port Con KIJI Port Hi KIJO Port HI KHZ KIMA Port Sai KIJR P, Wak KGX KIOC	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986 cefield 2.632 2.632	KKZ KQJ Comp KNFM Death \ KNLO KNLP KNLQ KNLQ KNLR Devils Po KNKY	18.02 oton 2.49 Valley 3.41 3.41 3.41 0st Pi 2.60
Mar YNA YNLF YNVA NOR (LAA- Jel LCL LCO LKJ1 PAN (HPA-	14,480 5,950 8,590 WAY -LNZ) 6,130 13,980 9,540 AMA -HPZ)	Lot CR6AA SI/ (HSA Ban HSJ HSP	FRICA 7.175 AM -HSZ) gkok 8.020 7.968 8.396 17.740	RKF RKF RKF RKI RKI RKI RKI RKK RNE RPK RNE RPK RV59 Novos	6.880 6.900 9.750 12.500 7.520 15.040 15.090 6.135 12.270 12.000 7.225 8.225 5.996	KIIN KIIN Excursit KILY Eyak KIKN Fairl KIFM Fals KDX Fort	2.994 3.190 3.190 on Inlet 2.994 River 3.093 banks 4.124 e Pass 2.986 Yukon 2.994	Port Con KIJI Port Hi KIJO Port H KHZ KIMA Port Sal KIJR P, Walk KGX KIOC Red E	clusion 1.622 erbert 1.622 obron 2.912 2.632 n Juan 2.986 defield 2.632 2.632	KKZ KQJ Comp KNFM Death \ KNLO KNLP KNLQ KNLR Devils Po KNKY Dixt	18.0: oton 2.4: Valley 3.4: 3.4: 3.4: ost Pi

	5.355 0.840	Yre KBCG	ka 2 205	Mac WQFB		Jasi		MA	INE	Grand I	Rapids
	7.610	RBCG	3.363	WUFB	2.414		1.634			WPEB	2.44
	7.565	COLO	PADO	6114		Koke	mo	Port	land	Grosse	
EL Centi		COLO	KADU	GUA	I IVI	WPDT	2.490	WPFU	2.422	WRDR	2.41
	2.490					Lafay				Highlan	d Park
		Den		Sum		WQFQ	2.442	MARY	LAND	WMO	2.41
Eureka KACI	2.422	KGPX	2.442	KNBG	5.165	Marion	County	l — —		Huron	Island
						WPHE	1.634	Balti	more	WWAO	3.41
Fresno	,	CONNEC	CTICUT	HAW	AH	Mur		WPFH	2.414	Jacks	
	2.414					WPGP	2.442	Belts		WPHP	2.46
Glendal		Bridge	eport	Hono	lulo	Richn	nond	wwv	5.000	Lans	
KNBE	5.165	WPFW	2.466	KGPQ	1.712	WPDH	2.442	wwv		WPDL	ing
Lodi		New H		Kahı					10.000		2.44
	2.414	WQFA	2.466	KEQ	6.733	Seym		wwv	15.000	Manitou	
Los Ange		New Lo				WQFE				WWAJ	3.41
	1.712			KIO	11.680	South		MAS	SA-	Marqu	ette
		NOU	2.670	KKH	7.520	WPGN	2.490	CHUS	ETTS	wwm	3.41
	2.726	WAKE	2.466	KKP	16.030					Muske	non
	6.615			KQH	14,920	IOV	VΔ	Arlin	aton	WPFC	2.44
Mt. Shas	ta	DISTRI	CT OF					WPED	1.712		
KBCC :	3.200	COLU	MRIA	IDAI	40	A 41-				Passage	
North Fo	rk			IDA	10	Atlar	itic	Bos		WWAL	3.41
	3.445	101-11-1				KACD	1.682	WEY	1.630	Poe R	
	3.445	Washir		Bois	se	Cedar F	Rapids	WPGV	1.712	WRJ	3.41
		WPDW	2.422	KBCQ	3.300	KGOZ	2.466	W1XAL	6.040	Port H	uron
	3.445			Idaho	Falls	Daven	port	W1XAL	11.790	WPGB	2.46
Oakland		FLOR	IDA	KNFB	2.458	KGPN	2.466	W1XAL	15.250	Rock of	
	3.385					Des Mi		W1XAL		WWAM	
Palo Alt		Cleary	vater	ILLIN	OIS.	KGHO			21.460		3.41
	1.674		2.466	ILLIN	013		1.682	W1XH	2.110	Sagin	
Pasaden						KGZG	2.466	Brook		WPES	2.44
		WQFK	2.466	Chica		Fairf		WPEJ	1.712	Sault Ste.	. Mari
	1.712	Dinsn		WPDB	1.712	KACC	1.682	Eve	rett	NOR	2.67
Point Bon		WANB	2.726	WPDC	1.712	Sioux	City	WAKE	1.712	NOR	2.69
	2.670	Dry Tor		WPDD	1.712	KGPK	2.466	Fairh		Selfridge	
Pomona	1	WST	3.410	WOPC	1.610	Storm		WPFN	1.712	VK1	6.42
KNFJ 1	1.712	Duval	City	WOXAA	6.080	KNFO	1.682				
Sacramen		WAKI	1.698	W9XAA				Fitch		Stannard	Roc
KNGF 2		Ft. Laud			11.830	Water		WPHA	2.466	WWH	3.41
San Bernar				W9XAA	17.780	KNFN	1.682	Framir	igham		
		NMV	2.670	W9XBS	6.425			WMP	1.666	MIDW	AY
KGZY 1	1./12	Gaines		W9XF	6.100	KAN!	SAS	Glouc	ester		
San		WQFC		W9XF	6.425			NOG	2.670	KNRH	5.16
Buenaventi		Hiale	ah	DeQu	oin	Atchi	son	Marsh			3.10.
	2.414	WND	4.098	WQPD	1.610	KACA		WOU	2.506	MINNES	OTA
San Dieg	0	WAW	12.930	Effingl	2.020					MINNES	OIA
KGZD 2	2.490	WNC	15.055	WQPF	1.610	Chan	ute	Medi			
San Franci		Jackson		WOFF		KGZF	2.450	WPHG	1.712	Dulu	
	3.155	WPFG	2.442	Highland		Coffey	witte	Mil		KNFE	2.382
	2.466				2.430	KGZP	2.450	W1XK	9.570	Minnea	polis
		Key V	vest	Oak P				New	ton	KGPB	2.430
San_Gabri	lei	WWZ	3.410	WQFL	1.712	Dodge	City	WPFA	1.712	Redwood	Falls
Dam		Lakel		Otta	wa	KNGH	2.474	Northa		KNHD	1.65
	2.726	WPFT	2.442	WQFZ	2.458	Garden		WPEW	1.666	St. Pa	
San Jose	• 1	Miar	mi	Ponti	ac			Some		WPDS	2.430
KGPM 2	2.466	NOM	2.670		1.610	KNFH	2.474	WPEH	1.712	111103	2.431
San Pedro	0	WKDL	3.070	Rockf		Hutchi	nson		1.712	*****	
NOJ 2		WKDL	5.405		2.458	KGHN	2.450	W. Brid		MISSO	UKI
San Rafae		WPFZ	2.442					WPEL	1.666		
KLH 2		WFFZ W4XB		Sterli	ng	Manha		Wintl	arop	Jefferson	
Santa An			6.040	WQPG		W9XAK	2.050	NMF	2.670	KIUK	
Santa An		Opa Lo		Springt		Salir	1a	Woods	Hole	Kansas	City
		WMEV	2.930	WQPS		KNGV	2.422	NOP	2.670	KGPE	2.42
Santa Barb		WMEV	6.615	Wauke	gan		į	Worce	ster	Napole	
	.385	Orlan	do	WQFX	1.712	Tope	ka 🌲	WPGX			2.604
	.385	WPHM	2.442	Wheel		KGZC	2.422		2.400		
	.414	Palm B			6.615	Wichi		D#1011	CAN	St. Lo	
Santa Cru	ız	WPFX	2.442	Wilme		KGPZ	2.450	MICHI	GAN	KGPC	1.706
	.674	St. Peter		NMP	2.670	NGPZ	2.450				
Seguoia Pa	rk	NOF	2.670					Bay (MONTA	ANA
				NMP	2.698	KENTU	CKY	WPGA	2.466		
		WMEU	2.930					Chebo	ygan	Glacier	Nat'!
Tracy		WMEU	6.615	INDIA	NA .	Lexing	ton	Ran	qe	Park	
	.414	Tamı				WPET	1.706	WWG	3.410	KNIA	2.604
Tujunga Da		WPHN	2.466	Columbia	City			Detr			
KIIX 2	.726	WNED	8.220	WQFW	1.634	Louisy		WCK	2.414	NEBRAS	C M A
Tulare				Culve		WPDE	2.442	WKDT		HEBRAS	JNA
NPDA 2	.414	GEOR	GIA	WPHS	1.634	***			1.630		
Vallejo					1.034	LOUISI	ANA	WPDX	2.414	Linco	
KGPG 2	.422	A 4.1 · · ·		Fort Wa				WWN	3.410	KGZU	2.490
WELL	.422	Atlan		WPDZ	2.490	Baton R	ouge	WWR	3.410	Norfo	lk
Whittier		WPDY	2.414	Frankf	ort	WPEQ	1.570	E 1	sime.		2.490
	.71	Augus	ta	WAKK	2,490		i i	E. Lan		Omah	
	n .	WQFV	2 /44			New Orl	eans	WRDS	1.642		2.466
Wilmingto	.566			Hunting	ton	WPEK	2.430	Flin	ıt	NOFE	2.40
Wilmingto		Colum	bus i	WAKA	2.490	Shreve		WPDF	2.442		
KOU 2.						SHIPPYER	DOFF	5	4.444	NEVAL	1Δ
KOU 2. Yosemite		WPFI	2.414	B				_	_ 1		
COU 2 Yosemite CNKS 2	.604	WPFI	2.414	Indiana		KGPY	1.574	Fourteer			
OU 2. Yosemite (NKS 2. (NKU 2.	.604 .604	WPFI La Gra WPGM	2.414 nge	Indiana WMDZ	2.442 1.634	KGPY KGZL	1.574 1.712 2.430	Fourteer Shoa WWE		Las Ve	

Ře	no	NEW YORK	S. Schenectady	Altus	Providence	Lynchburg
KGHM	2.474		WPGC 1.658	KACL 2.450	WPGF 1.712	WQFH 2.450
NE	- W	Albany WPGH 2.414	St. George WOX 2.590	Chickasha	Woonsocket	Petersburg
HAMP		Auburn	Syracuse	KACF 2.450 Duncan	WPEM 2.466	WQFI 2.450 Richmond
		WPDN 2.382	WAES 5.612	KNGK 2.450	SOUTH	WPHF 2,450
Nasi WPHB	hu a 2.422	Binghamton WPGL 2.442	WPEA 2.382	Lawton	CAROLINA	Roanoke
WEND	2.422	WPGL 2.442 Bronx	Utica WPGJ 2,414	KGHP 2.450 Muskogee	Charleston	WQFG 2.450
NEW J	ERSEY	WPEF 2.450	Yonkers	KNGT 2.450	WCPD 2.430	WAKEISLAND
		Brooklyn	WPFY 2,442	Oklahoma City		
Bloom WAKH	ntield 2.430	WPEE 2,450 Buffaio	NORTH	KGPH 2.450	SOUTH	KNBI 5.165
Bound		NOB 2.670		Ponca City KACP 2.450	DAKOTA	WASHINGTON
W3XAL	6.100	NOB 2.698		Seminole	Rapid City	- TASHINGTON
W3XAL	17.780	WMJ 2.422		KACR 2.450	KNGM 2.450	Aberdeen
W3XL	6.425	Huntington WPGO 2.490	WPFS 2.458 WPFS 2.474	Tulsa KGPO 2.450	TENNESSEE	KGZV 2.414
W3 XL	17.310	Jackson Heights		KGFO 2.450	IENNESSEE	Bear River Camp
Cape NOV	2.670	WNEK 6.615		OREGON	Elizabethton	KNFY 2.490
Freel		Mineola WPGS 2.490	NORTH	0	WPHY 2,474	Bellingham
WAKC	2.366	Mitchell Field	DAKOTA	Grants Pass KBAM 3.445	Johnson City WPGZ 2.474	KACK 2.414 KNFK 2.490
Hacke	nsack	WO9 6.385		Hood River	Knoxville	Cataract Creek
WPFK	2.430	New York	Fargo	KIJY 2.728	WPFO 2.474	KNLT 3.387
Lawren		WOZ 3.423 WPEG 2.450		Klamath Falls	Memphis	Centralia
WCN	5.078	Niagara Falls	ОНІО	KGZH 2.442 Portland	WPEC 2.466	KGHW 2.414 Chinook Pass
WKA WKF	21.060 4.253	WNFP 2,422		KBAA 3.385	TEXAS	KGHQ 2.490
WKF	19,220	Oneonta	Akron	KGPP 2.442		Edmonds
WKK	21.410	WQFJ 2.414	WPDO 2.458 Cambridge	Saiem KGZR 2.442	Austin KGHU 2.442	KOW 2.522
WKN WLA	19.820	Rochester	WPHT 1.596	NG2N 2.442	Beaumont	Ellenburg KNFX 2,490
WLK	18.350 16.270	WPDR 2.422	O	PENN-	KGPJ 1.712	Ephrata
WMA	13.390	Rockaway Point		SYLVANIA	Big Spring KACM 2.458	KNGZ 2.490
WMF WMN	14.470	NMY 2.670	Cleveland	Harrisburg	Brownsville	Everett KNFP 2.414
WNA	14.590 9.170	Rocky Point WAD 8.930	NMD 2.670	WPSP 1.674	KGHT 2.382	Ft. Lewis
WNB	10.675	WDB 6.718	NMD 2.698 WRBH 2.458	Monessen WQFF 2.482	Brownwood	YT24.200
WOA	6.755	WDG 4.535	Columbus	New Castle	KNGW 2.458 Cleburne	Fremont KNLV 3.387
WOB WOF	5.850 9.750	WDN 4.550 WDS 18.900	WPDI 2.430	WPGT 2.482	KNGE 1.712	Grays Harbor
WOK	10.550	WEA 10.610	WPGQ 1,596	Oil City	Corpus Christi	NMW 2.670
WON	9.870	WEB 6.935	Dayton WPDM 2.430	WPHZ 2.482 Philadelphia	KGHV 2.382 Dallas	Hells Crossing Camp
WOY	4.178 4.753	WEC 8.930 WEL 8.950	Findlay	WPDP 2.474	KVP 1.712	KNFZ 2,490
WOY	8.560	WEL 13.435	WPGG 1.596	WWHJ 3.410	Denton	Kalaloch
WOY	12.840	WEM 7.400	Lancaster WQFO 2.430	W3XAU 6.060 W3XAU 9.590	KNHF 1.712 El Paso	KACQ 2.498
WOY	17.120	WES 9.448 WET 9.470	Lorain	Pittsburgh	KGZM 2.414	KGYA 3.387
New Bru WKJ	unswick 9.460	WEZ 8.075	WMES 2.550	WPDU 1.712	Fort Worth	KGYB 3.387
Ocean		WIR 4.276	Mansfield WQFY 2.474	W8XK 6.140 W8XK 9.570	KGPR 1.712 Galveston	Mt. Olympus KNDI 3,387
WOG	4.253	WIY 13.870	Massillon	W8XK 11.870	KNGL 1.712	KNDK 3.387
WOG	8.560	WJN 7.370 WKC 10.465	WPHC 1.596	W8XK 15.210	NOY 2.670	KNDL 3.387
woo	4.178	WKL 8.940	Patterson Field WYV 6.645	W8XK 17.780	Houston KGZB 1,712	KNDM 3.387
woo woo	4.753 8.560	WKM 18.860	Portsmouth	Reading	Lubbock	KNDP 3.387 KNDS 3.387
woo	12.840	WKO 15.970 WKP 6.950	WPG1 2.430	WPFE 2,442	KGZW 2.458	KNDT 3.387
woo	17.120	WKU 14.830	Sandusky WAKI 2.474	Swarthmore WPFQ 2.474	San Antonio KGUD 5,600	Mt. Rainier KGYC 3.387
Pass		WKW 15.445	Steubenville	Wilkes-Barre	KGZE 2.482	KGYC 3.387 KGYD 3.387
WPDJ	2.414	WLL 17.900 WQB 17.940	WPHD 2.458	WQFM 2,442	Waco	KGYF 3.387
Tucke WCG	10.380	WQD 18.960	Suffield WMEP 2.930		KGZQ 1.712	KNLS 3.387
		WQE 18.920	WMEP 6.615	PUERTO RICO	Wichita Falls	KNLX 3.387 KNLU 3.387
Way W2XE	6.120	WQF 17.920 WQG 15.040	Toledo	San Juan	KGZI 2,458	Mt. Vernon
W2XE	11.830	WQG 15.040 WQL 14.815	WRDQ 2.474	WCT 13.410	UTAH	KNFI 2.414
W2XE W2XE	15.270 17.760	WQN 5.265	Wilmington WPHK 1.596	WMDU 3.070		North Bend KBAL 3.200
W2XE	21.520	WQN 5.505	Wright Field	WMDU 5.405	Salt Lake City KGPW 2.406	Olympia
		WQN 5.825 WQO 6.725	PE2 6.445	RHODE		KACE 2.414
NEW M	EXICO	WQP 13.900	Youngstown WPDG 2.458	ISLAND	VIRGINIA	KBAT 3.300 KNFG 2.490
Albugu	ernue	WQQ 20.260	Zanesville	Cuamatan	Ralling Field	
KGZX	2,414	WQR 16.015 WQV 14.800	WPHO 2.430	Cranston WPGK 2,466	Bolling Field IS3 5.015	Pt. Angeles KNFC 2.490
Clov	vis	WQY 20.100	OKLAHOMA	E. Providence	Cape Henry	Port Townsend
KNFA	2.414	Schenectady	CREATURIA	WPEI 1.712	NMN 2.670	NOZ 2.670
Santa		W2XAD 15.330	Ada	Pawtucket	Langley Field	Quilcene
KGPF	2.414	W2XAF 9.530	KNHC 2.450	WPFV 2,466	FG7 6.645	KBAU 3.300

SHORT WAVE STATIONS BY LOCATIONS

Satus Can		Spok KBAO	ane 3.410			15.120	YVR	18.296			
KNGA Seat KBAP	2.490	KGHS KNGR	2.414 2.490			URU	GUAY	VENEZU (YVA-Y		YV12RM San Cris YV10RSC	stobal
KGHD	2.490	KGZN		Clarks	burg		-CXA)	Barquisi	meto	Valen	
KGPA KGYI	2.414 3.387	Vanco		WPFP Fairn	2.490	Mont	tevideo	YV8RB	5.895	YV6RV	6.520
WVD WVD	2.604 5.995	KNGC Walla	2.490	WPHJ	2.490	CWD	5.830 6.610	Carac YV2RC	5.800	VIRG	IN
WVD	6.618		2.490	Parker WPHQ	2.490	CWF	8.455	YV3RC YV4RC	6.165 6.375	ISLAN (W	
WVD W7XK	8.620 3.493	Wenat KACJ		WISCO	NSIN	CWG	11.370 13.140	YV9RC	6.400		
Shuksan		KNGQ	2.414 2.490					Maraca	odie	St. The	omas
KNFL	2.490	White		Green			ICAN	YV5RMO		WTDV	4.295
Skykor KNFU	misn 2,490	1510 1/2	3.387	KNHB Kene	2.382		ATE -HVZ)	YV7RM0	5.810	St. Cr	oi x
Snoqua		Yaki	ma	WPEP	2.450		-HVZ)	Marac YVO	6.672	WTDW	4.295
Pas		KNGB	2.490	Miiwa	ukee	Vatica	n City			St. Jo	hn
KGHE	2.490	KNGU	2.414	WPDK	2.450		5.970		9.168	WTDX	4.295

SHORT WAVE STATIONS BY CALLS

CB615	6.150	CJD	1.510	CZA	17.310	DHJZ	8.830	FNSM	4.413	GFWB	4.413 HIT	
CB960	9.600	CJD	1.540	CZB	1.620	DHJZ	13.040	FNSM	8.830	GFWV	8.830 HIX	6.630 5.980
CEC	5.820	CJE	2.290	CZG	1.712	DHO	20.020	FNSM	13.395	GFWV	13.320 HIZ	6.315
CEC	7.740	CJK	1.510	CZG	2.416	DHRL	4.413	FNTQ	4.413	GLRZ	4.415 HI1A	6.185
CEC	8.710	CJM	1.580	CZG	6.425	DHRL	8.830	FNTQ	8.830	GLRZ	8.830 HIIJ	5.865
CEC	10.670	CJRO	5.150	CZJ	1.596	DHRL	13.040	FNTQ	13.305	GLRZ	13.320 HI1S	6.420
CEC	15.865	CJRX	11.720	CZJ	1,668	DHTY	4.413	FQO	12,160	GMBJ	4.413 HI3C	6.900
CEC	19.680	CJU	3.070	CZL	2.290	DHTY	8.830	FTA	11.940	GMBJ	12.955 HI3U	6.380
CFA2	4.465	CJU	3.452	czo	4,505	DHTY	13.040	FTE	18.330	GSA	6.050 HI4D	6.500
CFA4	10.520	CJW	2,390	CZQ	4.505	DHTY	16.765	FTK	15.880	GSB	9.510 HI4V	6.480
CFC.	1.596	CJX	2,290	czą	5,400	DIP	14.410	FTM	19.355	GSC	9.580 HISN	6.150
CFC	1.668	CJZ	2.390	czv	3,300	DJA	9.560	FVA	8.960	GSD	11.750 HI9B	6.045
CFD	1.620	CKB	2,284	CZV	4.840	DJB	15.200	FZR	16.200	GSE	11.860 HJA2	5.825
CFD	5.660	СКО	2,284	CZY	1.620	DJC	6.020	FZS	18.342	GSF	15.140 HJA3	
CFJ	1.620	CKP	2,284	CZZ	1.620	DID	11.770	FZS2	11.990	GSG	17.790 HJA3	7.685 8.790
CFJ	5.660	CKS	3.040	CZ5L	4.860	DJE	17.760	GAA	20.380	GSH	21.470 HJA3	
CFL	1,620	CKS	7.550	DAF	4.320	DJG	4.580	GAD	19.480	GSI	15.260 HJA7	12.830 5.400
CFM	1.620	CKU	2.284	DAF	8.464	DJK	12.035	GAQ	18.970	GSJ	21.530 HJB	14.930
CFN	5.705	CMB2	5.780	DAF	12.325	DJL	15.110	GAS	18.304	GSK	26.100 HJN	
CFQ	3.040	CMPN	1.712	DAF	12.745	DJM	6.080	GAU	18.620	GSL	6.110 HJP	5.950
CFQ	7.550	CNR	8.035	DAF	17.260	DIN	9.540	GAW	18.200	GSN	11.820 HJU	7.465
CFT	2.284	CNR	12.830	DDBR	4.413	DIO	11.795	GBA2	13.990	GSO	15.180 HJY	9.510 9.930
CFU	4.755	COCD	6.130	DDBR	8.830	DJP	11.855	GBB2	13.595	GSP	15.310 HJY	18.444
CFU	5.705	COCH	9.428	DDBR	13.040	DIO	15.280	GBC	4.430	HAS3	15.370 HJ1AB	
CFU	6.720	COCO	6.010	DDCP	4.413	DJR	15.340	GBC	4.975	HAT	5.400 HJ1AB	
CFU	13.200	COKG	6.155	DDCP	8.830	DOAH	4.413	GBC	8.680	HAT2	7.220 HJ1AB	
CFV	2,290	COSIG	8.665	DDCP	13.040	DOAH	8.830	GBC	12.780	HAT3	8.565 HJ1AB	
CFW	2.290	CO9WR		DDFF	4.413	DOAH	13.040	GBC	17.080	HAT4		
CFX	2.284	CP5	6.080	DDFF	8.830	DOAL	4.413	GBP	10.770	HBF	9.125 HJ1AB 18.950 HJ1AB	
CGA	18.180	CP6	9.120	DDFF	13.040	DOAL	8.830	GBS	12.150	HBH		
CGA2	13.745	CP7	15.300	DDFT	4.413	DOAL	13.210	GBU	12.240	HBJ	18.450 HJ1AB 14.535 HJ1AB	
CGA4	9.332	CON	9.700	DDFT	8.830	DOAL	16.600	GBU	22.290	HBL	9.595 HJ2AB	
CGA6	6.690	CRCX	6.090	DDFT	13.040	DZA	9.675	GBW	14.440	HBP	7.797 HJ2AB	
CGA7	6.880	CREAA	7.175	DFA	19.240	DZB	10.042	GBX	10.530	HBO	12.030 HJ2AB	
CGA9	4.348	CSL	6.150	DFB	17.520	DZC	10.285	GBX	16.150	HB9AT		
CGD	3.340	CSW	9.380	DFC	12.985	DZE	12.130	GBZW	4.415	HB9B	14.236 HJ3AB	
CGE	3.040	CT1AA	9.650	DFD	14.665	DZG	15.360	GBZW	8.830	HB9H	7.005 HJ3AB	
CGE	7.550		15.350	DFE	9.810	DZH	14.460	GBZW	13.320	HB9J	14.400 HJ4AB	
CGM	3.152	CT1CT	3.750	DFL	10.850	EAQ	9.862	GCA	9.710	HCJB	8.900 HJ4AB	
CGM	3.340	CT1G0	6.132	DGK	6.675	EHY	10.070	GCB	9.280	HCK	5.885 HJ4AB	
CGO	4.506	CT2AJ	4.000	DGU	9.610	EHZ	10.370	CCI	13.415	HC2ET	4.600 HJ4AB	
CGP	5.400	CWD	5.830	DHAO	4.413	ETA	18.270	GCP	7.920	HC2JSE		
CGQ	1.596	CWE	6.610	DHAO	8.830	ETB	11.955	GCS	9.020	HC2RL	6.650 HJ4AB	
CGQ	1.668	CWF	8.455	DHAO	13.040	ETD	7.620	GCU	9.950	HH2F	6.065 HJ4AB	
CGT	4.865	CWG	11.370	DHDL	4.413	ETG	5.880	GCW	9.790	HH2R	9.550 HJ5AB	
CGV	1.596	CWH	13.140	DHDL	8.830	FG7	6.645	GDB	4.320	HH2S	5.915 HJ5AB	
CGV	1.668	CYQ	2.318	DHDL	13.040	FNSK	4.390	GDB	6.795	HH3W	9.617 HJ5AB	
CGY	3.152	CZA	2.980	DHEY	4.413	FNSK	4.410	GDLJ	4.430	HIG	6.280 HKE	7.090
CGZ	2.342	CZA	4.785	DHEY	8.830	FNSK	8.810	GDLJ	8.830	нин	6.814 HPC	10.290
CHNX	6.110	CZA	6.285	DHEY	13.040	FNSK	8.830	GDLJ	13.320	HIL	2.510 HPF	14.545
CJA3	17.710	CZA	8.515	DHEY	16.460	FNSK	13,190	GDS	6.905	HII	10.040 HP5B	6.030
CJA6	6.760	CZA	12.660	DHJZ	4.413	FNSK	13.210	GDW	4.820	HIL	6.500 HP5F	6.080

