

OFFICIAL SHORTWAVE LOG AND CALL BOOK

SPONSORED
BY



PUBLISHED BY
THE PUBLISHERS OF



Win the Denton Trophy with an ACRATONE

10 TUBE

ALL WAVE SUPERHETERODYNE

15 TO 550 METERS



CLIFFORD E. DENTON



THE DENTON TROPHY

FEATURING

- Automatic Wave Change Dial
- Class "A" Prime Audio
(Delivering over 10 watts)
- Automatic Volume Control
- Tuning Meter
- Tone Control
- Twin Large Dynamic Speakers
- Antenna Adjuster
- New Tubes
- Size: 21 x 10 x 11"
- Completely Shielded



Model 33-A

\$42.50

COMPLETE
WITH RAYTHEON 4 PILLAR TUBES

This new Acratone is by far the most powerful receiver to date. Not only is it a fine performing broadcast receiver—but a turn of the wave change switch brings in hundreds of foreign short wave stations. The Automatic Wave change dial is the simplest arrangement possible for band changing. Each band on the dial is accurately calibrated in kilocycles facilitating the location of short wave or broadcast stations. The dial is also marked off with the locations of the various European, American, Aircraft, Amateur and Police Bands. The audio end of any receiver is the deciding factor as far as tonal quality is concerned. The first audio stage uses two 56 tubes in push pull feeding a pair of 45 tubes in push pull Class "A" Prime. This tremendous power output is easily handled by the two powerful large dynamic speakers.



THE ACRATONE DISCOVERER

Model 20-A

A 5-tube A.C. operated short wave receiver

The Discoverer is a 5-tube T.R.F. receiver having one stage of T.R.F. using a 58 tube, two stages of audio, the first using a 56 tube and the second a 59 power output pentode and a rectifier stage using a 280 tube. The receiver is equipped with a self-contained power supply for 110 to 125 volts A.C. 50 to 60 cycles. A phone Jack is provided for those who prefer phones. Provisions are made for the noiseless doublet type antenna. A set of eight space wound coils are used, four for the R.F. stage and four for the detector. These coils cover from 15 to 200 meters.

The Set Complete, wired and tested, with tubes and speaker—nothing else to buy

\$37.50

THE DISCOVERER KIT

Complete with Cabinet, parts, full-vision dial, a set of 8 coils (5 to 200 meters), power supply and instructions.

\$25.95

8 1/2" dynamic speaker for above with cord and plug, Cat. No. 728.

\$2.80

Set of 5 Raytheon 4 pillar tubes (2-58, 1-56, 1-59, 1-8).

\$3.75

THE ACRATONE 2 TUBE SHORT WAVE RECEIVERS

These receivers are extremely powerful and sensitive sets especially designed for long distance reception. They will operate either a speaker or phones on the majority of the far distant stations. Reports from users tell of reception up to 10,000 miles. The size or number of tubes in your set will not handicap you in the Denton Trophy Contest but certainly an inefficient set will. Be sure—use an Acratone!



THE ARGONAUT KIT Model 15A

Uses 3 type 230 tubes. The first as a regenerative detector and the second as an audio tube. This receiver only requires two 1 1/2 volt dry cells and a single 45 volt "B" battery.

Kit less coils and tubes..... **\$5.65**
Set of batteries for above..... **1.28**
Set of four coils, 15 to 200 meters..... **1.29**
2 Raytheon 4 pillar tubes, 230..... **1.37**

THE AIR ROVER KIT Model 10A

Similar to above but especially sensitive. Uses 1-232 and 1-233 tubes.

Kit less coils and tubes..... **\$5.95**
Set of four coils, 15 to 200 meters..... **1.29**
Set of batteries..... **2.16**
Set of Raytheon 4 pillar tubes (1-232, 1-233)..... **2.12**

THE VOYAGER KIT Model 45A

Similar to above but A.C. operated. Uses 1-87 detector and 1-59 power pentode.

Kit less coils and tubes..... **\$5.95**
Set of four coils, 15 to 200 meters..... **1.29**
A.C. Power supply Cat. No. 739 (uses 280 tube)..... **4.95**
Set of Raytheon 4 pillar tubes (1-87, 1-59, 1-280)..... **2.52**

NOTE: Add \$3.00 for any of the above receivers if desired wired and tested.

For information regarding The Denton Trophy Contest, write to The Clifford E. Denton Trophy Committee, 23 Park Place, New York City.

NEW YORK CITY
25 Park Place

Federated Purchaser Inc.

CHICAGO ILL.
1331 S. Michigan Ave.

ATLANTA, GA.
631 Spring St. N. W.

PHILADELPHIA, PA.
2909 N. Broad St.

JAMAICA, L. I., N. Y.
92-26 Merrick Rd.

BRONX, N. Y.
534 E. Fordham Rd.

NEWARK, N. J.
273 Central Ave.

PITTSBURGH, PA.
343 Blvd. of the Allies

Official Short Wave LOG and CALL BOOK

(Registered U. S. Patent Office)

VOL. I

AUGUST, 1933

NO. 1

HUGO GERNSBACK

Editor

Table of Contents

Introduction	2
International Call Letter Assignments	3
Around-the-Clock Listening Guide	3
A Word About Short-Wave Schedules	3
Grand Short-Wave Station List, all countries of the World	4 to 30
Kilocycle-Meter Conversion	30
Best Short-Wave Stations	31 to 35
Television Stations	35
Police Radio Alarm Stations	36
Airport Radio Stations	37
Air Line Distances Over the Surface of the Earth	38, 39
Standard Time Zones of the United States	40
Standard Time Zones of the World	41
International Morse Code and Conventional Signals	42
List of Radio Abbreviations—Q Signals	42
Log Sheets	43 to 46
Calibration Curve Sheets	47, 48

Published

AUGUST, NOVEMBER,
FEBRUARY and MAY

Popular Book
Corporation

Publication Office
404 North Wesley Avenue
Mount Morris, Illinois

Editorial and General Office
96-98 Park Place
New York, N. Y.

HUGO GERNSBACK..... President
H. W. SECOR..... Vice-President
EMIL GROSSMAN..... Director of Advertising
Chicago Adv. Office.
..... L. F. McCLURE, 919 No. Michigan Blvd.
London Agent: HACHETTE & CIE, 16-17 King Wil-
liam St., Charing Cross, W.C.2
Paris Agent: HACHETTE & CIE, 111 Rue Reaumur
Australian Agents: MCGILL'S AGENCY, 179 Elizabeth
St., Melbourne

OFFICIAL SHORT WAVE LOG & CALL BOOK—
Quarterly. Application for second class matter at the
post office at Mount Morris, Illinois, under the act of
March 3, 1879, pending. Trademarks and copyrights by
permission of H. Gernsback, 98 Park Place, N. Y. C.
Text and illustrations of this magazine are copyrighted
and must not be reproduced without permission. OFFI-
CIAL SHORT WAVE LOG & CALL BOOK is pub-
lished every 3 months. Four numbers per year. Sub-
scription price is \$1 a year in the United States and
possession; Canada and foreign countries, \$1.25 a year.
Single copies 25c. Address all contributions for publica-
tion to Editor, OFFICIAL SHORT WAVE LOG &
CALL BOOK, 96-98 Park Place, New York, N. Y.
Publishers are not responsible for lost manuscripts.
Contributions cannot be returned unless authors remit
full postage. OFFICIAL SHORT WAVE LOG & CALL
BOOK is for sale at all principal newsstands in the
United States and Canada. European agents: Brentano's,
London and Paris. Printed in U. S. A. Make all sub-
scription checks payable to Popular Book Corporation.

COPYRIGHT, 1933
BY H. GERNSBACK

Introduction

UP TO the present, there has been no complete short-wave log and call book, although for several years past there was a crying demand for an authoritative volume of this kind.

It should be realized that there are, now, over 8,500 short-wave stations in the world, not counting amateurs.

With new calls being added almost daily, it is manifestly impossible to list this great host of stations in any magazine; and that is the reason why the OFFICIAL SHORT WAVE LOG AND CALL BOOK has been created. The vagaries of short waves are such that it is quite impossible to foretell where and when you will be listening to a short-wave station thousands of miles away. Naturally, you are interested to know where the call originated; and, if you do not know the details—which is apt to happen most of the time—the present book supplies this want.

The book has been arranged in such a manner that all the calls heard can be logged in their proper places and, after a while, you will be the proud possessor of a short-wave log to which you can refer at all times for information.

Please note that this book is issued under the auspices of the SHORT WAVE LEAGUE, a membership association, the purpose of which is to further the art of short waves. While the publishers have tried to make the book as complete as possible, it is in the nature of the thing that there may be omissions here or there; and that errors have crept in. But the errors are not of our own making, since very frequently stations not only change calls but also change frequencies (wavelengths) as well. We would appreciate hearing from all listeners who have heard from stations which are either incorrectly listed now or omitted; in order that corrections may be made in subsequent issues of the SHORT WAVE LOG AND CALL BOOK.

This magazine will be issued as a quarterly. The present issue is the Summer number; the next, which will appear in September, will be the Fall issue.

We hope that listeners who make use of this new Call Book will let us have their comments on this new work. We naturally wish to receive all the criticisms we possibly can, to guide us in making the Call Book an institution in time to come.

If you wish to see other information published in the Call Book, please do not hesitate to make your wishes known to us.

Cordially,

THE PUBLISHERS.

International Call Letter Assignments

We are constantly receiving requests from listeners to identify short wave stations. As there are actually thousands of short-wave telegraph transmitters on the air, this is quite a job. We are publishing herewith a list showing the dis-

tribution of call signals among nations of the world. This was adopted by the International Radiotelegraph Convention held in Washington, D. C., during 1927 and has been ratified by most of the civilized countries of the world.

Call Signal	Country	Call Signal	Country	Call Signal	Country
CAA-CEZ	Chile.	OAA-OBZ	Peru.	VOA-VOZ	Newfoundland.
CFA-CKZ	Canada.	OCA-OCZ		VPA-VSZ	British colonies and protectorates.
CLA-CMZ	Cuba.	OFA-OGZ	Finland.	VTA-VWZ	British India.
CNA-CNZ	Morocco.	OHA-OHZ		W	United States of America.
CPA-CPZ	Bolivia	OKA-OKZ	Czechoslovakia.	XAA-XFZ	Mexico.
CQA-CQZ	Portuguese colonies.	ONA-OTZ	Belgium and colonies.	XGA-XUZ	China.
CRA-CRZ		Portugal.	OUA-OZZ	Denmark.	YAA-YAZ	Afghanistan.
CSA-CUZ	Roumania.	PAA-PIZ	Netherlands.	YHA-YHZ	New Hebrides.
CVA-CVZ	Uruguay.	PJA-PJZ	Curacao.	YIA-YIZ	Iraq.
CWA-CXZ	Monaco.	PKA-POZ	Dutch East Indies.	YLA-YLZ	Latvia.
CZA-CZZ	Germany.	PPA-PYZ	Brazil.	YMA-YMZ	Free City of Danzig.
D	Spain	PZA-PZZ	Surinam (Dutch Guiana).	YNA-YNZ	Nicaragua.
EAA-EHZ	Irish Free State.	Q	(Abbreviations.)	YSA-YSZ	Republic of El Salvador.
EIA-EIZ	Liberia.	RAA-RQZ	Union of Soviet Socialist Republics (U. S. S. R.)	YVA-YVZ	Venezuela.
ELA-ELZ	Estonia.	RVA-RVZ	Persia.	ZAA-ZAZ	Albania.
ESA-ESZ	Ethiopia.	RXA-RXZ	Republic of Panama.	ZBA-ZHZ	British colonies and protectorates.
ETA-ETZ	France and colonies and protectorates.	RYA-RYZ	Lithuania.	ZKA-AMZ	New Zealand.
F	Great Britain.	SAA-SMZ	Sweden.	ZPA-ZPZ	Paraguay.
G	Hungary.	SPA-SRZ	Poland.	ZSA-ZUZ	Union of South Africa.
HAA-HAZ	Switzerland.	STA-STZ	Egypt.		
HBA-HBZ	Ecuador.	SUA-SUZ		Greece.	
HCA-HCZ	Haiti.	SVA-SZZ	Turkey.		
HHA-HHZ	Dominican Republic.	TAA-TCZ	Iceland.		
HIA-HIZ	Colombia.	TFA-TFZ	Guatemala.		
HJA-HKZ	Honduras.	TGA-TGZ	Costa Rica.		
HRA-HRZ	Siam.	TIA-TIZ	Territory of the Saar.		
HSA-HSZ	Vatican City.	TSA-TSZ	Hedjaz.		
HVA-HVZ	Italy and colonies.	UHA-UHZ	Dutch East Indies.		
I	Japan.	UIA-UKZ	Luxemburg.		
J	United States of America.	ULA-ULZ	Kingdom of Serbs, Croats and Slovenes (Yugoslavia).		
K	Norway.	UNA-UNZ	Austria.		
LAA-LNZ	Argentina.	UOA-UOZ	Canada.		
LOA-LVZ	Bulgaria.	UWA-UZZ		Australia.	
LZA-LZZ	Great Britain.	VAA-VGZ			
M	United States of America.	VHA-VMZ			
N					

Provisionally.

The call signals assigned to the United States are all 3, 4, and 5 letter combinations, beginning with the letters K, N, and W. Call signals of three letters allocated to the United States are reserved for stations open to International public and limited commercial service. All 5-letter combinations are allocated for assignment to aircraft stations.

During the World War, the groups of three letters beginning with K, N, and W were exhausted, and it was necessary to assign groups of four letters beginning with K, N, and W.

Around-the-Clock Listening Guide

Although short-wave reception is notorious for its irregularity and seeming inconsistency (wherein lies its greatest appeal to the sporting listener), it is a good idea to follow a general schedule as far as wavelength in relation to the time of the day is concerned. The observance of a few simple rules will save the short-wave fan a lot of otherwise wasted time.

From daybreak to mid-afternoon, and partic-

ularly during bright daylight, listen between 13 and 22 meters (21540 to 13000 kc.).

To the east of the listener, from about noon to 10:00 p. m., the 20-35 meter will be found very productive. To the west of the listener this same band is best from about midnight until shortly after daybreak. After dark, results above 35 meters are usually much better than during daylight. These general rules hold good whether you live in the United States or in China.

A Word About Short-Wave Schedules

The list of star short-wave broadcasting and telephone stations printed in this book is compiled from many sources, which are not always in agreement. In fact, conflicting data are sometimes received from the stations themselves. The majority of short wave stations using voice transmission are experimental in nature, and are likely to change their operating schedules without notice even after issuing printed programs. For instance, the officials of the great National Broadcasting Company refuse to commit themselves to any definite schedules for some of their best and most widely heard stations. "When you hear them, they're on the air; if you don't hear them, they're not on the air" is the actual comment

made by a high N. B. C. official.

Frequencies are also subject to considerable change. The fact that a station is listed for one frequency does not mean that it does not use others. Many stations are licensed to use as many as a dozen different waves, and are likely to pick any one of them for experimental transmissions.

In writing to foreign stations for verifications, do not fail to enclose an international reply coupon, obtainable at most post offices. If your local office doesn't carry these coupons, ask the postmaster to get some. They cost nine cents each and will invariably elicit some sort of a reply. Write your name and address clearly.

Table with columns: Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters). The table lists various radio stations and their frequencies across multiple columns.

Table with columns: Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters). Contains a comprehensive list of radio stations and their frequencies.