HP5J	9.590	JZG	6.330	KGM	2.512	KIFM		KNBZ	2.994		2.566		12.050
HP5K	6.005	KACA	2.422	KGOZ	2.466	KIFT	2.150	KNDI	3.387	KOW	2.522	PD1	6.445
HRF	13.827	KACC	1.682	KGPA	2.414	KIGW	2.102	KNDK	3.387	KQH	14.920	PE2	6.445
HRD	6.235	KACD	1.682	KGPB	2.430	KIIH	2.190	KNDL	3.387	KQJ	18.020	PHI	11.725
HRM	13.810	KACE	2.414	KGPC	1.706	KIIJ	2.994	KNDM	3.387	KSW	1.658	PHI	17.775
HRN	5.875	KACF	2.450	KGPD	2,466	KIIJ	3.190	KNDP	3.387	KTO	16.240	PLE	18.830
HRP1	6.356	KACI	2.422	KGPE	2.422	KIIK	2.994	KNDS	3.387	KTP	8.120	PLF	17.850
HSJ	8.020	KACJ	2.414	KGPF	2.414	KIIK	3.190	KNDT	3.387	KVP	1.712	PLG	15.950
HSP	7.968	KACK	2.414	KGPG	2.422	KILL	2.994	KNEC	1.646	KWN	21.060	PLP	11.000
HSP	9.396	KACL	2.450	KGPH	2.450	KIIL	3.190	KNEC	2.090	KWO	15.415	PLQ	10.670
	17.740												
HSP		KACM	2.458	KGPI	2.466	KIIM	2.994	KNEC	2.190	KWU	15.355	PLV	9.415
HS8PJ	10.165	KACN	2.414	KGPJ	1.712	KHM	3.190	KNEC	2.830	KWV	10.840	PMA	19.345
HVJ	5.970	KACO	2.414	KGPK	2.466	KIIN	2.994	KNED	1.606	KWX	7.610	PMB	20.606
HVJ	15.120	KACP	2.450	KGPL	1.712	KIIN	3.190	KNED	2.020	KWY	7.565	PMC	18.135
IAC	4.355	KACR	2.450	KGPM	2.466	KIIO	2.994	KNED	2.102	KZGF	5.765	PMN	10.260
IAC	6.650	KACS	2.414	KGPN	2.466	KIIO	3.190	KNEF	2.830	KZGF	9.170	PMY	5.140
IAC	8.515	KAEB	2.616	KGPO	2.450	KHO	5.138	KNFA	2.414	KZGG	5.825	PNI	8.775
IAC	12.795	KAEB	3.265	KGPP	2.442	KIIP	3.100	KNFB	2.458	KZGG	8.940	PPQ	11.670
IAC	12.865	KAED	2,616	KGPQ	1.712	KIIQ	2.150	KNFC	2,490	KZGH	5.795	PPU	19.270
IAF	5.415	KAED	3.093	KGPR	1.712	KILW	2.726	KNFE	2.382	KZGH	9.490	PRADO	6.620
IAF	29.820	KAEF	2.616	KGPS	2.414	KIIX	2.726	KNFG	2.490	LCL	6.130	PRADO	
				KGPW	2.406		2.720	KNFH			13.980		
IBEJ	4.280	KAEF	2.994			KIIY	2.726		2.474	LCO		PRA8	6.040
IBEJ	13.050	KAJQ	2.632	KGPX	2.442	KIJB	2.994	KNFI	2.414	LKJ1	9.540	PRF5	9.500
IBG1	4.280	KAX	19.980	KGPY	1.574	KIJI	1.622	KNFJ	1.712	LQA	9.600	PSA	21.080
1BG1	13.050	KAY	14.980	KGPZ	2.450	KIJK	1.622	KNFK	2.490	LRU	15.250	PSD	15.070
IBLI	4.280	KAZ	9.990	KGQ	2.986	KIJO	1.622	KNFL	2.490	LRX	9.580	PSE	14.935
IBLI	13.050	KBAA	3.385	KGUD	5.600	KIJP	2.986	KNFM	2.490	LSF	19.600	PSF	14.690
ICEJ	4.280	KBAI	2.304	KGX	2.632	KIJR	2.986	KNFN	1.682	LSG	19.900	PSH	10.220
ICEJ	13.050	KBAL	3.200	KGXU	1.622	KIJS	1.622	KNFO	1.682	LSH	5.435	PSK	8.180
IDU	13.380	KBAM	3.445	KGXW	1.606	KIJU	2.986	KNFP	2.414	LSL	9.990	RAU	15.104
IRF	8.070	KBAO	3.410	KGYA	3.387	KIJV	1.622	KNFR	2,490	LSL	10.250	RFF	7.260
IRG	14.740	KBAP	3.200	KGYB	3.387	KIJW	2.632	KNFS	2.490	LSM	19.120	RIM	7.626
			3.200					KNFU			21.128		
IRJ	13.105	KBAT	3.300	KGYC	3.387	KIJW	2.912		2.490	LSM		RIO	10.160
IRM	9.830	KBAU	3.300	KGYD	3.387	KIJX	2.632	KNFX	2.490	LSN	9.895	RIR	5.040
IRW	19.520	KBCA	3.385	KGYE	3.387	KIJY	2.728	KNFY	2.490	LSN	14.480	RIR	10.080
IRY	16.118	KBCB	3.385	KGYF	3.387	KIJZ	2.728	KNFZ	2.490	LSN5	19.650	RKF	4.875
153	5.015	KBCC	3.200	KGYG	3.387	KIKL	6.615	KNGA	2.490	LS N6	21.020	RKF	6.870
12R0	5.550	KBCD	3.445	KGYH	3.387	KEKN	3.093	KNGB	2.490	LSR	18.958	RKF	6.880
12RO	5.725	KBCE	3.445	KGYI	3.387	KIKY	3.265	KNGC	2.490	LSX	10.350	RKF	6.900
12RO	6.085	KBCF	3.445	KGZA	2.414	KILU	2.150	KNGD	2.490	LSY3	18.115	RKF	9.750
12R0	6.980	KBCG	3.385	KGZB	1.712	KILY	2.994	KNGE	1.712	LZA	14.970	RKF	12.500
12R0	9.635	KBCH	3.385	KGZC	2.422	KIMA	2.632	KNGF	2.422	NMC	2.670	RKI	7.520
12R0	11.810	KBCJ	3.155	KGZD	2.490	KINT	2.726	KNGG	1.698	NMD	2.670	RKI	15.040
JDX	15.510	KBCQ	3.300	KGZE	2.482	KINT	3.190	KNGH	2.474	NMD	2.698	RKI	15.090
JDY	9.920	KBK	6.718	KGZF	2.450	KIO	11.680	KNGJ	2.490	NMF	2.670	RKK	6.135
JDZ	5.710	KDH	2.538	KGZG	2.466	KIOC	2.632	KNGK	2.450	NMG	2.670	RKK	12.270
JIA	15.750	KDK	2.538	KGZH	2.442	KIOD	2.632	KNGL	1.712	NMN	2.670	RNE	12.000
				KGZI	2.458					NMP	2.670		
JIB	10.530	KDV KDX	2.538	KGZJ	2.430	KIOG	1.622	KNGM	2.450 2.490	NMP	2.698	ROI	5.490
JIC	5.890					KIOH	2.632					ROU	14.790
JVA	18.910	KDY	2.994	KGZL	1.712	KIOI	2.632	KNGQ	2.450	NMV	2.670	RPK	7.225
JVB	18.190	KEE	7.715	KGZM	2.414	KIOM	3.093	KNGP	2.430	NMW	2.670	RPT	5.995
JAC	16.050	KEJ	9.010	KGZN	2.414	KION	2.616	KNGQ	2.490	NMY	2.670	RRD	8.225
JVD	15.860	KEL	6.860	KGZO	2.414	KIOX	2.616	KNGR	2.490	NOB	2.670	RSB	5.375
JVE	15.660	KEQ	6.733	KGZP	2.450	KIOZ	2.616	KNGT	2.450	NOB	2.698	RSN	5.440
JVF	15.620	KES	9.480	KGZQ	1.712	KIUK	1.674	KNGU	2.414	NOF	2.670	RSZ	8.770
JVG	14.910	KET	10.410	KGZR	2.442	KIUQ	2.616	KNGV	2.422	NOG	2.670	RTA	6.440
JVH	14.640	KEZ	10.400	KGZT	1.674	KIUW	2.616	KNGW	2.458	NO1	2.670	RTZ	7.275
JVI	13.560	KFF	2.566	KGZU	2.490	KIUW	2.986	KNGY	2.414	NOM	2.670	RV15	4.273
1 A I	12.270	KGHA	2.490	KGZV	2.414	KIUX	2.616	KNGZ	2.498	NOP	2.670	RV59	5.996
JVK	12.020	KGHB	2.490	KGZW	2.458	KIUZ	3.093	KNHB	2.382	NOR	2.670	SPW	13.630
JVL	11.660	KGHC	2.490	KGZX	2.414	KKH	7.520	KNHC	2.450	NOR	2.698	SUV	10.055
JVM	10.740	KGHD	2.490	KGZY	1.712	KKL	15.475	KNHD	1.658	NOU	2.670	SUZ	13.810
JVN	10.660	KGHE	2.490	KHP	1.622	KKP	16.030	KNHE	2.406	NOV	2.670	TFK	9.050
JVO	10.375	KGHG	2.474	KHV	2.566	KKQ	11.950	KNHF	1.712	NOY	2.670	TFJ	12.225
JVP	7.510	KGHK	1.674	KHW	2.912	KKW	13.780	KNHG	2.430	NOZ	2.670	TGF	14.545
JVQ	7.470	KGHM	2.474	KHZ	2.912	KKZ	13.690	KNHM	2.442	OAX4D		TGS	5.710
JVR	7.390	KGHN	2.450	KIAP	3.093	KLA	2.566	KNIA	2.604	OAX4G		TGWA	6.000
	6.990	KGHO	1.682	KIAW	3.093	KLB	2.512	KNKG	3.410	OCI	18.670	TGXA	6.130
JVS				KIAY					2.604				
JVT	6.750	KGHP	2.450	KIRA	3.093	KLC	2.512	KNKS	2.004	OCJ2	14.845	TG1X	9.450
JVU	5.790	KGHQ	2.490	KIBA	3.093	KLD	2.566	KNKU	2.604	OER2	6.072	TG2X	5.940
100	5.730	KGHR	2.490	KIBZ	3.265	KLE	2.512	KNKX	2.604	OPL	20.040	TIEP	6.700
JYK	13.600	KGHS	2.414	KICE	3.265	KLGK	2.738	KNKY	2.604	OPM	10.135	TIGPH	5.820
JYR	7.880	KGHT	2.382	KICG	3.265	KLH	2.506	KNLO	3.410	ORG	19.200	TIN	14.545
JYS	9.840	KGHU	2.442	KICI	3.093	KMYA	2.304	KNLP	3.410	ORK	10.330	TIU	14.545
JYT	15.760	KGHV	2.382	KIDE	3.265	KMYA	4.610	KNLQ	3.410	OXY	6.060	TIPG	6.410
JZA	15.680	KGHW	2.414	KIED	1.622	KNBD	5.165	KNLR	3.410	OXY	9.490	TIR	7.685
JZB	10.960	KGHX		KIED	2.150	KNBE	5.165	KNLS	3.387	PCJ	15.220	TIRCC	6.550
JZC	5.830	KGHY	1.712	KIEJ	2.994	KNBF	5.165	KNLT	3.387	PCK	18.400	TISHH	5.520
JZD	16.910	KGHZ	2.406	KIEO	2.150	KNBG	5.165	KNLU	3.387	PCM	18,600		7.550
JZE	13.020	KGI	2.632	KIFI	1.622	KNBH	5.165	KNLV	3.387	PCV	17.830		15.245
JZF	8.500	KGIX	1.712	KIFI	2.150	KNBI	5.165		3.387	PDK	10.410		11.880
	5.550						V.233		3.331		2020		_2.000

TPA4	11.715	WAW	12.930	WMEP	2.930	WPEJ	1.712	WQFC	2.466	W2XBJ	10 270	VDMC	2 120
TYA	12.215	WCG	10.380	WMEP	6.615	WPEK	2.430		1.634	W2XBJ			3.130
TYA2	9.040	WCK	2.414	WMEQ	6.615	WPEL	1.666	WOFF					1.960
TYB	12.250	WCN							2.482	W2XBJ			1.920
			5.078	WMES	2.550	WPEM	2.466	WQFG	2.450	W2XE	6.120		2.116
TYD2	8.575	WCPD	2.430	WMEU	2.930	WPEP	2.450	WQFH	2.450	W2XE	11.830	YDJ2	3.270
VAC	1.510	WCT	13.410	WMEU	6.615	WPEQ	1.570	WQFI	2.450	W2XE	15.270	YDJ3	
VAF	1.510	WDB	6.718	WMEV	2.930	WPES	2.442	WQFJ	2,414	W2XE	17.760		1.840
VBQ	2.350	WDDQ	2.738	WMEV	6.615	WPET	1.706	WQFK	2.466	W2XE	21.520	1034	
VBY	1.540	WDFL	2.738	WMF	14.470	WPEV		WQFL					2.870
VBY	1.650	WDG		10100			1.666		1.712	W3XAL	6.100	YDK2	3.190
			4.535	WMJ	2.422	WPEW	1.666	WQFM	2.442	W3XAL		YDK3	2.910
VDC	4.490	WDN	4.550	WMN	14.590	WPFA	1.712	WQFO	2.430	W3XAU	6.060	YDK4	2.890
VDO	4.436	WDS	18.900	WMO	2.414	WPFC	2.442	WQFQ	2.442	W3XAU		YDK5	2.710
VDO	4.865	WEA	10.610	WMP	1.666	WPFD	2.430	WQFT	1.596	W3XL	6.425		
VDV	4.490	WEB	6.935	WNA	9.170	WPFE		WQFT				YDK6	1.860
VE9AS		WEC					2.442		1.692	W3XL	17.310	YDL2	4.810
			8.930	WNB	10.675	WPFG	2.442	WQFV	2.414	W4XB	6.040	YDL3	3.450
VE9BJ		WEL	8.950	WNC	15.055	WPFH	2.414	WQFW	1.634	W7XK	3.493	YDL4	3.410
VE9B		WEL	13.435	WND	4.098	WPFI	2.414	WQFX	1.712	W8XA	1.682	YDL5	3.210
VE9CA	6.030	WEM	7.400	WNED	8.220	WPFK	2.430	WQFY	2.474	WEXAL	6.060	YDL6	2.750
VE9CS	6.070	WES	9.448	WNEL	1.622	WPFM	2.382	WQFZ	2.458	W8XK	6.140	YDM2	
VE9DN		WET	9.470	WNEI	2.150	WPFN							3.320
VE9DF		WEY					1.712	WQG	15.040	W8XK	9.570	YDN2	1.940
			1.630	WNEK	6.615	WPFO	2.474	WQL	14.815	W8XK	11.870	YDN3	2.790
VE9EV		WEZ	8.075	WNER	2.060	WPFP	2.490	WQN	5.265	W8XK	15.210	YDO2	3.430
VFJ	2.290	WHER	2.102	WNFG	2.538	WPFQ	2.474	WQN	5.505	W8XK	17.789	YDO3	3.290
VIA	1.520	WHER	1.606	WNFJ	2.986	WPFS	2.458	WQN	5.825	W8XK	21.540		3.170
VIZ3	11.495	WIED	1.566	WNFP	2.422	WPFS	2.474	WQN	5.825	W9XAA			
VJZ	13.880	WIED	2.390	WOA								YDO5	2.930
VKO					6.755	WPFT	2.442	WQO	6.725	W9XAA			3.430
	1.520	WIEG	2.150	WOB	5.850	WPFU	2.422	WQP	13.900	W9XAA		YD07	2.070
VK1	6.425	WIEH	1.622	WOEH	12.862	WPFV	2.466	WQPC	1.610	W9XAK	2.050	YD08	1.980
VK2M	E 9.585	WIEK	1.646	WOF	9.750	WPFW	2.466	WQPD	1.610	W9XBS	6.425	YDO9	1.880
VK3LF	9.580	WIEK	2.190	WOFW	2.738	WPFX	2.442	WQPF	1.610	W9XF	6.100	YDO2	
VK3M		WIEL	1.646	WOG	4.253	WPFY		WQPG					3.390
VLJ	9.750	WIEL	2.190	WOG			2.442	WUPG	1.610	W9XF	6.425	YDQ3	3.350
VLK			2.190		8.560	WPFZ	2.442	WQPP	1.610	XBJQ	11.000	YDQ4	3.230
	8.095	WIEO	1.606	WOK	10.550	WPGA	2.466	WQPS	1.610	XEBT	6.000	YDQ5	2.950
VLK	10.520	WIEO	2.020	WON	9.870	WPGB	2.466	WQQ	20.260	XECR	7.380	YDQ6	2.810
VLZ	7.960	WIEO	2.102	WOO	4.178	WPGC	1.658	WQR	16.015	XEDQ	9.520	YDU2	
VLZ	7.980	WIEO	2.760	woo	4.753	WPGD	2.458	WQV	14.800	XEFT	6.120	YDU3	4.710
VPD	13.075	WIEW	1.606	WOO	8.560	WPGF		WQY		VEPI			5.260
VP3MI		WIEW	2.102	woo			1.712		20.100	XEOK	6.130	YDU4	2.830
VQG					12.840	WPGG	1.596	WRBH	2.458	XEUW	6.020	YDU5	1.850
	19.630	WIEX	1.566	woo	17.120	WPGH	2.414	WRDQ	2.474	XEVI	5.985	YDV2	3.330
VQJM	4.430	WIEX	1.606	WOU	2.506	WPGI	2.430	WRDR	2.414	XEXA	6.182	YNA	14.480
MLDA	8.830	WIEX	2.102	wox	2.590	WPGJ	2.414	WRDS	1.642	XGB	11.140	YNLF	
VQJP	4.430	WIEX	2.390	WOY	4.178	WPGK	2.466	WRJ	3.410	XGK			5.950
VQJP	8.830	WIFI	2.738	WOY							18.690	YNVA	8.590
VQ7LC		WIR			4.753	WPGL	2.442	WST	3.410	XGL	7.960	YSL	14.960
			4.276	WOY	8.560	WPGM	2.414	WTDV	4.295	XGN	16.380	YT2	4.200
VRR4	11.595	WIY	13.870	WOY	12.840	WPGN	2.490	WTDW	4.295	XGO	7.575	YVQ	6.672
VUB	9.565	WJER	1.606	WOY	17.120	WPGO	2.490	WTDX	4.295	XGOX	6.000	YVO	13.337
VUC	6.112	WJER	2.102	woz	3.423	WPGP	2.442	WTR	6.385	XGOX	9.500	YVR	9.168
VUC	9.575	WJN	7.370	WO9	6.385	WPGQ	1.596	WVD	2.604	XGW	10.420		
VWY	9.045	WKA	21.060	WPDA	2.414	WPGS						YVR	18.296
VWY2	17.480	WKC					2.490	WVD	5.995	YBG	10.430	YV2RC	5.800
vwz			10.465	WPDB	1.712	WPGT	2.482	WVD	6.618	YBZ	7.680	YV3RC	6.165
	8.690	WKDL	3.070	WPDC	1.712	WPGV	1.712	WVD	8.620	YCP	8.575	YV4RC	6.375
vwz	8.693	WKDL	5.405	WPDD	1.712	WPGW	2.382	WWAD	4.988	YDA	3.040	YV5RM	
vwz	8.700	WKDT	1.630	WPDE	2.442	WPGX	2.466	WWAJ	3.410	YDA	6.040	YV6RV	6.520
VWZ	8.708	WKDU	1.706	WPDG	2.458	WPGZ	2.474	WWAL	3.410	YDA2	2.385	VV/75000	0.320
VXU	5.540	WKEM	1.622	WPDH	2.442	WPHA			3.410			YV7RM	
VXU	5.540	WKEM	2.150	WPDI			2.466	WWAM		YDA3	1.640	YV8RB	5.895
					2.430	WPHB	2.422	WWAO	3.410	YDA4	1.550	YV9RC	6.400
vxw	5.540	WKF	4.253	WPDJ	2.414	WPHC	1.596	WWE	3.410	YDA5	6.120	YV10R9	C5.720
VXX	5.405	WKF	19.220	WPDK	2.450	WPHD	2.458	WWG	3.410	YDA6	2.870	YV12RF	A 6.300
VYP	1.596	WKJ	9.460	WPDL	2.442	WPHE	1.634	WWH	3.410	YDA7	3.270	ZBW	8.750
VYP	1.668	WKK	21.410	WPDM	2,430	WPHF	2.450	WWHJ	3.410	YDA8	1.510	ZER	6.147
VYR	1.712	WKL	8.940	WPDN	2.382	WPHG	1.712	wwm	3.410	YDB			
VYW	2.396	WKM	18.860	WPDO	2.458						4.470	ZEC	6.000
VYZ	2.212	WKN				WPHI	2.490	WWN	3.410	YDB2	2.450	ZFA	5.025
WAD			19.820	WPDP	2.474	WPHJ	2.490	WWR	3.410	YDB3	1.660	ZFB	10.055
	8.930	WKO	15.970	WPDR	2.422	WPHK	1.596	wwv	5.000	YDB4	1.615	ZFD	10.335
WAES	5.612	WKP	6.950	WPDS	2.430	WPHM	2.442	wwv	10.000	YDB5	1.595	ZFO	5.300
WAJJ	3.190	WKU	14.830	WPDT	2.490	WPHN	2.466	wwv	15.000	YDB6	1.570	ZFS	4.512
WAJK	3.190	WKW	15,445	WPDU	1.712	WPHO	2.430	wwz	3.410	YDB7	1.530	ZGE	
WAJL	3.190	WLA	18.350	WPDV	2.458	WPHP							6.125
WAJM	3.190	WLEB					2.466	WXA	8.050	YDD2	1.630	ZHI	6.060
			1.646	WPDW	2.422	WPHQ	2.490	WXE	2.998	YDD3	1.585	ZHJ	6.080
WAJN	2.726	WLEZ	2,150	WPDX	2.414	WPHS	1.634	WXH	2.604	YDE2	4.810	ZLR	7.390
WAJN	3.190	WLFQ	2.738	WPDY	2.414	WPHT	1.596	WXH	6.662	YDE3	2.910	ZLS	8.900
WAKA	2.490	WLK	16.270	WPDZ	2.490	WPHU	1.634	WYBF	2.604	YDE5	2.350	ZLT2	
WAKE	2.466	WLL	17.900	WPEA	2.382	WPHY							7.390
WAKC	2.366	WMA					2.474	W1XAL		YD G2	3.470	ZLT4	11.000
WAKE			13.390	WPEB	2.442	WPHZ	2.482	W1XAL		YDG3	3.150	ZSR	9.180
	1.712	WMDU	3.070	WPEC	2.466	WPSP	1.674	W1XAL		YDG4	2.850	ZSS	19.890
WAKG		WMDU	5.405	WPED	1.712	WQB	17.940	W1XAL	21.460	YDG5	2.090	zsv	8.220
WAKH	2.430	WMDZ	2.442	WPEE	2.450	WQD	18.960	W1XH	2.110	YDG6	1.900	ZSV	12.500
WAKI	2.474	WMEF	1.606	WPEF	2.450	WQE	18.920	W1XK	9.570	YDG7	3.300		
WAKJ	1.698	WMEF	2.020	WPEG	2.450	WQF	17.920	W2XAD	15 330			ZTJ	6.100
WAKK	2.490	WMEF	2.102	WPEH				WAXAD	13.330	YDH3	3.490	ZP10	6.666
WANB	2.726			WPEH	1.712	WQFA	2.466	W2XAF	9.530	YDH4	3.310		
***	4.120	AA IAI E.P.	2.760	WEL	1.712	WQFB	2.414	W2XBJ	4.550	YDH5	3.250	ZP11	3.800

NBC has shifted the National Farm & Home Hour to 11:30 a.m. (EDST) on the Blue network six days a week following the change to daylight saving time April 26.

With the termination of Father Coughlin's fall and winter broadcast series on April 26, it was disclosed that he will resume his independent hookup on or about Oct. 20, or practically on the eve of the national elections. The Coughlin network

cost him approximately \$210,000 for lines and station time during the last six months.

KIRO, Seattle, which has just received an increase in power to 1,000 watts, has appointed John Blair & Co., station representatives, to handle its representation nationally. The station is under the general management of H. J. Quilliam. It recently moved into new studios in the Cobb Bldg.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES
540 keys. (555.2) Heard Logged Reported Verified
CJRM ak 1000 F Moose Jaw, Sask.
550 keys. (545.1)
CFNB ak 500 F (1) Fredericton, N. B. KFUO ae 500 2 (1) St. Louis, Mo. KFYR ae 1000 N (5) Bismarck, N. D. KOAC ak 1000 Corvallis, Ore. KSD ak 1000 C(5) St. Louis, Mo. KTSA ak 1000 C(5) San Antonio, Tex. WDEV ae 500 D Waterbury, Vt. WGR ck 1000 C Buffalo, N. Y. WKRC ak 1000 C Cincinnati, Ohio WSVA ak 500 D Harrisonburg, Va.
560 keys. (535.4)
KFDM ak 500 (1) Beaumont, Tex. KLZ ae 1000 C Denver, Colo. KSFO ak 1000 D Springfield, Mo. WFIL ak 1000 B Philadelphia, Pa. WIND ak 1000 (5) Gary, Ind. WIS ac 1000 N (5) Columbia, S. C. WQAM ae 1000 C Miami, Fla. XEAO ak 250 (.15) Mexicali, L. C. XEFC ak 100 Merida, Yuc.
570 keys. (526.0)
KGKO ak 250 C (1) Wichita Falls, Tex. KMTR ak 1000 C Hollywood, Calif. ▮ KVI ak 1000 C Tacoma, Wash. WKBN ae 500 L Youngstown, Ohio WMCA ak 500 L New York, N. Y. WNAX ak 1000 C (5) Yankton, S. D. WOSU ak 750 1 (1) Columbus, Ohio WSYR ak 250 BX Syracuse, N. Y. WWNC ak 1000 N Asheville, N. C.
580 kcys. (516.9)
CFPR z 50 Prince Rupert, B.C. CHRC ak 100 F Quebec, Que. CLGX ae 100 F Yorkton, Sask. CKCL ae 100 F Toronto, Ont. CKUA ak 500 Edmonton, Alta. KMJ ak 500 C Manhattan, Kans. WCHS ak 500 (1) Manhattan, Kans. WDBO ae 1000 C Orlando, Fla. WIBW ak 1000 C2 (5) Topeka, Kans.

NORTH AMERICAN B	. C. STATION	S BI FF	EQUENCII	25
WTAG ae 500 R Worcester, M	lass. Heard	Logged	Reported	Verified
590 kcys. (508.2)				
KHQ ak 1000 R (2.5) Spokane, W WEEI ak 1000 R Boston, Mas	ash.			
WKZO ae 1000 DX Kalamazoo,	s. Mich.			
WOW ae 5000 R(5) Omaha, Neb XEPN ak 50000 . Piedras Negras	r.			
	,			
600 kcys. (499.7)				
CFCF ae 400 FN Montreal, Q CJOR ak 500 Vancouver, I				
CMW ak 1400 Hayana Cub	oa -			
CRCW ak 500 F (1) Windsor, On FON z 250 609 St. Pierre, M	t.			
KFSD ae 1000 B San Diego, C	alif.			
WICC ac 500 2 C (1) Bridgeport	Conn			
WMT ak 1000 B (2.5) Cedar Rapi WREC ak 1000 C (2.5) Memphis, T	ds, la.			
	ciii.			
610 kcys. (491.5)				
WDAF ak 1000 C (5) San Francisc WDAF ak 1000 R (5) Kansas City.	o, Cal.			
wir ae 1000 Philadelphia	, Pa,			
WJAI ae 500 D Gleveland O	hio			
XEXM z Mexico City, XFX ak 1000 Mexico City,	D. F.			
620 kcys. (483.6)				
KGW ak 1000 R (5) Portland, Or KTAR ae 1000 N Phoenix, Aria	e.			
WFLA ae 1000 Na (5) Clearwater.	z. Fla.			
WHJB ak 250 D Greensburg, WLBZ ak 500 C (1) Bangor, Main	Pa.			
WSUN ae 1000 Na (5) St. Petersbur	g, Fla			
WTMJ ae 1000 N (5) Milwaukee,	Wis.			
630 kcys. (475.9)				
CFCO ak 100 F Chatham, On	nt.			
CFCY ae 1000 F Charlottetown, CJRC ak 500 F (1.) Winnipeg, M	P.E.I. an,			
CKOV ak 100 F Kelowna, B. KFRU ak 500 I (1) Columbia, M	C.			
KGFX ak 200 D Pierre, S. D.				
WGBF ak 500 1 Evansville, In WMAL ak 250 B (.5) Washington,	D. C.			
WOS ak 500 1D Jefferson Cit WPRO ak 250 Providence, I	y, Mo.			
XEZ z 500 Merida, Yuc.				
640 kcys. (468.5)				
CMBC dj 150 Havana, Cub	a.			
WAIU ae 500 Columbus O	Calif.			
WOI ae 5000 D Ames, Iowa				
XEOX ak 500 Saltillo, Coal z 500 P Portland, Me	i. e.			
650 kcys. (461.3)				
TIGPH ak 1000 San Jose, C. WSM ae 50000 N Nashville, Te	R.			
660 kcys. (454.3)				
WAAW ak 500 D Omaha, Neb.				
WEAF ak 50000 R New York, N	, Y,			

NORTH AMERICAN B. C. C.				
670 kcys. (447.5)	Heard	Logged	Reported	Verified
WMAQ ak 50000 N Chicago, III.				
680 kcys. (440.9)				
CMCG ak 150 Havana, Cuba. KFEQ ak 2500 D St. Joseph, Mo. I KPO ak 50000 RDN San Francisco, Cal. RDN z 500 San Salvador, E.S. VAS akn 2000 685 Glace Bay, N. S. VOWR ck 500 681 St. John's, Nfld. WPTF ae 5000 DnN Raleigh, N. C.				,
690 kcys. (434.5)			_	
CFRB ak 10000 C Toronto, Ont. CJCJ aj 100 F Calgary, Alta. NAA akn 1000 Arlington, Va. XET ak 500 Monterrey, N. L.			*	
700 kcys. (428.3)				
WLW ak 500000 N Cincinnati, Ohio				
710 keys. (422.3)				
KIRO ae 500 Seattle, Wash. KMPC ak 500 Beverly Hills, Cal. WOR' ak 50000 Newark, N. J. XEN ak 1000 Mexico City, D. F.				
720 kcys. (416.4)				
WGN ak 50000 Chicago, III.				
730 kcys. (410.7)				
CFPL ak 100 F London, Ont. CJCA ah 1000 F Edmonton, Alta. CKAC ck 5000 C Montreal, Que, CKPR ak 100 F Fort William, Ont. CMK ae 3000 Havana, Cuba				
740 kcys. (405.2)				
KMMJ ac 1000 D Clay Center, Neb. KTRB ak 250 D Modesto, Calif. WHEB ak 250 D Portsmouth, N. H. WSB ah 50000 N Atlanta, Ga.				
750 kcys. (399.8)	1 - 1 E	7.	50	
CMCW dk 150 Havana Cuba KGU aj 2500 N Honolulu, T. H. WJR ak 50000 C Detroit, Mich. XEAM z 7.5 Matamoros, Tams.				
760 kcys. (394.5)				
CMHX ak 200 Cienfuegos, Cuoa KXA ae 250 (.5) Scattle, Wash. WBAL ae 2500 BSy Baltimore, Md. WEW ae 1000 D St. Louis, Mo. WJZ ak 50000 BSy New York, N. Y. XEOK ak 250 Tijuana, L. C.				
770 kcys. (389.4)				
CMBS ak 150 Havana, Cuba KFAB ae 10000 CSy Lincoln, Neb. WBBM ae 50000 CSy Chicago, III.				

780 kcys. (384.4)	Heard	Logged	Reported	Verified
CHWK dk 100 F Chilliwack, B. C. CKSO ak 1000 F Sudbury, Ont. CMJK ak 250 Camaguey, Cuba KEHE ak 500 (1) X Los Angeles, Calif. KFDY ae 1000 D Brookings, S. D. KFOD ck 250 Anchorage, Alaska KGHL ak 1000 N (2.5) Billings, Mont. WEAN ae 500 C Providence, R. I. WMC ak 1000 N (5.) Memphis, Tenn. WTAR ae 500 N (1) Norfolk Va. XEYZ z 10000 Mexico City, D. F.	-			
790 keys. (379.5) CMGH z 250 Matanzas, Cuba KGO ak 7500 B San Francisco, Cal.				
KGO ak 7500 B San Francisco, Cal. Schenectady, N. Y. 800 kcys. (374.8)				
HIX ak 700 Trujillo, D. R. TIX ak 50000 Na Fort Worth, Tex. WFAA ak 50000 Na WFAA ak 50000 Na WFAA ak 50000 Na WFAA Cumberland, Md.				
810 kcys. (370.2)				
CMCF ak 600 Havana, Cuba WCCO ae 50000 C Minneapolis, Minn. WNYC ak 1000 D New York, N. Y. XFC z 350 Aguascalientes, Ags.				
820 kcys. (365.6)				
CMHW ak 100 Cienfuegos, Cuba, WHAS aj 50000 C Louisville, Ky. XEMZ z Coronado Isle, L. C.				
830 kcys. (361.2)				
KOA ak 50000 N Denver, Colo. WEEU ak 1000 D Reading, Pa. WHDH ae 1000 Dn Boston, Mass. WRUF ae 5000 Dn Gainesville, Fla.				
840 kcys. (356.9)				
CFOC ak 1000 F Saskatoon, Sask. CRCT ak 5000 FN Toronto, Ont. VOGY ak 400 St. John's, Nfld. XERA ck 250000 Villa Acuna, Coah.				
850 keys. (352.7)				
CMBN z 150 Havana, Cuba KIEV ak 250 D Glendale, Calif. TIEP z 500 San Jose, C. R. WESG ak 1000 C Elmira, N. Y. WKAR ae 1000 D East Lansing, Mich. WWL ae 10000 C New Orleans, La.				
860 kcys. (348.6)				
WABC ak 50000 C New York, N. Y. WHB ak 1000 D Kansas City, Mo. XEMO ak 5000 Tijuana, L. C.				
870 kcys. (344.6)				
WENR ak 50000 Na Chicago. III.				

	NONTI	1 MIVI	ERICAIN B. C.	OIIIII.			
WLS	ae 50000	Na	Chicago, Ill.	Heard	Logged	Reported	Verified
880 1	cys. (340.2	7)	3			
CFJC CMQ CRCO KFKA KLX KPOF WCOC WGBI WPHR WQAN WSUI	ak 100 ak 500 ak 1000 ak 1000 ae 1000 ae 500 ae 500 ae 500 ae 500 ae 500 ae 500	F 2 (1) 2 (1)	Kamloops, B. C. Havana, Cuba Ottawa, Ont. Greeley, Colo. Oakland, Calif. Denver, Colo. Meridian, Miss. Scranton, Pa. Petersburg, Va. Scranton, Pa. Iowa City, Iowa	n. 7-30			
890 1	cys. (336.9	9)]			
—KARK KFNF KFPY KUSD WBAA WGST WILL WJAR WMMN XEW	ak 250 ak 500 ak 1000 ak 1000 ak 1000 ak 250 ae 500 ak 5000	C (5) C (5) D C XZ	Little Rock, Ark. Shenandoah, Iowa Spokane, Wash. Vermillion, S. D. W. Lafayette, Ind. Atlanta, Ga. Urbana, Ill. Providence, R. I. Fairmount, W. Va Mexico City, D. F.	ı.	80 113		
900 1	cys. (]			
KGBU KHJ KSEI WBEN WELI WFMD WJAX WKY WLBL WTAD	ak 500 ae 1000 ck 250 ak 1000 z 500 ah 500 aeh 1000 ae 1000 ak 2500 ak 500	N (5)	Ketchikan, Alaska Los Angeles, Calif. Pocatello, Idaho Buffalo, N. Y. New Haven, Conn. Frederick, Md. Jacksonville, Fla. klahoma City, Okla Stevens Point, Wis Quincy, III.				
910 1	cys. (329.	6) 910]			
CJAT CKY CRCM XENT	ak 1000 ak 15000 ak 5000 ak 150000	F F N	Trail, B. C. Winnipeg, Man. Montreal, Que. uevo Laredo, Tams	ı.			
920 1	cys. (325.	9) 922]			
CMX HHK KFEL KOMO KPRC KVOD WAAF WORL WPEN WRAX WSPA WWJ XEAA	ae 1000 ae 1000 ak 500 ak 1000 ak 1000 ak 1000 ak 500 ak 250 ak 250 ak 250 ae 1000 ak 1000 ak 1000	a R (5) N (5) a D D (.5) 1 1 (.5) D R (5)	Havana, Cuba ort-au-Prince, Hait Denver, Colo. Scattle, Wash. Houston, Texas Denver, Colo. Chicago, Ill. Needham, Mass. Philadelphia, Pa. Philadelphia, Pa. Spartanburg, S. C. Detroit, Mich. Mexicali, L. C.				
930 1	cys. (322.	4) 932	}			
CFAC CFCH CFLC CHNS CKPC KMA KROW	ak 100 ak 100 ae 100 ae 1000 ae 1000 ak 1000	F	Calgary, Alta. North Bay, Ont. Prescott, Ont. Halifax, N. S. Brantford, Ont. Shenandoah, Iowa Oakland, Calif.	1			

NORTH AMERICAN B. C. S	TATION	G DI II	CE QUENCI	
TIRH z 50 San Jose, C. R. WBRC ak 1000 C Birmingham, Ala. WDBJ ae 1000 C (5) Roanoke, Va. XEBH z 500 Hermosillo, Sonora	Heard	Logged	Reported	Verified
940 kcys. (319.0) [940]				
KOIN VOAS ak 1000 Logo C (5) Portland, Ore. VOAS ak 100 Logo St. John's, Nfld. WAAT ae 500 D Jersey City, N. J. WAVE bk 1000 N Louisville, Ky. WCSH ae 1000 R (2.5) Portland, Maine WDAY ae 1000 N (5) Fargo, N. D. WHA ak 2500 DX Madison, Wis. XEFO ak 5000 (XFO) Mexico City, D. F.				
950 kcys. (315.6) 950				
CJOC ak 100 F Lethbridge, Alta.				
960 kcys. (312.3)				
CHNC ak 1000 F New Carlisle, Que. XEAW ck 50000 Reynosa, Tams.				
970 kcys. (309.1) 970				
CMBY z 150 Havana, Cuba. KJR ak 5000 B Seattle, Wash. WCFL ae 5000 B Chicago, Ill. WIBG ak 100 D Glenside, Pa.				
980 kcys. (306.0) 980				
KDKA ae 50000 B Pittsburgh, Pa. XEF z 100 Juarez, Chih.				
990 keys. (302.8)				
WBZ ak 50000 BSy Boston, Mass. WBZA ak 1000 BSy Boston, Mass. XEAF ak 500 Nogales, Sonora XEK ak 100 Mexico City, D. F. XES dk 250 Tampico, Tams.				
1000 keys. (299.8)				
CMBZ ak 150 Havana, Cuba KFVD ak 250 Dn Los Angeles, Calif. TIGH z 500 San Jose, C. R. WHO ak 50000 R Des Moines, Iowa XEBK z 100 Nuevo Laredo, Tams. XEY z 10 Merida, Yuc.				
1010 kcys. (296.9) /0/0				
CHML ak 100 F Hamilton, Ont. CHWC ak 500 3F Regina, Sask. CKCD ak 100 Vancouver, B. C. CKCK ak 500 3F Regina, Sask. CKCO ak 100 F Ottawa, Ont. CKIC ak 50 Wolfville, N.S. CKMX ak 100 F Vancouver, B. C. CMJA ak 50 Camaguey, Cuba KGGF ak 1000 2 Coffeyville, Kans. KOW ak 1000 San Jose, Calif. TIGA z 30 1014 Cartago, C. R.				

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WHN WNAD WNOX XEU	ae 1000 ae 1000 ak 1000 ak 250	(5) 2 C (2)	New York, N. Y. Norman, Okla. Knoxville, Tenn. Veracruz, Ver.	Heard	Logged	Reported	Verified
1020	kcys.	(293	5.9)				
K YW WDZ XEJ	ak 10000 ak 250 ak 1000	R D 	Philadelphia, Pa. Tuscola, Ill. Juarez, Chih.				
1030	kcys.	(291	.1) 1035				
CFCN CKLW CMCY XEB	ak 10000 ag 5000 ak 1000 ak 10000		Calgary, Alta. Windsor, Ont. Havana, Cuba Mexico City, D. F.				
1040	kcys.	(288	(.3) [150]				
KRLD KWJJ WTIC	ae 10000 ak 500 ah 50000	C	Dallas, Texas Portland, Ore. Hartford, Conn.				
1050	kcys.	(285	5.5)				
CMKD CRCK KFBI KNX TIFA	ak 250 ak 1000 ak 5000 ak 50000 z 75	F Dn	Santiago, Cuba Quebec, Que. Abilene, Kans. Hollywood, Calif. San Jose, C. R.				
1060	kcys.	(282	2.8) 12 20				
KTHS VOAC WBAL WJAG XEA	ae 10000 z 40 ak 10000 ak 1000 ak 500	N 1065 B D	Hot Springs, Ar k. St. John's, Nfld. Baltimore, Md. Norfolk, Neb. Guadalajara, Jal.				
1070	kcys.	(280	0.2) 1080				
CMBX CMHA KJBS WCAZ WTAM	ak 500 z 50 ak 500 ak 100 ak 50000	Dn D R	Havana, Cuba Sagua la Grande, C. San Francisco, Cal Carthage, Ill. Cleveland, Ohio				
1080	kcys.	(277	(.6) 1090				
WBT WCBD WMBI	ak 50000 ak 5000 ak 5000	C 1Dn 1Dn	Charlotte, N. C. Waukegan, III. Chicago, III.				
1090	kcys.	(275	5.1) 1100				
KMOX XEAQ	ak 50000 ak 1000	C	St. Louis, Mo. Rosarito, L. C.				
1100	kcys.	(272	6) [///0]				
CRCV KGDM KWKH WLWL WPG XEL	ak 500 ak 1000 ae 10000 ae 5000 ak 5000 z 250	F D C 1 1C	Vancouver, B. C. Stockton, Calif. Shreveport, La. New York, N. Y. Atlantic City, N. J. Mexico City, D. F.				
1110	kcys.	(270).1) [//20]				
CMCJ KSOO WRVA	ak 500 ak 2500 ae 5000	Dn N	Havana, Cuba. Sioux Falls, S. D. Richmond, Va.				

XELO	z 10000 .	Piedr	as Negras, Co.	Heard	Logged	Reported	Verified
1120	kcys. (267.7)	1130				
CHLP CHSJ CKOC CKX CMGF CMKM KFIO KFSG KRKD KRSC WCOP WDEL WISN WTAW	ae 500 ae 500 ak 100 ak 50 ak 50 ag 500 aak 100 ak 500 ak 500 ak 500 ak 50	F (1) St. Jc F (1) Hami F Brane Mata Manz O Spok a (2.5) Los A a (2.5) Los A D Seatt D Seatt O Sosto (5) Wilm (1) Milw:	real, Que. phn, N. B. ilton, Ont. don, Man. nzas, Cuba zanillo, Cuba ane, Wash. Angeles, Calif. Angeles, Calif. le, Wash. on, Mass. ington, Del. aukee, Wis. e Station, Tex.				
1130	kcys. (265.3)	1140				
CMJI KSL WJJD WOV	ak 20000	C Salt La Dn Chica	de Avila, Cuba ake City, Utah ago, Ill. York, N. Y.				
1140	kcys. (263.0)					
CMBG KVOO WAPI WSPR	ae 5000	1N Tulsa 1N Birm	na, Cuba a, Okla. ingham, Ala. igfield, Mass.			1	
1150	kcys. (260.7)	1160				
CMJF WHAM XED XEFL XEH XEWZ	ak 2500 ak 250 ak 250	B Roch 1155 Guad Tijuz Mont	aguey, Cuba ester, N. Y. lalajara, Jal. ana, L. C. terrey, N. L. co City, D. F.				
1160	kcys. (258.5)	1170				
CMHJ WOWO WWVA XEAS XEC XESL	ak 5000	1C Fort 1C Whee Saltil Tijuz	fuegos, Cuba Wayne, Ind. eling, W. Va. llo, Coah. ana, L. C. ana, L. C.				
1170	kcys. (256.3)	1150				
CMBD WCAU	z 150 ae 50000	Hava C Phila	na, Cuba idelphia, Pa.				
1180	kcys. (
CMJO KEX KOB VE9EK WDG Y WINS WMAZ XEFA	ak 10000	2B Portl 2 Albu 1185 Mont On (5) Minn New Maco	de Avila, Cuba land, Ore. querque, N.M. tmagny, Que. leapolis, Minn York, N. Y. on, Ga. ico City, D. F.				
1190	kcys. ((252.0)					
HIJ VONF WATR WOAI WSAZ	ak 500 ak 100	1195 St. Jo D Wate	ilo, D. R. ohn's, Nfld. erbury, Conn. Antonio, Tex. tington, W. Va.				