SHORT WAVE LOG AND CALL BOOK, SUMMER, 1933

Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)
NVMVC	Aircraft on U.S.S. Raleigh				96.61, 96.15, 54.35,	WEER	Aero Radio Co., Richmond, Va.	97.71, 97.5, 52.72
NVMVP	Aircraft on U.S.S. Utah				54.1, 48.31, 47.47,	WEES	Cipango	
NVMVW	Aircraft on U.S.S. Sangley				47.17, 36.23, 35.5,	WEET	Melodie	54.3
NVMWB	Aircraft on U.S.S. Milwaukee				27.17	WEEW	Aero Radio, Inc., Carlstadt, N. J.	39.34, 39.27, 32.5, 31.98, 29.76
NVMXM	Aircraft on U.S.S. Medusa		WCCM	Dollar S.S., Pres. Johnson	54.3, 54, 45.52, 38.01, 27.15, 26.71, 18.09, 18.007, 13.67			
NZMCT	Aircraft on U.S.S. Trenton					WEEX	Aero Radio, Inc., Tinley Park, Ill.	39.34, 39.27, 32.5, 31.98, 29.76
NZMCF	U. S. Navy, ZMC 2		WCCN	Dollar S.S., Pres. Filmore				
NZMJJ	U. S. Navy, J 4		WCCR	Alaska S.S., Aleutian	54.3, 35.50, 28.71, 54, 27.15	WEYY	Excambian	54.3, 54, 38.01, 27.15, 18.094, 18.007
NZMJK	U. S. Navy, J 3					WEZY	Olympic	
NZMKT	U. S. Navy, Non-rigid Ship Kl		WCD	Texas Co., La., Miss. Tex	176.06			
NZRLA	U. S. Navy, Los Angeles		WCE	T. R. T. Co., Hingham, Mass	23.16			
NZRLC	Airship, Macon		WCEA	Boston Pilot	118.29	WEF	R. C. A., Rocky Point, N. Y.	31.31
WAA	R. C. A., Detroit, Mich	96.61, 96.15, 72.46, 62.83, 54.35, 48.31, 47.39, 38.23, 35.01, 27.17, 26.775	WCEB	Ingomar	54.3, 54, 53.43	WEQ	R. C. A., Rocky Point, N. Y.	40.45
			WCEC	Tatoosh	129.3, 117.2	WEI	Norfolk, Va	44.51
			WCEJ	Glenn Mayne Light	54.3, 54, 38.19, 38.01	WEJ	R. C. A., Rocky Point, N. Y.	44.51
			WCEK	Gloria Dalton	129.3	WEK	D. of C., Wichita, Kans	89.6, 89, 50.51, 50.34
			WCEL	Fish Hawk	123.55	WEL	R. C. A., Rocky Point, N. Y.	33.32
			WCEM	San Salvador	54.3, 54, 38.19, 18.094, 18.007	WEM	R. C. A., Rocky Point, N. Y.	40.54
			WCEP	Ajax	38.19, 35.5, 27.15, 26.71, 22.06	WEN	A. C. A., New Brunswick, N.J.	40.50
			WCEQ	Bluefin	54.3, 54, 45.52, 38.01, 27.15, 27, 18.004	WEP	R. C. A., Rocky Point, N. Y.	43.11
			WCEJ	Europa	54.3, 54, 38.19, 35.5, 27.15, 27, 26.71	WER	R. C. A., Rocky Point, N. Y.	44.70
			WCEK	Reliance	54.3, 54, 38.19, 35.5, 27.15, 27, 26.71	WES	R. C. A., New Brunswick, N.J.	31.74
			WCEL	Ramath	129.3, 54.3, 54, 38.19, 18.007	WET	R. C. A., Rocky Point, N. Y.	31.87
			WCEM	Argosy	38.19, 38.01, 35.5, 27.15, 27, 26.71	WEV	R. C. A., New Brunswick, N.J.	43.21
			WCEN	Sararma	38.01, 35.5, 27.15, 27, 26.71, 18.094, 18.007	WEX	R. C. A., Rocky Point, N. Y.	22.30
			WCEO	Hussar	38.19, 38.01, 35.5, 27.15, 27, 26.71, 22.68, 18.094, 38.01	WEY	Fire Dept., Boston, Mass	192.55
			WCEP	Continental	96.61, 17.794	WEZ	R. C. A., Rocky Point, N. Y.	43.30
			WCEQ	Fortitude	54.3, 54, 45.52, 38.19, 35.5, 27.15, 27, 22.09, 18.094	WFC	Tropical Radio Co., New Orleans, La	44.22
			WCEJ	Export S.S.Co., Exeter	54.3, 54, 45.52, 38.19, 35.5, 27.15, 27, 22.09, 18.094	WFD	Tropical Radio Co., New Orleans, La	28.65
			WCEK	Fire Dept., New York, N. Y.	187.97	WFDI	Missouri	96.15, 71.09, 48.30, 48.23
			WCEL	Texas Co., La., Miss. Tex	176.06	WFE	Tropical Radio Co., New Orleans, La	23.13
			WCEM	Light Co., Hazlet, Pa	94	WFEA	Elma, Boy Scouts of Amer	96.4, 54.03, 54, 38.10, 27.45, 22.68
			WCEN	Police, Detroit, Mich	124.17	WFEF	Fishing Float	129.3
			WCEO	Cont. Oil, 3rd Radio Zone	176.06	WFEJ	Bals	127.7
			WCEP	R. C. A., Cleveland, Ohio	96.61, 96.15, 72.46, 62.83, 54.35, 48.31, 47.39, 38.23, 35.01, 27.17, 26.775	WFEK	Folly	127.7
			WCEQ	R. C. A., Rocky Point, N. Y.	31.95	WFEI	Panama	54.3, 54, 38.01, 27.15, 18.007
			WCEJ	R. C. A., Rocky Point, N. Y.	44.71	WFEJ	Sao Jose	38.18, 18.094, 18.007
			WCEK	R. C. A., Rocky Point, N. Y.	20.20	WFEK	Santa Margarita	38.19, 38.01, 35.5, 27.15, 27, 26.71, 22.68, 22.61
			WCEL	R. C. A., Rocky Point, N. Y.	33.95	WFEI	Saunona II	38.19, 38.01, 35.5, 27.15, 27, 26.71, 22.98, 22.61
			WCEM	Bowdin	109, 69.56, 34.78, 23.18	WFEJ	Sequoia	54.3, 54, 38.19, 38.01, 18.094, 18.007
			WCEN	Rujeta	38.19, 17.79	WFEK	Ruth L	54.3, 54, 53.42, 38.01
			WCEO	Caroline	38.19, 17.794	WFEI	Tappawing	127
			WCEP	Western Enterprise	129.3	WFEJ	Columbus	14
			WCEQ	Arcadian	129.3	WFEK	Mayflower	54.3, 38.19, 54.3, 18.007
			WCEJ	Trawler	54.3, 54, 45.52, 27.15, 27, 22.66	WFEI	Holiday	54.3, 54
			WCEK	Marie H	54.3, 54, 45.52, 27.15, 27, 22.66	WFEJ	Little Viking	54.3, 54
			WCEL	Richard S	129.3	WFEK	Mariposa, Lifeboat No. 1	54.3
			WCEM	William I. Muir	129.3	WFEI	Mariposa, Lifeboat No. 2	54.3
			WCEN	City of Baltimore, Md.	54.3, 13.501	WFEJ	T. R. T. Co., New Orleans, La.	44.264
			WCEO	Vefero	54.3	WFEK	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEP	Edouard Jeremie	54.3	WFEI	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEQ	E. P. No. 6	129.3	WFEJ	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEJ	Herbert Hoover	96.15, 71.94, 48.30, 48.23	WFEK	T. R. T. Co., New Orleans, La.	23.18
			WCEL	Asama	54.3, 17.79	WFEI	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEM	Camden		WFEJ	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEN	General call, all vessels of Dollar S.S.Co.		WFEK	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEO	R. C. A., Rocky Point, N. Y.	15.87	WFEI	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEP	R. C. A., Rocky Point, N. Y.	28.27	WFEJ	Geo. Exp. Co., 3rd Radio Zone	178.06
			WCEQ	R. C. A., Rocky Point, N. Y.	43.29	WFEK	D. of C., Spartanburg, S. C.	89.8, 89, 50.51, 50.63
			WCEJ	R. C. A., Rocky Point, N. Y.	33.37	WFEI	Tropical Radio Co., Mobile, Ala	44.22
			WCEL	R. C. A., Rocky Point, N. Y.	28.22	WFEJ	Tropical Radio Co., Mobile, Ala	28.05
			WCEM	Press Wireles, Hicksville, N. Y.	43.35	WFEK	Tropical Radio Co., Mobile, Ala	23.13
			WCEN	Aero Radio, Inc., Atlanta, Ga	126.1, 102.66, 101.83, 45.52, 45.45	WFEI	R. C. A., Rocky Point, N. Y.	15.806
			WCEO	Aero Radio Corp., Baltimore, Md.	126.1, 102.66, 101.83, 100.46, 72.64, 53.07, 45.52, 45.45	WFEJ	W. S. Co., 3rd Radio Zone	178.06
			WCEP	Aero Radio, Inc., Charleston, S. C.	97.71, 97.5, 72.04, 52.72, 47.46	WFEK	W. S. Co., 3rd Radio Zone	178.06
			WCEQ	Aero Radio Co., Spartanburg, S. C.	97.71, 97.52, 52.72	WFEI	Dollar Co., New York, N. Y.	40.38, 40.29, 31.83, 27.45, 20.19, 20.15, 15.94, 13.25
			WCEJ	Aero Radio Co., Greensboro, N. C.	97.71, 97.52, 52.72	WFEJ	Geo. Research, 3rd Radio Zone	
			WCEL	Aero Radio, Inc., McCra, Ga.	97.71, 97.5, 72.04, 52.72, 47.46	WFEK	Garden City, N. Y.	132.4, 53.57
			WCEM	Aero Radio, Inc., Jacksonville, Fla.	97.71, 47.5, 72.04, 52.72, 47.48	WFEI	Fishing Co., Ansonia	132.4, 53.57, 96.40
			WCEN	Aero Radio Co., Stelton, N. J.	97.71, 97.52, 52.72	WFEJ	Crosley Fisheries, Irene I, California	129.19, 109.56
			WCEO	Aero Radio, Inc., Orlando, Fla.	126.1, 102.66, 101.83, 100.46, 72.64, 53.07, 45.52, 45.45	WFEK	Emma R. S.	72.3, 38.45
			WCEP	Aero Radio, Inc., Atlantic City, N. J.	126.1, 102.66, 101.83, 100.46, 72.64, 53.07, 45.52, 45.45	WFEI	Southern Star	129.19
			WCEQ			WFEJ	Whitespray	129.8, 96.61, 96.3, 36.23, 36.01
			WCEJ			WFEK	U. S. Lines, Amer Importer	36.19, 35.5, 27.15, 27, 22.66
			WCEL			WFEI	Mariposa	54.39, 18.007
			WCEM			WFEJ	Wallele	129.2, 127.7, 127.01, 109.57
			WCEN			WFEK	Galaxy	118.20
			WCEO			WFEI	Gertrude S	109.58
			WCEP			WFEJ	Cascadian	194.8, 116.91, 109.56
			WCEQ			WFEK	Irene I	

Main table with 8 columns: Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters). Includes various radio stations like WGM, WGO, WCPA, etc. and their frequencies.

Table with columns: Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters). Contains multiple sections for different regions like EAA-EHZ SPAIN, ELA-ELZ LIBERIA, ESA-ESZ ESTONIA, and F-FRANCE.

Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)
LCPY	Kong Ring		LOL	Darsena Norte	34.52	OKA-OKZ CZECHOSLOVAKIA OHU Helsinki..... 44.15 OKH Praha..... 44.04, 22.63, 14.286 OKI Praha..... 33.67, 16.06 OKIMP Praha..... 58.3, 49.75 OKN Praha..... OKU Praha..... 40.85		
LCPW	S. C. Brovig	38, 27	LON	Buenos Aires	48.3			
LCQ	Jeloy	19.15	LOR	Buenos Aires	34.84			
LCR	Jeloy	15.07	LOW	Trélew	34.40			
LCSS	Jeloy	15.055	LP	Buenos Aires				
LCSS	Dalavangen	38.6, 33.7, 27.3, 26.3	LP1	Buenos Aires				
LCSS	Lancins	35.1, 33.7	LP2	Monte Grande				
LCT	Tyholt	50.3, 35.85	LP3	Monte Grande				
LCTE	Markland	35.1, 33.7	LP4	Monte Grande				
LCTF	Thor I	34, 27	LP5	Monte Grande				
LCTJ	Thorhammer	35.1, 33.7	LPD	General Pachico Radio	38			
LCTN	Maudie	35.1, 33.7, 27.3, 26.3	LPF	Formosa	44.05			
LCTX	Lindvanjen	38.6, 33.7, 27.3, 26.3	LPG	General Pacheco	36			
LCTY	Polarbank	35.1, 33.7	LPJ	Monte Grande	33.84			
LCUC	Nordanger	38.1, 26.8, 24, 18	LPH	Buenos Aires	27.27			
LCUG	Fanny Hoegh	35.1, 33.7	LPJ	Correntoso				
LCUH	Norwegia	35.1, 33.7, 27.3, 26.3	LPL	Buenos Aires	32			
LCUO	Nielson Alonso	35.1, 33.7	LPM	Bariloche				
LCUV	Orwell	38, 27	LPN	Laguna Blanca				
LCVB	Turicium	35.1, 33.7, 27.3, 26.3	LPO	Alto de Sierra				
LCWF	Roald Amundson	38, 27	LPR	Buenos Aires	56.02			
LCWK	Ronald	35.1, 33.7, 27.3, 26.3	LPS	Monte Grande				
LCXL	Dagfred	35.1, 33.7	LPX	Monte Grande	30.94			
LCXM	Vestfold	38, 24	LQB	Buenos Aires	19.10			
LCXQ	Su Jas Ross Clark	38, 27	LQC	Buenos Aires	17.043			
LCY	Jeloy	38, 12	LQD	Buenos Aires	15.463			
LCYZ	Stella Polaria	38, 24	LQE	Buenos Aires	27.8			
LCZ	Jeloy	38, 11	LQK	Buenos Aires	7.246			
LCZI	Brusen 10	110	LQL	Buenos Aires	7.309			
LDAA	Tennessee	38, 27	LQM	Buenos Aires	25.109			
LDAL	Thalatta	33.8	LQN	Buenos Aires	25.816			
LDAN	Theodore Roosevelt		LQO	Buenos Aires	14.045			
LDDE	Tyr		LRA	Orkney Is.	27			
LDDE	Koemos 2	38.8, 33.7, 27.3, 26.3	LRO	Buenos Aires	138.57			
LDDE	Solstrief	33.6	LS	Monte Grande	30.9			
LDDE	Ole Wegger	38, 27	LSA	Monte Grande				
LDDE	Dagrun	35.1, 33.7	LSB	Monte Grande				
LDDE	Sando	35.1, 33.7	LSC					
LDHN	Ankara	33.7	LSD	Monte Grande	33.97			
LDIB	Skytteren	35.1, 33.7	LSE	Monte Grande	14.62, 30.602			
LDIM	Taiyim	33.6	LSF	Monte Grande	15.30			
LDIN	Templar	38, 27	LSG	Buenos Aires	15.02			
LDIQ	Egero	35.1, 33.7	LSH	Monte Grande	14.5			
LDIY	Tai Ping	33.8	LSI	Monte Grande				
LDJP	Hudd 3	35.1, 33.7, 27.3, 26.3	LSJ	Monte Grande	20			
LDKS	Koemos	35.1, 33.7, 27.3, 26.3	LSK	Buenos Aires	82.45			
LDLI	Raavik	38, 27	LSL	Buenos Aires	37.969, 29.126			
LDLN	Storaas		LSM	Buenos Aires	29.13, 20.69, 15.67, 14.18, 14.10, 13.41			
LDMD	Solglint	38, 27	LSN	Buenos Aires	30.33, 24.61, 20.65, 18.97, 16.83, 15.27, 14.27			
LDMQ	Arna	35.1, 33.7	LSO	Buenos Aires	52.61			
LDNB	Tudor	38, 27	LSR	Buenos Aires	15.82			
LDNE	Bisca	38	LSB	Buenos Aires	22.14			
LDNV	South Africa	35.1, 33.7	LST	Buenos Aires	32.93			
LDNB	Thermopla	38, 27	LSU	Buenos Aires	28.71			
LDNI	Minister Wedel	35.1, 33.7	LSV	Buenos Aires	44.58, 26.71			
LDNK	Silva		LSW	Buenos Aires	30.48, 26.71			
LDNL	Skudd 5	35.1, 33.7	LSX	Monte Grande				
LDNP	Velma	35.1, 33.7	LSY	Monte Grande	14.49			
LDNQ	Thorshaon	35.1, 33.7, 27.3, 26.3	LSZ	Monte Grande	27.17			
LDNR	Thorsholm	35.1, 33.7, 27.3, 26.3	LVA	Guatemala City				
LDNS	Bouvet 1	35.1, 33.7	LVM	Buenos Aires	106, 52.35, 50			
LDNT	Nore	38, 27	LVR	Bahia Blanca	107.49, 51.90			
LDNQ	Norfold	38, 27	LVX	Buenos Aires	107.14, 51.54			
LDNQ	Novvinn	38, 27	LZA-LZZ BULGARIA LZA Sofia..... 20.4 LZZ Sofia..... 40.21					
LDNQ	Norbis	38, 27						
LDNQ	Vigdiz	38, 27						
LDNQ	Vestvangen	35.1, 33.7, 27.3, 26.3						
LDNR	Austvangen	38.6, 33.7, 27.3, 26.3						
LDNR	Troja	38, 27						
LDNR	Haia Rindsen							
LDNR	Havdert	60, 30						
LDNR	Norden	35.1, 33.7						
LDNR	Korsbik	27.3, 26.3						
LDNR	Fjordaa	35.1, 33.7						
LDNR	Vardaa	35.1, 33.7						
LDNR	Svend Poyn	38, 24						
LDNR	Pontos	38, 27						
LDNR	Fauske							
LDNR	Svend Poyn 2	35.1, 33.7, 27.3, 26.3						
LDNR	Vilchard	38, 27						
LDNR	Bergensfjord	38, 27						
LDNR	Stavangerfjord	38, 27						
LDNR	Bergar	35.71, 26.90, 18.10						
LDNR	Fauske	47.5, 30						
LDNR	Jeloy	45.8, 37.5, 26.9, 23.76						
LDNR	Bergen	30						
LDNR	Bergen	35.93, 27.15, 18.20						
LDNR	Svalbard	39, 32.5, 25.98						
LDNR	Suderoy	35.1, 33.7						
LDNR	Bergen	104, 43						
LDNR	Jan Mayen	38, 31						
LDNR	Oslo	104, 50.5						
LDNR	Toromo	42						

Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)
PRLN	Bahia	30.09	PRRO	Rio de Janeiro	65.94	PSABI	Guantabara	
PRLO	Bahia	25.8	PRRV	Boa Vista	38	PSACA	Ypiranga	15.78
PRLP	Bahia	23.31	PRRS	Salinas	54.545	PSACB	Marapicu	16.09
PRLQ	Bahia	148.5	PRSA	Porto Alegre	97.4	PSB	Marapicu	19.907
PRLR	Lages	44.71	PRSB	Bahia	97.41	PSB	Marapicu	20.06
PRLS	Lages	43.668	PRSC	Bahia	53.47	PSD	Marapicu	20.43
PRLT	Lages	25.168	PRSD	Bahia	33.73	PSF	Marapicu	27.881
PRLU	Lages	144.2	PRSE	Bahia	24.05	PSG	Marapicu	29.354
PRLV	S. Francisco	44.71	PRSF	Porto Alegre	53.47	PSH	Marapicu	29.64
PRLW	S. Francisco	43.2	PRSG	Porto Alegre	33.73	PSI	Marapicu	31.06
PRLX	S. Francisco	23.01	PRSH	Porto Alegre	24.05	PSJ	Marapicu	36.85
PRLY	S. Francisco	142.2	PRSL	Belem	97.41	PSK	Marapicu	37.807
PRM	Victoria	54.15	PRSM	Belem Para	53.47	PSM	Recife	61.68
PRMA	Rio de Janeiro	50.4	PRSN	Belem Para	33.73	PSX	Sepetiba	14.39
PRMB	Barbacena	50.2	PRSO	Belem Para	24.05	PSY	Sepetiba	43.59
PRMC	Carangola	50.2	PRSP	Rio de Janeiro	24.05	PSZ	Sepetiba	38.56
PRMD	Diamantina	50.2	PRSQ	Rio de Janeiro	33.73	PTA	Rio de Janeiro	75.57
PRME	Jamuarua	50.4	PRSR	Rio de Janeiro	97.41	PTAB	Obidos	69.12
PRMF	S. Sebastiao	50.4	PRSS	Rio de Janeiro	53.47	PTAC	Obidos Para	59.53
PRMG	Uberaba	50.335	PRST	Fortaleza	97.41	PTAD	Obidos Para	25.782
PRMH	Bello Horizonte	50.5	PRSU	Fortaleza	53.47	PTAF	Itajuba	69.05
PRMI	Pirapora	50.5	PRSV	Fortaleza	33.73	PTAG	Palicao (Rio)	68.97
PRMJ	Juiz do Fora	50.5	PRSW	Fortaleza	24.05	PTAH	Bello Horizonte	68.82
PRMK	Pocos de Caldas	50.5	PRSY	Bahia	34.883	PTAI	Cacaipara	68.54
PRML	Paracato	50.5	PRSZ	Paranagua	34.48	PTAJ	Ipameri	70.05
PRMM	Oliveria	50.50	PRT	Salinas	27.247	PTAL	Bella Vista	68.19
PRMP	Bello Horizonte	50.7	PRTA	Victoria	34.88	PTAN	Ponta Para	67.95
PRMW	Bello Horizonte	50	PRTB	Victoria	34.48	PTAO	S. Paulo	67.88
PRMX	Rio de Janeiro	50.167	PRTX	Portatil	32.22, 32.12, 32	PTAP	Rio de Janeiro	67.7
PRMZ	Pocos de Caldas	50.335	PRTY	Portatil	32.22, 32.12, 32	PTAR	Governor Petropolis	67.43
PRN	Victoria	27.1	PRTZ	Portatil	32.22, 32.12, 32	PTB	Belem, Para	75.38
PRNA	Dom Pedro (Rio)	67.27	PRU	Florianopolis	61.35	PTBA	Rio de Janeiro	63.69
PRNB	Bello Horizonte	37.08	PRUA	Araçatuba	33.84	PTBB	Rio de Janeiro	54.744
PRNC	Coryntho	66.96	PRUB	Bauru	33.84	PTBD	Rio de Janeiro	63.56
PRND	Sao Paulo	66.82	PRUC	Sao Paulo	33.84	PTBE	Rio de Janeiro	57.81
PRNE	Carro 18A	36.9	PRUD	Boutucatu	33.84	PTBF	Rio de Janeiro	63.3
PRNF	Carro 20A	36.9	PRUE	Pres. of Brazil		PTBG	Rio de Janeiro	59.17
PRNG	Portatil	36.9	PRUF	Ribeirao	33.84	PTBH	Rio de Janeiro	63.16
PRNH	Portatil	36.9	PRUG	Sao Paulo	33.84	PTBJ	Rio de Janeiro	58.94
PRNI	Ibia	40.63	PRUH	S. Paulo	33.84	PTBK	Rio de Janeiro	58.82
PRNJ	S. Joao D' El Rey	40.99	PRUI	Sao Paulo	33.84	PTBL	Santos	63.02
PRNK	Barra do Piraby	36.83	PRUJ	Rio Preto	33.84	PTBM	Rio de Janeiro	59.78
PRNL	Bello Horizonte	38.95, 36.74	PRUK	Araçatuba	33.84	PTBN	Rio de Janeiro	59.65
PRNM	Montes Claros	36.74	PRUL	Itarare	33.84, 33.67, 33.04	PTBO	Itajuba	62.89
PRNO	S. Paulo Norte	37.17	PRUL	Itarare	33.84	PTBP	Ipameri Goyaz	25.696
PRNR	Ribeirao Vermelho	40.84	PRUM	Oruziuro	33.84	PTBQ	Ipameri Goyaz	28.384
PRNS	Carro 9A	36.9	PRUN	Araçatuba	33.84	PTBR	Joao Pessoa	62.77
PRNT	Lafayette	36.78	PRUO	Bauru, Sao Paulo	33.84	PTBS	S. Paulo	60.12
PRNV	Carro 10A	36.9	PRUP	S. Paulo	33.84	PTBT	Cacaipara	62.37
PRNW	Coryntho	65.85	PRUQ	Botucatu	33.84	PTBV	Peterpolis	62.63
PRNX	Coryntho	37.27	PRUR	President of Brazil	33.84	PTBX	Rio de Janeiro	25.66
PRNY	S. Paulo	36.74	PRUS	Ribeirao Preto	33.84	PTBY	Rio de Janeiro	25.706
PRNZ	Army	38.97	PRUT	S. Paulo	33.84	PTC	S. Cruz (Rio)	75.19
PRO	Rio de Janeiro	38.6	PRUU	Assis, Sao Paulo	33.84	PTCA	Bello Horizonte	59.88
PROA	Olinda	62.24	PRUV	Sao Paulo	33.84	PTCB	Bello Horizonte	25.72
PROB	Rio de Janeiro	27.52	PRUX	Rio Preto	33.84	PTCC	Bella Vista	25.68
PROC	Itajuba	27.5	PRUY	Araçatuba	33.84	PTCE	Bella Vista	16.17
PROD	Recife	27.5	PRUZ	Itarare, Sao Paulo	33.84	PTCG	Cuyaba	59.40
PROD	Rio de Janeiro	35	PRV	Cruziuro	33.84	PTCH	Cuaba	25.84
PROF	Rio de Janeiro	39.3	PRVA	Florianopolis	53.86	PTCI	Curitiba	59.29
PROG	Laguna	84.67	PRVB	Araçatuba	33.04	PTCJ	Curitiba	25.906
PROI	Ibia	40.63	PRVC	Bauru, Sao Paulo	33.04	PTCL	Corumba	59.06
PROJ	S. Joao'El Rey	40.98	PRVD	S. Paulo	33.04	PTCM	Corumba	25.96
PROK	S. Joao	40.458	PRVE	Botucatu	33.04	PTCN	Bahia	58.6
PROL	Bello Horizonte	38.95	PRVF	Sao Paulo	33.04	PTCP	Bahia	22.06
PROM	Baria	39.38	PRVG	Ribeirao Preto	33.04	PTCQ	Bahia	16.41
PROO	Formiga	40.65	PRVH	S. Paulo	33.04	PTCR	Recife	58.48
PROQ	Bello Horizonte	36.74	PRVI	Assis, Sao Paulo	33.04	PTCS	Recife	26.09
PROR	Ribeirao	40.84	PRVJ	Sao Paulo	33.04	PTCT	Recife	16.55
PROW	Rio de Janeiro	40.47	PRVK	Rio Preto	33.04	PTCV	Rio de Janeiro	58.37
PRP	Olinda	54.35	PRVL	Araçatuba	33.04	PTCW	Rio de Janeiro	18.821
PRPA	Rio de Janeiro	96.308	PRVM	Itarare, Sao Paulo	33.04	PTCX	Rio de Janeiro	14.521
PRPB	Porto Alegre	96.318	PRW	Cruziuro	33.04	PTD	Florianopolis	75
PRPC	Porto Alegre	52.35	PRWA	Florianopolis	26.98	PTDA	Victoria	58.14
PRPD	Porto Alegre	34.863	PRWB	Taubate	84.27	PTDB	Victoria	26.246
PRPE	Rio de Janeiro	52.35	PRWF	Ourem Para	80.65	PTDD	St. Luiz	57.92
PRPF	Rio de Janeiro	34.863	PRWG	Ourem Para	36.97	PTDE	S. Luis	27.347
PRPG	Rio de Janeiro	27.52	PRWH	Ourem Para	29.354	PTDF	S. Luis do Maranhao	16.74
PRPH	Bahia	96.308	PRWJ	Parintins	80.86	PTDG	Rio de Janeiro	55.46
PRPI	Bahia	52.35	PRWK	Parintins	50.977	PTDH	Rio de Janeiro	28.329
PRPN	Natal Norte	96.308	PRWL	Parintins	25.41	PTDI	Rio de Janeiro	25.09
PRPP	Parangua	96.308	PRWM	Parintins	23	PTDJ	Rio de Janeiro	17.28
PRPQ	Parangua	52.35	PRWN	Victoria Piaui	33.48	PTDK	Rio de Janeiro	17.2
PRPR	Recife	33.48	PRWO	Crato Ceara	33.44	PTDM	Belem Para	26.3
PRPS	Santos	33.18	PRWP	Victoria Piaui	88.89	PTDN	Belem Para	23.12
PRPT	Santos	27.3	PRWR	Crato Ceara	18.767	PTDO	Belem Para	17.05
PRPU	Santos	22.65	PRWS	Crato Ceara	88.82	PTDP	Belem Para	16.92
PRPX	Natal Norte	52.35	PRWT	Porto Esperansa	33.22	PTDQ	Porto Alegre	25.99
PRPY	Natal Norte	34.863	PRWU	Porto Esperansa	18.59	PTDR	Porto Alegre	16.34
PRPZ	Natal Norte	25.86	PRWV	Porto Esperansa	88.10	PTDS	Florianopolis	52.248
PRQA	Olinda	27.119	PRWX	Curetyha	31.25	PTDT	Florianopolis	27.8
PRQB	Florianopolis	33.9	PRWY	Curetyha	22.82	PTDU	Florianopolis	18.945
PRQC	Porto Uniao	33.70	PRX	Santos	61.61	PTDV	Peterpolis	60.608
PRQD	Herval	33.17	PRY	Santos	60.851	PTDX	Juiz de Fora	27.42
PRQE	Joao Pessoa	51.88	PRYA	Rio de Janeiro	33.84	PTDZ	Nictheroy	27.965
PRQF	Espirito Santo	52.22	PRYB	Bahia	33.84	PTE	Escodria (Rio de Janeiro)	74.63
PRQG	Floris	30.52	PRYC	Mocanguie Rio	70	PTEA	Fortaleza	55.04
PRQH	Princeza	52.35	PRYD	Rio de Janeiro	70	PTEB	Fortaleza	27.75
PRQI	Patos	52.45	PRYS	Santos Sao Paulo	33.84	PTED	Campo Grande	54.95
PRQJ	Parabyha	52.35	PRZ	Santos	53.95	PTEE	Campo Grande	27.68
PRQN	Parabyha	52.35	PRZA	Jouzerio Bahia	25.74	PTEG	Santos	25.07
PRQO	Parabyha	52.22	PRZB	Jouzerio Bahia	18.42	PTEH	Sorena Sao Paulo	64.844
PRQS	S. Jose do Egipto	30.53	PRZC	Jouzerio Bahia	97.53	PTEI	Sorena Sao Paulo	27.726
PRQT	Triumpho	31.12	PSA	Marapicu	14.23	PTEL	S. Paulo	58.26
PRQV	Villa de Concoicao	52.04	PSABA	Rio de Janeiro		PTEM	S. Paulo	26.18
PRR	Salinas	62.49	PSABB	Sao Paulo		PTEN	Ponta Para	25.67
PRRA	Thome	52.91	PSABC	Miami		PTEP	Ponta Para	16.27
PRRB	Belem Para	52.91	PSABD	Porto Alegre		PTF	Fortaleza	74.26
PRRC	Rio de Janeiro	28.60	PSABE	Argentina		PTG	Campo Grande	74.08
PRRD	Bahia	28.60	PSABF	P-BDAC		PTH	Lorenz	73.89
PRRF	S. Paulo Norte	65.5				PTJ	Fortaleza de S. Joao	
PRRJ	Belem Para	44.06					Rio de Janeiro	73.34
PRRK	Thome Assu	44.06						
PRRK	Belem	38						

Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)
PTK	Juiz de Fora	73.18	PVQD	Urbanopolis	19.163	POWB	Rio de Janeiro	56.08
PTL	Fortaleza Sage, Rio de Janeiro	73	PVR	Faro Para	41.1	PWOC	Rio de Janeiro	49.465
PTM	S. Luiz do Maranhao	72.3	PVS	S. Miguel	38.02	PWOD	Rio de Janeiro	24.213
PTN	Parahyba	71.94	PVT	Florianopolis	91.61	PWP	Natal Norte	28.94
PTO	Victoria Espirito Santo	71.78	PVTA	Florianopolis	78.2	PWQ	Natal Norte	26.649
PTP	S. Paulo	71.61	PVTB	Florianopolis	34.27	PWQA	Anhatomirim	55.26
PTQ	Quartel General, Rio de Janeiro	71.27	PVTC	Florianopolis	19.19	PWQB	Anhatomirim	47.85
PTR	Recife	71.10	PVU	Manacapuru	90.50	PWQC	Anhatomirim	25.86
PTS	Bahia	70.93	PVUA	Manacapuru	74.5	PWQD	Anhatomirim	23.97
PTT	Porto Alegre	70.1	PVUB	Manacapuru	33.89	PXA	Governador	78.13
PTU	Santos	70.1	PVUC	Manacapuru	18.08	PXB	Belem Para	80
PTV	Villa Militar, Rio de Janeiro	69.78	PVV	Arumanduba	82.17	PXC	Rio de Janeiro	
PTW	Corumba, Matto Grosso	69.66	PVVA	Arumanduba	37	PXD	Centro de Avieuo, Estado Major, Rio de Janeiro	77.32
PTX	Sande Gueria, Rio de Janeiro	69.5	PVVB	Arumanduba	34.34	PXE	Escola de Grumetes, Rio de Janeiro	77.12
PTY	Curetyba	69.45	PVVC	Arumanduba	18.21	PXG	Mocanguê Rio	79.36
PTZ	Cuyaba	69.29	PVVD	Arumanduba	13.979	PXH	Abroihos	80.22, 53.67, 50.58, 29.24, 26.84
PUA	Santos	27.06	PVW	Fonte Boa	90.78	PXI	Willegaignon	78.34
PUAD	Almirante Jaceguay		PVWA	Fonte Boa	76.4	PXJ	Bijo (Rio de Janeiro)	78.53
PUB	Junecao	61.22	PVWB	Fonte Boa	46.99	PXK	Rio de Janeiro Bay	77.52
PUC	Junecao	60.728	PVWC	Fonte Boa	34.09	PXL	Sadario	78.74
PUD	Junecao	53.78	PVWD	Fonte Boa	19.14	PXM	S. Luiz de Maranhao	
PUE	Barra, Bahia	135.3, 40.41, 22.51	PVX	Cachoeria	51.56	PXO	Armacao	77.72
PUF	Formiga	32.79, 24.5	PVY	Igarape Miry	38.88	PXP	Florianopolis	78.95, 57.7, 53.28, 29.06, 26.85
PUG	Bahia	86.8, 55.3, 32.68, 24.54	PVZ	Boa Vista	80.22	PXPB	Florianopolis	78.95
PUH	Carolina	86.59, 32.57, 24.60	PVZA	Boa Vista Para	50.67	PXQ	Rio Grande	75.76
PUI	Ihbeos	135.2, 40.27, 22.32	PVZF	S. Isabel	29.3	PXR	Raza (Isle) Rio de Janeiro	78.73
PUJ	Joinville	86.34, 32.33, 24.65	PVZG	S. Isabel	80.43	PXRQ	Rio Grande do Sul	
PUK	Joao Pessoa	134.5, 40.02, 34, 22.23	PVZH	S. Isabel	50.56	PXS	Santos	75.95
PUL	Livramento	86.10, 32.19, 24.71	PVZI	S. Isabel	29.325	PXT	Anathomirim	78.14
PUN	Niheroy	133.4, 61.11, 39.61, 27.32, 22.03	PWA	Fernando de Noronha	18.32	PXTL		
PUO	Sobral	85.55, 39.95, 32.16, 22.116	PWAA	Rio de Janeiro	79.16	PYA	Fernando de Noronha	75
PUP	Passo Fundo	96.33, 84.5, 24.77	PWAB	Rio de Janeiro	77.92	PYAA	Aquidana	107.52
PUQ	Campinas	85.48, 32.05, 24.78	PWAB	Rio de Janeiro	57.03	PYAB	Aquidana	43.59
PUR	S. Borja	85.24, 31.92, 24.84	PWAC	Rio de Janeiro	56.93	PYAC	Aquidana	29.85
PUS	Santos	108.7, 39.56, 21.98	PWAD	Rio de Janeiro	52.82	PYAD	Aquidana	21.82
PUT	Theophilus	115.9, 108.3, 21.89	PWAE	Rio de Janeiro	28.68	PYAE	Pesquino	21.84
PUV	Uberaba	85.31, 85, 24.92	PWAF	Rio de Janeiro	28.61	PYAF	Pesquino	18.56
PUU	Porto Murtinbo	84.78, 38.27, 24.93	PWAG	Rio de Janeiro	28.59	PYAG	Bage	83.5
PUW	Parnahyba	84.52, 62.54, 31.06	PWAH	Rio de Janeiro	28.408	PYAH	Bage	58.03
PUX	Taubati	84.29, 62.45	PWAI	Rio de Janeiro	25.146	PYAI	Bage	52.22
PUY	Alto Uruguay	84.04, 62.35, 30.80	PWAJ	Rio de Janeiro	25.125	PYAJ	Bage	30.67
PUZ	Laserato	107.9, 39.48, 34	PWAK	Rio de Janeiro	17.482	PYAL	Campos	83.57
PVZV	Victor de Frietas	46.15	PWAL	Rio de Janeiro	17.41	PYAM	Campos	52.13
PVA	Brasilia	49.49	PWAM	Rio de Janeiro	17.341	PYAN	Campos	51.24
PVAA	Brasilia	51.19	PWB	Fernando de Noronha	53.38	PYAO	Campos	30.55
PVAB	Brasilia	47.49	PWBA	Belem Para	53.57	PYAP	S. Maria Sul	82.87
PVAC	Brasilia	34.82	PWBB	Belem Para	50.42	PYAR	S. Maria Sul	51.81
PVAD	Brasilia	19.47	PWBC	Belem Para	29.175	PYAS	S. Maria Sul	29.97
PVAE	Ihbeos	135.2	PWBD	Belem Para	28.82	PYAZ	Pesquino	87.91
PVAF	Ihbeos	40.27	PWBE	Belem Para	15.78	PYBA	Goyaz	107.14
PVAG	Ihbeos	22.32	PWCA	Fernando de Noronha	50.08	PYBB	Goyaz	31.15
PVAI	Joao Pessoa	134.5	PWCB	Rio de Janeiro	48.70	PYBC	Goyaz	21.778
PVAJ	Joao Pessoa	40.026	PWCC	Rio de Janeiro	25.06	PYBF	Uruguayana	82.64
PVAK	Joao Pessoa	34	PWCD	Rio de Janeiro	24.331	PYBG	Uruguayana	51.58
PVAL	Joao Pessoa	22.238	PWDD	Rio de Janeiro	26.517	PYBH	Uruguayana	29.79
PVAM	Maceio	133.9	PWDE	Rio de Janeiro	16.09	PYBK	Cachoeria	82.42
PVAN	Maceio	39.95	PWE	Fernando de Noronha	15.37	PYBL	Cachoeria	29.78
PVAO	Maceio	22.116	PWEA	Rio de Janeiro	26.69	PYBM	Cachoeria	82.2
PUB	Borba	94.21	PWEB	Rio de Janeiro	53.47	PYBP	Jaguarao	51.51
PUBA	Borba	40.198	PWEC	Rio de Janeiro	50.25	PYBQ	Jaguarao	29.73
PUBB	Barba	19.43	PWED	Rio de Janeiro	29.16	PYBR	Jaguarao	106.8
PVC	Coary	93.46	PWEF	Fernando de Noronha	26.74	PYBT	Dionysio Cerqueira	52.04
PVCA	Coary	50.85	PWFA	Rio de Janeiro	16.025	PYBU	Dionysio Cerqueira	44.7
PVCB	Coary	48.14	PWFB	Rio de Janeiro	64.665	PYBV	Dionysio Cerqueira	21.75
PVC	Coary	46.98	PWFC	Rio de Janeiro	58.179	PYBW	Dionysio Cerqueira	85.55
PVCD	Coary	25.4	PWFD	Rio de Janeiro	48.543	PYBX	Sobral	32.15
PVCE	Coary	19.386	PWGA	Rio de Janeiro	24.25	PYBY	Sobral	34.88
PVE	Abiti	51.90	PWGB	Abroihos	53.67	PYC	Fernando de Noronha	32.15
PVEF	Villa Feijo	93.17	PWGC	Abroihos	50.59	PYCF	Carolina	88.59
PVQ	Montenegro	81.97	PWGD	Abroihos	29.24	PYCG	Carolina	57.528
PVH	Caracarahy	81.78	PWHE	Abroihos	26.84	PYCH	Carolina	32.57
PVHA	Caracarahy	34.74	PWH	S. Luiz de Maranhao	78.33	PYCI	Carolina	24.59
PVHB	Caracarahy	29.64	PWHA	Rio de Janeiro Bay	64.11	PYCK	Montenegro	51.41
PVHG	S. Borja	85.23	PWHB	Rio de Janeiro Bay	55.87	PYCL	Montenegro	29.68
PVHH	S. Borja	31.91	PWHC	Rio de Janeiro Bay	47.92	PYCM	Lazerato	107.9
PVHI	S. Borja	24.834	PWHD	Rio de Janeiro Bay	24.05	PYCN	Lazerato	44.91
PVHJ	S. Borja	21.46	PWI	S. Luiz de Maranhao	57.14	PYCO	Lazerato	39.447
PVHK	Uberaba	84.98	PWIA	Rio de Janeiro	64.24	PYCP	Lazerato	34
PVHL	Uberaba	31.85	PWIB	Rio de Janeiro	55.97	PYCQ	Blumenau	137
PVHM	Uberaba	24.92	PWIC	Rio de Janeiro	48.076	PYCR	Blumenau	44.71
PVI	Itacoatiari	81.52	PWID	Rio de Janeiro	24.12	PYCS	Blumenau	22.63
PVIA	Itacoatiari	29.527	PWIJ	S. Luiz de Maranhao	28.91	PYCU	Pelotas	26.86
PVIB	Itacoatiari	26.13	PWJA	Rio de Janeiro Bay	63.97	PYCV	Barra Bahia	40.41
PVJ	Itacoatiari	81.52, 37.65, 29.52	PWJB	Rio de Janeiro Bay	56.71	PYCW	Barra Bahia	29.01
PVJC	Cachoeria	34.64	PWJC	Rio de Janeiro Bay	66.63	PYCX	Barra Bahia	22.51
PVK	Baio	81.3	PWJD	Rio de Janeiro Bay	26.338	PYCY	Porto Alegre	30.03
PVKA	Baio Para	58.71	PWK	S. Luiz de Maranhao	26.502	PYD	Barra Bahia	135.8
PVKB	Baio Para	51.15	PWKA	Sadario	53.19	PYDA	Fernando de Noronha	34.48
PVKC	Baio Para	29.498	PWKB	Sadario	29.01	PYDB	Aracaju	137.6
PVL	Clevelandia	92.88	PWKC	Sadario	28.59	PYDC	Aracaju	37.01
PVLA	Clevelandia	30.02	PWKD	Sadario	15.92	PYE	Natal Norte	22.73
PVLB	Clevelandia	34.52	PWLA	Niheroy	63.42	PYE	Natal Norte	75
PVVC	Clevelandia	19.28	PWLB	Niheroy	56.82	PYEA	S. Luiz do Maranhao	33.84
PVM	Manicore	92.46	PWLC	Niheroy	52.72	PYEB	S. Luiz do Maranhao	19.05
PVMA	Manicore	35.05	PWLD	Niheroy	26.36	PYEC	S. Luiz do Maranhao	90.23
PVMB	Manicore	34.4	PWM	Natal Norte	78.53	PYED	Victoria	24.519
PVMC	Manicore	19.24	PWMA	Florianopolis	57.7	PYEF	Victoria	22.84
PVN	Porto Nacional	83.14	PWMB	Florianopolis	53.28	PYF	Victoria	139.3
PVO	Obidos	81.08	PWMC	Florianopolis	29.06	PYG	S. Maria	82.88, 51.81, 29.97
PVOA	Obidos Para	51.07	PWMD	Florianopolis	26.642	PYH	Natal Norte	34.48
PVOB	Obidos Para	29.47	PWN	Natal Norte	57.25	PYI	Natal Norte	75
PVOC	Obidos Para	24.29	PWNA	Rio Grande Sul	55.56	PYJ	Rio de Janeiro	34.88
PVP	Marapanim	39.06	PWNB	Rio Grande Sul	47.7	PYK	Rio de Janeiro	34.48
PVPA	Marapanim	39	PWNC	Rio Grande Sul	28.409	PYL	Rio de Janeiro	34.48
PVQ	Urbanopolis	91.32, 76.3, 34.23, 24.4, 19.16	PWND	Rio Grande Sul	23.847	PYM	Pelotas	75
PVQA	Urbanopolis	76.3	PWNE	Natal Norte	53.1	PYV	Pelotas	34.48
PVQB	Urbanopolis	34.23	PWNA	Rio de Janeiro	64.38	PYQ	Pelotas	34.48
PVQC	Urbanopolis	24.4	PWPA	Santos	55.858	PYR	Recife	51.203
PVQD	Urbanopolis	24.4	PWPB	Santos	47.77	PYS	Porto Alegre	75.29
			PWPC	Santos	28.483	PYU	Porto Alegre	34.88
			PWPD	Santos	23.92			

Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)	Call Letters	Location	Wavelength (meters)
SAA-SMZ SWEDEN			SUA-SUZ			TIA-TIZ COSTA RICA		
SAA	Karlskrona		SHUA	Faxen	36.5	TIA	S. Jose	37.974
SAD	Stockholm	31.0	SHUN	Pegasus	36.5	TIC	Cuesta	51.68, 43.04, 37.88
SAB	Goteborg	36.4, 26.98, 24.15	SHXA	Blankaholm	36.5	TID	Liberia	37.984
SAF	Vaxholm	36.3	SHXN	Balboa	36.5	TIE	Pozo	37.87
SAH	Kamosand	36.40	SHYA	Tilia Gertho.	36.5	TIF	Buenos Aires	37.965
SAQ	Varberg		SHYN	Atlant	36.5, 24.15	TIG	General	38
SAS	Karsborg	52.5, 43, 31.8, 15.88	SIBN	Laurel	36.5	TIJ	Puerto Jimenez	38.734
SASH	Matala	49.48	SICN	Flora	36.5	TIM	Limors	62.05, 17.28
SAT	Varberg	33.56, 28.54, 16.52, 15.48	SIDN	Gunda	36.5	TIP	Puntarenas	36.013
			SIFN	Capella	36.5	TIR	Cartago	49.5, 42.98, 27.9
			SIGN	C. G. Thulin	36.5	TIU	Vvita	39.259
SAX			SIJN	Svaneholm	36.5	UIA-UKZ DUTCH EAST INDIES		
SCJ	Karlskrona	196	SIKN	Carina	36.5, 24.15	UJJ	Posso Celebes Is	69
SDF A	Fernia	36.5, 24.15	SIKX	Nordanvik	36.5, 24.15	UJK	Celebes Is.	70
SDFN	Orania	36.5, 24.15	SILA	Stureholm	36.5	UJL	Celebes Is.	67.5
SDGA	Wanja	36.5, 24.15	SIMA	Hermes	36.5	UJM	Celebes Is.	68
SDGN	Sveajari	36.5	SIMN	Abraham Rydberg	36.5, 24.15	UKK	Baa	74
SDKA	Erik Frieell	36.5	SINA	Pajala	36.5	UKL	Kalabahi Alor Is.	71
SDKN	Kiruna	36.5	SINT	Svedborg	36.5, 24.15	UOA-UOZ AUSTRIA		
SDMN	Formosa	36.5, 24.15	SIOA	Svedborg	36.5, 24.15	UOBB1	Wien	86.83
SDMA	Miraflores	36.5	SION	Nippon	36.5	UOBB7	Innsbruck	40.33
SDNT	Eros	36.5, 24.15	SIPN	R. H. Sanders	36.5, 24.15	UOGB8	Graz	87.46, 70.61, 40.05
SDPA	Jupiter	36.5	SIQA	Sunnanvik	36.5, 24.15	UOJ	Deutch Altenburg	39.306
SDQA	Canada	36.5	SIRA	Valdiva	36.5	UOK	Altenburg	40.6
SDRA	Virgo	36.5	SIRN	Consul Olsin	36.5	UOLP5	Linz	87.79, 70.71, 40.09
SDTA	Ragnhildsholm	36.5	SISA	Kalmia	36.5, 24.15	UOM	Wien	86.58, 72.81, 40.17
SDTD	Boren	36.5	SITA	Mertainen	36.5, 24.15	UOP	Wien	85.96, 72.02, 44.17
SDUN	Sparuholm	36.5	SITN	Dalkem	36.5, 24.15	UOR	Deutch Altenburg	29.9
SDVA	Malaren	36.5	SIVA	Buenos Aires	36.5	UOR2	Vienna	49.4, 25.42
SDYA	Burgundia	36.5, 24.15	SIUN	Tamara	36.5, 24.15	UOSP5	Salzburg	87.20, 70.42
SDZN	Roxen	36.5	SIWN	Peiping	36.5, 24.15	UOX	Deutch Altenburg	23.2
SEGA	Swedish	36.5	SIWA	Bernicia	36.5	UWA-UZZ, VAA-VGZ CANADA		
SEGN	Gondul	36.5	SIWN	Pan Gothia	36.5, 24.15	UWA	Vancouver, B. C.	93.9
SEHN	Hemland	36.5	SIXA	Nuolja	36.5	UWB	Victoria, B. C.	92.3
SEIN	Niagara	36.5	SIXN	Atlanten	36.5, 24.15	UWC	Kelouna, B. C.	89.38
SEJA	Delke	36.5, 24.15	SIYN	C. B. Pedersen	36.5, 24.15	UWD	Vancouver, B. C.	87.18
SEJN	Shantung	36.5	SIZA	Procyon	36.5, 24.15	UWE	Toronto, B. C.	52.45
SEKN	Kastelholm	36.5, 24.15	SIZN	Adele	36.5, 24.15	UWF	Toronto, Ont.	55.4
SELN	Ella	36.5	SJAN	Innarem	36.5	UWG	Quebec, P. Q.	54.7
SEMA	Murjek	36.5	SJBA	Laponia	36.5	UWH	Quebec, P. Q.	24.74
SEMN	Bretannia	36.5	SJBN	Agne	36.5, 24.15	UWI	Winnipeg, Man.	62.18
SENT	Succia	36.5	SJCA	Njorn	36.5, 24.15	UWJ	Moncton, B. C.	51.9
SEOA	Falsterbo	36.5	SJMA	Drottningholm	36.5	UWK	Moncton, N. B.	30.88
SEON	Halleren	36.5	SJNA	Erland	36.5	UWK	Moncton, N. B.	30.88
SEPN	Manga	36.5	SJTA	Porjus	36.5, 24.15	UWL	Edmonton, Alta.	54.6
SEQN	Sveadrott	36.5	SJUA	Graecia	36.5, 24.15	UWM	Edmonton, Alta.	44.12
SERA	Santos	36.5	SJZA	Malmen	36.5, 24.15	UWN	Vancouver, B. C.	52.59
SERN	Ring	36.5	SKAN	Alex Johnson	36.5	UWO	Vancouver, B. C.	43.04
SETN	Rane	36.5	SKBA	Gripsholm	36.5	UWP	Winnipeg, Man.	56.5
SEUA	Korsholm	36.5	SKCA	Tolken	36.5	UWQ	Edmonton, Alta.	62.3
SEVN	Nordland	36.5	SKIA	Benares	36.5, 24.15	UWR	Edmonton, Alta.	29
SEWA	Sevaland	36.5	SKJA	Strassa	36.5	UWS	Toronto, Ont.	61.29
SEWN	Vigor	36.5	SKLA	Nanking	36.5, 24.15	UWT	Toronto, Ont.	25.16
SEX A	Amerisaland	36.5	SKTA	Atos	36.5, 24.15	UXA	Vancouver, B. C.	55.30
SEYN			SLDA	Oxelosund	36.5	UXB	Vancouver, B. C.	21.47
SFEN	Indianic	36.5, 24.15	SLFA	Algeria	36.5	UXC	Vancouver, B. C.	27.81
SFGA	Odenskohm	36.5	SLIA	Oljaren	36.5, 24.15	UXD	Winnipeg, Man.	26.07
SFIA	Consul Gorfitzon	36.5, 24.15	SLJA	Swedish	36.5	UXE	Winnipeg, Man.	54.79
SFJA	Gudur	36.5	SLKA	Poltinkeln	36.5	UXG	Winnipeg, Man.	52.31
SFJN	Torne	36.5, 24.15	SLTA	Grangesborg	36.5	UXH	Montreal, P. Q.	24.42
SFLN	Abiako	36.5	SLUA	C. F. Litjevalh	36.5	UXI	Toronto, Ont.	61.52
SFNT	Loussa	36.5	SMA	Stockholm	41	UXJ	Halifax, N. S.	62.05
SFOA	Miriabooka	36.5	SMEA	Annie Johnson	36.5	UXK	Montreal, P. Q.	92.99
SFPN	Sir Ernest Cassel	36.5	SMGA	Uden	36.5	UXL	Montreal, P. Q.	61.41
SFRA	Abadan	36.5	SMHA	Hjelmaren	36.5	UXM	Montreal, P. Q.	69.25
SFUN	Baltic	36.5	SMJA	Kingsholm	36.5	UXN	Montreal, P. Q.	22.07
SFWN	Bodin	36.5	SMLA	Parrakoola	36.5	UXO	Montreal, P. Q.	61.02
SFXA	Swedish	36.5	SPA-SPZ POLAND			UXP	Toronto, Ont.	87.05
SFXN	Narvik	36.5	SPA	Warsaw	14.876	UXQ	Ottawa, Ont.	99.87
SFYA	Kustof E. Renter	36.5	SPB	Random	24.82	UYA	Halifax, N. S.	32.95
SFYN	Margaret Johnson	36.5	SPC	Radom	36.93	UYB	Montreal, P. Q.	93.17
SFZA	Swedish	36.5	SPEC	Pulaski	36.5	UYC	Ottawa, Ont.	99.27
SFZN	Swedish	36.5	SPI1	Liore	36.5	UYD	Toronto, Ont.	66.89
SGBN	Canton	36.5	SPS	Szkola	15.3	UYE	Winnipeg, Man.	54.69
SGCN	San Francisco	36.5	SPU	Rio de Janeiro	15.3	UYF	Vancouver, B. C.	28.89
SGDA	Sumatia	36.5	SPW1	Warsaw	36.5	UYG	Winnipeg, Man.	68.75, 38.53
SGEA	Pedro Christopherson	36.5	SPW2	Warsaw	36.5	UYH	Saskatoon, Sask.	68.75, 38.53
SGFA	Sydic	36.5	SPW3	Warsaw	36.5	UYI	Regina, Sask.	68.75, 38.53
SGIA	Eknaren	36.5, 24.15	SPXX	Grudziaz	36.5	UYJ	Pas, Man.	150
SGIN	Braheholm	36.5	SPZZ	Warsaw	36.5	UYK	Flin Flon, Man.	107.1
SGL	Stockholm		STA-STZ, SUA-SUZ EGYPT			UYU	Edmonton, Alta.	22.02
SGLN	Lagaholm	36.5	SUA	Ciza	40.74, 26.18	UYV	Port Menier, Que.	185.2, 136.0
SGMA	Sagoland	36.5, 24.15	SUB	Baharia	40.74, 26.18	UYW	Winnipeg, Man.	124.17
SGMN	Milos	36.5, 24.15	SUC	Cairo	21.521	UYX	Salmon River, Que.	185.2, 136.0
SGPN	Nordie	36.5	SUD	Dakhia	40.74, 26.18	UYZ	Masson, P. Q.	86.1, 176.8
SGRA	Carisholm	36.5	SUE	Siva	40.74, 26.18	UYA	High Falls, P. Q.	135.6
SGRN	Pollux	36.5	SUG	Assouan	42.88	UZB	Charlottetown, P. E.	99.5, 62.70, 23.70
SGTA	Secicia	36.5	SUH	Alexandria	40.74, 26.18	UZC	Bellevue, P. Q.	185.2, A1-2-3
SGUA	Skagern	36.5, 24.15	SUK	Koseir	40.74, 26.18	UZD	Glac Bay, N. S.	41.04, 33.06, 20.52
SGVA	John Lundwall		SUR	Alexandria	40.74, 26.18	UZE	Glac Bay, N. S.	41.04, 33.06, 20.52
SGWA	Valparaiso	36.5	SUS	Cairo	32.8	UZF	Victoria, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SGXA	Japan	36.5	SUV	Abou Zabal	29.95	UZG	Vancouver, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SGXN	Valencia	36.5	SUW	Cairo	44.27, 25.18	UZH	Prince Rupert, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SGYA	Ceylon	36.5	SUX	Cairo	38.21	UZI	Kamloops, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SGZA	Zoroaster	36.5, 24.15	SUY	Cairo	36.33, 15.259	UZJ	Nelson, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SHBA	Balakava	36.5	SUZ	Calo	36.33, 15.25, 21.72, 21.71, 21.70, 21.696, 21.693	UZK	Ile La-Crosse	195.8, 186.0, 185.2, A1-2-3
SHBN	Lulea	36.5	SVA-SZZ GREECE			UZL	Humpback Bay, B. C.	181
SHEN	Miranda	36.5	SVL	Lemons	41.5	UZM	Prince George, B. C.	175.3, 124.17, 122.35, 86.7, 46.7, 40.21
SHFA	Pluto	36.5, 24.15	TFA-TFZ ICELAND			UZX	Shannon Bay, B. C.	131
SHFN	Agra	36.5	TFA	Reykjavik	175	UZY	Riviere du Clef, P. Q.	185.2
SHGN	Swedish	36.5	TFB	Flatey	170	UZZ	S. Felecin, P. Q.	185.2
SHJA	Gotland	36.5	TFE	Flatey	170	VAA	Ottawa, Ont.	47.08, 44.91, 44.84, 44.27
SHIA	Anten	36.5	TFG	Grimsey	150	VAB	Vancouver, B. C.	48.74
SHJA	Lima	36.5	TFH	Hosavik	160			
SHKN	Hammaren	36.5	TFZH		20.00, 39.98			
SHLA	Kolsnaren	36.5, 24.15	TGA-TGZ GUATEMALA					
SHLM	Anglo Swede	36.5	TGA	Guatemala				
SHLN	Bullaren	36.5	TGD	Quesaltenango				
SHPA	Yugaren	36.5, 24.15	TGU	Puerto Barrios	61.80, 32.94			
SHQA	Swedish	36.5						
SHQN	Blaland	36.5						
SHRN	Gunnaren	36.5						
SHTN	Belgia	36.5						

Table with 8 columns: Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters), Call Letters, Location, Wavelength (meters). Lists various stations and their frequencies, organized by region (e.g., Canada, Australia, New Zealand).