CHAB ak 100 F Moose Jaw, Sask. CKNX ak 50 Wingham, Ont. CKTB ae 100 F St. Catherines, Ont. CMCO ak 150 Havana, Cuba KADA ak 100 D Ada, Okla. KBTM ak 100 D Jonesboro, Ark. KFIB ak 100 (.25) Marshalltown, Iowa KFXD ae 100 (.25) Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100 Sterling, Colo.	
CMCO ak 150 Havana, Cuba KADA ak 100 D Ada, Okla. KBTM ak 100 D Jonesboro, Ark. KFJB ak 100 (.25) Marshalltown, Iowa KFXD ae 100 (.25) Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Grand Junc., Colo. KGEK ak 100 Sterling, Colo.	
CMCO ak 150 Havana, Cuba KADA ak 100 D Ada, Okla. KBTM ak 100 D Jonesboro, Ark. KFJB ak 100 (.25) Marshalltown, Iowa KFXD ae 100 (.25) Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Grand Junc., Colo. KGEK ak 100 Sterling, Colo.	
KBTM ak 100 D Jonesboro, Ark. KFJB ak 100 (.25) Marshalltown, Iowa KFXD ae 100 (.25) Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100 Sterling, Colo.	
KFJB ak 100 (.25) Marshalltown, Iowa KFXD ae 100 (.25) Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100 Sterling, Colo.	
KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100 Sterling, Colo.	
KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100 Sterling, Colo.	
KGFJ ae 100 Los Angeles, Calif.	
KGHI ak 100 (.25) Little Rock, Ark.	
KMLB ak 100 Monroe, La. KSUN ak 100 Lowell, Ariz.	
KVCV z 100 P Redding, Calif.	
KVOS dk 100 Bellingham, Wash. KWG ak 100 C Stockton, Calif.	
WABI ak 100 Bangor, Maine	
WAIM ak 100 XZ Anderson, S. C. WAYX z 100 P Waycross, Ga.	
WBBZ ak 100 Ponca City, Okla.	
WBNO ak 100 1 New Orleans, La. WCAT ak 100 D Rapid City, S. D.	
WCAX ak 100 Burlington, Vt.	
WCLO ak 100 X Janesville, Wis. WCPO ak 100 (.25) Cincinnati, Ohio	
WEST ae 100 3 (.25) Easton, Pa.	
WFAM ak 100 8 South Bend, Ind. WHBC ak 100 (.25) Canton, Ohio	
WHBY ak 100 (.25) Green Bay, Wis.	
WIBX aej 100 (.3) C Utica, N. Y. WIL ak 100 (.25) St. Louis, Mo.	
WJBC ak 100 6(.25) Bloomington, III.	
WJBL ak 100 6 Decatur, III. WJBW ak 100 1 New Orleans, La.	
WJNO z 100 P W. Palm Beach, Fla	
WKBO ak 100 3 (.25) Harrisburg, Pa.	
WLVA ak 100 (.25) Lynchburg, va.	
WMFR ae 100 D High Point, N. C. WMPC ak 100 (.25) Lapeer, Mich.	
WNRI ak 100 (.25) Newport, R. I.	
WRBL ak 100 Columbus, Ga. WTHT z 100 DP Hartford, Conn.	
WWAE ae 100 8 Hammond, Ind. z 100 P Lewistown, Mont.	
1210 kcys. (247.8) 72.20	
CJCS z 50 Stratford,Ont. CJCU z 50 Aklavik, N. W. T.	
CKBI ak 100 F Prince Albert, Sask,	
CKCH ak 100 F Hull, Que. CKMC ak 50 Cobalt, Ont.	
CMHI ak 150 Santa Clara, Cuba	
KANS z 100 P Wichita, Kans. KASA ck 100 Elk City, Okla.	
KDLR ak 100 Devils Lake, N. D.	
KDON z 100 Del Monte, Calif. KFJI ak 100 Klamath Falls, Ore.	
KEOR as 100 (25) C. Lincoln Neb	
KFPW ak 100 Fort Smith, Ark. KFVS ak 100 6(.25) Cape Girardeau, Mo.	
KFPW ak 100 Fort Smith, Ark. KFVS ak 100 6(.25) Cape Girardeau, Mo. KFXM ak 100 9 San Bernardino, Calif KGY ₄ ak 100 Olympia, Wash.	
KIUL ak 100 Garden City, Kans.	
KPPC ak 50 9 Pasadena, Čalif. KVSO ak 100 D Ardmore, Okla.	
KWTN ak 100 Watertown, S. D.	
TGW ak 10000 Guatemala City	
WBAX ae 100 Wilkes Barre, Pa,	
WBBL ak 100 S Richmond, Va. WBRB ak 100 3 Red Bank, N. J.	
WCOL ak 100 Columbus, Ohio	

WCRW	ae 10	0 4	Chicago III	Hoond	Lonnod	Demonde	Wante of
WEBO	ae 10		Chicago, Ill. Harrisburg, Ill.	Denta	roggeo	Reported	vermed
WEDC	ae 10		Chicago, Ill.				
WFAS	ak 10		White Plains, N. Y.		Į.		
WFOY	z 10		St. Augustine, Fla.				
WGBB	ae 10		Freeport, N. Y.				
WGCM	ae 10		Gulfport, Miss.				
WGNY	ak 10	03	Gulfport, Miss. Chester, N. Y.				
WHBF	ak 10		Rock Island, III.				
WHBU	ak 10	0 (.25)	Anderson, Ind.				
WIBU	ak 10		Anderson, Ind. Poynette, Wis.				
WJBY	ak 10		Gadsden, Ala.				
WJEJ	ae 10	0 D	Hagerstown, Md.				
WJIM	z 100	0 (.25)	Lansing, Mich.				
WJW	ae 100		Akron, Ohio				
WKOK WMBG	ak 100	0 6/35	Sunbury, Pa.				
WMFG	ak 100 z 100		Richmond, Va. Hibbing, Minn.				
WMFN	ak 10		Clarksdale, Miss.				
WOCL	ak 5		Iamestown N V				
WOMT	ak 10	^	Jamestown, N. Y. Manitowoc, Wis.				
WPAX	ak 25	0 D	Thomasville, Ga.				
WSAY	z 100		Rochester, N. Y.				
WSBC	ae 10	0 4	Chicago, Ill.				
WSIX	ak 100	0 Y	Springfield, Tenn.				
WSOC	ak 100	0 N(.25	Springfield, Tenn.) Charlotte, N. C.			Í	
WTAX	ak 100		Springheid, III.				
XEAT	z 50		Hidalgo, Chih.				
XEE	z 50	0	Durango, Dgo.				
XEFV	ak 100		Juarez, Chih.				
XETH	ak 100		Puebla, Pue.				
	z 10	0 P	Lima, Ohio				
1220	kcys.	(245	8) 1230				
1220	RCys.	(240	1230				
CMJE	z 50	n	Camaguey, Cuba				
KFKU	ae 1000		Lawrence Kane				
KTW	ak 1000		Lawrence, Kans. Seattle, Wash.				
KŴŚC	ae 1000		Pullman, Wash.		İ		
TIVCA	ak	1225	San Jose, C. R.			1	
WCAD	ak 500) D	Canton, N. Y.				
WCAE	ak 1000	R(5)	Pittsburgh, Pa.				
WDAE	ae 1000	C(2.5)	Tampa, Fla.				
WREN	ak 1000	Ba(5)	Lawrence, Kas. Veracruz, Ver.				
XETF	ak 12	2	Veracruz, Ver.				
1230	kcys.	(243	8) [12/10]				
1230	RCys.	(240	.0) /240				
CMCP	ak 150	`	Hayana Cuba				
CMCB	ak 500		Havana, Cuba Springfield, Mo.				
KGBX KGGM	ak 250	(5)	Albuquerque, N. M.				
KYA	ak 1000) (.5)) N Sa	an Francisco, Calif				
WFBM	ae 1000	C(5)	Indianapolis, Ind.				
WNAC	ak 1000	$\widetilde{\mathbf{C}}(2.5)$	Boston, Mass.				
XEFJ	ak 100		Monterrey, N. L.				
YNOP	z 100		Monterrey, N. L. Managua, Nic.				
			•				
1240	1-0	(2/1	0) /7				
1240	kcys.	(241	.0)				
CICD	atr 1000	TP	Cridmon N C				
СЈСВ СМНВ -	ak 1000 z 50	F	Sydney, N. S.				
KGCU	ak 250) iSi	ancti Spiritus, Cuba				
KLPM	ak 250	1	Mandan, N. D. Minot, N. D.				
KTAT	ak 1000		Fort Worth, Texas				
KTFI	ae 1000						
WKAQ	ae 1000		San Juan, P. R. Detroit, Mich.				
ŴXŸŽ	ak 1000		Detroit, Mich.	8. N29			
XEAC	z 250		Tijuana, L. C.				
XEAI	z 100		Mexico City, D. F.				
XEKL	z 500		Leon, Guan.				
XELA	z 50		Saltillo, Coah.				
XEME	z 15		Saltillo, Coah. Merida, Yuc.				
1250	kcys.	(230	9) 727-2				
1200	ACys.	(407	1000				
CMKC	ak 150		Santiago, Cuba				
CIVALEC	- 130		Santiago, Guba				

	NORTI	AMERICAN B. C.				
KFOX WCAL WDSU WHBI WLB WNEW WTCN	ae 1000 ah 1000 ak 1000 ak 1000 ak 1000 ae 1000 ak 1000	a(2.5) Newark, N. J.	n	Logged	Reported	Verified
1260	kcys.	(238.0) 72.73]			
CFRN KGVO KOIL KPAC KRGV KUOA KVOA WHIO WNBX WTOC	ak 100 ak 1000 ak 500 ak 500 ak 500 ak 1000 ak 500 ae 1000 ae 1000	F Edmonton, Alta Missoula, Mont. B(2.5) Council Bluffs, It D Port Arthur, Texa Weslaco, Texas D Fayetteville, Ark Tucson, Ariz. R Dayton, Ohio Springfield, Vt. C Savannah, Ga.	a. IS			
1270	kcys.	(236.1) [12.85]]		:	
CMHD KGCA KOL KVOR KWLC WASH WBBR WJDX WOOD XEG XFB YNLF	dk 250 ak 1000 ae 10000 ak 1000 ak 5000 ae 5000 ae 10000 ak 5000 z 2000 ak 2500 z 2000	Caibarien, Cuba Decorah, Iowa C(2.5) Seartle, Wash. C Colorado Sp'gs, Colo Decorah, Iowa aN Grand Rapids, Micl R Baltimore, Md. N(2.5) Jackson, Miss. aN Grand Rapids, Micl Ensenada, L. C. Jalapa, Ver. 1275 Managua, Nic.	1.25 m	Te		
1280	kcys.	(234.2) 7295]			
KFBB WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX	ae 500 ae 500 ak 1000 ae 1000 ak 500 ak 500 ak 500 ak 500 ak 500	(2.5) Great Falls, Mont 1 Camden, N. J. 1 Asbury Park, N C(5) Chattanooga, Teni N(5) Madison, Wis. C Worcester, Mass. Dallas, Texas 1 Trenton, N. J. Mexico City, D. F.	1.			
1290	kcys.	(232.4)				
KDYL KLCN KTRH WEBC WJAS WNBZ WNBZ	ak 1000 ak 1000 ak 1000 ae 1000 ak 1000 z 100 ak 1000	NX Salt Lake City, Uta D Blytheville, Ark. C(5) Houston, Texas N(5) Superior, Wis. C(2.5) Pittsburgh, Pa. D Saranac Lake, N. Y. (2.5) San Juan, P. R.				
1300	kcys.	(230.6)]			
KALE KFAC KFH KFJR WBBR WEVD WFAB WFBC WHAZ WHBL WIOD	ak 500 ak 1000 ak 1000 ae 1000 ak 1000 ae 1000 ak 1000 ae 500 ae 500 ak 1000	3C Portland, Ore. Los Angeles, Calif C Wichita, Kans. 3 Portland, Ore. 1 Brooklyn, N. Y. 1 New York, N. Y. 1 New York, N. Y. (5)N Greenville, S. C. 1 Troy, N. Y. Sheboygan, Wls. N Miami, Fla.	1325			
1310	kcys.	(228.9)	14-7	3/		
CHCK	ak 50	Charlottetown, P.E.	Ī		1	1

•								
CJKL	ak	1000	F	Kirkland Lake, Ont.	Heard	Deveo.I	Reported	Vorified
CJLS	ak	100	•	Yarmouth, N. S.	II Car G	Hoggou	resported	V CI III CU
CKCV	ak	100	F	Quebec, Que.				
KCRJ	ak	100	n	Incomo Ariz				
KFPL	dk	100	(25)	Jerome, Ariz. Dublin, Texas				
KFXR	ak	100	25	Oklahoma City, Okl.				
KFYO	dk	100	251	Dublin, Texas Oklahoma City, Okl. Lubbock, Texas Wolf Point, Mont.				
KGCX	ak	100	(.25)	Wolf Point, Mont		Į.		
KGEZ		100	(.20)	Kalispell Mont				
KGFW	aj ak	100		Kalispell, Mont. Kearney, Neb. Juneau, Alaska				
KGFW KINY	ak	100		Juneau, Alaska				
KIT	ak	100	(.25)	Yakima, Wash.				
KIUJ	ak	100	(,	Santa Fe, N. Mex.				
KMED	ck	100	(.25)	Medford, Ore.				
KPDN	z	100	ĎP	Pampa, Texas				
KRMD	ak	100		Shreveport, La.				
KROC	z	100		Shreveport, La. Rochester, Minn.				
KTSM	ak	100		El Paso, Texas				
KVOL	ak	100		Lafayette, La.				
KXRO	ak	100		Aberdeen, Wash.				
WAML	ak	100		Laurel, Miss.				
WBEO	ae	100		Marquette, Mich.				
WBOW	ak	100	(.25)	Terre Haute, Ind.				
WBRE	ak	100		Wilkes Barre, Pa.				
WCLS	ak	100		Jonet, III.				
WCMI	z	100	S	Ashland, Ky. El Paso, Texas				
WDAH	ak	100	S	El Paso, Texas			1	
-WEBR	aeh	100	(.25)	Buffalo, N. Y.				
WEMP	Z	100	D	Milwaukee, Wis.				
WEXL WFBG	ak	50	2	Royal Oak, Mich.				
WFBG	ae	100	3	Altoona, Pa.				
WFDF	mk	100	1122	Flint, Mich.				
WGH	aj	100	(.25)	Newport, News, Va.				
WHAT	ak	100	4	Philadelphia, Pa.	20 10 1		3	
₩JAC WLAK	ae	100	3	Johnstown, Pa.	200		ì	
WLAK	z	100	P	Lakeland, Fla.				
WLBC	ak	100	6(.25) Muncie, Ind.				
WLNH	ak	100		Laconia, N. H.				
WMBO	ak	100	$\dot{\mathbf{p}}$	Auburn, N. Y.				
WMFF	ak	250		Plattsburg, N. Y.				
WNBH	ak	100	(.25)	New Bedford, Mass				
WOL WRAW	ak ak	100 100		Washington, D. C. Reading, Pa.				
WROL	ak	100	(.25)	Knoxville, Tenn.				
WSAJ		100	(.23)					
WSGN	ae ak	100	(25)	Grove City, Pa. Birmingham, Ala.				
WSJS	ak	100	623	Birmingham, Ala. Vinston-Salem, N.C. Tallahassee, Fla.				
WTAL	ak	100		Tallahassee Fla				
WTEL	ce	100	4	Philadelphia, Pa.			i	
WTJS	ak	100		Jackson, Tenn.				
WTRC	ak	100	66.25	Jackson, Tenn. Elkhart, Ind.				
XEAG	z	10		Cordoba, Ver.				
XECW	z	10		Cordoba, Ver. Mexico City, D. F.				
XEFW	ak	250		Tampico, Tams.				
XETB	ak	125		Torreon, Coah.			- h	
XEX	ak	125		Monterrey, N. L.				
XFA	Z	5	A	guascalientes, Ags.	1			
1220	1-0-		1227	11\				
1320	KC	ys.	(24)	·1/ ////				
CMOX	ak	200		Hayana, Cuba				
KGHF	ak	500		Havana, Cuba Pueblo, Colo.				
KGMB	ak	1000	C	Honolulu, T. H.				
KID	ae	500	(1)	Idaho Falls, Idaho				
KRNT	ak	500	C(1)	Des Moines, Iowa				
WADC	ae	1000	C(2.5) Akron, Ohio				
₩ WORK	ak	1000	- \- 10) Akron, Ohio York, Pa.				
WSMB	ak	500	Ň	New Orleans, La.				
				•				
1220	1		(225	1)				
1330	KC	ys.	(225	1.4)				
CMHK	z	250		Cruces, Cuba				
KGB	ag	1000	C(2.5) San Diego, Calif.				
KMO	ak	250		Tacoma, Wash.				
KSCJ-	aj	1000	C(2.5) Sioux City, Iowa				
WDRC	ae	1000	C(5)	Hartford, Conn.				
			,					

	NORI	H AW	CKI	CAIV B. C. S	TATION	J DI I'M	EQUENCIE	3
WSAI WTAQ	ak 1000 ae 1000	R(2.5)	Cinc Gree	innati, Ohio n Bay, Wis.	Heard	Logged	Reported	Verified
1340	kcys.	(223	.7)	1355	5			
CMJL HRN KGDY KGIR KGNO WCOA WFEA WSPD XEFE XFD	z 75 z 50 ak 250 ak 10000 ak 250 ak 500 ae 500 ae 10000 z 250 z 350	D N(2.5) C C(1) C(5)	Tegu Huro Butt Dodg Pens Mane Toled Nueve	aguey, Cuba cigalpa, Hond. m, S. D. te, Mont. te, City, Kans. acola, Fla. chester, N. H. lo, Ohio oLaredo, Tams. pa, Ver.				
1350	kcys.	(222	.1)	1365				
CMCA KIDO KWK WAWZ WBNX	z 250 ak 1000 ak 1000 ae 500 ae 250	(.25) B(5) 1(1)	Boise St. L Zarei	na, Cuba e, Idaho ouis, Mo. phath, N. J. York, N. Y.				
1360	kcys.			1375				
CMJH KCRC KGER WCSC -WFBL WGES WOBC WSBT	dk 50 ak 250 ak 1000 ak 500 ak 1000 ae 500 ak 1000 ak 500	(1)N C(5) 1 D	Long Char Syrac Chics Vicks	de Avila, Cuba, Okla., Beach, Calif., Beach, S. C. cuse, N. Y. ago, Ill., sburg, Miss. h Bend, Ind.	25 23			
1370	kcys.	(218	-	7/4-	7-6			
CKCW CMGE HIZ KAST KCMO KELD KERN KFGO KFJM KFJZ KFRO KGAR KGFG KGFL KGKL KICA KIUP KMAC KONO KRE KRKO KRKO KRKO KRKO KRKO KRKO KRKO	ak 100 ak 150 z 10 ak 100 ak 255	(.25) X D (.25) X C (.25) 4 (.25) 4 (.25) 4 (.25) 4 (.25) 1 5 (.25) 1 1	Mon- Card Truji Aston Kans El Do Bake Boom Gran Fort Long Tucs klabo Clovi Oura Galve San Berk Evere Saler Wall Seat Sher	cton, N. B. enas. Cuba illo, D. R. ria, Ore. sas City, Mo. orado, Ark. refield, Calif. te, Iowa d Forks, N. D. Worth, Texas om, Ariz. oma City. Okla rell, N. M. Angelo, Texas antonio, Texas Antonio, Texas Antonio, Tex. Antonio, Tex. dey. Calif. ett, Wash. m. Ore. a Walla, Wash. tle, Wash. dan, Wyo. ny, N. Y. an, Ala. nta Ga	6			
WATL WBNY WBTM WCBM WDAS WEOA WGL WGRC WHBQ WHDF WHLB	ak 100 z 100 ak 100 ae 100 ae 100 ae 100 z 100 ae 100 z 250 ak 100 ak 100 z 100	P C DP (.25)	Evan Fort New Men Calu Virgi	ny, N. Ý. aan, Ala. anta, Ga. alo, N. Y. yille, Va. imore, Md. adelphia, Pa. sville. Ind. Wayne, Ind. Albany, Ind. aphis, Tenn. met, Mich. nia, Minn. son, Mich.				

	THE PROPERTY OF THE PARTY OF TH				
WLLH WMBR WMFD WMFO WMIN WOC WPAY WPFB WQDM WRDO WRJN WSVS XEFZ XEI XEZZ	ak 100 D D Wilmington, N. C. ak 100 D Decatur, Ala. z 100 P St. Paul, Minn. ak 100 C(.25) Davenport, Iowa ak 100 Portsmouth, Ohio ak 100 Hattlesburg, Miss.	Heard	Logged	Reported	Verified
1380	kcys. (217.3)				
CMCR KOH KQV WALA WKBH WNBC WSMK	z 150 Havana, Cuba. ak 500 C Reno, Nev. ae 500 Pittsburgh, Pa. af 500 C(1) Mobile, Ala. ae 1000 LaCrosse, Wis. mk 250 D New Britain, Conn. ak 200 C Dayton, Ohio				
1390	kcys. (215.7) 7405				
CMJC HIH KLRA KOOS KOY WHK	z 150 Camaguey, Cuba ak 15 1395 San Ped.de Macoris ae 1000 C(2.5) Little Rock, Ark, 1 ae 250 D Marshfield, Ore. ae 500 (1) Phoenix, Ariz. ae 1000 C(2.5) Cleveland, Ohio				
1400	kcys. (214.2)				
CMGC CMKR KLO KTUL TGX WARD WBBC WEGL WIRE WLTH WVFW	z 100 Matanzas, Cuba z 100 Santiago, Cuba ak 500 N Ogden, Utah ak 500 C(1) Tulsa, Okla. ak 250 Guatemala City, Gt. ak 500 2 Brooklyn, N. Y. z 500 P Brooklyn, N. Y. ak 500 R(1) Indianapolis, Ind. ak 500 2 Brooklyn, N. Y. ak 500 2 Brooklyn, N. Y. ak 500 2 Brooklyn, N. Y.	*	geo por	Ar.	
1410	keys. (212.6)				
CKFC CKMO KGNC WAAB WBCM WHIS WROK WSFA	ak 50 5 Vancouver, B. C. ag 100 5F Vancouver, B. C. ae 1000 (2.5) Amarillo, Texas ak 500 C Boston, Mass. ae 500 Bay City, Mich. ak 250 (.5) Bluefield, W. Va. ak 500 Rockford, Ill. ak 500 C(1) Montgomery, Ala.				
1420	keys. (211.1)	5 14	120		
CKGB CMCQ KABC KABR KALB KBPS KCMC KEUB KFIZ KGFF KGGC	ak 100 F Timmins, Ont. z 250 Havana, Cuba. ak 100 (.25) San Antonio, Texas ak 100 Aberdeen, S. Dak. z 100 D Alexandria, La. aj 100 4 Portland, Ore. ak 100 Texarkana, Ark. z 100 P Price, Utah. ak 100 Fond du Lac, Wis. ak 100 San Francisco, Cal.				

KGIW	ak '	100	1	Alamosa, Colo.	Heard	Logged	Reported	Verified
KHBC	z.	100	XZ	Hilo, T. H.				
KIDW KIUN	ak ak	100 100	1	Lamar, Colo. Pecos, Texas				
KNET	Z	100	D	Palestine, Texas				
KORE	ae	100		Eugene, Ore. Abilene, Tex.				
KRBC	z.	100	P	Abilene, Tex.				
KRLC KRLH	ak z	100 100	\mathbf{p}	Lewiston, Idaho Midland, Tex.				
KUMA	ak	100		Yuma, Ariz.				
KWBG	ak	100		Hutchinson, Kans.				
KXL	ak	100	4(.25)	Portland, Ore. Waco, Texas				
WACO	ak ae	100 100	C	Presque Isle, Maine				
WAGM WAZL	ak	100	2	Hazleton, Pa.				
WCBS	ak	100		Springfield, Ill.				
WCHV	ak	100 100	3(.25)	Charlottesville, Va. Rocky Mount, N. C.				
WEED WEHS	ak ak	100	3 X	Cicero, Ill.				
WELL	ak	100		Cicero, Ill. Battle Creek, Mich.				
WGPC	ak	100		Albany, Ga.				
WHDL	ak	100	D	Olean, N. Y.				
WHFC WILM	ae aj	100 100	a 2	Cicero, Ill. Wilmington, Del.				
WJBO	ak	100		Baton Rouge, La.				
WJBR	Z	100	P	Gastonia, N. C.				
WJMS	ak	100 100	a	Ironwood, Mich. Cicero, Ill.				
WKBI WLAP	ak ak	100	(.25)	Lexington, Ky.				
WLBF	ak	100		Vancos City Van				
-WLEU	ak	100	(.25)	Erie, Pa.) Springfield, Mass. Detroit, Mich.				,
WMAS WMBC	ak	100 100	G(,25	Detroit Mich				Ĺ
WMBH	ae ak	100	(.25)	Jopiun, Mo.				
WMFJ	ak	100		Daytona Beach, Fla				
WMSD	ak	100	(.25)	Sheffield, Ala. Paducah, Ky.				1
WPAD WPAR	ak ak	100 100	(.23)	Parkersburg, W.Va.				
WPRP	z	100	P(.25) Ponce, P. K.				
XEAZ	z.	7		Guanajuato, Gto. Monterrey, N. L.				1
XEFB	ak z	100 100	DP	Chattanooga, Tenn.				
1430	kc	ys.	(209	0.7)				
CMJP	ak	75		Camaguey, Cuba				
KECA KGNF	ah	1000	(5) B	Los Angeles, Calif. North Platte, Neb.				
KGNF KSO	ak	1000 500	D (1)	North Platte, Neb. Des Moines, Iowa				
WBNS	ak ae	500	C(i)	Columbus, Ohio				1
WHEC	ae	500	C (1)	Columbus, Ohio Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn.				
WHP	ak	500 500	G (1)	Harrisburg, Pa.				1
WNBR WOKO	ae aj	500	ദ്ധ	Memphis, Tenn. Albany, N. Y.				
	,		_ (-,				,	i
1440	kc		(208	3.2)				,
CMOA	z	150		Havana, Cuba				
HP50	z	25 500		Colon, Panama				
KDFN KLS	ak ag	250	\mathbf{D}	Casper, Wyo. Oakland, Calif.				
KLS KXYZ	ak	1000		Oakland, Calif. Houston, Texas				
TIFS	z	7.5	(1441) Cartago, C. R.				
WBIG WCBA	ae aj	500 500	a (1)	Greensboro, N. C. Allentown, Pa.				
WMBD	ak	500		Peoria, Ill.				
WSAN	aj	500	а	Allentown, Pa.				
XEFI	ae	250	• • • •	Chihuahua, Chih.				1
1450	kc	ys.	(206	5.8) [1460				
CFCT	ae	75		Victoria, B. C.			1	
CHGS	ae	50	F	Summerside, P.E.I.				
KIEM KTBS	ak ak	500 1000	Ñ	Eureka, Calif. Shreveport, La.				
WGAR	ak	500		Cleveland, Ohio				1

_	110101		VILLECTO	CAIT D. C. S	TATIONS	DI LVI	QUENCIE	3
WHOM WSAR WTFI	ae 250 ae 1000 ak 500		Jersey Fall R Athen	y City, N.IJ. liver, Mass. 18, Ga.	Heard	Logged	Reported	Verified
1460	kcys.	(205	(.4)	1470				
CMCU CMKF KSTP WJSV	z 150 z 50 ak 25000 ak 10000	 N C	Holgu St. Pa	na, Cuba. din, Cuba dul, Minn. dington, D. C.				
$\overline{1470}$	kcys.	(204	(0.4	1480				
CMOK KGA WLAC	z 150 ak 5000 ak 5000	B C	Spoka	ia, Cuba ne, Wash. ille, Tenn.				
1480	kcys.	(202	.6)	5-43/	1-3/4			
KOMA WKBW	ak 5000 ck 5000	C OI	dahom Buffal	a City, Okla. o, N. Y.				
1490	kcys.	(201	.2)	1500				
KFBK WCK Y	ak 5000 ae 5000	C B	Sacran Coving	nento, Calif. gton, Ky.				
1500	kcys.	(199	.9) [
WHEF WJBK WKBB WKBV WKBZ WKEU WMEX WNBF WNLC WOPI WRDW WRGA WSYB WTMV WWSW		P P P C (.25) Y (.25) D (.25) C (.25) C (.25) C (.25) C C DP (.25)	Havan Muskee Selma, Kosciu: Detroit E. Dub Richm. Muskee Brooks Durhait E. Dub Richm. Muskee Rome, Rutlan Rose Selma, Rosciu: Detroit E. Dub Richm. Muskee Richm. Muskee Richm. Muskee Richm. Richm. Richm. Richm. Richm. Richm. Rose Looks Bristol, August Rome, Rutlan East St. Woods Pittsbusalt Lake Rome Richm.	bluff, Neb., Texas t, Texas thuff, Ark. tharles, La. Texas chee, Wash. urg, Ore. o, Texas Ana, Calif. tro, Calif. tyn, N. Y. m, N. C. ster, Pa. Ala. sko, Miss. t, Mich. urg, Ord, Ind. gon, Mich. ond, Ind. gon, Mich. y, Ga. yn, N. Y. mton, N. Y. mton, N. Y. mton, N. Y. mton, Onn. Tenn. a, Ga. Ga. Ga.				
	kcys. (-						
	ak 100 ak 100		Mingste Waterie	on, Ont. oo, Ont.				

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1530 kcys. (196.0)	Heard	Logged	Reported	Verified
W1XBS z 1000 Waterbury, Conn. W9XBY ak 1000 Kansas City, Mo.				
1550 kcys. (193.4)				
W2XR z 1000 Long Isl. City, N.Y				

KEY TO SYMBOLS

As shown in the Index by Frequencies and Dial Numbers

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

- Second Column Symbols Verifies reception for return
- b Verifies only occasionally.
- Does not verify.
- Verification 10c: letter 25c.
- Sends Ekko stamp for 10c. Sends Ekko stamp for 5c.
- Sends Ekko stamp for postage. Sends own station stamp for 10c.
- Sends own station stamp for 5c. Sends own station stamp for postage.
- k Has no stamps. Verifies for 5c.
- m Weather or time only. \mathbf{n}
- No information available.
- Fourth Column Symbols National "Blue" network. В
- Columbia network. C
- D Day time only.
 Dn Day time with occasional eve-
- ning hours. Canadian Radio Brdestg. Com-
- mission. National "Red" and "Blue"

networks.

- P Has construction permit only.
- R National "Red" network.
 S Sunday only.
- Sy Synchronized.
- Has permit to increase power. Has permit to change location.
- Has permit to change frequency.
- a-b-c. Small letters show stations using same transmitter.
- 1-2-3. Figures denote stations sharing time.
- No information

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.

ALA	BAM	۹ ا	Lowell	1200	100	CAL	.IFOR	NIA	KHJ KRKD	900 1120	1000 500	
Diameter 1			KSUN	1200	100	Bakers	ield		Modest		200	
Birmingh	am	5000 N	Phoeni			KERN	1370	100 C	KTRB	740	250	,
	140		KOY	1390	500	W6XAI	1550	1000	Oaklan			
	930	1000 C	KTAR	620	1000 N	Berkele		1000	KLS	1440	250	
	1310	100	Tueson					100	KLX	880	1000	
Decatur			KGAR	1370	100	KRE	1370	100	KRÔW	930	1000	
WMFO 1	1370	100	KVOA	1260	500	Beverly		500			1000	
Dothan				1200	300	KMPC	710	500	Pasade		50	
WAGF 1	37 0	250	Yuma			Chico		~~~	KPPC	1210	30	
Gadsden			KUMA	1420	100	KHSL	950	250	Reddin		400	
WJBY 1	210	100				Del Mo			KVCV	1200	100	
Mobile			AR	KANS	AS	KDON	1210	100	Sacran			~
	1380	500 C				El Cent	tro		KFBK	1490	5000	С
Montgon		000 G	Blythe	villa		KXO	1500	100	San Be	rnardi	no	
	410	500 C		1290	100	Eureka			KFXM	1210	100	
	410	300 0			100	KIEM	1450	500	San Di	ego		
Selma	1500	100	El Dora			Fresno			KFSD	600	1000	В
	1500	100	KELD	1370	100	KMJ	580	1000 C	KGB	1330	1000	C
Sheffield		100	Fayette	ellive	U.	Glenda		1000	San Fr		,	_
WMSD 1		100	KUOA		1000	KIEV	850	250	KFRC	610	100	C
Tuscaloo					1000			230	KGGC	1420	100	
WJRD :	1200	100	Fert St			Hollyw		1000	KGO	790	7500	
			KFPW	1210	100	KFWB	950				500	
AL	ASKA		Hot Sp	rinas	-	KMTR	570	1000	KJBS	1070		
			KTHS	1060	10000 N	KNX		50000	KPO	680		
Anchora					10000 11	Long B			KSFO	560	1000	
KFOD	780	250	_ Jonesb			KFOX	1250		KYA	1230	1000	N
Juneau			KBTM	1200	100	KGER	1360	1000	San Jo			
	1310	100	Little	Pack		Los An	aeles		KOW	1010	1000)
Ketchika		100	KARK	890	250	KECA	1430	1000 B	Santa	Ana		
		500	KGHI	1200	100	KEHE	780	500	KVOE	1500	100	j
KGBU	900	500		1390	1000 C	KFAC	1300	1000	Santa		я	
			KLRA		1000 C	KFI	640	50000 R	KDB	1500		C
AR	IZON	٩	Pine B		400			500 K	Stockto		100	_
				1500	100	KFSG	1120			1100	1000	
Jerome			Texark			KFVD	1000	250	KGDM		100	
KCRJ	1310	100	KCMC	1420	100	KGFJ	1200	100	KWG	1200	100	U

				
COLORA	ADO .	Pensacola	WGN 720 50000	Council Bluffs
Alamosa		WCOA 1340 500 C St. Augustine	WJJD 1130 20000 WLS 870 50000 N	KOIL 1260 1000 F
KGIW 1420	100	WFOY 1210 100	WMAQ 670 50000 N	WOC 1370 100 C
Colorado Spi	ings	St. Petersburg	WMBI 1080 5000	Decorah
KVOR 1270	100 0 C	WSUN 620 1000 N Tallahassee	WSBC 1210 100 Cicero	KGCA 1270 100 KWLC 1270 100
Denver		WTAL 1310 100	WEHS 1420 100	Des Moines
KFEL 920 KLZ 560		Tampa	WHFC 1420 100	KRNT 1320 500 C
KOA 830	50000 N	WDAE 1220 1000 C West Palm Beach	WKBI 1420 100 Decatur	KSO 1430 500 B
KPOF 880		WJNO 1200 100	WJBL 1200 100	WHO 1000 50000 R
KVOD 920	500		East Dubuque	WSUI 880 500
Durango KIUP 1370	100	GEORGIA	WKBB 1500 100	Marshalltown
Grand Junct		Albany	East St. Louis WTMV 1500 100	KFJB 1200 100
KFXJ 1200		WGPC 1420 100	Harrisburg	Shenandoah KFNF 890 500
Greeley		Athens	WEBQ 1210 100	KMA 930 1000
KFKA 880	500	WTFI 1450 500 Atlanta	WCLS 1310 100	Sioux City
Lamar		WATL 1370 100	Peoria	KSCJ 1330 1000 C
KIDW 1420	100	WGST 890 500 C	WMBD 1440 500 C	KANSAS
Pueble KGHF 1320	500	WSB 740 50000 N Augusta	Quincy WTAD 900 500	RANSAS
Sterling	500	WRDW 1500 100	Rockford	Abilene
KGEK 1200	100	Columbus	WROK 1410 500	KFBI 1050 5000
		WRBL 1200 100	Rock Island	Coffeyville KGGF 1010 1000
CONNECT	ICUT	Griffin WKEU 1500 100	WHBF 1210 100 Springfield	Dodge City
Bridgeport		Macon	WCBS 1420 100	KGNO 1340 250
WICC 600	500 C	WMAZ 1180 1000	WTAX 1210 100	Garden City 7 KIUL 1210 100
Hartford	400.0	Rome WRGA 1500 100	Tuscola WDZ 1020 250	KIUL 1210 100 Hutchinson
WDRC 1330 WTIC 1040	100 C 50000 R	Savannah	Urbana 250	KWBG 1420 100
WTHT 1200	100 K	WTOC 1260 1000 C	WILL 890 250	Kansas City
New Britain		Thomasville	Waukegan	WLBF 1420 100 Lawrence
WNBC 1380 New Haven	250	WPAX 1210 250 Waycross	WCBD 1080 5000	KFKU 1220 1000
WELI 900	500	WAYX 1200 100	INDIANA	WREN 1220 100 B
New London				Manhattan KSAC 580 500
VNLC 1500	100	HAWAII	Anderson	Topeka 580 500
Waterbury VATR 1190	100	Hilo	WHBU 1210 100	WIBW 580 1000 C
WIXBS 1530	1000	KHBC 1420 100	Elkhart WTRC 1310 100	Wichita
		Honolulu	Evansville	KFH 1300 1000 C KANS 1210 100
DELAWA	RE	KGMB 1320 1000 C KGU 750 2500 N	WEOA 1370 100	
Wilmington		KGU 750 2500 N	WGBF 630 500	KENTUCKY
VDEL 1120	250	IDAHO	WGL 1370 100 C	
VILM 1420	100	Data	WOWO 1160 10000 C	Ashland WCMI 1310 100
		Bolse KIDO 1350 1000	Gary WIND 560 1000	Covington
DISTRICT		Idaho Falls	Hammond	WCKY 1490 5000 B
COLUMB	IA	KID 1320 500	WWAE 1200 100	Lexington WLAP 1420 100
Washington		Lewiston KRLC 1420 100	Indianapolis WFBM 1230 1000 C	Louisville
VJSV 1460	10000 C	Nampa	WIRE 1400 500 R	WAVE 940 1000 N
VMAL 630 VOL 1310	250 B 100	KFXD 1200 100	Muncie	WHAS 820 50000 C
VRC 950	500 R	Pocatello KSEI 900 250	WLBC 1310 100 New Albany	WPAD 1420 100
		Twin Falls	WGRC 1370 250	
FLORID	A	KTFI 1240 1000	Richmond	LOUISIANA
Clearwater		ILLINOIS	WKBV 1500 100	
VFLA 620	1000 N	ILLINOIS	South Bend WFAM 1200 100	Alexandria KALB 1420 100
Daytona Beac		Bloomington	WSBT 1360 500 C	Baton Rouge
VMFJ 1420 Gainesville	100	WJBC 1200 100	Terre Haute	WJBO 1420 100
VRUF 830	5090	Carthage WCAZ 1070 100	WBOW 1310 100 West Lafayette	Lafayette KVOL 1310 100
Jacksonville		Champaign	WBAA 890 1000	Lake Charles
VJAX 900	1000 N	1370 100		KPLC 1500 100
MBR 1370	100 C	Chicago	IOWA	Monroe
Lakeland	100	WAAF 920 1000 WBBM 770 50000 C	Ames	KMLB 1200 100 New Orleans
VLAK 1310		WCFL 970 5000 B	WOI 640 5000	WBNO 1200 100
Miami			Boone	WDSU 1250 1000
Miami VIOD 1300	1000 N	WCRW 1210 100		
Miami VIOD 1300 VQAM 560	1000 N 1000 C	WEDC 1210 100	KFGQ 1370 100	WJBW 1200 100
Miami VIOD 1300		WCRW 1210 100 WEDG 1210 100 WENR 870 50090 N WGES 1360 500		

Shreveport 100	Fronwood WJMS 1420 100	KMOX 1090 50000 C KSD 550 1000 R	NEW MEXICO
KRMD 1310 100 KTRS 1450 1000 N	WJMS 1420 100 Jackson	KWK 1350 1000 B	Albuquerque
	WIBM 1370 100	WEW 760 1000	KGGM 1230 250
KWKH 1100 1000 C	Kalamazoo	WIL 1200 100	KOB 1180 10000
MAINE	WKZO 590 1000 Lansing	Springfield	Clovis KICA 1370 100
Augusta	WJIM 1210 100	KGBX 1230 500 KWTO 560 5000	Roswell
WRDO 1370 100 Bangor	Lapeer WMPC 1200 100	MONTANA	KGFL 1370 100
WABI 1200 100 WLBZ 620 500 C	Marquette WBEO 1310 100	Billings	Santa Fe KIUJ 1310 100
Portland WCSH 940 1000 R	Muskegon WKBZ 1500 100	KGHL 780 1000 N	NEW YORK
Presque Isle	Reyal Oak	KGIR 1340 1000 N	Albany
WAGM 1420 100		Great Falls KFBB 1280 1000	WABY 1370 100
MARYLAND	MINNESOTA	Kallspell KGEZ 1310 100	Auburn
Baltimore	Fergus Falls	Missoula	WMBO 1310 100 Binghamton
WBAL 760 2500 B WBAL 1060 10000 B	KGDE 1200 100 Hibbing	KGVO 1260 1000 Wolf Point	WNBF 1500 100
WCAO 600 500C	WMFG 1210 100	KGCX 1310 100	Brooklyn WARD 1400 500
WCBM 1370 100	WCCO 810 50000 C		WBBC 1400 500
VFBR 1270 500 R	WCCO 810 50000 C WDGY 1180 1000	NEBRASKA	WBBR 1300 1000
Cumberland VTBO 800 250	WLB 1250 1000	Clau Cambon	WCNW 1500 100
	WTCN 1250 1000	Clay Center KMMJ 740 1000	WEGL 1400 500
Frederick VFMD 900 500		KMMJ 740 1000 Kearney	WLTH 1400 500
Hagerstown	Moorhead KGFK 1500 100	KGFW 1310 100	WMBQ 1500 100 WVFW 1400 500
VJEJ 1210 100	Northfield	Lincoln KFAB 770 10000 C	Buffalo
MASSACHUSETTS	WCAL 1250 1000	KFAB 770 10000 C KFOR 1210 100 C	WBEN 900 1000
MASSACHOSETTS	Rochester KROC 1310 100	Norfolk	WBNY 1370 100
Boston	St. Paul	WJAG 1060 1000	WEBR 1310 100
VAAB 1410 500 C	KSTP 1460 25000 N	North Platte	WGR 550 1000
VBZ 990 50000 B	WMIN 1370 100	KGNF 1430 1000	WKBW 1480 5000
VCOP 1120 500	Virginia	Omaha	WSVS 1370 50
VEEL 590 1000 R	WHLB 1370 100	WAAW 660 500	Canton WCAD 1220 500
WHDH 830 1000		WOW 590 5000 R	11 01120
VMEX 1500 100 VNAC 1230 1000 C	MISSISSIPPI	► Scottsbluff KGKY 1500 100	Chester WGNY 1210 100
Fall River	Clarksdale	KGKY 1500 100	Elmira
VSAR 1450 1000 Lowell	WMFN 1210 100 Gulfport	NEVADA	WESG 850 1000 Freeport
VLLH 1370 100 Needham	WGCM 1210 100	Reno KOH 1380 500 C	WGBB 1210 100 Jamestown
WORL 920 500	Hattiesburg WPFB 1370 100		WOCL 1210 50
New Bedford	Jackson'	NEW HAMPSHIRE	Long Island City W2XR 1550 1000
VNBH 1310 100	WJDX 1270 1000 N		
Springfield VBZA 990 1000 B	Kosciusko WHEF 1500 100	Laconia WLNH 1310 100	New York WABC 860 50000
VMAS 1420 100 C	Laurel	Manchester	WBNX 1350 250
VSPR 1140 500	WAML 1310 100	WFEA 1340 500 C	WBOQ 860 50000
Worcester VORC 1280 500 C	Meridian WCOC 880 500	Portsmouth	WEAF 660 50000 WEVD 1300 1000
VTAG 580 500 R	WCOC 880 500 Vicksburg	WHEB 740 250	WEVD 1300 1000 WFAB 1300 1000
, 113 550 500 IV	WOBC 1360 1000		WHN 1010 1000
MICHIGAN	17 0200 2000	NEW JERSEY	WINS 1180 1000
	MISSOURI	A.L. Bank	WJZ 760 50000
Battle Creek		Asbury Park WCAP 1280 500	WLWL 1100 5000
VELL 1420 100	Cape Girardeau	11 0.11	WMCA 570 500
Bay City VBCM 1410 500	KFVS 1210 100 Columbia	Atlantic City WPG 1100 5000 C	WNYC 810 1000 WOV 1130 1000
Calumet WHDF 1370 100	KFRU 630 500	Camden	Olean WHDL 1420 100
Detroit	Jefferson City WOS 630 500	WCAM 1280 500 Jersey City	Plattsburg
VJBK 1500 100	Joplin	WAAT 940 500	WMFF 1310 250
VJR 750 50000 C	WMBH 1420 100	WHOM 1450 250	Rochester
WMBC 1420 100 P	Kansas City	Newark	WHAM 1150 50000
WWJ 920 1000 R	KCMO 1370 100	WHBI 1250 1000	WHEC 1430 500
WXYZ 1240 1000 B	KMBC 950 1000 C	WNEW 1250 1000	WSAY 1210 100
East Lansing	WDAF 610 1000 R	WOR 710 50000	Saranac Lake WNBZ 1290 100
WKAR 850 1000	WHB 860 1000	Red Bank	
Flint WFDF 1310 100	W9XBY 1530 1000 St. Joseph	WBRB 1210 100 Trenton	Schenectady WGY 790 50000
Grand Rapids	KFEQ 680 2500	WTNJ 1280 500	Syracuse
	St. Louis	Zarephath	WFBL 1360 1000
WASH 1270 500 N	KFUO 550 500	WAWZ 1350 500	WSYR 570 250

NORTH	AMERICAN B. C.	STATIONS DT LOC	DATIONS
Troy	Zanesville	Johnstown	Sloux Falls
WHAZ 1300 500	WALR 1210 100	WJAC 1310 100	KSOO 1110 2500
Utica WIBX 1200 100 C	OKLAHOMA	WGAL 1500 100	Vermillion KUSD 890 500
White Plains	- CILLATIONA	Philadelphia	Watertown
WFAS 1210 100	Ada	KYW 1020 10000 R	KWTN 1210 100
Woodside WWRL 1500 100	KADA 1210 100	WCAU 1170 50000 C	Yankton WNAX 570 1000 C
WWRL 1500 100	Ardmore KVSO 1200 100	WDAS 1370 100 WFIL 560 1000 B	WNAX 570 1000 C
NORTH CAROLINA	Elk City	WHAT 1310 100	TENNESSEE
Ashauilla	KASA 1210 100 Enid	WIP 610 1000	Bristol
Asheville WWNG 570 1000 N	KCRC 1360 250	WPEN 920 250 WRAX 920 250	WOPI 1500 100
Charlotte	Muskogee	WRAX 920 250 WTEL 1310 100	Chattanooga
WBT 1080 50000 C WSOC 1210 100 N	KBIX 1500 100	Pittsburgh	WDOD 1280 1000 C
Durham	Norman WNAD 1010 1000	KDKA 980 50000 B	Jackson WTJS 1310 100
WDNC 1500 100 C	Oklahoma	KQV 1380 500	Knoxville
Gastonia WJRR 1420 100	KFXR 1310 100 KGFG 1370 100	WCAE 1220 1000 R WJAS 1290 1000 C	WNOX 1010 1000 C
WJBŘ 1420 100 Greensboro	KGFG 1370 100 KOMA 1480 5000 C	WWSW 1500 100	WROL 1310 100
WBIG 1440 500 C	WKY 900 1000 N	Reading	Memphis WHBQ 1370 100
High Point	Ponca City	WEEU 830 1000 WRAW 1310 100	WMC 780 1000 N
WMFR 1200 100 Raleigh	WBBZ 1200 100 Shawnee	Scranton	WNBR 1430 500
WPTF 680 5000 N	KGFF 1420 100	WGBI 880 500	WREC 600 1000 C
Rocky Mount	Tulsa	WQAN 880 250 Sunbury	WLAC 1470 5000 C
WEED 1420 100 Wilmington	KTUL 1400 500 C KVOO 1140 25000 N	WKOK 1210 100	WSM 650 50000 N
WMFD 1370 100	RV00 1140 2300011	Wilkes-Barre	Springfield
Winston-Salem	OREGON	WBAX 1210 100 WBRE 1310 100	WSIX 1210 100
WSJS 1310 100 C	Astoria	WBRE 1310 100 Williamsport	TEXAS
NORTH DAKOTA	KAST 1370 100	WRAK 1370 100	
	Corvallis	York	Abilene
Bismarck KFYR 550 1000 N	KOAC 550 1000	WORK 1320 1000	KRBC 1420 100 Amarillo
KFYR 550 1000 N Devils Lake	Eugene KORE 1420 100	PUERTO RICO	KGNC 1410 1000
KDLR 1210 100	Klamath Falis		Austin
Fargo WDAY 940 1000 N	KFJI 1210 100	Ponce	KNOW 1500 100 Beaumont
WDAY 940 1000 N Grand Forks	Marshfield KOOS 1390 250	WPRP 1420 100	KFDM 560 500
KFJM 1370 100	Medford	San Juan WKAQ 1240 1000	Blg Spring
Mandan KGCU 1240 250	KMED 1310 100	WNEL 1290 1000	KBST 1500 100 Brady
KGCU 1240 250	Portland KALE 1300 500 C		KNEL 1500 100
KLPM 1240 250	KALE 1300 500 C KBPS 1420 100	RHODE ISLAND	College Station
	KEX 1180 5000 N	Newport	WTAW 1120 500 Corpus Christi
OH10	KFJR 1300 500	WNRI 1200 100	KGFI 1500 100
Akron	KGW 620 1000 R KOIN 940 1000 C	Providence	Dallas
WADC 1320 1000 C	KWJJ 1040 500	WEAN 780 500 C WJAR 890 500 R	KRLD 1040 10900 C WFAA 800 50000 N
WJW 1210 100 Canton	KXL 1420 100	WPRO 630 250	WRR 1280 500
WHBC 1200 100	Roseburg KRNR 1500 100	· 	Dublin
Cincinnati	Salem	SOUTH CAROLINA	KFPL 1310 100 El Paso
WCPO 1200 100	KSLM 1370 100	Anderson	KTEP 1500 100
WKRC 550 1000 C WLW 700 500000 N	PENNSYLVANIA	WAIM 1200 100	KTSM 1310 100
WSAI 1330 1000 R	Allentown	Charleston WCSC 1360 500 N	WDAH 1310 100 Fort Worth
Cleveland	WCBA 1440 500	Columbia	KFJZ 1370 100
WGAR 1450 500 B	WSAN 1440 500	WIS 560 1000 N	KTAT 1240 1000
WHK 1390 1000 C WJAY 610 500	Altoona WFBG 1310 100	Greenville WFBC 1300 1000 N	WBAP 800 50000 N
WTAM 1070 50000 R	Easton	Spartanburg	Galveston KLUF 1370 100
Columbus	WEST 1200 100	WSPA 920 1000	Houston
WAIU 640 500	Erie		KPRC 920 1000 N
WBNS 1430 500 C WGOL 1210 100	WLEU 1420 100 Glenside	SOUTH DAKOTA	KTRH 1290 1000 C KXYZ 1440 1000
WOSU 570 750	WIBG 970 100	Aberdeen	Longview
Dayton	Greensburg	KABR 1420 100	KFRŌ 1370 100
WHÍO 1260 1000 R WSMK 1380 200 C	WHJB 620 250 Grove City	KBrookings FDY 780 1000	Lubbock KFYO 1310 100
Portsmouth	WSAJ 1310 100	KHuron	KFYO 1310 100 Midland
WPAY 1370 100	Harrisburo	GDY 1340 250	KRLH 1420 100
WSPD 1340 1000 C	WHP 1430 500 C WKBO 1200 100	Pierre	Palestine
WSPD 1340 1000 C	WKBO 1200 100 Hazleton	KGFX 630 200 Rapid City	KNET 1420 100 Pampa
WKBN 570 500 C	WAZL 1420 100	WCAT 1200 100	KPDN 1310 100