Call Letters	Location	Wavelength (meters)
VQA	Jesseton, Bermuda	54.84, 29.67, 14.85
VQB	Sandakan, Bermuda	44.88, 29.41, 52.91
VQC	Batu Anam, Sarawak	34.44, 29.67, 27.83
VQG	Kenya, Br. E. Africa	27.96, 15.283
VQL	Savusavu, Fiji Island	43.79, 80.43
VQP	Miri, Saravak	34.44, 27.98
VQR	Kenya, Br. East Africa	53, 45.52, 42.98 40.49, 32.02, 26.09
VQV	Sabu, Sarawak	34.44
VQ7LO	Nairobi, Br. E. Indies	31.2
VRB	Kamakusa, Br. Guiana	
VRL	Georgetown, British Guiana	54.59, 33.73
VRN	British Guiana	43.88
VRO	Suva, Fiji Islands	80.43, 43.79
VRR	Stony Hill, Jamaica, B. W. I.	
VRS	Mauritius	20.39, 31.76
VRT	Hamilton, Bermuda	29.80, 59.42
VRV	British Guiana, S. Am.	43.88, 30.99
VRW	British Guiana, S. Am.	43.88
VRX	Apoteri, Br. Guiana	43.88
VRV	Dimerara, Br. Guiana	43.88
VSB	Nukualofa, Tonga	43.79
VTC	Baakah, Iraq	
VTU	Chebuda, British India	105
VUB	Bombay, India	49.10
VUC	Calcutta, India	25.274
VUD	Suva, Fiji Islands	
VVC	Calcutta, India	38.96, 30.801
VVD	Delhi, India	33.48
VVG	Ambala, India	50.12, 26.54
VVH	Ambala, India	26.867
VVJ	Poona, India	44.09, 27.77
VVK	Karachi, India	74.75, 30.645
VVL	Lahore, India	38.24, 24.033
VVM	Madras, India	23.041
VVN	Miranskat, India	35.84
VVO	Kohat, India	34.88, 20.185
VVP	Peshawar, India	34.82
VVQ	Quetta, India	38.26, 24.231
VVR	Ranzoon, India	36.65, 32.57
VVS	Simla, India	33.241, 17.606
VVT	Lower Tops, India	86.95, 30.075
VVU	Karachi, India	36.83
VVW	Mainital, India	16.38, 47.54
VVX	Jubbulpore, India	31.712, 24.834
VVY	Rawalpindi, India	50.93, 33.084
VVZ	Simla, India	36.83
VVZ	Quetta, India	39.92, 20.291
VVK	Karachi, India	43.57
VWZ	Kirker, India	34.518, 34.50, 34.483, 34.455, 34.447

XAA-XFZ—MEXICO

XAA	Vera Cruz	34
XAC	Payo Obispo	48, 37
XAE	Mazatlan	43, 34
XAF	Lower California	54, 29
XAH	Hermosilla	32
XAJ	Tampico	
XAK	Acapulco	63, 37.5
XAL	Cozumel	61.25, 39.5, 31.5
XAM	Merida Vacatan	67, 48
XAP	Villahermosa	42, 34
XAQ	Campecho	65, 31.5
XAR	Navajou	42
XBRI		
XDA	Mexico City	45.1, 38.5, 33.93, 30.82, 50
XDA	Mexico City, Teleg. with Europe	31.90, 15.95
XDB	Chapultepec	15.9, 31.8
XDC	Saltillo de Coahuila	
XDD	Torrem de Coahuila	
XDF	Mexico	
XDH	Guadahajari	48, 38
XDI	Oxacala	
XDJ	Mexicali	45
XDK		
XFA	Mexico City	43, 42
XFD	Mexico City	45, 33.27

XGZ-XUZ—CHINA

XGB	Shanghai	37
XGC	Shanghai	66, 33
XGD	Shanghai	71, 64
XGE	Anking	66, 43
XGF	Moukden	41
XGG	Moukden	45
XGH	Nineop	72, 34
XGJ	Hanehow	70
XGK	Shanghai	16.04
XGL	Shanghai	37.64
XGM	Shanghai	17
XGN	Shanghai	17
XGO	Shanghai	39.58
XGP	Shanghai	89, 36.8
XGQ	Shanghai	89, 35.8
XGR	Shanghai	26, 16
XGW	Shanghai	28.79
XHA	Peiping	70, 35.1
XHB	Tientsin	32
XHC	Tsinan	53, 42
XHD	Tsingtan	75, 30
XIA	Amoy	31.8
XIB	Fonehow	80, 32
XIC	Swatow	69
XID	Swatow	39
XIG	Swatow	88, 32
XIH	Amoy	66, 26
XIK	Wuhu	75, 44
XIO	Tinghain	57

Call Letters	Location	Wavelength (meters)
XIQ	Ningpo	32.9
XJA	Hankow	32
XJB	Hankow	74, 32.5
XJC	Ichang	96
XJD	Hankow	75, 37
XJF	Hankow	34
XJG	Hankow	45
XJH	Ichang	40
XKE	Tientsin	80, 37.03
XKX	Kwaiyang	
XLA	Nanking	70, 38
XLB	Nanking	68
XLC	Shanghai	71, 31
XLE	Canton	29
XLG	Swatow	75, 37.7
XLH	Shanghai	69
XLU	Shanghai	82
XLV	Shanghai	78, 57, 38
XMH	Peking	
XMP	Railroad	
XMT	Railroad	
XNB	Canton	38
XNEF	Cheng King	175
XNK	Nanking	36.6
XOB	Shanghai	41.8
XOF	Chefoo	47, 37
XOM	Mukden	
XON		
XOW	Foohow	40
XPG	Shanghai	48
XPI	Pratas	46
XPN	Kamen	48
XPR	Amoy	45
XPZ	East Saddle	48
XQM	Yannufu	43
XRA	Shanghai	54
XRA3	Shanghai	51, 32
XRA5	Shanghai	66
XRB	Nanking	61, 37
XRB2	Nanking	39
XRC	Chungking	43
XRE	Ichang	39
XRG1	Shanghai	37
XRI	Nachang	36, 31
XRJ	Chungking	40, 32
XRJ2	Chungking	65, 32
XRO	Chungking	47
XRP	Peking	70
XRQ	Tsinan	69, 30
XRS	Wankien	42
XRU	Taungning	89
XRU2	Taungning	59.7
XRV	Tientsin	38
XRW	Foohow	51, 37
XRX	Canton	38, 37, 33
XSD	Shanghai	31.6
XSG	Woosung	60, 50, 48
XSL	Wanshien	

KILOCYCLE-METER CONVERSION

In short-wave (high frequency) work it is sometimes more convenient to express the tuning of a station in terms of frequency rather than wavelength. The standard frequency unit is the "kilocycle" (1000 cycles); the unit of wavelength the "meter." It is a very simple matter to convert frequency in kilocycles into wavelength in meters, or vice versa. To obtain kilocycles, divide 300,000 by the number of meters; to obtain meters, divide 300,000 by the number of kilocycles.

Thus a wavelength of 30 meters is the same as saying a frequency of 10,000 kilocycles (abbreviated "kc."). A frequency of 20,000 kc. is the same as 15 meters.

Call Letters	Location	Wavelength (meters)
YIA-YIZ—IRAQ		
YID	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 15.01
YIF	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 16.01
YIG	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 16.01
YIH	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 16.01
YIJ	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 16.01
YIK	Bagdad	67.12, 44.74, 36.88, 22.37, 20.7, 16.01
YIL	Rutbah	66.8

YLA-YLZ—LATVIA

YLA	Riga	44.9, 24
YLB	Liepaja	44.9, 24
YLC	Liepaja	75
YLN	Liepaja	37.5
YLS	Riga	80
YLT	Riga	30

YNA-YNZ—NICARAGUA

YNA	Managua	63.82, 49.71, 38.47, 38.51, 36.18, 38.14, 33.67, 31.47, 27.80, 25.23
YNB	Bluefields	61.22, 38.96, 35.75, 32.64, 25.75, 20.66
YNC	Cape Gracias	58.65, 38.48, 36.05, 32.29, 20.62
YNE	Puerto Cabezas	
YNF	Rio Grande	
YNG	Managua	91
YNL	Managua	145.17, 20.80
YNP	Managua	
YNR	Managua	43.668
YNU	Managua	44.085

YVA-YVZ—VENEZUELA

YVC	Maracay	50.93, 38.25, 23.44
YVD	S. Cristobal	28.01
YVF	Maracaibo	28.071
YVP	Maracay	44.77
YVQ	Maracay	38.25, 31.83, 25.65, 16.39

ZBA-ZHZ—BRITISH COLONIES AND PROTECTORATES

ZBH	South Georgia, S. A.	
ZBW	Hong Kong, China	13
ZBZ	Dar-Ee-Salaom, Tangankia	15.89
ZCE	Victoria Peak, China	22.034
ZCF	Cape of Agnilar, China	28.20
ZCG	Cap. D' Agnilar, China	31.78
ZCH	Victoria Peak, Hongkong, China	50.04
ZCI	Victoria Peak, Br. Congo	43.38
ZCJ	Victoria Peak, Hong Kong	34.68
ZCK	Cape Agnilar, China	13
ZDI	Nassau, Bahamas	54.59
ZDN	Lagos, Nigeria	37.08
ZDO	Badagry, Nigeria	37.08
ZDP	Victoria, Nigeria	34.09, 33.9
ZDQ	Mainp, Nigeria	33.9
ZDR	Kaduna, Nigeria	34.05, 33.97, 33.86
ZDT	Bamenda, Nigeria	33.9
ZDV	Windward Isls., B. W. I.	54.7
ZDW	Trinidad, B. W. I.	54.55, 33.73
ZDX	Leeward Isls., B. W. I.	98.68, 54.59, 33.73
ZDZ	Belize, Br. Honduras	26.61, 43, 39.47, 26.94, 24.74
ZEA	Saisbury, Rhodesia	43.99, 40.50, 26.1, 25
ZEB	Bulawayo, Rhodesia	43, 39.47, 26.94, 24.74
ZET	Kingston, Jamaica	98.68, 64.74
ZEU	Potaro, Br. Guiana	43.88
ZKR	Cook Island, New Zealand	51.72, 25
ZLB	Awarua, New Zealand	47.24, 33.70
ZLF	Wellington, New Zealand	44.14, 35.005, 43.16
ZLI	White Island, New Zealand	80
ZLT	Wellington, New Zealand	40.6, 33.7, 24.4
ZLW	Wellington, New Zealand	A2, 50.8, 19.34, A1, 27.3, 36.5, A2, 25.4, 40.6, A4, A2, 50.8
ZL3CZ	Christchurch, New Zealand	50.0
ZMA	Apia, Samoa Is.	52.17
ZMDY	Maunganni, New Zealand	36.18
ZMGK	Southern Prince, New Zealand	36.5, 26.59
ZMP	Aleipata, Samoa	40
ZMS	Salilua, Samoa	42.9
ZTC	Christchurch, New Zealand	50
ZPR	Asuncion, Paraguay	
ZPIZ	Asuncion, Paraguay	34.48
ZSS	Cape of Good Hope, So. Africa	16.084, 16.083, 16.082, 16.081, 16.077, 16.073, 16.072, 16.07, 16.069
ZSBP	Kidlatkey, Union of So. Africa	45
ZSBX	Radioline, Br. So. Africa	45
ZSC	Capetown, So. Africa	33.85, 17.8
ZSD	Jacobs Radio, So. Africa	36, 17.8
ZSDM	Tafelberg, Br. So. Africa	36.6, 35.1, 33.7
ZSU	Capetown, So. Africa	
ZSV	Walvis Bay, So. Africa	36.5, 17.8
ZTG	Germanston, So. Africa	45.5
ZLO	Kenya, Africa	
ZXX	Roukaza Park, China	

BEST SHORT-WAVE STATIONS

This list of short-wave relay broadcasting, commercial and experimental stations is the result of several years of work. Names and ad-

resses are included wherever possible so that you may know where to write. The blank spaces are for the dial settings of your own set.

Station	Dial	Station	Dial	Station	Dial	Station	Dial
31000 kc. W8XI 9.68 meters Westinghouse Electric SAXONBURG, PA.		20140 kc. DWG 14.89 meters NAUEN, GERMANY Tests 10 a.m.-3 p. m.		18100 kc. GBK 16.57 meters General Post Office BODMIN, ENGLAND		17080 kc. GBC 17.55 meters RUGBY, ENGLAND	
27800 kc. W6XD 10.79 meters Mackay Radio PALO ALTO, CALIF.		19950 kc. LSG 15.03 meters MONTE GRANDE, ARGENTINA From 7 a. m. to 1 p. m. Telephony to Paris and Berlin		18050 kc. KQJ 16.61 meters BOLINAS, CALIF. Transpacific radiophone		16300 kc. PCL 18.40 meters KOOTWIJK, HOLLAND Works with Bandoeng from 7 a. m.	
25960 kc. G5SW 11.55 meters British Broad. Corp. CHELMSFORD, ENGLAND Experimental, relay broadcasting		19950 kc. DIH 15.03 meters NAUEN, GERMANY		17850 kc. PLF 16.80 meters BANDOENG, JAVA ("Radio Malabar")		16300 kc. WLO 18.40 meters A. T. & T. CO., LAWRENCE, N. J.	
25700 kc. W2XBC 11.67 meters Radio Corp. of America NEW BRUNSWICK, N. J.		19906 kc. LSG 15.07 meters MONTE GRANDE, ARGENTINA 8-10 a. m., commercial radiophone		17850 kc. W2XAO 16.80 meters Radio Corp. of America NEW BRUNSWICK, N. J.		16200 kc. FZR 18.50 meters SAIGON, INDO-CHINA Radiophone to Paris	
24000 kc. W6XQ 12.48 meters SAN MATEO, CALIF.		19850 kc. WMI 15.10 meters A. T. & T. CO., DEAL, N. J.		17830 kc. PCV 16.82 meters KOOTWIJK, HOLLAND 9:40 a. m. Sat.		16150 kc. GBX 18.56 meters RUGBY, ENGLAND	
21540 kc. W8XK 13.93 meters WESTINGHOUSE ELECTRIC SAXONBURG, PA. 7:30 a. m.-noon; relays KDKA programs		19830 kc. FTD 15.12 meters ST. ASSISE, FRANCE		17780 kc. W8XK 16.87 meters WESTINGHOUSE ELECTRIC AND MFG. CO. Saxonburg, Pa. Relays KDKA programs		16060 kc. NAA 18.68 meters U. S. NAVY, ARLINGTON, VA. Time signals, 11:57 to noon	
21470 kc. GSH 13.97 meters BRITISH BROAD. CORP. Daventry, England British Empire programs		19400 kc. FRO, FRE 15.45 meters ST. ASSISE, FRANCE		17780 kc. W3XAL 16.87 meters NATIONAL BROAD. CO. Bound Brook, N. J. Experimental; relays WJZ programs		15950 kc. PLG 18.80 meters BANDOENG, JAVA Afternoons.	
21420 kc. W2XDJ 14.00 meters A. T. & T. CO., DEAL, N. J. Experimental radiophone		19300 kc. FTM 15.55 meters ST. ASSISE, FRANCE 10 a. m. to noon		17780 kc. W9XF 16.87 meters DOWNERS GROVE, ILL. Irregular; relays NBC programs		15860 kc. FTK 18.90 meters ST. ASSISE, FRANCE Commercial radiophone	
21400 kc. WLO 14.01 meters A. T. & T. CO. Lawrence, N. J. Transoceanic phone		19240 kc. DFA 15.58 meters NAUEN, GERMANY		17770 kc. GSG 16.88 meters, British Broad. Corp. DAVENTRY, ENGLAND British Empire programs		15490 kc. JIAA 19.36 meters TOKIO, JAPAN 5:00-7:00 a. m.	
21130 kc. LSM 14.15 meters MONTE GRANDE, ARGENTINA Commercial radiophone; occasional broadcasting.		19220 kc. WNC 15.60 meters A. T. & T. CO., DEAL, N. J. Transoceanic radiophone		17770 kc. PHI 16.88 meters HUIZEN, HOLLAND Experimental		15330 kc. W2XAD 19.56 meters GENERAL ELECTRIC CO. Schenectady, N. Y. Relays NBC and WGY programs	
21020 kc. LSN 14.27 meters (Hurlingham), Buenos Aires, Argentina Commercial radiophone; occasional broadcasting.		18820 kc. PLE 15.94 meters BANDOENG, JAVA. 8:40-10:40 a. m. Phone service to Holland		17640 kc. Ship. 17.00 meters SHIP Phones to Shore WSBN, "Leviathan" GFVW, "Majestic" GLSQ, "Olympic" GDLJ, "Homeric" GMJQ, "Belgenland" Work on this and higher channels		15300 kc. OXY 19.60 meters LYNGBY, DENMARK Experimental & relay broadcasting	
21000 kc. OKI 14.28 meters PODEBRADY, CZECHOSLOVAKIA		18620 kc. GBU 16.11 meters General Post Office RUGBY, ENGLAND		17380 kc. JIAA 17.25 meters TOKIO, JAPAN		15270 kc. W2XE 19.65 meters COLUMBIA BROAD. SYS. Wayne, N. J. 11:00 a. m.-1:00 p. m.	
20730 kc. LSY 14.47 meters MONTE GRANDE, ARGENTINA Commercial radiophone; occasional broadcasting.		18370 kc. PMC 16.33 meters BANDOENG, JAVA.		17300 kc. W8XL 17.34 meters DAYTON, OHIO		15240 kc. FYA 19.68 meters "RADIO COLONIAL" Pontoise (Paris), France Service de la Radiodiffusion, 103 Rue de Grenelle, Paris Daily 7:00-10:00 a. m. Also during late afternoon	
20680 kc. LSN 14.50 meters MONTE GRANDE, ARGENTINA after 10:30 p. m. Telephony with Europe		18350 kc. WND 16.35 meters DEAL BEACH, N. J.		17300 kc. W6XAJ 17.34 meters OAKLAND, CALIF.		15210 kc. W8XK 19.72 meters WESTINGHOUSE ELECTRIC & MFG. CO. Saxonburg, Pa. 7:30 a. m. to 5 p. m. Relays KDKA programs	
20680 kc. LSX 14.50 meters BUENOS AIRES Telephony with U. S., also occasional broadcasting		18310 kc. GBS 16.38 meters General Post Office RUGBY, ENGLAND Telephony with New York		17300 kc. W9XL 17.34 meters ANOKA, MINN.		15200 kc. DJB 19.73 meters ZEESEN, GERMANY	
20680 kc. FSR 14.50 meters PARIS-SAIGON PHONE		18240 kc. FRO, FRE 16.44 meters ST. ASSISE, FRANCE		17110 kc. WOO 17.52 meters A. T. & T. CO., DEAL, N. J. Transoceanic radiophone		15140 kc. GSF 19.81 meters BRITISH BROAD. CORP. Daventry, England British Empire programs	
20620 kc. PMB 14.54 meters Bandoeng, Java After 4 a. m.; radiophone to Holland		81170 kc. CGA 16.50 meters DRUMMONDVILLE, QUEBEC CANADA Telephony to England		17110 kc. W2XOD 17.52 meters A. T. & T. Co. OCEAN GATE, N. J.		15120 kc. HVJ 19.83 meters VATICAN CITY Rome, Italy Daily 5:00 to 5:15 a. m.	