Pecus Action Post Arthur	NORTH	AMERICAN B. C.	STATIONS BY LOC	CATIONS
KPLT 1500 100 KCY 1210 100 KCY 1210 100 KWYO 1370 100 CANADA KWSC 1220 1000 KWSC 1210 1000 KWSC	Paris	Olympia	Sheridan	Chatham
KIUN 1420 100 100 100 1270 100 1	KPLT 1500 100	KGY 1210 100		CFCO 630 100 1
Seattle Strice		Pullman		Cobalt
South Continue C		KWSC 1220 1000	CANADA	
Kar 1.70 1		Seattle		
Calgary Calg	KPAC 1260 500		ALBERTA	
San Antonio KABC 1420 100 (MAC 1370 100 CMAC 1370 100 CMAC 1370 100 CMAC 1370 100 CMAC 1590 1000	San Angelo		ALBERIA	
KABC 1420 100 C KTW 1220 1000 K KTW 1200 100 K KTPY 1200 100 K KTPW 1			Calgary	
MAC 1370 100			CFAC 930 100 F	
CICHO 1370 100 1			CFCN 1030 10000	CDEC 1510 100
CTSA 550 1000 C NA 100	CONO 1370 100			
VAXI 1190 50000 N Spokane KFI 1120 100 KI				
Tylet Color Colo		KXA 760 250		
CCKB 1500 100 C KFIO 1120 100 KIO 1330 250 KIO 1330 250 KVI 570 1000 C KIO 1330 250 KVI 570 1000 C KIO 1330 250 KVI 1370 100 KIO 1330 100 KIO KIO 1330 100 KIO		Spokane		
Waco	GKB 1500 100			
VACO 1420 100 C KGA 1470 5000 R KHQ 590 1000 R KHQ 590 1000 R KHQ 590 1000 R KMO 1330 250 KW 1570 1000 C Wallawalia KUJ 1370 1000 Weatschee LEUB 1420 100 WHIS 1410 250 C Wallawalia KUJ 1370 100 West viricina Final Statistics (City DY L 1290 1000 N Sanoke Politic Wallawalia KUJ 1370 1000 KW West viricina Final Statistics (City DY L 1290 1000 KW WHIS 1410 250 C Charlottesburg WAA 1200 100 Waterburg Vivis 1500 100 Waterburg Vivis 1500 W		KFPY 890 1000 C		CFCH 930 100 I
Weslaco RGCV 1260 500 CGCV 500 CGCV 570 250 CGCV 570 250 CGCV 570 250 CGCV 570 250 CGCV 570 1000 CGCV 570 570 CGCV 570 5	VACO 1420 100 C		CJOC 950 100 F	
CRC 1260 500 CCC COCK Tacoma KMO 1330 250 CCC C		KHQ 590 1000 R		
Witchits Falls CKO 570 250 C CKV 570 100 CKV CKV 570 100 CKV C		Tacoma	BRITISH COLUMBIA	
CKO 570 250 C Walla Walla Walla Walla KUJ 1370 100 C CHW 780 100 F Kamloops CFLC 930 100 F Kamloops CFLC 930 100 F Kamloops CFLC 880 100 F		KMO 1330 250		
UTAH			Chilliwack	CFLC 930 100
Ogden Clo 1400 500 N Price EPU 1420 100 Salt Lake City DYL 1290 1000 N S.L 130 5000 C Charleston WCAX 1200 100 Charleston WCAX 1200 100 WREFT 1310 100 WHIS 1410 250 Charleston WCAX 1200 100 Waterbury WPAR 1420 100 Salt Lake City Charleston WCAX 1200 100 WHIS 1410 250 Charleston WWA 1400 500 Charleston WWA 1400 5000 Charleston C				
Ogden	UTAH		Kamioops	CKTB 1200 100 1
Ogden LO 1400 500 N Price EUB 1420 100 Salt Lake City DYL 1290 1000 N SL 1130 5000 C Committee		1.00	CFJC 880 100 F	
A	Ogden		Kelowna	
Price EUB 1420 100 Salt Lake City DYL 1290 1000 N SL 130 50000 C 1500 100 C 1500				
EUB 1420 100 Nalt 1310 100 CFPR 580 50 CAX 1310 5000 C Charleston WCHS 580 500 Fairmont WCHS 580 500 Fairmont WSAZ 190 100 Wheeling WWA 1160 5000 C Charleston WWAM 1410 500 CKC 1010 100 CKC 10	Price	Yakima		
Salt Lake City DYL 1290 1000 N S.L 1130 50000 C C. 1500 100 N S.L 1130 50000 C C. 1500 100 N MIS 1410 250 C. 100 100 C. 100 N MIS 1410 250 C. C. C. C. C. C. C. C		KII 1310 100		Sudbury
DYL 1290 1000 N SL 1310 50000 C CKG 1310 5000 C CKG 1410 500 CKG 580 1000 CKG 1410 500 CKG 1410	Salt Lake City	WEST LODGE		CKSO 780 1000 I
Section Sect	DYL 1290 1000 N	WEST VIRGINIA		Timmins
VERMONT		D1 - 7 - 1 1		CKGB 1420 100 l
VERMONT	1500 100			Toronto
WCHS 580 500			CKCD 1010 100	CFRB 690 10000 C
Burlington	VERMONT	WCHS 500 500		CKCL 580 100 F
Windlest				
Muntington Victoria Victori				
WSAZ 1190 1000 1000 St. Albans 1000 Springfield WWA 1160 5000 C Wheeling WWA 1160 5000 C WWYA 1160 5000 C CKX 1120 100 F CKX 1120 100 F CKX 1120 100 F CKY 910 15000 F CKY 910 91000 F CKY 910 91000 F CKY 910 91000 F CKY 910 91000 F Superior WEBC 1290 1000 N CKY 910 91000 F Superior WEBC 1290 1000 N Superior WEBC 1290 1000 N Mosse Jaw 91000 F Superior 91000 F Superior 910			Vistoria 500 F	CKCR 1510 100
St. Albans Springfield WNAX 1200 100 Wheeling WWVA 1160 5000 C WISCONSIN Wisconsin Springfield WNAX 1200 100 Wisconsin Wisconsin Springfield WNAX 1160 5000 C WISCONSIN Wisconsin Springfield WNAX 1160 5000 C WISCONSIN Springfield WNAX 1200 100 Green Bay WHBY 1200 100 Janesville WCLO 1200 100 Janesville WCLO 1200 100 Manitowoc WKBH 1380 1000 WKBH 1380 1000 WHAX 1280 1000 N Manitowoc WOMT 1210 100 WISCONSIN Milwaukee WEMP 1310 100 WISN 1120 250 C WISN 1370 100 Sheboygan WISL 1210 100 Sheboygan WISL 1300 500 Stevens Point WEBC 1290 1000 N WISN 1310 100 SASKATCHEWAN Moose Jaw Moo		WSAZ 1190 1000		Windsor
VODM 1370 100 Springfield Winesling WWVA 1160 5000 C Waterbury VDEV 550 500 VIRGINIA Arlington AA 6.90 1000 Charlottesville VCHV 1420 100 Danville VIBTM 1370 100 LaCrosse VIVA 1200 100 Madison WHA 1300 Madison VITAA 1210 100 Mortolk VITAA 1210 100 Milwaukee VITAA 1310 100 WOMT 1210 100 Madison WHA 1240 100 Madison WHA 1240 100 Madison WITAA 1210 100 Milwaukee VITAA 1210 100 Milwaukee VITAA 1210 100 Milwaukee VITAA 780 500 N Petersburg VITAA 780 500 N Petersburg VITAA 780 500 N Poynette WITAA 1110 500 N Roanoke VITAA 1110 500 N Noose Macine WRJN 1370 100 Stevens Point WITAA 1110 500 N Stevens Point WITAA 1110 500 Stevens Point WITAA 1110 500 Stevens Point WITAA 1110 500 Superior WEBC 1290 1000 N Moose Jaw	VS YB 1500 100		GFG1 1450 75	CKLW 1030 5000
Springfield VNBX 1260 100 WWVA 1160 5000 C WISCONSIN Total VNBX 1260 100 WVVA 1160 5000 C WISCONSIN Total VNBX 1260 100 WISCONSIN Total VNBX 1	St. Albans	WPAR 1420 100	MANITORA	
WWA 1160 5000 C Waterbury Wisconsin Wisconsin CKX 1120 100 F CKNX 1200 Summerside CHCK 1310 500 F CKY 1310 100 F CKW 1370 100 F CKW		Wheeling	MAINTOBA	Wingham
Wisconsin	INDV 1340 100		Brandon	CKNX 1200 50
VIRGINIA				
VIRGINIA	VI) FV 550 500	WISCONSIN	Winnipeg	
VIRGINIA	7 DE 7 880 800		CJRC 630 500 F	ISLAND
Arlington AA 690 1000 Charlottesville CHV 1420 100 Danville Barrisonburg SVA 550 500 LACrosse WKBH 1380 1000 Newport News CGH 1310 100 Norfolk TAR 780 500 N Petersburg PHR 880 500 Richmond BBL 1210 100 C Richmond BBL 1210 100 C ROMBG 1210 100 C WASHINGTON Aberdeen XRO 1310 100 Aberdeen XRO 1310 100 Bellingham VOS 1200 100 A Manuscale WHOM I 100 C ROMBG 1210 100 C WASHINGTON Aberdeen XRO 1310 100 Bellingham VOS 1200 100 WYOMING WHOM I 200 100 N ROMS COTIA CHCK 1310 50 Fredericton CFNB 550 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Montton CKCW 1370 100 F St. John CHSJ 1120 500 F M. W. TERRITORY Aklavik CJCU 1210 50 Montmagny VE9EK 1185 10 Montmagny VE9EK 1185 10 Montmagny VE9EK 1185 10 Montmagny VE9EK 1185 10 CKAC 730 5000 CHGK 1310 50 Superior VE9EK 1185 10 Montmagny VE9EK 1185 10 CKAC 730 1000 F Sydney CHSJ 1120 500 F Wolfville CKIC 1010 50 CKKC 1310 100 CKCK 250 1000 F Sydney CJCB 1240 1000 F Sydney CHIC 1210 100 CKCK 250 1000 CKCK 250 1000 Montmagny VE9EK 1185 10 CKCC 1310 100 CKCK 250 1000 CKCK 250 1000 Montmagny VE9EK 1185 10 CKC 250 C CHCK 1310 100 CKCW 1210 100 CKCK 1210 100 CKCK 1310 100 CKCW 1210 50 CHCK 1310 100 CKCW 1370 100 F CKCW 1210 500 F MALINITOM CKCK 1310 50 CHCK 1310 100 CKCK 1310 100 CK	VIRGINIA			
AA AA AA AA AA AA AA A				CECV 420 1000 I
AA 690 1000 1000 Charlotteville Chy 1200 1000 Janesville WTAQ 1330 1000 UCFNB 550 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 F St. John CHSJ 1120 500 F Moncton CKCW 1370 100 CKCW 1310 100 Milwaukee WEMP 1310 100 WEMP 1310 100 WEMP 1310 100 WEMP 1310 100 WISN 1120 250 CWTMJ 620 1000 N Poynette WIBU 1210 100 Racine WIBU 1210 100 Sheboygan WHBL 1300 500 Stevens Point WLBL 1300 500 Stevens Point WLBL 1300 500 Stevens Point WLBL 900 2500 Superior WEBC 1290 1000 N WOMING WYOMING WYOMING WYOMING Moose Jaw	Arlington	Green Bay	NEW BRUNSWICK	
Charlottesville	AA 690 1000		****	f
CHV 1420 100 Daniville CHC 1200 100 LaCrosse WKBH 1380 1000 CHS St. John CKCW 1370 100 FSt. John CKCW 1370 100 FSt. John CKCW 1370 100 FSt. John CHS Tillo Til	Charlottesville	WTAQ 1330 1000		
Danville	CHV 1420 100	Janesville		CHGS 1450 50 I
WKBH 1380 1000 Madison 1000 Madison 1000 Madison 1000 Madison 1000 Milwaukee 1000 Montmagny 1000 1000 1000 1000 1000 Montmagny 1000	Danville	WCLO 1200 100		01/
SVA 550 500 Chicoutimic CRCS 950 100 Chicoutimic CRCS 950 100 CRCS 950 10		LaCrosse		QUEBEC
VA 1200 100 VIBA 1280 1000 N VIBA 1210 100 VIBA 1210 100 VIBB 1210	Harrisonburg			Chicarati
Vision V	SVA 550 500		CHSJ 1120 500 F	
Manitowoc Moment Newport News GH 1310 100 Milwaukee Mompt 1210 100 Milwaukee Mompt 1310 100 Milwaukee MeMP 1310 100 Metall 1210 100 Milwaukee Memp 1310 100 Memp 1310 10	Lynchburg		N W Transford	
WOMT 1210 100 1310 100 Milwaukee WEMP 1310 100 WISN 1120 250 C WISN 1120 100 WISN 1120 100 WISN 1120 100 WISN 120 100 N Poynette WIBU 1210 100 Racine WRJN 1370 Sheboygan WHBL 1300 500 Stevens Point WLBL 930 1000 C WASHINGTON XRO 1310 100 WBC 1290 1000 N WBC 1290 1000 N WBC 1310 100 Superior WEBC 1290 1000 N WHOL 1300 Salperior WEBC 1290 1000 N WHOL 1300 Salperior WEBC 1290 1000 N WHOL 1300 Salperior WEBC 1290 1000 N WYOMING WYOMING WOMEN WOSE Jaw Moose			N. W. LERRITORY	
Milwaukee	Newport News	WOMT 1210 100	Aldendi	
TAR 780 500 N Petersburg WISN 1120 250 C WISN 11				
Nova Scotia Montreal Montre	Norfolk		CJCU 1210 50	VE9EK 1185 10
Petersburg			NOVA COOTIA	Montreal
Poynette Poynette WiBU 1210 100 WiBU 1210 100 Racine WRJN 1370 100 Sheboysan WHBL 1300 500 Stevens Point WIBU 1300 Superior WEBC 1290 1000 N Superior WEBC 1290 1000 N Sheboysan WEBC 1290 1000 N Superior WEBC 1290 1000 N Sheboysan WHBL 1300 500 Sheboysan Wolfville CKIC 1010 50 CKCV 1310 100	Petersburg	WTM 1 420 1000 N	NOVA SCOTIA	CFCF 600 400 P
BBL 1210 100			Class Barr	
MBG 1210 100 C Racine WRJN 1370 100 Shebbyyan WHBL 1300 500 Shebbyyan WHBL 1300 500 Stevens Point WLBL 900 2500 Superior WEBC 1290 1000 N Red Carlisle CHNC 960 1000 CHRC 580 100 CHRC 580 100 CHRC 580 100 CHRC 580 100 CHRC 1310	Richmond			CKAC 730 5000 C
RVA 1110 5000 N Roanoke Sheboygan WHBL 1300 500 Stevens Point WLBL 900 2500 Superior WEBC 1290 1000 N Sellingham WYOMING WYOMING WYOMING WYOMING WYOMING CHNS 930 1000 F Sydney CJCB 1240 1000 F CKIC 1010 50 CKCV 1310 100 CRCK 1050 1000 CRCK 1050	BBL 1210 100			CRCM 910 5000 I
Sheboygan Sheboygan Sheboygan WHBL 1300 500 Stevens Point WLBI. 900 2500 Superior WEBC 1290 1000 N Superior WEBC 1290 1000 N Sellingham WYOMING SASKATCHEWAN SASKATCHEWAN Moose Jaw Moose			CHNS 020 1000 E	New Carlisle
WHBL 1300 500 Stevens Point WLBL 900 2500 Superior WEBC 1290 1000 N Selvingham WYOMING WYOMING WYOMING WYOMENG W				CHNC 960 1000 I
Stevens Point Wolfville CKIRC 580 100 CKCV 1310 100 Superior WEBC 1290 1000 N CJLS 1310 100 CRCK 1050 1000		WHRL 1300 500	CICR 1240 1000 E	
WASHINGTON	D 000 T 086 Lan			
Superior WEBC 1290 1000 N CRCK 1050 1000	WASHINGTON		CKIC 1010 50	
Aberdeen WEBC 1290 1000 N CJLS 1310 100 SASKATCHEWAN Bellingham WYOMING ONTARIO Moose Jaw	WASHINGTON			
XRO 1310 100 SASKATCHEWAN Bellingham WYOMING ONTARIO Moose Jaw	Aberdeen	WERC 1290 1000 N		GACGE 1000 1000 F
Bellingham VOS 1200 100 WYOMING ONTARIO Moose Jaw		7. EDG 1290 1000 N	CALA 1310 100	SASKATCHEWAN
VOS 1200 100		WYOMING	ONTARIA	JASKATOHEWAN
	VOS 1200 100	WIOMING	ONTARIO	Monse law
Everett Casper Reantford CHAR 1700 100	Everett	Casper	Brantford	CHAB 1200 100 F
RKO 1370 50 KDFN 1440 500 CKPC 930 100 F CJRM 540 1000				CJRM 540 1000 F

Prince Albert	СНІНИАНИА	XEMO 860 5000	CMJF 1150 200
CKBI 1210 100 F Regina	Chihuahua	XEOK 760 250 XESL 1160	CMJK 780 250 CMJL 1340 100
CHWC 1010 500 F CKCK 1010 500 F	XEFI 1440 250 Hidalgo	MICHOACAN	CMJP 1430 75 Cardenas
Saskatoon	XEAT 1210 50	Morelia	CMGE 1370 150 Clego de Avila
CFQC 840 1000 F Yorkton	Juarez XEFV 1210 100	XEI 1370 125	CMJH 1360 100
CJGX 580 100 F	XEF 980 100 XEJ 1020 1000	NUEVO LEON	CMJI 1130 50 CMJO 1180 50
NEWFOUNDLAND	COAHUILA	Monterrey	Cienfuegos CMHJ 1160 100
St. John's		XEFB 1420 100 XEFJ 1230 100	CMHW 820 100 CMHX 760 200
VOAC 1065 40 VOAS 940 100	Piedras Negras XELO 1110 10000	XEH 1150 250 XET 690 500	Cruces
VOGY 840 400	XEPN 590 50000	XEX 1310 125	CMHK 1330 250 Havana
VONF 1195 500 VOWR 681 500	Saltillo XEAS 1160 100	PUEBLA	CMBC 640 150 CMBD 1170 150
MIQUELON	XELA 1240 50 XEOX 640 500	Puebla	CMBG 1140 200
	Torreon	XETH 1210 100	CMBN 850 150 CMBS 770 150
St. Pierre FQN 609 250	XETB 1310 125 Villa Acuna	SAN LUIS POTOSI	CMBX 1070 500 CMBY 970 150
CENTRAL	XERA 840 250000	San Luis Potosi	CMBZ 1000 150
AMERICA	D. F.	XEZZ 1370 100	CMCA 1350 250 CMCB 1230 150
	Mexico City	SONORA	CMCD 950 250 CMCF 810 600
COSTA RICA	XEAI 1240 100	Hermosillo	CMCG 680 150 CMCJ 1110 500
Cartago	XEB 1030 10000 XECW 1310 10	XEBH 930 500	CMCO 1200 150
TIFS 1441 7.5 TIGA 1014 30	XEFA 1180 500 XEFO 940 5000	Nogales XEAF 990 500	CMCQ 1420 250 CMCR 1380 150
San Jose	XEFZ 1370 100	TAMAULIPAS	CMCU 1460 150
TIEP 850 500 TIFA 1050 75	XEK 990 100 XEL 1100 250		CMCX 1500 150
TIGH 1000 500 TIGPH 650 1000	XEMX 1280 12 XEN 710 1000	Matamoros XEAM 750 7.5	CMCY 1030 1000 CMK 730 3000
TIRH 930 50	XEW 890 50000	Nuevo Laredo XEBK 1000 100	CMOA 1440 150
TIVCA 1225 TIX 800	XEWZ 1150 100 XEXM 610	XEFE 1340 250 XENT 910 150000	CMOK 1470 150 CMOX 1320 200
GUATEMALA	XEYZ 780 10000 XFX 610 1000	Reynosa	CMQ 880 500 CMW 600 1400
Guatemala City	DURANGO	XEAW 960 50000	CMX 920 1000 Holguin
TGW 1210 10000		Tampico XEFW 1310 250	CMKF 1460 250
TGX 1400 250	Durango XEE 1210 50	XES 990 250	Manzanillo CMKM 1120 50
HONDURAS	GUANAJUATO	VERACRUZ	Matanzas CMGC 1400 100
Tegucigalpa		Cordoba	CMGF 1120 150 CMGH 790 250
HRN 1340 100	Guanajuato XEAZ 1420 7	XEAG 1310 10 Jalapa	Sagua la Grande
NICARAGUA	Leon XEKL 1240 500	XFB 1270 250 XFD 1340 350	CMHA 1070 50 Sancti Spiritus
Managua YNLF 1275 20		Veracruz	CMHB 1240 50 Santa Clara
YNOP 1230 100	JALISCO	XETF 1220 12 XEU 1010 250	CMHI 1210 150
YNVA 950 30	Guadalajara XEA 1060 500	YUCATAN	Santiago CMKC 1250 150
PANAMA	XED 1155 2500		CMKD 1050 250 CMKR 1400 100
Colon	LOWER CALIFORNIA	Merida XEFC 560 100	CMKX 1190 75
HP50 1440 25	Coronado Island	XEME 1240 15 XEY 1000 10	DOMINICAN
EL SALVADOR	XEMZ 820	XEZ 630 500	REPUBLIC
San Salvador RDN 680 500	XEG 1270 200 Mexicali	WEST INDIES	San Pedro de Macori HIH 1395 15 Trujillo
MEXICO	XEAA 920 200 XEAO 560 250	CUBA	HIJ 1195 15 HIX 800 700
AGUASCALIENTES	Rosarito	Calbarien	HIZ 1370 10
	XEAQ 1090 1000 Tijuana	CMHD 1270 250 Camaguey	HAITI
Aguascalientes XFA 1310 5	XEAC 1240 250 XEC 1160 30	CMJA 1010 50 CMJC 1390 150	Port-au-Prince
XFC 810 350	XEFL 1150 250	CMJE 1220 50	HHK 920 1000

	CFAC 930 100		CJLS 1310	100		CMBS 770	150
	Calgary, Alta. CFCF 600 400		Yarmouth, N. S.	100	\vdash	Havana, Cuba CMBX 1070	500
L	Montreal, Que.		Lethbridge, Alta.			Havana, Cuba	
	CFCH 930 100 North Bay, Ont.		Vancouver, B. C.	500	1	CMBY 970 Havana, Cuba	150
	CFCN 1030 10000		CJRC 630	500		CMBZ 1000	150
	Calgary, Alta. CFCO 630 100	<u> </u>	Winnipeg, Man.	1000	<u> </u>	Havana, Cuba CMCA 1350	250
	Chatham, Ont.	L	Moose Jaw, Sask.			Havana, Cuba	
	CFCT 1450 75 Victoria, B. C.	'	Montreal, Que.	5000		CMCB 1230 Havana, Cuba	150
	CFCY 630 1000	ļ	CKBI 1210	100		CMCD 950	250
	Charlottetown, P.E.I. CFJC 880 100		Prince Albert, Sask	100	ļ	Havana, Cuba CMCF 810	600
	Kamloops, B. C.		Vancouver, B. C.	100	l	Havana, Cuba	000
	CFLC 930 100 Prescott, Ont.	1	CKCH 1210 Hull, Que.	100		CMCG 680	150
1	CFNB 550 500		CKCK 1010	500		Havana, Cuba CMCJ 1110	500
	Fredericton, N. B. CFPL 730 100		Regina, Sask.			Havana, Cuba	
	CFPL 730 100 London, Ont.		CKCL 580 Toronto, Ont.	100		CMCO 1200 Havana, Cuba	150
	CFPR 580 50 Prince Rupert B. C.		CKCO 1010	100		CMCQ 1420	250
	CFQC 840 1000		Ottawa, Ont.	100	-	Havana, Cuba CMCR 1380	150
	Saskatoon, Sask.		Waterioo, Ont.		ļ	Havana, Cuba	
	CFRB 690 10000 Toronto, Ont.		Quebec, Que.	100	1	CMCU 1460 Havana, Cuba	150
	CFRC 1510 100 Kingston, Ont.		CKCW 1370	100		CMCW 750	150
	CFRN 1260 100	-	Moneton, N. B.	50	-	Havana, Cuba CMCX 1500	150
	Edmonton, Alta.		Vancouver, B. C.			Havana, Cuba	
1	CHAB 1200 100 Moose Jaw, Sask.		CKGB 1420 Timmins, Ont.	100		CMCY 1030 Havana, Cuba	1000
	CHCK 1310 50		CKIC 1010	50		CMGC 1400	100
	Charlottetown, P.E.I. CHGS 1450 50		Wolfville, N. S. CKLW 1030	5000		Matanzas, Cuba CMGE 1370	150
L	Summerside, P.E.I. CHLP 1120 100		Windsor, Ont.			Cardenas, Cuba	
1	CHLP 1120 100 Montreal, Que.		CKMC 1210 Cobalt, Ont.	50		CMGF 1120 Matanzas, Cuba	150
	CHML 1010 100 Hamilton, Ont.		CKMO 1410 Vancouver, B. C.	100		CMGH 790	250
	CHNC 960 1000	1	CKNX 1200	50		Matanzas, Cuba CMHA 1070	50
ļ	New Carlisle, Que. CHNS 930 1000		Wingham, Ont.			Sagua la Grande, C	
	CHNS 930 1000 Halifax, N. S.		CKOC 1120 Hamilton, Ont.	500		CMHB 1240 Sancti Spiritus, Cul	50 oa
	CHRC 580 100 Quebec, Que.		CKOV 630 Kelowna, B. C.	100	1	CMHD 1276 Caibarien, Cuba	250
	CHSJ 1120 500		CKPC 930	100		CMHI 1210	150
igsquare	St. John, N. B. CHWC 1010 500		Brantford, Ont.			Santa Clara, Cuba	
	Regina, Sask.		Fort William, Ont.	100		CMHJ 1160 Cienfuegos, Cuba	100
	CHWK 780 100 Chilliwack, B. C.		CKSO 780	1000		CMHK 1330 Cruces, Cuba	250
	CJAT 910 1000		Sudbury, Ont. CKTB 1200	100		CMHW 820	100
<u> </u>	Trail, B. C. CJCA 730 1000		St. Catherines, Ont			Cienfuegos, Cuba CMHX 760	200
	Edmonton, Alta.		CKUA 580 Edmonton, Alta.	500		Clenfuegos, Cuba	200
	CJCB 1240 1000 Sydney, N. S.		CKWX 1010 Vancouver, B. C.	100		CMJA 1010 Camaguey, Cuba	50
	CJCJ 690 100		CKX 1120	100		CMJC 1390	150
L	Calgary, Alta. CJCS 1210 50		Brandon, Man. CKY 910	15000		Camaguey, Cuba	
	Stratford, Ont.		Winnipeg, Man.			CMJE 1220 Camaguey, Cuba	50
	CJCU 1210 50 Aklavik, N. W. T.		CMBC 640 Havana, Cuba	150		CMJF 1150	200
	CJGX 580 100	-	CMBD 1170	150		Camaguey, Cuba CMJH 1360	100
	Yorkton, Sask.		Havana, Cuba CMBG 1140			Ciego de Avila, Cub	a
	S. Ste. Marie, Ont.		Havana, Cuba	200		Ciego de Avila, Cub	
	CJKL 1310 100 Kirkland, Lake, Ont.		CMBN 850 Havana, Cuba	150		CMJK 780 Camaguey, Cuba	250
			I II a i alia, Cuba		·	Camaguey, Cuba	

	CMJL 1340 Camaguey, Cuba	100	KARK 890 250 Little Rock, Ark.	KFJB 1200 100 Marshalltown, Iowa
	CMJO 1180	50	KASA 1210 100	KFJI 1210 100
	Ciego de Avila, Cuba CMJP 1430	75	Elk City, Okla. KAST 1370 100	Klamath Falls, Ore. KFJM 1370 100
	Camaguey, Cuba		Astoria, Ore.	Grand Forks, N. D.
	CMK 730 3 Havana, Cuba	000	KBIX 1500 100 Muskogee, Okia.	Fortland, Ore.
	CM KC 1250	150	KBPS 1420 100	KFJZ 1370 100
	Santiago, Cuba CMKD 1050	250	Portland, Ore. KBTM 1200 100	Fort Worth, Texas KFKA 880 500
	Santiago, Cuba	ara	Jonesboro, Ark.	Greeley, Colo.
	CMKF 1460 Holguin, Cuba	250	KCMC 1420 100 Texarkana, Ark	Lawrence, Kans.
	CMKM 1120 Manzanillo, Cuba	50	KCMO 1370 100 Kansas City, Mo.	KFNF 890 500 Shenandoah, Iowa
	CMKR 1400	100	KCRC 1360 250	KFOR 1210 100
	Santlago, Cuba	75	Enid, Okla. KCRJ 1310 100	Lincoln, Neb. KFOX 1250 1000
	Santiago, Cuba	/3	Jerome, Ariz.	Long Beach, Calif.
	CMOA 1440 Havana, Cuba	150	KDB 1500 100 Santa Barbara, Calif.	KFPL 1310 100 Dublin, Texas
	CMOK 1470	150	KDFN 1440 500	KFPW 1210 100
	Havana, Cuba CMOX 1320	200	Casper, Wyo.	Fort Smith, Ark.
	Havana, Cuba		Pittsburgh, Pa.	Spokane, Wash.
	CMQ 880 Havana, Cuba	500	Devils Lake, N. D.	KFQD 780 250 Anchorage, Alaska
-	CMW 600 1	400	KDON 1210 100	KFRC 610 1000
	Havana, Cuba CMX 920 1	1000	Del Monte, Calif.	San Francisco, Calif. KFRO 1370 100
	Havana, Cuba		Salt Lake City, Utah	Longview, Texas
	CRCK 1050 1 Quebec, Que.	1000	KECA 1430 1000 Los Angeles, Calif.	KFRU 630 500 Columbia, Mo.
	CRCM 910 5	000	KEHE 780 500	KFSD 600 1000
	Montreal, Que.	1000	Los Angeles, Calif.	San Diego, Calif. KFSD 1120 500
	Ottawa, Ont.		El Dorado, Ark.	Los Angeles, Calif.
	CRCS 950 Chicoutimi, Que.	100	KERN 1370 100 Bakersfield, Calif.	KFUO 550 500 St. Louis, Mo.
	CRCT 840 5 Toronto, Ont.	5000	KEUB 1420 100 Price, Utah	KFVD 1000 250
	CRCV 1100	500	KEX 1180 5000	Los Angeles, Calif. KFVS 1210 100
	Vancouver, B. C.		Portland, Ore.	Cape Girardeau, Mo.
	CRCW 600 Windsor, Ont.	500	KFAB 770 10000 Lincoln, Neb.	Hollywood, Calif.
	FQN 609	250	KFAC 1300 1000	KFXD 1200 100
		1000	Los Angeles, Calif.	Nampa, Idaho KFXJ 1200 100
	Port-au-Prince, Haiti HIH 1395	15	Great Palls, Mont. KFBI 1050 5000	Grand Junction, Colo.
	San Pedro de M., D.I		Abilene, Kans.	San Bernardino, Calif.
	HIJ 1195 Trujillo, D. R.	15	KFBK 1490 5000 Sacramento, Calif.	Oklahoma City, Okla.
	HIX 800	700	KFDM 560 500	KFYO 1310 100
	Trujillo, D. R. HIZ 1370	10	Heaumont, Texas	Lubbock, Texas KFYR 550 1000
	Trujillo, D. R.		Brookings, S. D.	Bismarck, N. D.
	HP50 1440 Colon, Panama	25	KFEL 920 500 Denver, Colo.	KGA 1470 5000 Spokane, Wash.
	HRN 1340	100	KFEQ 680 2500	KGAR 1370 100
	Tegucigalpa, Hond.	100	St. Joseph, Mo. KFGQ 1370 100	Tueson, Ariz.
	San Antonio, Texas		Boone, Iowa	San Diego, Calif.
	KABR 1420 Aberdeen, S. Dak.	100	Wichita, Kans.	KGBU 900 500 Ketchikan, Alaska
	KADA 1200	100	KFI 640 50000	KGBX 1230 500
	Ada, Okla. KALB 1420	100	Los Angeles, Calif. KFIO 1120 109	Springfield, Mo. KGCA 1270 100
	Alexandria, La.		Spokane, Wash.	Decorah, Iowa
	KALE 1309 Portland, Ore.	500	KFIZ 1420 100 Fond du Lac, Wis.	Mandan, N. D.

	KGCX 1310 100		KHBC 1420 100		KMPC 710 500
L	Wolf Point, Mont.		Hilo, T. H.		Beverly Hills, Calif.
1	KGDE 1200 100 Fergus Falls, Minn.		KHJ 900 1000 Los Angeles, Calif.	1	KMTR 570 1000 Hollywood, Calif.
<u> </u>	KGDM 1100 1000		KHQ 590 1000	,	KNEL 1500 100
Į	Stockton, Calif. KGDY 1340 250		Spokane, Wash. KHSL 950 250		Brady, Texas KNET 1420 100
£	Huron, S. D.		Chico, Calif.	'	Palestine, Texas
	KGEK 1200 100 Sterling, Colo.		KICA 1370 100)	KNOW 1500 100 Austin, Texas
-	KGER 1360 1000		Ciovis, N. M. KID 1320 500	, —	KNX 1050 50000
<u></u>	Long Beach, Calif.		Idaho Falls, Idaho		Hollywood, Calif.
1	KGEZ 1310 100 Kalispell, Mont.		KIDO 1350 1000 Boise, Idaho	'	KOA 830 50000 Denver, Colo.
	KGFF 1420 100		KIDW 1420 100)	KOAC 550 1000
\	Shawnee, Okla. KGFG 1370 100		Lamar, Colo. KIEM 1450 500	, 	Corvallis, Ore. KOB 1180 10000
	Oklahoma City, Okla.		Eureka, Calif.		Albuquerque, N. M.
1	KGFI 1500 100 Corpus Christi, Texas		KIEV 850 250 Glendaie, Calif.)	KOH 1380 500 Reno. Nev.
 	KGFJ 1200 100		KINY 1310 100	,	KOIL 1260 1000
 	Los Angeles, Calif. KGFK 1800 100		Juneau, Alaska KIRO 710 500	.	Council Bluffs, Iowa KOIN 940 1000
	Moorhead, Minn.		KIRO 710 500 Seattle, Wash.	' '	Portland, Ore.
	KGFL 1370 100 Roswell, N. M.		KIT 1310 100)	KOL 1270 1000 Seattle, Wash.
1	KGFW 1310 100	—	Yakima, Wash. Kluj 1310 100)	KOMA 1480 5000
	Kearney, Neb.		Santa Fe, N. Mex.		Oklahoma City, Okla
	KGFX 630 200 Pierre, S. D.		KIUL 1210 100 Garden City, Kans.)	KOMO 920 1000 Seattle, Wash
	KGGC 1420 100		KIUN 1420 100)	KONO 1370 100
\vdash	San Francisco, Calif. KGGF 1010 1000	-	Pecos, Texas KIUP 1370 100		San Antonio, Texas KOOS 1390 250
ļ	Coffeyville, Kans.	ļ	Durango, Colo		Marshfield, Ore.
L	KGGM 1230 250 Albuquerque, N. M.		KJBS 1070 500 San Francisco, Calif.	'	KORE 1420 100 Eugene, Ore.
	KGHF 1320 500 Pueblo, Colo.		KJR 970 5000	,	KOTN 1500 100
-	KGHI 1208 100	-	Seattle, Wash. KLCN 1290 100	,	Pine Bluffs, Ark. KOY 1390 500
!	Little Rock, Ark.	L	Blytheville, Ark.		Phoenix, Ariz.
1	KGHL 780 1000 Billings, Mont.	l .	KLO 1400 500 Ogden, Utah)	KPAC 1260 500 Port Arthur, Texas
	KGIR 1340 1000		KLPM 1240 250)	KPDN 1310 100
	Butte, Mont. KGIW 1420 100	<u> </u>	Minot, N. D. KLRA 1390 1060	,	Pampa, Texas KPLC 1500 100
<u></u>	Alamosa, Colo.		Little Rock, Ark.		Lake Charles, La.
	KGKB 1500 100 Tyler, Texas		KLS 1440 250 Oakland, Calif.	'	KPO 680 50000 San Francisco, Calif.
	KGKL 1370 100		KLUF 1370 100	,	KPOF 880 500
	San Angelo, Texas KGKO 570 250		Galveston, Texas	,	Denver, Colo. KPPC 1210 50
	Wichita Falls, Texas		Oakland, Callf.		Pasadena, Calif.
	KGKY 1500 100 Scottsbluff, Neb.		KLZ 560 1000 Denver, Colo.)	KPQ 1500 100 Wenatchee, Wash.
	KGMB 1320 1000		KMA 930 1000	,	KPRC 920 1000
	Honolulu, T. H.	ļ	Shenandoah, Iowa KMAC 1370 100	. —	Houston, Texas KOV 1380 500
<u> </u>	Amarillo, Texas		San Antonio, Texas		Pittsburgh, Pa.
	KGNF 1430 1000 North Platte, Neb.		KMBC 950 1000 Kansas City, Mo.)	KQW 1010 1000 San Jose, Callf.
	KGNO 1340 250		KMED 1310 100)	KRE 1370 100
-	Dodge City, Kans.	-	Medford, Ore. KMJ 580 1000	, —	Berkeley, Calif. KRGV 1260 500
<u> </u>	San Francisco, Calif.		Fresno, Calif.		Weslaco, Texas
	KGU 750 2500 Honolulu, T. H.		KMLB 1200 100 Monroe, La.	9	KRKD 1120 590 Los Angeles, Calif.
	KGVO 1260 1000		KMMJ 740 1000	•	KRKO 1370 50
-	Missoula, Mont. KGW 620 1000	-	Clay Center, Neb.		Everett, Wash.
	Portland, Ore.		Tacoma, Wash,		Lewiston, Idaho
	KGY 1219 109 Olympia, Wash.		KMOX 1890 50000 St. Louis, Mo.	0	KRLD 1040 10000 Dalias, Texas
	• •		,,,		

	KRLH 1420 100		1 KVL 1370	100		TIRH 930	50
_	Midland, Texas		Seattle, Wash.			San Jose, C. R.	30
	KRMD 1310 100 Shreveport, La.		KVOA 1260 Tucson, Ariz.	500		TIVCA 1225 San Jose, C. R.	
	KRNR 1500 100		KVOD 920	500		TIX 800	
	Roseburg, Ore.		Denver, Colo.			San Jose, C. R.	
	KRNT 1320 500 Des Moines, Iowa		KVOE 1500 Santa Ana, Calif.	100		VAS 685 Glace Bay, N. S.	2000
	KROC 1310 100		KVOL 1310	100		VE9EK 1185	10
	Rochester, Minn.		Lafayette, La.			Montmagny, Que.	
	Oakland, Calif.		KVOO 1140 Tulsa, Okla.	25000		VOAC 1065 St. John's, Nfld.	40
	KRSC 1120 100		KVOR 1270	1000		VOAS 940	100
	Seattle, Wash. KSAC 580 500	-	Colorado Spgs., C KVOS 1200	olo. 100		St. John's, Nfid.	
	Manhattan, Kans.		Bellingham, Wash			VOGY 840 St. John's, Nfld.	400
	KSCJ 1330 1000 Sioux City, Iowa		KVSO 1210	100		VONF 1195	500
	KSD 550 1000		Ardmore, Okla.	100		St. John's, Nfid.	500
	St. Louis, Mo.		Hutchinson, Kans			St. John's, Nild.	300
	KSEI 900 250 Pocatello, Idaho		KWG 1200 Stockton, Calif.	100		WAAB 1410	500
	KSFO 560 1000	_	KWJJ 1040	500		Boston, Mass. WAAF 920	1000
	San Francisco, Calif.		Portland, Ore.			Chleago, Ill.	2000
	KSL 1130 50000 Salt Lake City, Utah		KWK 1350 St. Louis, Mo.	1000		WAAT 940 Jersey City, N. J.	500
	KSLM 1370 100		KWKH 1100	10000		WAAW 660	500
	Salem, Ore. KSO 1430 500		Shreveport, La.			Omaha, Neb.	
	Des Moines, Iowa	i .	Decorah, Iowa	100		WABC 860 New York, N. Y.	50000
	KSOO 1110 2500		KWSC 1220	1000		WABI 1200	100
	Sioux Falls, S. D. KSTP 1460 25000		Pullman, Wash.			Bangor, Maine	
	St. Paul, Minn.		Watertown, S. D.	100		WABY 1370 Albany, N. Y.	100
	KSUN 1200 100		KWTO 560	5000		WACO 1420	100
	Lowell, Ariz.		Springfield, Mo.	100		Waco, Texas WADC 1320	1000
	Phoenix, Ariz.		Sheridan, Wyo.	100		WADC 1320 Akron, Ohio	1000
	Fort Worth, Texas		KXA 760 Seattle, Wash,	250		WAGF 1370	250
	KTBS 1450 1000		KXL 1420	100		Dothan, Ala. WAGM 1420	100-
	Shreveport, La.		Portland, Ore.			Presque Isle, Me.	100
	KTEP 1500 100 El Paso, Texas		KXO 1500 El Centro, Calif.	100		WAIM 1200 Anderson, S. C.	100
	KTFI 1240 1000		KXRO 1310	100		WAIU 640	500-
	Twin Falls, Idaho KTHS 1060 10000		Aberdeen, Wash.			Columbus, Ohio	
	KTHS 1060 10000 Hot Springs, Ark.		KXYZ 1440 Houston, Texas	1000		WALA 1380 Mobile, Ala.	500
	KTRB 740 250		KYA 1230	1000		WALR 1210	100
	Modesto, Calif. KTRH 1290 1000	-	San Francisco, Ca			Zanesville, Ohio	
	Houston, Texas		KYW 1020 Philadelphia, Pa.	10000		WAML 1310 Laurel, Miss.	100
	KTSA 550 1000		NAA 690	1000	1	WAPI 1140	5000
	San Antonio, Texas KTSM 1310 100		Arlington, Va.	500		Birmingham, Ala. WARD 1400	500
	El Paso, Texas		San Salvador, E. S			Brooklyn, N. Y.	300
	KTUL 1400 500 Tulsa, Okla.		TGW 1210 Guatemala, Gua.	10000		WASH 1270	500
	KTW 1220 1000		TGX 1400	250		Grand Rapids, Mic WATL 1370	ch. 100
	Seattle, Wash.	L	Guatemala City			Atlanta, Ga.	200
	Walla Walla, Wash.	1 1	TIEP 850 San Jose, C. R.	500		WATR 1190 Waterbury, Conn.	100
	KUMA 1420 100		TIFA 1050	75		WAVE 940	1000
	Yuma, Ariz.		San Jose, C. R.			Louisville, Ky.	
	KUOA 1260 1000 Fayetteville, Ark.		TIFS 1441 Cartago, C. R.	7.5		WAWZ 1350 Zarephath, N. J.	500
	KUSD 890 500		TIGA 1014	30	,	WAZL 1420	100
	Vermillion, S. D. KVCV 1200 100	\vdash	Cartago, C. R.			dazleton, l'a.	1000
	Redding, Caiif.		TIGH 1000 San Jose, C. R.	500		VBBA 890 Vest Lafayette, In	1000 ad.
	KVI 570 1000		TIGPH 650	1000	,	WBAL 760	2500
	Tacoma, Wash.		San Jose, C. R.		I	Baltimore, Md.	

 WBAL 1060 10000	WCBD 1080 5000 WEAN	780 500
 Baltimore, Md.		nce, R. I. 1290 1000
WBAP 800 50000 Fort Worth, Texas	WCBM 1370 100 WEBC Baitimore, Md. Superior	
 WBAX 1210 100	WCBS 1420 100 WEBQ	1210 100
Wilkes-Barre, Pa.	Springfield, Ill. Harrisbu	
 WBBC 1400 500	WCCO 810 50000 WEBR	1310 100
Brooklyn, N. Y.	Minneapolis, Minn. Buffalo,	N. Y.
WBBL 1210 100	WCFL 970 5000 WEDC	1210 100
 Richmond, Va.	Chicago, Ill. Chicago	
WBBM 770 50000	WCHS 580 500 WEED	1420 100
 Chicago, Ill.		fount, N. C.
WBBR 1300 1000	WCHV 1420 100 WEEL	590 1000
 Brooklyn, N. Y.	Charlottesville, Va. Boston, WCKY 1490 5000 WEEU	Mass. 830 1000
WBBZ 1200 100 Ponca City, Okla.	WCKY 1490 5000 WEEU Covington, Ky. Reading	
 WBCM 1410 500	WCLO 1200 100 WEGL	1400 500
Bay City, Mich.	Janesville, Wis. Brookly	
 WBEN 900 1000	WCLS 1310 100 WEHS	1420 100
Buffalo, N. Y.	Joliet, Ill. Cicero,	
 WBEO 1310 100	WCMI 1310 100 WELI	900 500
Marquette, Mich.	Ashland, Ky. New Ha	ven, Conn.
WBIG 1440 500	WCNW 1500 100 WELL	1420 100
Greensboro, N. C.		Creek, Mich.
WBNO 1200 100	WCOA 1340 500 WEMP	1310 100
 New Orleans, La.		ee, Wis.
WBNS 1430 500	WCOC 880 500 WENR	870 50000
 Columbus, Ohio WBNX 1350 250	Meridian, Miss. Chicago	1370 100
New York, N. Y.		lle, Ind.
 WBNY 1370 100	WCOP 1120 500 WESG	850 100 0
Buffalo, N. Y.	Boston, Mass. Elmira,	
 WBQQ 860 50000	WCPQ 1200 100 WEST	1200 100
New York, N. Y.	Cincinnati, Ohlo Easton,	
WBOW 1310 100	WCRW 1210 100 WEVD	1300 1000
 Terre Haute, Ind.		rk, N. Y.
WBRB 1210 100	WCSC 1360 500 WEW	760 1000
 Red Bank, N. J.	Charleston, S. C. St. Loui	
WBRC 930 1000 Birmingham, Ala.	WCSH 940 1000 WEXL Portland, Me. Royal C	1310 50 Oak, Mich.
 WBRE 1310 100	WDAE 1220 1000 WFAA	800 5000
Wilkes-Barre, Pa.	Tampa, Fla. Dallas.	
 WBT 1080 50000	WDAF 610 1000 WFAB	1300 1000
Charlotte, N. C.	Kansas City, Mo. New Yo	rk, N. Y.
WBTM 1370 100	WDAH 1310 100 WFAM	1200 100
 Danville, Va.		Be nd, I nd.
WBZ 990 50000	WDAS 1370 100 WFAS	1210 100
 Boston, Mass.		Plains, N. Y.
WBZA 990 1000	WDAY 940 1000 WFBC	1300 1000
 Springfield, Mass. WCAD 1220 500	Fargo, N. D. Greenv WDBJ 930 1000 WFBG	ille, S. C. 1310 100
Canton, N. Y.	Roanoke, Va. Altoons	
 WCAE 1220 1000	WDBO 580 1000 WFBL	1, 1 a. 1360 100
Pittsburgh, Pa.		se, N. Y.
 WCAL 1250 1000	WDEL 1120 250 WFBM	1230 100
Northfield, Minn.		polis, Ind.
WCAM 1280 500	WDEV 550 500 WFBR	1270 50
 Camden, N. J.		ore, Md.
WCAO 600 500	WDGY 1180 1000 WFDF	1310 10
 Baltimore, Md.	Minneapolis, Minn. Flint, M	
WCAP 1280 500 Asbury Park, N. J.	WDNC 1500 100 WFEA Durham, N. C. Manche	1340 50 ester, N. H.
 WCAT 1200 100	WDOD 1280 1000 WFIL	
Rapid City, S. D.		560 100 elphia, Pa.
 WCAU 1170 50000	WDRC 1330 1000 WFLA	629 100
Philadelphia, Pa.	1	ater, Fla.
 WCAX 1200 100	WDSU 1250 1000 WFMD	
Burlington, Vt.		ick, Md.
WCAZ 1070 100	WDZ 1020 250 WGAL	
 Carthage, Ill.		ter, Pa.
WCBA 1440 500 Allentown, Pa.	WEAF 660 50000 WGAR	
	New York, N. Y. Clevels	ind, Ohlo

	WGBB 1210	100	WHIS 1410	250	WJBW 1200 100
-	Freeport, N, Y. WGBF 630	500	Bluefield, W. Va. WHJB 620	250	New Orleans, La. WJBY 1210 100
<u> </u>	Evansville, Ind.		Greensburg, Pa.		Gadsden, Ala.
1	WGBI 880 Scranton, Pa.	500	WHK 1390 Cleveland, Ohio	1000	WJDX 1270 1003 Jackson, Miss.
1	WGCM 1210 Gulfport, Miss.	100	WHLB 1370	100	WJEJ 1210 100
	WGES 1360	500	WHN 1010	1000	Hagerstown, Md. WJIM 1210 100
-	Chicago, III. WGH 1310	100	New York, N. Y.	50000	Lansing, Mich.
	Newport News, Va	s	Des Moines, Iowa	50000	WJJD 1130 20000 Chicago, Iil.
	WGL 1370 Fort Wayne, Ind.	100	WHOM 1450 Jersey City, N. J.	250	WJMS 1420 100 Ironwood, Mich.
	WGN 720 Chicago, Ill.	50000	WHP 1430	500	WJNO 1200 100
	WGNY 1210	100	Harrisburg, Pa. WIBA 1280	1000	W. Palm Beach, Fla. WJR 750 50000
	Chester, N. Y. WGPC 1420	100	Madison, Wis.	100	Detroit, Mich. WJSV 1460 10000
	Albany, N. Y.	-	Glenside, Pa.	100	Washington, D. C.
	WGR 550 Buffalo, N. Y.	1000	WIBM 1370 Jackson, Mich.	100	WJW 1210 100 Akron, Ohio
	WGRC 1370 New Albany, Ind.	250	WIBU 1210	100	WJZ 760 50000
	WGST 890	1000	Poynette, Wis. WIBW 580	1000	New York, N. Y. WKAQ 1240 1000
	Atlanta, Ga. WGY 790	50000	Topeka, Kans. WIBX 1200		San Juan, P. R.
	Schenectady, N. Y		Utica, N. Y.	100	East Lansing, Mich.
	WHA 940 Madison, Wis.	2500	WICC 600 Bridgeport, Conn.	500	WKBB 1500 100 East Dubuque, III.
	WHAM 1150	50000	WIL 1200	100	WKBH 1380 1000
	Rochester, N. Y. WHAS 820	50000	St. Louis, Mo. WILL 890	250	LaCrosse, Wis. WKBI 1420 100
	Louisville, Ky.		Urbana, Ill.		Cicero, Ill.
	Philadelphia, Pa.	100	WILM 1420 Wilmington, Del.	100	WKBN 570 500 Youngstown, Ohio
	WHAZ 1300 Troy, N. Y.	500	WIND 560 Gary, Ind.	1000	WKBO 1200 100 Harrisburg, Pa.
	WHB 860	1000	WINS 1180	1000	WKBV 1500 100
	Kansas City, Mo. WHBB 1500	100	New York, N. Y. WIOD 1300	1000	Richmond, Ind. WKBW 1489 5000
	Selma, Alabama WHBC 1200	100	Miami, Fla.		Buffalo, N. Y.
	Canton, Ohio	100	WIP 610 Philadelphia, Pa.	1000	WKBZ 1500 100 Muskegon, Mich.
	WHBF 1210 Rock Island, Ill.	100	WiRE 1400 Indianapolis, Ind.	500	WKEU 1500 100 Griffin, Ga.
	WHBI 1250	1000	WIS 560	1000	WKOK 1210 100
	Newark, N. J. WHBL 1300	500	Columbia, S. C. WISN 1120	250	Sunbury, Pa. WKRC 550 1000
	Sheboygan, Wis.		Milwaukee, Wis.		Cincinnati, Ohio
	Memphis, Tenn.	100	Johnstown, Pa.	100	WKY 900 1000 Okiahoma City, Okia.
	WHBU 1210 Anderson, Ind.	100	WJAG 1060 Norfolk, Neb.	1000	WKZO 590 1000 Kalamazoo, Mich.
	WHBY 1200	100	WJAR 890	500	WLAC 1470 5000
	Green Bay, Wis. WHDF 1370	100	Providence, R. I. WJAS 1290	1000	Nashville, Tenn, WLAK 1310 100
	Calumet, Mich.		Pittsburgh, Pa.		Lakeland, Fia.
	Boston, Mass.	1000	Jacksonville, Fla.	1000	WLAP 1420 106 Lexington, Ky.
	WHDL 1420 Olean, N. Y.	100	WJAY 610	500	WLB 1250 1000
	WHEB 740	250	Cleveland, Ohio	100	Minneapolis, Minn. WLBC 1310 100
	Portsmouth, N. H. WHEC 1430	500	Bloomington, Ill.	100	Muncie, Ind. WLBF 1420 100
	Rochester, N. Y.		Detroit, Mich.		Kansas City, Kans.
	WHEF 1500 Kosciusko, Miss.	100	WJBL 1200 Decatur, Ill.	100	WLBL 900 2500 Stevens Point, Wis.
	WHFC 1420	100	WJBO 1420	100	WLBZ 620 500
	Cicero, III. WHIO 1260	1000	Baton Rouge, La. WJBR 1420	100	Bangor, Me. WLEU 1420 100
	Dayton, Ohio		Gastonia, N. C.		Erie, Pa.