Station	Dial	Station	Dial	Station	Dial	Station	Dial
15120 kc. JIAA 19.83 meters TOKIO, JAPAN Irregular, early morning.		12150 kc. GBS 24.68 meters RUGBY, ENGLAND Transatlantic phone to Dea' N. J. (New York)		11760 kc. XDA 25.50 meters TRENDS-NEWS AGENCY Mexico City 3-4 p. m.		10390 kc. GBX 28.86 meters RUGBY, ENGLAND	
15075 ★TI4NRH 19.9 meters HEREDIA, COSTA RICA, C. A.		12150 kc. FQO, FQE 24.68 meters STE. ASSISE, FRANCE		11760 kc. ★DJD 25.50 meters ZEESEN, GERMANY		10350 kc. LSX 28.98 meters BUENOS AIRES, ARGENTINA Commercial radiophone	
15000 kc. CM6XJ 19.99 meters CENTRAL TUINUCU, CUBA Irregular		12045 kc. ★NAA 24.89 meters ARLINGTON, VA. Time signals, 11:57 to noon.		11750 kc. ★GSD 25.53 meters BRITISH BROAD. CORP. Davenry, England British Empire programs		10250 kc. ★TI4NRH 29.30 meters AMONDO CESPEDES MARIN Heredia, Costa Rica Mon. and Wed., 7:30 to 8:30 p. m.; Thurs. and Sat., 9:00 to 10 p. m.	
14620 kc. XDA 20.50 meters TRENDS-NEWS AGENCY Mexico City 2:30-3 p. m.		12045 kc. ★NSS 24.89 meters ANNAPOLIS, MD. Time signals, 9:57-10 p. m.		11750 kc. ★VE9JR 25.53 meters WINNIPEG, CANADA Weekdays, 5:30-7:30 p. m.		10150 kc. DIS 29.54 meters NAUEN, GERMANY Press (code) daily; 6 p. m., Spanish; 7 p. m., English; 7:50 p. m., German; 2:30 p. m., English; 5 p. m., German. Sundays: 6 p. m., Spanish; 7:50 p. m., German; 9:30 p. m., Spanish	
14530 kc. LSA 20.65 meters BUENOS AIRES, ARGENTINA		12000 kc. FZG 24.98 meters SAIGON, INDO-CHINA Time signals, 2-2:05 p. m.		11730 kc. PHI 25.57 meters HUIZEN, HOLLAND		10000 kc. 30 meters BELGRADE, JUGO-SLAVIA	
14480 kc. GBW 20.70 meters RADIO SECTION General Post Office, London E. C. I. Rugby, England		11945 kc. KKQ 25.10 meters BOLINAS, CALIF.		11705 kc. ★FYA 25.6 meters "RADIO COLONIAL" Pontoise (Paris) Daily, 3:00-6:00 p. m.		9950 kc. GBU 30.15 meters RUGBY, ENGLAND	
14480 kc. WNC 20.70 meters A. T. & T. CO., DEAL, N. J. Transoceanic radiophone		11905 kc. ★FYA 25.16 meters "RADIO COLONIAL" Pontoise, Paris Daily 10:30 a. m.-2:00 p. m.		11690 kc. ★YVQ 25.65 meters MARACAY, VENEZUELA (Also broadcasts occasionally)		9890 kc. LSN 30.30 meters BUENOS AIRES Phone to Europe	
14420 kc. VPD 20.80 meters SUVA, FIJI ISLANDS		11880 kc. ★W9XF 25.24 meters NATIONAL BROADCASTING CO. Downers Grove (Chicago), Ill. 9-10 p. m. daily; relays NBC programs		11670 kc. KIO 25.68 meters KAHUUH, HAWAII		9890 kc. LSA 30.30 meters BUENOS AIRES	
14150 kc. KKZ 21.17 meters BOLINAS, CALIF.		11870 kc. VUC 25.26 meters CALCUTTA, INDIA 9:45-10:45 p. m.; 8-9 a. m.		11530 kc. CGA 26.00 meters DRUMMONDVILLE, CANADA		9860 kc. ★EAQ 30.4 meters TRANSRADIO ESPANOLA Alcala 43-Madrid, Spain (P. O. Box 951) 5:30-7:00 p. m. daily	
13400 kc. WND 22.38 meters A. T. & T. CO., DEAL BEACH, N. J. Transoceanic telephony		11870 kc. ★W8XK 25.26 meters WESTINGHOUSE ELECTRIC East Pittsburgh, Pa. 4-10 p. m., relays KDKA programs		11490 kc. GBK 26.10 meters BODMIN, ENGLAND		9790 kc. GBW 30.64 meters RUGBY, ENGLAND	
12880 kc. CNR 23.38 meters RABAT, MOROCCO, AFRICA		11865 kc. ★GSE 25.28 meters British Broad. Corp. DAVENTRY, ENGLAND British Empire programs		11470 kc. IBDK 26.15 meters S.S. "ELETTRA" Marconi's yacht		9750 kc. WNC 30.75 meters DEAL, N. J.	
12850 kc. W2XO 23.35 meters GENERAL ELECTRIC CO. Schenectady, N. Y. Experimental radiophone and relay broadcasting		11840 kc. W9XAO 25.34 meters CHICAGO FEDERATION OF LABOR Chicago, Ill. Relays WCFL programs		11435 kc. DHC 26.22 meters NAUEN, GERMANY		9700 kc. WMI 30.90 meters DEAL, N. J.	
12850 kc. W2XCU 23.35 meters AMPERE, N. J.		11830 kc. ★W2XE 25.36 meters COLUMBIA BROADCASTING SYS., Wayne, N. J. 3:00-5:00 p. m.		11340 kc. DAN 26.44 meters NORDEICH, GERMANY Time signals, 7 a. m., 7 p. m. Deutsche Seewarte, Hamburg		9675 kc. ★T14NRH 31 meters HEREDIA, COSTA RICA, C. A.	
12850 kc. W9XL 23.35 meters ANOKA, MINN.,		11810 kc. ★I2RO 25.4 meters "RADIO ROMA NAPOLI" Rome, Italy Daily, 11:30 a. m. to 12:15 p. m. and 2:00-6:00 p. m. Sunday, 11:00 a. m.-12:15 p. m. Woman announcer		11181 kc. ★CT3AQ 26.83 meters FUNCHAL, MADEIRA Tues., Thurs., 5:00-6:30 p. m. Sunday, 10:30 a. m.-1:00 p. m.		9640 kc. HSP2 31.10 meters BROADCASTING SERVICE Post and Telegraph Department Bangkok, Siam 9-11 a. m., daily	
12820 kc. ★CNR 23.38 meters DIRECTOR GENERAL Telegraph and Telephone Stations, Rabat, Morocco Sun., 7:30-9 a. m. Daily, 5-7 a. m. Telephony		11800 kc. ★VE9GW 25.42 meters W. A. SHANE, CHIEF ENGINEER Bowmanville, Canada Daily, 1-4 p. m.		10980 kc. ZLW 27.30 meters WELLINGTON, N. Z. Tests 3-8 a. m.		9600 kc. ★CTIAA 31.25 meters LISBON, PORTUGAL Tues. and Friday, 4:30-7:00 p. m.	
12780 kc. GBC 23.46 meters RUGBY, ENGLAND		11790 kc. WIXAL 25.45 meters BOSTON, MASS.	29 103 40	10630 kc. PLR 28.20 meters BANDOENG, JAVA Works with Holland and France weekdays from 7 a. m.; sometimes after 9:30		9600 kc. LQA 31.25 meters BUENOS AIRES	
12290 kc. GBU 24.41 meters RUGBY, ENGLAND		11780 kc. ★VE9DR 25.47 meters DRUMMONDVILLE, QUEBEC Canada Irregular		10540 kc. WLO 28.44 meters A. T. & T. CO., LAWRENCE, N. J. Transoceanic radiophone		9595 kc. ★HBL 31.27 meters League of Nations GENEVA, SWITZERLAND	
12250 kc. FTN 24.46 meters STE. ASSISE (PARIS), FRANCE Works Buenos Aires, Indo-China and Java. On 9 a. m. to 1 p. m. and other hours				10540 kc. VLK 28.44 meters SYDNEY, AUSTRALIA Commercial radiophone		9590 kc. ★VK2ME 31.28 meters AMALGAMATED WIRELESS, Ltd., Sydney, Australia Sun., 1-3 a. m., 5-9 a. m., 9:30-11:30 a. m.	
12250 kc. GBS 24.46 meters RUGBY, ENGLAND				10410 kc. PDK 28.80 meters KOOTWIJK, HOLLAND			
12250 kc. PLM 24.46 meters BANDOENG, JAVA Radiophone to Holland				10410 kc. KEZ 28.80 meters BOLINAS, CALIF.			
				10410 kc. LSY 28.80 meters BUENOS AIRES, ARGENTINA			

Station	Dial	Station	Dial	Station	Dial	Station	Dial
9585 kc. ★GSC 31.29 meters BRITISH BROAD. CORP. Daventry, England British Empire programs		9200 kc. GBS 32.61 meters RUGBY, ENGLAND Transatlantic phone		8120 kc. PLW 36.92 meters BANDOENG, JAVA		7220 kc. HB9D 41.50 meters ZURICH, SWITZERLAND 1st and 3rd Sundays at 7 a. m., 2 p. m.	
9580 kc. ★W3XAU 31.32 meters BYBERRY (Philadelphia), PA. relays WCAU daily		9010 kc. GBS 33.30 meters RUGBY, ENGLAND		8100 kc. EATH 37.02 meters VIENNA, AUSTRIA Mon. and Thurs., 5:30 to 7 p. m.		7195 kc. VSIAB 41.67 meters SINGAPORE, S. S. Mon., Wed. and Fri., 9:30-11 a. m.	
9570 kc. ★WIXAZ 31.35 meters WESTINGHOUSE ELECTRIC & MFG. CO. Springfield, Mass. 6 a. m.-10 p. m., daily		8928 kc. TGX 33.50 meters GUATEMALA CITY, C. A.		7390 kc. DOA 37.80 meters DOEBERITZ, GERMANY 1 to 3 p. m. Reichpostzentramt, Berlin		7140 kc. HKX 42.00 meters BOGOTA, COLOMBIA Irregular	
9570 kc. SRI 31.35 meters POZNAN, POLAND Tues., 2:00-5:00 p. m., Wed., 7:00-8:00 a. m., Thurs., 2:00- 3:30 p. m.		8872 kc. NPO 33.81 meters CAVITE (MANILA) Philippine Islands Time signals 9:55-10 p. m.		7890 kc. VPD 38.00 meters SUVA, FIJI ISLANDS		7020 kc. EAR125 42.70 meters MADRID, SPAIN Irregular	
9560 kc. ★DJA 31.38 meters REICHSPPOSTZENTRALAMT 11-15 Schoenberge Strasse (Berlin) Konigswusterhausen, Germany		8872 kc. ★NAA 33.81 meters ARLINGTON, VA. Time signals 9:57-10 p. m., 2:57-3 p. m.		7880 kc. JIAA 38.07 meters TOKIO, JAPAN Broadcasting 5:00-7:00 a. m.		6990 kc. ★CTIAA 42.90 meters LISBON, PORTUGAL Fridays, 5-7 p. m.	
9530 kc. ★W2XAF 31.48 meters GENERAL ELECTRIC CO. Schenectady, N. Y. Relays NBC and WGY programs		8810 kc. WSBN 34.05 meters S.S. "LEVIATHAN"		7830 kc. PDV 38.30 meters KOOTWIJK, HOLLAND After 9 a. m.		6976 kc. EAR110 43 meters MADRID, SPAIN Tues., Sat., 5:30 p. m.	
9520 kc. ★OXY 31.51 meters SKAMLEBOEK, DENMARK Daily from 1:00 p. m.		8690 kc. W2XAC 34.50 meters SCHENECTADY, NEW YORK		7799 kc. ★HBP 38.47 meters LEAGUE OF NATIONS, GENEVA, SWITZERLAND		6875 kc. F8MC 43.60 meters CASABLANCA, MOROCCO Sun., Tues., Wed., Sat.	
9510 kc. ★GSB 31.55 meters BRITISH BROAD. CORP. Daventry, England British Empire programs		8650 kc. W2XCU 34.68 meters AMPERE, N. J.		7770 kc. FTF 38.60 meters STE. ASSISE, FRANCE		6860 kc. KEL 43.70 meters BOLINAS, CALIF. Transpacific Radiophone	
9510 kc. ★VK3ME 31.55 meters AMALGAMATED WIRELESS, Ltd. 167-169 Queen St., Melbourne, Australia Wed., 5:00-6:30 a. m., Sunday, 5:00-7:00 a. m.		8650 kc. W3XE 34.68 meters BALTIMORE, MD. 12:15-1:15 p. m., 10:15-11:15 p. m.		7770 kc. PCK 38.60 meters KOOTWIJK, HOLLAND 9 a. m. to 7 p. m.		6860kc. Radio Vitus 43.70 meters PARIS, FRANCE 4-11 a. m. 3 p. m.	
9375 kc. EH9OC 32.00 meters BERNE, SWITZERLAND 3-5:30 p. m.		8650 kc. W2XV 34.68 meters RADIO ENGINEERING LAB. Long Island City, N. Y.		7660 kc. FTL 39.15 meters STE. ASSISE, FRANCE		6840 kc. CFA 43.80 meters DRUMMONDVILLE, CANADA	
9330 kc. CGA 32.15 meters 5:00-7:00 a. m. DRUMMONDVILLE, CANADA		8650 kc. W8XAG 34.68 meters DAYTON, OHIO		7612 kc. HKF 39.40 meters BOGOTA, COLOMBIA 8-10 p. m.		6753 kc. WND 44.40 meters DEAL, N. J.	
9310 kc. GBC 32.22 meters RUGBY, ENGLAND Sundays, 2:30-5 p. m.		8650 kc. VE9BY 34.68 meters LONDON, ONTARIO, CANADA		7612 kc. X26A 39.4 meters NUEVO LAREDO, MEXICO		6660 kc. F8KR 45 meters CONSTANTINE, ALGERIA Mon., Fri., 5 p. m.	
9300 kc. CNR 32.26 meters RABAT, MOROCCO Sunday 2:00-4:00 p. m.		8650 kc. W4XG 34.68 meters MIAMI, FLA.		7530 kc. El Prado 39.80 meters Riobamba, Ecuador Thurs., 9-11 p. m.		6660 kc. HKM 45 meters BOGOTA, COLOMBIA 9-11 p. m.	
9250 kc. GBK 32.40 meters BODMIN, ENGLAND		8650 kc. W3XX 34.68 meters WASHINGTON, D. C.		7520 kc. CGE 39.74 meters CALGARY, CANADA Testing, Tues., Thurs.		6660 kc. TGW 45 meters GUATEMALA CITY, C. A.	
9230 kc. FLJ 32.50 meters PARIS, FRANCE (Eiffel Tower). Time signals 2:56 a. m. and 2:56 p. m.		8630 kc. WOO 34.74 meters DEAL, N. J.		7460 kc. YR 40.20 meters LYONS, FRANCE Daily except Sun., 10:30 to 1:30 a. m.		6515 kc. WOO 46.05 meters DEAL, N. J.	
		8630 kc. W2XDO 34.74 meters OCEAN GATE, N. J.		7444 kc. HBQ 40.3 meters LEAGUE OF NATIONS, GENEVA, SWITZERLAND		6438 kc. REN 46.6 meters MOSCOW, U. S. S. R.	
		8570 kc. ★RV15 35.00 meters FAR EAST RADIO STATION Khabarovsk, Siberia 5-7:30 a. m.		7320 kc. ZTJ 40.90 meters JOHANNESBURG, SO. AFRICA 9:30 a. m.-2:30 p. m.		6425 kc. W9XL 46.70 meters ANOKA, MINN.	
		8550 kc. WOO 35.09 meters OCEAN GATE, N. J.		7230 kc. DOA 41.46 meters DOEBERITZ, GERMANY Irregular			
		8450 kc. PRAG 35.50 meters PORTO ALEGRE, BRAZIL 8:30-9:00 a. m.					

Station	Dial	Station	Dial	Station	Dial	Station	Dial
6425 kc. ★W3XL 46.70 meters NATIONAL BROADCASTING CO. Bound Brook, N. J. Relays WJZ programs		6120 kc. ★YV1BC 49.02 meters CARACAS, VENEZUELA 8:00-10:00 p. m. nightly		Nairobi, Kenya, Africa Monday, Wednesday, Friday, 11 a. m.-2:30 p. m.; Tuesday, Thursday, 11:30 a. m.-2:30 p. m. Saturday, 11:30 a. m.-3:30 p. m.; Sunday, 11 a. m.-1:30 p. m.; Tuesday, 3 a. m.-4 a. m.; Thursday, 8 a. m.-9 a. m.		6000 kc. ★RV59 50 meters RADIO MOSCOW, U. S. S. R. 2:00-5:00 p. m. daily	
6425 kc. VE9BY 46.7 meters LONDON, ONTARIO, CANADA		6110 kc. VE9CG 49.10 meters CALGARY, ALTA., CANADA		6060 kc. CMCI 49.5 meters HAYANA, CUBA 9:00-11:00 p. m.		5970 kc. ★HVJ 50.26 meters VATICAN CITY (ROME) 2-2:15 p. m., daily. Sun., 5-5:30 a. m.	
6420 kc. RV62 46.72 meters MINSK, U. S. S. R. Irregular		6110 kc. VUC 49.1 meters CALCUTTA, INDIA		6060 kc. ★W3XAU 49.50 meters BYBERRY, PA. Relays WCAU, Philadelphia		5900 kc. HKO 50.80 meters MEDELLIN, COLOMBIA 8-11 p. m., except Sunday	
6382 kc. HC1DR 47.00 meters QUITO, ECUADOR 8-11 p. m.		6100 kc. ★W3XAL 49.15 meters NATIONAL BROADCASTING CO. Bound Brook, N. J. Relays WJZ programs		6050 kc. ★GSA 49.58 meters BRITISH BROAD. CORP. Davenry, England British Empire programs		5857 kc. XDA 51.22 meters MEXICO CITY, MEXICO	
6335 kc. VE9AP 47.35 meters DRUMMONDVILLE, CANADA		6100 kc. VE9CF 49.15 meters HALIFAX, N. S., CANADA 6-10 p. m., Tues., Thurs., Fri.		6050 kc. VE9CF 49.59 meters HALIFAX, N. S., CANADA 11 a. m.-noon, 5-6 p. m. On Wed., 8-9; Sun., 6:30-8:15 p. m.		5835 kc. HKD 51.40 meters BARRANQUILLA, COLOMBIA 7:45-10:30 p. m., Mon.; Wed., 8-10:30 p. m.; Sunday, 7:45- 8:30 p. m. Elias J. Pellet.	
6270 kc. HKC 47.81 meters BOGOTA, COLOMBIA 8:30-11:30 p. m.		6100 kc. ★W9XF 49.18 meters DOWNS GROVE, ILL. Relays WENR, Chicago		6040 kc. PK3AN 49.67 meters SOURABAYA, JAVA 6-9 a. m.		5710 kc. VE9CL 52.50 meters WINNIPEG, CANADA	
6243 kc. HKD 48.05 meters BARRANQUILLA, COLOMBIA		6095 kc. ★VE9GW 49.17 meters BOWMANVILLE, ONTARIO, CANADA 5:00 p. m. to midnight		6040 kc. ★W4XB 49.67 meters LAWRENCE E. DUTTON care Isle of Dreams Broadcast Corp., Miami Beach, Fla. until 10:00 p. m.		5550 kc. W8XJ 54.02 meters COLUMBUS, OHIO	
6250 kc. ★CN8MC 48 meters CASABLANCA, MOROCCO Monday, 3:00-4:00 p. m. Tuesday, 7:00, 8:00 a. m. and 3:00-4:00 p. m.		6080 kc. ★W9XAA 49.31 meters CHICAGO FEDERATION OF LABOR Chicago, Ill. Relays WCFL programs		6040 kc. WIXAL 49.67 meters BOSTON, MASS.		5170 kc. OK1MPT 58.00 meters PRAGUE, CZECHOSLOVAKIA 1-3:30 p. m., Tues. and Fri.	
6220 kc. ★I2RO 48.2 meters ROME, ITALY		6075 kc. ★OXY 49.4 meters SKAMLEBOAEK, DENMARK		6030 kc. VE9CA 49.75 meters CALGARY, ALTA., CANADA		5170 kc. PMY 58.00 meters BANDOENG, JAVA	
6167 kc. XIF 48.65 meters MEXICO CITY, MEXICO		6072 kc. UOR2 49.41 meters VIENNA, AUSTRIA		6023 kc. XEW 49.8 meters MEXICO CITY, MEXICO		5170 kc. PMB 58.00 meters SOURABAYA, JAVA	
6147 kc. ★VE9CL 48.8 meters WINNIPEG, CANADA 7:00-9:30 p. m.		6069 kc. VE9CS 49.43 meters VANCOUVER, B. C., CANADA		6020 kc. DJC 49.83 meters ZEESEN, GERMANY		5174 kc. HCJB 52.5 meters QUITO, ECUADOR, S. A.	
6140 kc. ★W8XK 48.86 meters WESTINGHOUSE ELECTRIC & MFG. CO. Saxonburg, Pa. Relays KDKA programs, 5 p. m.-midnight		6069 kc. JB 49.43 meters JOHANNESBURG, SOUTH AFRICA 10:30 a. m.-3:30 p. m.		6005 kc. VE9DR 49.96 meters CANADIAN MARCONI CO. Drummondville, Quebec 6-10 p. m. daily.		5145 kc. OK1MPT 58.31 meters PRAGUE, CZECHOSLOVAKIA	
6125 kc. VE9HX 48.98 meters HALIFAX, NOVA SCOTIA		6065 kc. SAJ 49.46 meters MOTALA, SWEDEN 6:30-7 a. m., 11 a. m. to 4:30 p. m.		6005 kc. VE9CU CALGARY, CANADA Irregular		4975 kc. W2XV 60.30 meters RADIO ENGINEERING LAB- ORATORIES, Inc. Long Island City, N. Y.	
6122 kc. ZTJ 49 meters JOHANNESBURG, SOUTH AFRICA 10:30 a. m.-3:30 p. m.		6060 kc. ★W8XAL 49.50 meters CROSLY RADIO CORP. Cincinnati, O. Relays WLW programs		6000 kc. ZGE 50 meters KUALA LUMPUR, MALAY STATES		4795 kc. W9XAM 62.56 meters ELGIN, ILL. (Time signals.)	
6120 kc. ★W2XE 49.02 meters COLUMBIA BROADCASTING SYS. Wayne, N. J., 6:00-11:00 p. m.		6060 kc. ZL2ZX 49.5 meters WELLINGTON, N. Z. Mon., Wed., Thurs., Sat., 10:15 a. m.-1:15 p. m.		6000 kc. EAJ25 50 meters BARCELONA RADIO CLUB, BARCELONA, SPAIN		4795 kc. W3XZ 62.56 meters WASHINGTON, D. C.	
6120 kc. FL 49.02 meters EIFFEL TOWER, PARIS 5:30-5:45 a. m.; 5:45-12:30, 4:15- 4:45 p. m.		6060 kc. ★VQ7LO 49.50 meters IMPERIAL AND INTERNA- TIONAL COMMUNICATIONS, Ltd.		6000 kc. FIQA 49.97 meters ADMINISTRATION DES P. T. T. Tananarive, Madagascar Tues., Wed., Thurs., Fri., 9:30- 11:30 a. m. Sat. and Sun., 1-3 p. m.		4795 kc. W9XL 62.56 meters CHICAGO, ILL. Irregular	
						4795 kc. VE9BY 62.56 meters LONDON, ONTARIO, CANADA	
						4770 kc. ZL2XX 62.80 meters WELLINGTON, NEW ZEALAND	

Station	Dial	Station	Dial	Station	Dial	Station	Dial
4760 kc. Radio LL 63.00 meters PARIS, FRANCE		4320 kc. G6RX 69.44 meters RUGBY, ENGLAND Experimental Radiophone		3750 kc. F8KR 80.00 meters CONSTANTINE, TUNIS, AFRICA Mon. and Fri.		3124 kc. WOO 96.03 meters DEAL, N. J.	
4750 kc. WOO 63.13 meters OCEAN GATE, N. J.		4310 kc. WTDV 69.60 meters VIRGIN ISLANDS		3750 kc. I3RO 80.00 meters PRATO EMERALDO, Rome, Italy Daily, 3-5 p. m.		3076 kc. W9XL 97.53 meters CHICAGO, ILL.	
4700 kc. WIXAB 63.79 meters PORTLAND, ME.		4273 kc. ★RV15 70.20 meters FAR EAST RADIO STATION Khabarovsk, Siberia Daily, 3-9 a. m.		3620 kc. DOA 82.90 meters DOEBERITZ, GERMANY		2590 kc. WOU 115.8 meters GREEN HARBOR, MASS. Commercial Radiophone, Ship Service	
4510 kc. VPN 66.5 meters NASSAU, BAHAMAS Radiophone to the U. S.		4116 kc. WOO 72.87 meters DEAL, N. J.		3560 kc. OZ7RL 84.24 meters COPENHAGEN, DENMARK Tues. and Fri. after 6 p. m.		2540 kc. WOX 118.06 meters STATEN ISLAND, N. Y. Experimental Radiophone	
4430 kc. DOA 67.65 meters DOEBERITZ, GERMANY 6-7 p. m., 2-3 p. m., Mon., Wed., Fri.		4105 kc. ★NAA 74.72 meters ARLINGTON, VA. Time signals, 9:57-10 p. m., 11:57 a. m. to noon		3256 kc. W9XL 92.50 meters CHICAGO, ILL.		2342 kc. W7XAW 128.09 meters FISHER'S BLEND, INC., Fourth Ave. and University St. Seattle, Washington	
4400 kc. DAF 68.18 meters NORDEN, GERMANY Commercial Radiophone to Ships		4000 kc. HCJB 75 meters QUITO, ECUADOR 9:30-9:45 p. m. daily		3156 kc. PK2AG 95.00 meters SAMARANG, JAVA		1560 kc. WIXAU 199.35 meters BOSTON, MASS.	

TELEVISION STATIONS

Television transmission at the present time is highly experimental in nature, and for this reason it is difficult to give operating hours, scanning speeds, lines per second, etc., with any degree of accuracy.

<p>According to frequency and wavelength</p> <p>1600-1700 kc. 176.5-187.5 m.</p> <p style="text-align: center;">Dial:</p> <p>W2XR—Radio Pictures, Inc. Long Island City, N. Y. 1000 watts. 60 lines</p> <p>W1XAV—Short Wave & Television Co. Boston, Mass. 1000 watts. 60 lines</p> <p>W8XN—Sparks-Withington Co. Jackson, Mich.</p> <hr/> <p>200-2100 kc. 142.9-150 m.</p> <p style="text-align: center;">Dial:</p> <p>W9XAO—Western Television Corp. Chicago, Ill. 500 watts. 45 lines</p> <p>W6XAH—Pioneer Mercantile Co. Bakersfield, Cal. 1000 watts. 60 lines</p> <p>W9XK—Iowa State University Iowa City, Iowa 100 watts. 60 lines</p>	<p>W8XF—Goodwill Station Pontiac, Mich. 1000 watts</p> <hr/> <p>2100-2200 kc. 136.4-142.9 m.</p> <p style="text-align: center;">Dial:</p> <p>W3XAK—National Broadcasting Co. 5000 watts. Portable</p> <p>W2XBS—National Broadcasting Co. New York, N. Y. 5000 watts</p> <p>W6XS—Don Lee Broadcasting Corp. Gardena, Calif. 1000 watts</p> <p>W9XAP—National Broadcasting Co. Chicago, Ill. 2,500 watts</p> <p>W9XAK—Kansas State College, Manhattan, Kans. 125 watts</p> <hr/> <p>2200-2300 kc. 130.4-1364 m.</p> <p style="text-align: center;">Dial:</p> <p>W9XAL—First National Television Corp. Kansas City, Mo.</p> <hr/> <p>2750-2850 kc. 105.3-109.1 m.</p> <p style="text-align: center;">Dial:</p> <p>W9XC—Purdue University W. Lafayette, Ind. 1500 watts. 60 lines</p>	<p>W2XAB—Atlantic Broadcasting Corp. New York, N. Y. 500 watts</p> <hr/> <p>43,000-46,000 kc. 6.52-6.98 m. 48,500-50,300 kc. 6.00-6.20 m. 60,000-80,000 kc. 3.75-5.00 m.</p> <p style="text-align: center;">Dial:</p> <p>W9XD—The Journal Co. Milwaukee, Wis. 500 watts</p> <p>W9XE—U. S. Radio & Tele. Corp. Marion, Ind. 1000 watts</p> <p>W8XF—Goodwill Station, Pontiac, Mich.</p> <p>W3XAD—RCA-Victor Co., Camden, N. J. 2000 watts</p> <p>W2XBT—National Broadcasting Co. Portable 750 watts</p> <p>W1XG—Short Wave & Television Co. Boston, Mass. 200 watts</p> <p>W2XR—Radio Pictures, Inc. Long Island City, N. Y. 1000 watts</p>	<p>W2XF—National Broadcasting Co. New York, N. Y. 5000 watts</p> <hr/> <p>W6XAO—Don Lee Broadcasting System Los Angeles, Calif. 150 watts</p> <hr/> <p>W3XE—Philadelphia Storage Battery Co. Philadelphia, Pa. 1500 watts</p> <hr/> <p>W2XAK—Atlantic Broadcasting Corp., New York, N. Y. 50 watts</p> <hr/> <p>W10XX—RCA-Victor Co., Portable and Mobile. 50 watts</p> <hr/> <p>W8XAN—Sparks-Withington Co., Jackson, Mich. 100 watts</p> <hr/> <p>W8XL—WGAR Broadcasting Co., Cuyahoga Hts., Ohio. 200 watts</p>
--	--	---	---

POLICE RADIO ALARM STATIONS

By Frequency and Wavelength

2506 kc.-120 m.
Dial:

KGZE San Antonio, Tex.

2470 kc.-121.5 m.
Dial:

KGOZ Cedar Rapids, Ia.
KGNP Davenport, Ia.
WPDZ Fort Wayne, Ind.
WPDT Kokomo, Ind.
WPEC Memphis, Tenn.
KGPI Omaha, Neb.
WPDJ Philadelphia, Pa.
KGGP San Francisco, Cal.
KGGM San Jose, Cal.
KGPW Salt Lake City, U.
WRDQ Toledo, Ohio
WPFL Gary, Ind.
PPFQ Swathmore, Pa.
WPFQ Knoxville, Tenn.
WPFJ Johnson City, Tenn.

2458 kc.-122.0 m.
Dial:

WPDO Akron, Ohio
WPDN Auburn, N. Y.
WPDY Charlotte, N. C.
WRDH Cleveland, Ohio
WPRD Rochester, N. Y.
WPEA Syracuse, N. Y.
..... Asheville, N. C.

2450 kc.-122.4 m.
Dial:

WPKD Milwaukee, Wis.
WPEE New York, N. Y.
WPEF New York, N. Y.

WPEG New York, N. Y.
KGPH Okla. City, Okla.
KGPO Tulsa, Okla.
KGPZ Wichita, Kans.
KGZF Chanute, Kans.
KGPZ Coffeyville, Kans.
KGPQ Honolulu, T. H.

2442 kc.-122.8 m.
Dial:

KGPX Denver, Col.
WPDF Flint, Mich.
WPEB Grd. Rapids, Mich.
WMDZ Indianapolis, Ind.
WPDJ Lansing, Mich.
WPDE Louisville, Ky.
KGGP Portland, Ore.
WPDH Richmond, Ind.
KGZH Klamath Falls, Ore.
WPFQ Muskegon, Mich.
WPFQ Reading, Pa.
KGGZ Salem, Ore.

2430 kc.-123.4 m.
Dial:

WPDJ Columbus, Ohio
KGGP Portland, Ore.
WPDJ Dayton, Ohio
KGGZ San Diego, Cal.
WPFJ Highland Park, Ill.
WPFJ Toms River, N. J.
WPFK Hackensack, N. J.

2422 kc.-123.8 m.
Dial:

KSW Berkeley, Cal.
WMJ Buffalo, N. Y.
KGPE Kansas City, Mo.

KGPG Vallejo, Cal.
WPEK New Orleans, La.
WPDW Washington, D. C.
WPFJ Jacksonville, Fla.

2416 kc.-124.1 m.
Dial:

KGPB Minneapolis, Minn.
WPDJ St. Paul, Minn.

2414 kc.-124.2 m.
Dial:

WPDY Atlanta, Ga.
KGPS Bakersfield, Cal.
WCK Belle Island, Mich.
WPDJ Detroit, Mich.
WRDR Grosse Pt. Vil. Mich.
WMO Highland Pk., Mich.
KGGP Seattle, Wash.
WPDJ Tulare, Cal.
KGGZ El Paso, Tex.
WPFH Baltimore, Md.
KGGZ Tacoma, Wash.
WPFJ Columbus, Ga.
WPFM Birmingham, Ala.
WPFJ Clarksburg, W. Va.
..... Santa Barbara, Cal.

1712 kc.-175.15 m.
Dial:

KGPJ Beaumont, Tex.
WPKB Chicago, Ill.
WPKC Chicago, Ill.
WPKD Chicago, Ill.
WPKD Cincinnati, Ohio

KVP Dallas, Tex.
KGPL Los Angeles, Cal.
KGJX Pasadena, Cal.
WPDJ Pittsburgh, Pa.
KGPC St. Louis, Mo.
KGGI Wichita Falls, Tex.
WPFJ Newton, Mass.
KGGZ Shreveport, La.
WPEH Somerville, Mass.
WPEP Arlington, Mass.
KGGZ Houston, Tex.
WPFJ Hammond, Ind.
WPFN Fairhaven, Mass.
KGGZ Waco, Tex.
WPEJ Lexington, Mass.
WPEI E. Providence, R. I.

1574 kc.-189.5 m.
Dial:

WRDS E. Lansing, Mich.
WMP Fram'gham, Mass.
WPEW North'pton, Mass.
KGGP Shreveport, La.
WPEL W. B'dgew'r, Mass.
WPEV Portable, Mass.

1534 kc.-196.1 m.
Dial:

KGHO Des Moines, Ia.

257 kc.-1123 m.
Dial:

WBR Butler, Pa.
WJL Greensburg, Pa.
WBA Harrisburg, Pa.
WMB W. Reading, Pa.
WDX Wyoming, Pa.