	WLLH 1370 1 Lowell, Mass.	00	WNAX 570 1000 Yankton, S. D.		WPG 1100 Atlantic City, N. J	5000
<u> </u>	WLNH 1310 1	00	WNBC 1380 250		WPHR 880	500
	Laconia, N. H. WLS 870 500	00	New Britain, Conn. WNBF 1500 100		Petersburg, Va. WPRO 630	250
	Chicago, Ill.		Binghamton, N. Y.		Providence, R. I.	
L	WLTH 1400 5 Brooklyn, N. Y.	00	WNBH 1310 100 New Bedford, Mass.		WPRP 1420 Ponce, P. R.	100
	WLVA 1200 1 Lynchburg, Va.	00	WNBR 1430 500 Memphis, Tenn.		WPTF 680 Raleigh, N. C.	5000
	WLW 700 5000	00	WNBX 1260 1000		WQAM 560	1000
	Cincinnati, Ohio WLWL 1100 50	00	Springfleld, Vt. WNBZ 1290 100	-	Miami, Fla. WOAN 880	250
<u> </u>	New York, N. Y. WMAL 630 2	50	Saranac Lake, N. Y. WNEL 1290 1000		Scranton, Pa.	
ļ	Washington, D. C.		San Juan, P. R.		WQBC 1360 Vicksburg, Miss.	1000
	WMAQ 670 500 Chicago, Ill.	00	WNEW 1250 1000 Newark, N. J.		WQDM 1370 St. Albans, Vt.	100
	WMAS 1420 1	00	WNOX 1010 1000		WRAK 1370	100
-	Springfield, Mass. WMAZ 1180 10	00	Knoxville, Tenn.		Williamsport, Pa. WRAW 1310	100
 	Macon, Ga. WMBC 1420 1	00	Newport, R. I. WNYC 810 1000	ļ	Reading, Pa.	
	Detroit, Mich.		New York, N. Y.		WRAX 920 Philadelphia, Pa.	250
	WMBD 1440 5 Peoria, Ill.	00	WOAI 1190 50000 San Antonio, Texas		WRBL 1200 Columbus, Ga.	100
	WMBG 1210 1 Richmond, Va.	00	WOC 1370 100 Davenport, Iowa		WRC 950	500
	WMBH 1420 1	00	WOCL 1210 50		Washington, D. C. WRDO 1370	100
<u> </u>	Joplin, Mo. WMBi 1080 50	00	Jamestown, N. Y. WOI 640 5000		Augusta, Me. WRDW 1500	100
	Chicago, Ill.		Ames, Iowa		Augusta, Ga.	
	Auburn, N. Y.	00	Albany, N. Y.		WREC 600 Memphis, Tenn.	1000
	WMBQ 1500 1 Brooklyn, N. Y.	00	WOL 1310 100 Washington, D. C.	1	WREN 1220 Lawrence, Kans.	1000
		00	WOMT 1210 100 Manitowoc, Wis.		WRGA 1500	100
	WMC 780 10	00	WOOD 1270 500		Rome, Ga. WRJN 1370	100
	Memphis, Tenn.	00	Grand Rapids, Mich.		Racine, Wis. WROK 1410	500
	New York, N. Y.		Bristol, Tenn.	<u> </u>	Rockford, Ill.	
	WMEX 1500 1 Boston, Mass.	00	WOR 710 50000 Newark, N. J.		WROL 1310 Knoxville, Tenn.	100
	WMFD 1370 1 Wilmington, N. C.	00	WORC 1280 500 Worcester, Mass.	1	WRR 1280 Dallas, Texas	500
	WMFF 1310 2	50	WORK 1320 1000		WRUF 830	5000
	***************************************	00	York, Pa. WORL 920 500		Gainesville, Fla. WRVA 1110	5000
	Hibbing, Minn. WMFJ 1420 1	00	Needham, Mass. WOS 630 500		Richmond, Va. WSAI 1330	1000
	Daytona Beach, Fla.	·	Jefferson City, Mo.		Cincinnati, Ohio	
	WMFN 1210 1 Clarksdale, Miss.	00	WOSU 570 750 Columbus, Ohio		WSAJ 1310 Grove City, Pa.	100
1	WMFO 1370 1 Decatur, Ala.	00	WOV 1130 1000 New York, N. Y.		WSAN 1440 Allentown, Pa.	500
	WMFR 1200 1	00	WOW 590 5000		WSAR 1350	1000
ļ	High Point, N. C. WMIN 1370 1	00	Omaha, Neb. WOWO 1160 10000		Fall River, Mass. WSAY 1210	100
-	St. Paul, Minn. WMMN 890 5	00	Fort Wayne, Ind. WPAD 1420 100		Rochester, N. Y.	
	Fairmount, W. Va.		Paducah, Ky.		Huntington, W. Va	
	WMPC 1200 1 Lapeer, Mich.	00	WPAR 1420 100 Parkersburg, W. Va.		WSB 740 Atlanta, Ga.	50000
		00	WPAX 1210 250 Thomasville, Ga.		WSBC 1210 Chicago, Ill.	100
	WMT 600 10	00	WPAY 1370 100		WSBT 1360	500
	Cedar Rapids, Iowa WNAC 1230 10	00	Portsmouth, Ohio WPEN 920 250	\vdash	South Bend, Ind. WSFA 1410	500
	Boston, Mass.	。 	Philadelphia, Pa. WPFB 1370 100		Montgomery, Ala. WSGN 1310	100
	Norman, Okla.	·	Hattiesburg, Miss.		Birmingham, Ala.	100

	WSIX 1210 100 Springfield, Tenn.	WWAE 1200 Hammond, Ind.	100	XEFE 1340 250 Laredo, Tams.
G.	WSJS 1310 100 Winston-Salem, N. C.	WWJ 920 Detroit, Mich.	1000	XEFI 1440 250
-	WSM 650 50000	WWL 850	10000	Chihuahua, Chih. XEFJ 1230 100
	Nashville, Tenn. WSMB 1320 500	New Orleans, La.		Monterrey, N. L.
	New Orleans, La.	Asheville, N. C.	1000	XEFL 1150 250 Tijuana, L. C.
	WSMK 1380 200 Dayton, Ohlo	WWRL 1500 Woodside, N. Y.	100	XEFO 940 5000 Mexico City, D. F.
	WSOC 1210 100 Charlotte, N. C.	WWSW 1500	100	XEFV 1210 100
	WSPA 920 1000	Pittsburgh, Pa. WWVA 1160	5000	Jaurez, Chih. XEFW 1310 250
	Spartanburg, S. C. WSPD 1340 1000	Wheeling, W. Va.	1000	Tampico, Tams.
	Toledo, Ohio WSPR 1140 500	Detroit, Mich.		Mexico City, D. F.
	Springfield, Mass.	W1XBS 1530 Waterbury, Conn	. 1000	XEG 1270 200 Ensenada, B. C.
	WSUI 880 500 Iowa City, Iowa	W2XR 1550 Long Island City,	1000 N Y	XEH 1150 250 Monterrey, N. L.
	WSUN 620 1000	W6XAI 1550	1000	XEI 1370 125
	St. Petersburg, Fla. WSVA 550 500	Bakersfield, Calif.	1000	Morelia, Mich. XEJ 1020 1000
_	Harrisonburg, Va. WSVS 1370 50	Kansas City, Mo.		Juarez, Chih.
	Buffalo, N. Y.	XEA 1060 Guadaiajara, Jal.	500	XEK 990 100 Mexico City, D. F.
	WSYB 1500 100 Rutland, Vt.	XEAA 920 Mexicali, B, C.	200	XEKL 1240 500 Leon, Guan.
	WSYR 570 250 Syracuse, N. Y.	XEAC 1240	250	XEL 1100 250
	WTAD 900 500	Tijuana, L. C. XEAF 990	500	Mexico City, D. F. XELA 1240 50
,	Quincy, Ill. WTAG 580 500	Nogales, Son. XEAG 1310	10	Saitilio, Coah.
	Worcester, Mass.	Cordoba, Ver.	10	XELO 1110 10000 Piedras Negras, Coah.
	WTAL 1310 100 Tallahassee, Fla.	Mexico City, D. F	100	XEME 1240 15 Merida, Yuc.
	WTAM 1070 50000 Cleveland, Ohio	XEAM 750	7.5	XEMO 860 5000
	WTAQ 1330 1000	Matamoros, Tams	250	Tijuana, L. C. XEMX 1280 12
	Green Bay, Wis. WTAR 780 500	Mexicali, B. C. XEAQ 1090	1000	Mexico City, D. F. XEMZ 820
-	Norfolk, Va. WTAW 1120 500	Rosarito, L. C.		Coronado Isl., L. C.
	College Station, Tex.	XEAS 1160 Saltillo, Coah.	100	XEN 710 1000 Mexico City, D. F.
	WTAX 1210 100 Springfield, Ill.	XEAT 1210 Hidalgo, Chih.	50	XENT 910 150000 Nuevo Laredo, Tams.
	WTBO 800 250	XEAW 960	50000	XEOK 760 250
	Cumberland, Md. WTCN 1250 1000	Reynosa, Tams.	7	Tijuana, L. C. XEOX 640 500
-	Minneapolis, Minn. WTEL 1310 100	Guanajuato, Gto.		Saltillo, Coah.
	Philadelphia, Pa.	XEB 1030 Mexico City, D. F	10000	XEPN 590 50000 Piedras Negras, Coah.
	WTF1 1450 500 Athens, Ga.	XEBH 930 Hermosillo, Sonora	500	Villa Acuna, Coah.
	WTHT 1200 100 Hartford, Conn.	XEBK 1000	100	XES 990 250
	WTIC 1040 50000	Nuevo Laredo, Ta XEC 1160	ins.	Tampico, Tams. XESL 1160
-	Hartford, Conn. WTJS 1310 100	Tijuana, L. C. XECW 1310	10	Tijuana, L. C. XET 690 500
	Jackson, Tenn.	Mexico City, D. F	. **	Monterrey, N. I.
	WTMJ 620 1000 Milwaukee, Wis.	XED 1155 Guadalajara, Jal.	2500	XETB 1310 125 Torreon, Coah.
	WTMV 1500 100 East St. Louis, Ill.	XEE 1210	50	XETF 1220 12 Veracruz, Ver.
-	WTNJ 1280 500	Durango, Dgo. XEF 980	100	XETH 1210 100
	Trenton, N. J. WTOC 1260 1000	Juarez, Chih. XEFA 1180	500	Puebla, Pue. XEU 1010 250
	Savannah, Ga.	Mexico City, D. F.		Veracruz, Ver.
	Elkhart, Ind.	XEFB 1420 Monterrey, N. L.	100	Mexico City, D. F.
	WVFW 1400 500 Brooklyn, N. Y.	XEFC 560 Merida, Yuc.	100	(Continued on Page 112)

Eastern Time P. M.	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00 15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:18	17:30	17:45	18:00	18:15	18:30 18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45 22:00	22:15	22:30	22:45	23:00	23:15	
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W8XAL, Cincin'ti., 6.060																ĺ				Ш							-	-	-					_	_		-	-						
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YV3RC, Caracas, 6.165	_	_	_	_	_	_	_	_	_		_	_	_	-		-	_	_																				_	-	-		-		1
YV4RC, Caracas, 6.375	_	_		_	_			_	_		_			-			_	_																										
YV5RMO, Marc'bo, 5.850	_	_	_	_	_	_		_	_	_	_	_	_														Weekdays	kda	ys							_		_	-	-	-	_	-	
YV6RV, Valencia, 6.520		_			_		_	_	-	-	-	-	-	-		-	_															Ì						_	-	-	-	-	-	
YV10RSC, S. Crsbl, 5.720			_	_'		_	_!	_		_	_	-1		-	-							_	_		-	-	-	-	-				_	_								-	-	ı
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Pontoise, 11.880	-	į			ĺ																		-		-																			

Hints on Tuning the Short Waves

It has been noted that shortwave reception follows certain definite trends. Stations between 5 and 7 megacycles favor darkness between the transmitter and the receiver. Transmitters working between about 8 and 10 megacycles are best when the station is in a night-time area and the receiver in daylight, so tuners should try for Europeans in this band in the early evening and for Australians completely in daylight. near dawn. Below 10 megacycles the difficulty in tuning increases; here the path of the transmission should be as nearly as possible

Europeans are good all night. In the early morning tune for Australia and Asia between 6 and 10 megs. During the daytime tune for Europe, Africa and South America below 10 megacycles. At night tune for South America between 5 and 10 megs. Europeans are good in the early evening and some of the higher powered

17:30 17:45 18:00 18:15 18:30 18:45 19:00 19:15 19:30 19:45 20:00 20:15 20:30 20:45 21:00 20:45 21:00 20:15 21:00 20:45 21:00 20:45 21:00 20:15 21:00 20:45 20:4

COCCI, Havana, 6,000	Eastern Time 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
5 Saturday	COCD, Havana, 6.130 COCH, Havana, 9.428
5 Saurday	COCO, Havana, 6.010
5 Saurday	CRCX, Toronto, 6.090
Saturday	CTIAA, Lisbon, 9.650
Saturday	DJA, Berlin, 9.560
Saturday	DJD, Berlin, 6.020
Saturday	DJN, Berlin, 9.540
	EAQ, Madrid, 9.862
	HAT4, Budapest, 9.125
500	GSA, Daventry, 6.050
	GSB, Daventry, 9.510
500	GSD. Daventry, 9.580 GSD. Daventry, 11.750
	GSF, Daventry, 15.140
500	GSI, Daventry, 15.260
	GSL, Daventry, 6.110
	HBL, Geneva, 9.595
	HBP, Geneva, 7.797
	HCJB, Quito, 8.900
	HC2ET, Guyaquil, 4.600
THIJIIO, 5.980 THIJIIO, 6.315 B, Bar'q'lls, 6.447 D, Car'gens, 7.280	HIH San Pedro, 6.814
rujillo, 6.315	HIX, Trujillo, 5.980
B, Bar'q'lls, 6.447 D, Car'gens, 7.280	HIZ, Trujillo, 6.315
D, Car gena, 1.250	HJIABB, Bar'q'lla, 6.447
TIAUT COTTONO K	HJIABU, Car gena, 1.200

VED Sing 19 075	PCJ, Hilversum, 15.220 PCJ, Hilversum, 15.220 RNE, Moscow, 12.000 RV15, Khabarovsk, 4.273 VK2ME, Sydney, 9.585 VK2ME, Sydney, 9.585 VK3LR, Meib'rne, 9.580 VK3LR, Meib'rne, 9.580	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B
Monday, Tuesday, Wednesday, Thursday	Tuesday	2 03:4 04:0 04:1 04:3 05:4 05:0 05:1 06:0 06:0 06:0 06:1 07:1 07:1 07:1	55 00 55 00 55 00 55 00 55 00 55 00 55 00 55 00 55 00 00
Sunday	Wednesday, Sunday	08:0 08:1 08:3 08:3 09:3 09:3 09:3 09:4 10:0 11:1 11:3	5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0

Central Time P. M.	Central Time P. M.	Central Time P. M.	Central Time A. M.
11:00	11:00	11:00	23:00
11:15	11:15	11:15	23:15
11:30	11:30	11:30	23:30
11:45	11:45	11:45	23:45
12:00	12:00	12:00	00:00
12:15	12:15	12:15	00:15
12:30	12:30	12:30	00:30
12:45	12:45	12:45	00:45
13:00	13:00	13:00	01:00
13:15	13:15	13:15	01:15
13:30	13:30	13:30	01:30
13:45	13:45	13:45	01:45
14:00	14:00	14:00	02:00
14:15	14:15	14:15	02:15
14:30	14:30	14:30	02:30
14:45	14:45	14:45	02:45
15:00	15:00	15:00	03:00
15:30	15:30	15:15	03:15
15:45	15:45	15:45	03:30
16:00	16:00	16:00	04:00
16:15	16:15	16:15	04:15
16:30	16:30	16:30	04:30
16:45	16:45	16:45	04:45
17:00	17:00	17:00	05:00
17:15	17:15	17:15	05:15
17:30	17:30	17:30	05:30
17:45	17:45	17:45	05:45
18:00	18:00	18:00	06:00
18:15	18:15	18:15	06:15
18:30	18:30	18:30	06:30
18:45	18:45	18:45	06:45
19:00	19:00	19:00	07:00
19:15	19:15	19:15	07:15
19:30	19:30	19:30	07:30
19:45	19:45	19:45	07:45
20:00	20:00	20:00	08:00
20:15	20:15	20:15	08:15
20:30	20:30	20:30	08:30
20:45	20:45	20:45	08:45
21:00	21:00	21:00	09:00
21:15	21:15	21:15	09:15
21:30	21:30	21:30	09:30
21:45	21:45	21:45	09:45
22:00 22:15	22:00	22:00	10:00
22:15	22:15	22:15	10:15
22:45	22:45	22:45	10:30

The time is given by the 24-hour clock. Noon is always 12:00 but midnight may be either 00:00 or 24:00. To change time to your own clock, subtract twelve from p.m. bours. Thus, 18:00 is 6 p.m. and 23:00 is 11:00 p.m. The time lines used in charts are for Eastern Standard. Those living in other zones may clip out the lines below and paste them over the EST lines. The following strips are for Central Standard Time. For MST, start with 10:00 and 22:00. For PST with 09:00 and 21:00. SHORTWAVE

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, ,	San Luis Potosi, S.L.P.	Managua, Nicaragua
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THE RADEX Radio Map of the World, eleven by twenty-two inches in size, portrays the countries and principal cities of the world and shows their time zones. On the front cover is a dial marked with the hours of the day. You simply turn this dial to the hour in your zone and instantly the corresponding times for the whole world are shown. The hours where twilight, darkness and dawn occur are graphically shown. The dial also indicates where the time is yesterday, today or tomorrow. Thus if you set the dial for 3:00 a. m. in the Eastern Standard zone, the time is shown in Hawaii as 9:30 p. m. YESTERDAY. If set for 9:00 a. m. EST, the time in New Zealand is shown as 1:30 a. m. TOMORROW.

If you desire to hear a program in Germany which occurs at 6:00 a. m. their time, the dial shows that you must listen at midnight, EST. There are no mental calculations to make—no adding

nor subtracting-the dial does it all.

The price of the Map of the World with Time-Converting Dial is only 25 cents postpaid.

IT IS so easy to forget to tune in a favorite program that we have prepared what we call the RADEX Radio "Slate." It consists of four pages of heavy Bristol board on which pencil entries may easily be made and erased. The eight columns are ruled into fifteen-minute periods with space for the program, the station and the dial number. All of the evening hours and those of Sunday afternoon are provided for. You merely enter the names of the programs you wish to hear, the station over which you receive it best and the dial number. The "Slate" then reminds you in the most convenient way possible, when and where to tune for the programs you do not want to miss.

Price, 10 cents each, two for 15 cents or four for 25 cents.

THE RADEX PRESS INC.

CONNEAUT, OHIO



Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against me. But I am surely making good money now. Maybe my story will show you the way to larger earnings also.

I THOUGHT RADIO WAS A PLAYTHING

But Now My Eyes Are Opened, and I'm Making Over \$40.00 a Week!

\$40 a week! Man alive, a year ago I thought anyone making so much was just plain lucky.

Twelve months ago I was just barely getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that twelve months later I would be making \$40 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of my story—let me tell you how it all started. I was hard up a year ago because I had been kidding myself—that's all—not because I had to be. I thought a fellow either had to be lucky or have a string of college degrees to make good money.

JOne day I picked up a magazine and an ad attracted me because it seemed to fit my case. It said 'I will show you how to start a spare time or full time Radio service business of your own WITHOUT CAPITAL.'

"They're trying to kid somebody," I thought, "but I'll find out what it's all about."

I wrote in and within a few days received a 64-page book telling about the opportunities in Radio, how I could prepare right at home in my spare time, and how they would show me how to start making money in my neighborhood selling and repairing Radio sets. It would have sounded too good to be true if the promises had not been backed up by nearly 100 letters from fellows who had taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream. I started to take their course and soon I was ready to start making money in my neighborhood—as much as \$5 and \$15 a week. It wasn't long until I had saved enough money to start a little business of my own.

That business has since grown to the point where I am clearing an average of \$40 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train me for other lines. Broadcasting Stations, Radio Manufacturers, Operating on Board Ship, Servicing Sets, Aviation Radio, Television, Short Wave, Automobile and Police Radio, Loud Speaker Systems are other fields their training covers. And to think, until the day I wrote for that book. I'd heen wailing, "I never had a chance and will never have one because I have no pull or a good education!"

Friend-you may not be as bad off as I was-

but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

Take my tip—write for their book, "Rich Rewards in Radio." It won't cost you anything except a postage stamp. It shows you a lot of things which I don't believe you know now about Radio—a lot of facts and figures on the opportunities in this new, fast-growing field. Where the jobs are, what they pay, how to get ready for them. Beginners as well as experienced men are making as much as \$500 to \$1,500 a year more as a result of N.R.I. training. And at the same time they send the book "Rich Rewards in Radio" they'll send you, without any cost or obligation, a Free Lesson to prove that their training is easy, practical, fascinating. The lesson they send "Radio Receiving Troubles—the Cause and Remedy" is valuable. And when you see how simple this lesson is to understand you'll know why many fellows with less than a grammar school education have mastered N.R.I. training and are now making good money as Radio Experts.

You are not placing yourself under any obligation by writing for this material as they will gladly send it to anyone who is ambitious and wants to get ahead. Mail the coupon in an envelope or paste it on a Ic postcard. Just address Mr. J. E. Smith, President, National Radio Institute. Dept. 6FO, Washington, D. C.

Dept. 6FO Dear Mr.		gton, D.	C.	
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THE MAY 1929

RADEX INDEX

The Non-Technical Radio Magazine



The Lucky "Mike"

RADEX shows the frequency to which set is tuned as dials are turned, gives exact location of dials for any station in America and identifies programs received without announcement. For any dial and any set.

"WHAT'S ON THE AIR TONIGHT"