Alphabetically By Call Letters

KGHO	Des Moines, Iowa	1534 kc.	KSW	Berkeley, Cal.	2422 kc.	WPDZ	Fort Wayne, Ind.	2470 kc.
KGJX	Pasadena, Cal.	1712 kc.	KVP	Dallas, Tex.	1712 kc.	WPEA	Syracuse, N. Y.	2458 kc.
KGOZ	Cedar Rapids, Iowa	2470 kc.	WBA	Harrisburg, Pa.	257 kc.	WPEB	Grand Rapids, Mich.	2442 kc.
KGPA	Seattle, Wash.	2414 kc.	WBR	Butler, Pa.	257 kc.	WPEC	Memphis, Tenn.	2470 kc.
KGPB	Minneapolis, Minn.	2416 kc.	WCK	Belle Island, Mich.	2414 kc.	WPEE	New York, N. Y.	2450 kc.
KGPC	St. Louis, Mo.	1712 kc.	WDX	Wyoming, Pa.	257 kc.	WPEF	New York, N. Y.	2450 kc.
KGPD	San Francisco, Cal.	2470 kc.	WJL	Greensburg, Pa.	257 kc.	WPEG	New York, N. Y.	2450 kc.
KGPE	Kansas City, Mo.	2422 kc.	WKDU	Cincinnati, Ohio	1712 kc.	WPEH	Somerville, Mass.	1712 kc.
KGPG	Vallejo, Cal.	2422 kc.	WMB	W. Reading, Pa.	257 kc.	WPEI	E. Providence, R. I.	1712 kc.
KGPH	Oklahoma City, Okla.	2450 kc.	WMDZ	Indianapolis, Ind.	2442 kc.	WPEK	New Orleans, La.	2422 kc.
KGPI	Omaha, Neb.	2470 kc.	WMJ	Buffalo, N. Y.	2422 kc.	WPEL	W. Bridgewater, Mass.	1574 kc.
KGPI	Beaumont, Tex.	1712 kc.	WMO	Highland Park, Mich.	2414 kc.	WPEP	Arlington, Mass.	1712 kc.
KGPL	Los Angeles, Cal.	1712 kc.	WMP	Framingham, Mass.	1574 kc.	WPET	Lexington, Mass.	1712 kc.
KGPM	San Jose, Cal.	2470 kc.	WPDJ	Tulare, Cal.	2414 kc.	WPEV	Portable, Mass.	1574 kc.
KGNP	Davenport, Iowa	2470 kc.	WPDB	Chicago, Ill.	1712 kc.	WPFJ	Newton, Mass.	1712 kc.
KGPO	Tulsa, Okla.	2450 kc.	WPKB	Chicago, Ill.	1712 kc.	WPFM	Muskegon, Mich.	2442 kc.
KGPP	Portland, Ore.	2442 kc.	WPKC	Chicago, Ill.	1712 kc.	WPFN	Highland Park, Ill.	2430 kc.
KGPQ	Honolulu, T. H.	2450 kc.	WPKD	Chicago, Ill.	1712 kc.	WPFQ	Reading, Pa.	2442 kc.
KGPS	Bakersfield, Cal.	2414 kc.	WPDF	Flint, Mich.	2442 kc.	WPFJ	Toms River, N. J.	2430 kc.
KGPW	Salt Lake City, Utah	2470 kc.	WPDH	Richmond, Ind.	2442 kc.	WPFK	Jacksonville, Fla.	2442 kc.
KGPX	Denver, Colo.	2442 kc.	WPDJ	Columbus, Ohio	2430 kc.	WPFH	Baltimore, Md.	2414 kc.
KGGP	Shreveport, La.	1574 kc.	WPKB	Milwaukee, Wis.	2450 kc.	WPFJ	Columbus, Ga.	2414 kc.
KGPZ	Wichita, Kans.	2450 kc.	WPDJ	Lansing, Mich.	2442 kc.	WPFJ	Hammond, Ind.	1712 kc.
KGZB	Houston, Tex.	1712 kc.	WPDJ	Dayton, Ohio	2430 kc.	WPFK	Hackensack, N. J.	2430 kc.
KGZD	San Diego, Cal.	2430 kc.	WPDN	Auburn, N. Y.	2458 kc.	WPFL	Gary, Ind.	2470 kc.
KGZE	San Antonio, Tex.	2506 kc.	WPDO	Akron, Ohio	2458 kc.	WPFM	Birmingham, Ala.	2414 kc.
KGZF	Chanute, Kans.	2450 kc.	WPDJ	Philadelphia, Pa.	2470 kc.	WPFN	Fairhaven, Mass.	1712 kc.
KGZH	Klamath Falls, Ore.	2442 kc.	WPDJ	Philadelphia, Pa.	2470 kc.	WPFQ	Knoxville, Tenn.	2470 kc.
KGGI	Wichita Falls, Tex.	1712 kc.	WPRD	Rochester, N. Y.	2458 kc.	WPFQ	Clarksburg, W. Va.	2414 kc.
KGGZ	Shreveport, La.	1712 kc.	WPKB	St. Paul, Minn.	2416 kc.	WPFQ	Swathmore, Pa.	2470 kc.
KGGZ	El Paso, Tex.	2414 kc.	WPDJ	Kokomo, Ind.	2470 kc.	WPFJ	Johnson City, Tenn.	2470 kc.
KGGZ	Tacoma, Wash.	2414 kc.	WPDJ	Pittsburgh, Pa.	1712 kc.	WRDH	Cleveland, Ohio	2458 kc.
KGGZ	Coffeyville, Kans.	2450 kc.	WPDV	Charlotte, N. C.	2458 kc.	WRDR	Grosse Pt. Village, Mich.	2414 kc.
KGZQ	Waco, Tex.	1712 kc.	WPDW	Washington, D. C.	2422 kc.	WRDQ	Toledo, Ohio	2470 kc.
KGZR	Salem, Ore.	2442 kc.	WPDJ	Detroit, Mich.	2414 kc.			
			WPDY	Atlanta, Ga.	2414 kc.			

AIRPORT RADIO STATIONS

The airport stations do not follow any fixed schedules, and are likely to be heard any time of the day or night. The airplane transmitters are usually heard on the same wavelengths. The little "boxes" are for your dial settings.

<p>Group One <input type="checkbox"/></p> <p>94.86 m.-3160 kc. 53.83 m.-5570 kc. 94.56 m.-3170 kc. 53.74 m.-5580 kc. 93.29 m.-3215 kc. 53.64 m.-5590 kc. 52.98 m.-5660 kc.</p> <p>Bakersfield, Calif. KQK Bellefonte, Pa. WNAM Boise, Idaho KRA Brooksville, Pa. WNAL Burbank, Calif. KEU Cheyenne, Wyo. KOE Chicago, Ill. WUCG Cleveland, Ohio WNAK Dallas, Tex. KNAT Des Moines, Iowa KQM Elko, Nevada KKO Fort Worth, Tex. KGUC Fresno, Calif. KGT Iowa City, Iowa KQQ Kansas City, Mo. KNAS Lincoln, Neb. KRF Medford, Ore. KGE Moline, Ill. WNAU Newark, N. J. WNAO North Platte, Nebr. KMR Oakland, Calif. KFO Okla. City, Okla. KNAV Omaha, Nebr. KMP Orlando Twsp., Ill. WNAT Pasco, Wash. KRD Ponca City, Okla. KGUZ Portland, Ore. KVO Redding, Calif. KUT Rock Springs, Wyo. KQC Sacramento, Calif. KFM Salt Lake City, Utah KQD San Diego, Calif. KGQZ Seattle, Wash. KZJ Spokane, Wash. KGTZ Tulsa, Okla. KNAU Wichita, Kans. KGTE</p>	<p>60.39 m.-4970 kc. 52.7 m.-5690 kc. 52.45 m.-5720 kc.</p> <p>Alameda, Calif. KGSB Albuquerque, N. M. KSX Burbank, Calif. KSI Butte, Mont. KBTY Camden, N. J. WAEW Columbus, Ohio WHG Cresson, Pa. WAEG Harrisburg, Pa. WAED Indianapolis, Ind. WHM Kansas City, Mo. KST Kingman, Ariz. KGTL Las Vegas, Nev. KGTN Newark, N. J. WAEF Pittsburgh, Pa. WAEC Pocatello, Idaho KGTX Robertson, Mo. KGTR Springfield, Mo. KGTO Tulsa, Okla. KSY Wichita, Kans. KGTD Winslow, Ariz. KGTA</p> <p>Group Three <input type="checkbox"/></p> <p>103.23 m.-2905 kc. 60.15 m.-4990 kc. 97.63 m.-3075 kc. 54.45 m.-5510 kc. 97.15 m.-3090 kc. 53.83 m.-5570 kc. 94.86 m.-3160 kc. 53.74 m.-5580 kc. 94.56 m.-3170 kc. 53.64 m.-5590 kc. 94.26 m.-3180 kc. 52.98 m.-5660 kc. 93.29 m.-3215 kc. 52.88 m.-5670 kc. 60.39 m.-4970 kc. 52.7 m.-5690 kc.</p> <p>Denver, Colo. KGSP Las Vegas, Nev. KGTV Pueblo, Colo. KGSR Salt Lake City, Utah KGTH</p> <p>Group Four <input type="checkbox"/></p> <p>93.09 m.-3220 kc. 86.52 m.-3470 kc. 92.8 m.-3230 kc. 86.08 m.-3490 kc. 92.52 m.-3240 kc. 61.00 m.-4920 kc. 92.09 m.-3250 kc. 53.55 m.-5600 kc. 87.02 m.-3450 kc. 53.45 m.-5610 kc. 86.77 m.-3460 kc. 53.26 m.-5630 kc.</p> <p>Abilene, Tex. KGUL Beaumont, Tex. KGTV Birmingham, Ala. WSDE Boston, Mass. WSDD Mobile, Ala. WAEK</p>	<p>Newark, N. J. WSDC Tucson, Ariz. KGUO</p> <p>Group Five <input type="checkbox"/></p> <p>129.63 m.-2315 kc. 86.08 m.-3490 kc. 127.33 m.-2355 kc. 63.29 m.-4740 kc. 93.09 m.-3220 kc. 61.00 m.-4920 kc. 92.8 m.-3230 kc. 53.55 m.-5600 kc. 92.52 m.-3240 kc. 53.45 m.-5610 kc. 92.09 m.-3260 kc. 53.26 m.-5630 kc. 87.02 m.-3450 kc. 45.87 m.-6540 kc. 86.77 m.-3460 kc. 45.8 m.-6550 kc. 86.52 m.-3470 kc. 37.43 m.-8915 kc.</p> <p>Albany, N. Y. WSDM Atlanta, Ga. WQPD Bera, Ohio WSDQ Big Spring, Tex. KGUG Brownsville, Tex. KGUE Burbank, Calif. KGUR Chicago, Ill. WSDG Cincinnati, Ohio WSDI Columbus, Ohio WSDP Dallas, Tex. KGUF Douglas, Ariz. KGUN El Paso, Tex. KGUA Frijole, Tex. KGUM Indianapolis, Ind. WSDZ Indio, Calif. KGUQ Jackson, Miss. KSDB Little Rock, Ark. KQUU Louisville, Ky. WSDF Memphis, Tenn. WSDK Nashville, Tenn. WSDT New Orleans, La. WQDQ Omaha, Nebr. KGTS Phoenix, Ariz. KGUP Robertson, Mo. KGUT San Antonio, Tex. KGUD Shreveport, La. KGUK Springfield, Ill. WAEJ Waco, Tex. KGUH</p> <p>Group Six <input type="checkbox"/></p> <p>112.44 m.-2670 kc. 98.83 m.-3040 kc. 112.27 m.-2675 kc. 55.79 m.-5380 kc. 105.11 m.-2850 kc.</p> <p>Chicago, Ill. WSDS</p>	<p>Duluth, Minn. WSDL Fargo, N. D. KNWB Madison, Wis. WSDR Milwaukee, Wis. WAEH Pembina, N. D. KNWC St. Paul, Minn. KNWA</p> <p>Group Seven <input type="checkbox"/></p> <p>111.19 m.-2680 kc. 51.5 m.-5820 kc. 102.1 m.-2935 kc.</p> <p>Detroit, Mich. WAEI</p> <p>Group Eight <input type="checkbox"/></p> <p>129.63 m.-2310 kc. 45.87 m.-6540 kc. 127.33 m.-2355 kc. 45.8 m.-6550 kc. 86.52 m.-3470 kc. 45.73 m.-6560 kc. 63.29 m.-4740 kc. 37.45 m.-8910 kc.</p> <p>Blythe, Calif. KGUS Buffalo, N. Y. WSDO Houston, Tex. KGUB</p> <p>Group Nine <input type="checkbox"/></p> <p>126.1 m.-2380 kc. 63.22 m.-4740 kc. 101.83 m.-2950 kc. 53.07 m.-5650 kc. 100.46 m.-2990 kc. 45.52 m.-6590 kc. 72.11 m.-4160 kc. 45.45 m.-6600 kc.</p> <p>Atlantic City, N. J. WEEQ Baltimore, Md. WEEB Charleston, S. Car. WEEC Greensboro, N. Car. WEEG Jacksonville, Fla. WEEJ Linden, N. J. WEEH McRae, Ga. WEEI Miami, Fla. WEEW Orlando, Fla. WEEO Richmond, Va. WEEW Spartanburg, S. Car. WEEF</p> <p>Group Ten <input type="checkbox"/></p> <p>113.29 m.-2650 kc. 45.59 m.-6580 kc. 104.53 m.-2870 kc. 37.43 m.-8910 kc. 97.32 m.-3080 kc. 36.5 m.-8220 kc. 55.5 m.-5400 kc. 24.33 m.-12,330 kc. 53.64 m.-5700 kc. 18.47 m.-16,240 kc. 45.66 m.-6570 kc. 18.24 m.-16,450 kc.</p> <p>Brownsville, Tex. KGJV Miami, Fla. WKDL San Juan, P. R. WMDV</p>
--	--	--	---

Alphabetically by Call Letters

The number in parenthesis following the location indicates the frequency group in which the station operates.

<p>KBTY Butte, Mont. (2) KEU Burbank, Calif. (1) KFM Sacramento, Calif. (1) KFO Oakland, Calif. (1) KGE Medford, Ore. (1) KGUC Ft. Worth, Tex. (1) KGJW Brownsville, Tex. (10) KGQZ San Diego, Calif. KGSB Alameda, Calif. (2) KGSP Denver, Colo. (3) KGSR Pueblo, Colo. (3) KGT Fresno, Calif. (1) KGTA Winslow, Ariz. (2) KGTD Wichita, Kans. (2) KGTE Wichita, Kans. (1) KGTH Salt Lake City, U. (3) KGTV Las Vegas, Nev. (3) KGTL Kingman, Ariz. (2) KGTN Las Vegas, Nev. (2) KGTO Springfield, Mo. (2) KGTR Robertson, Mo. (2) KGTS Omaha, Neb. (5) KGTV Beaumont, Tex. (4) KGTX Pocatello, Idaho (2) KGTZ Spokane, Wash. (1) KGUA El Paso, Tex. (5)</p>	<p>KGUB Houston, Tex. (8) KGUD San Antonio, Tex. (5) KGUE Brownsville, Tex. (5) KGUF Dallas, Tex. (5) KGUG Big Spring, Tex. (5) KGUH Waco, Tex. (5) KGUK Shreveport, La. (5) KGUL Abilene, Tex. (4) KGUM Frijole, Tex. (5) KGUN Douglas, Ariz. (5) KGUO Tucson, Ariz. (4) KGUP Phoenix, Ariz. (5) KGUQ Indio, Calif. (5) KGUR Burbank, Calif. (5) KGUS Blythe, Calif. (8) KGUT Robertson, Mo. (5) KGUZ Ponca City, Okla. (1) KKO Elko, Neva. (1) KMP Omaha, Neb. (1) KMR No. Platte, Nebr. (1) KNAS Kansas City, Mo. (1) KNAT Dallas, Tex. (1) KNAU Tulsa, Okla. (1) KNAV Okla. City, Okla. (1) KNWA St. Paul, Minn. (6) KNWB Fargo, N. D. (6)</p>	<p>KNWC Pembina, N. D. (6) KOE Cheyenne, Wyo. (1) WAEW Pittsburgh, Pa. (2) WAED Harrisburg, Pa. (2) WAEW Camden, N. J. (2) WAEF Newark, N. J. (2) WAEG Cresson, Pa. (2) WAEH Milwaukee, Wis. (6) WAEI Detroit, Mich. (7) WAEJ Springfield, Ill. (5) WAEK Mobile, Ala. (4) WEEB Baltimore, Md. (9) WEEC Charleston, S. C. (9) WEEF Spartanburg, S. C. (9) WEEG Greensboro, N. C. (9) WEEH McRae, Ga. (9) WEEJ Jacksonville, Fla. (9) WEEW Miami, Fla. (9) WEEH Linden, N. J. (9) WEEO Orlando, Fla. (9) WEEQ Atlantic City, N. J. (9) WEEW Richmond, Va. (9) WHG Columbus, Ohio (2) WHM Indianapolis, Ind. (2) WKDL Miami, Fla. (10)</p>	<p>WMDV San Juan, P. R. (10) WNAO Newark, N. J. (1) WNAK Cleveland, Ohio (1) WNAL Brookville, Pa. (1) WNAM Bellefont, Pa. (1) WNAT Orlando Twship., Ill. (1) WNAU Moline, Ill. (1) WQDQ New Orleans, La. (5) WQPD Atlanta, Ga. (5) WSDC Newark, N. J. (4) WSDD Boston, Mass. (4) WSDE Birmingham, Ala. (4) WSDF Louisville, Ky. (5) WSDG Chicago, Ill. (5) WSDK Memphis, Tenn. (5) WSDL Duluth, Minn. (6) WSDM Albany, N. Y. (5) WSDO Buffalo, N. Y. (8) WSDP Columbus, Ohio (5) WSDQ Berea, Ohio (5) WSDS Chicago, Ill. (6) WSDT Nashville, Tenn. (5) WSDZ Indianapolis, Ind. (5) WSDI Cincinnati, Ohio (5) WSDC Chicago, Ill. (1)</p>
--	---	--	--

AIR LINE DISTANCES OVER

Everyone who has studied geography is familiar with the map called "Mercator's Projection," which for more than three centuries has been the basis for all world maps. Since the earth is round and a map is flat, all ordinary maps give a very distorted idea as to the actual geographical relationship existing between distant countries, and as a distance and direction guide for the short wave fan they are altogether useless. If

FROM TO	NORTH AMERICA								SOUTH AMERICA		AFRICA	
	Montreal, Que.	New York, N. Y.	Pittsburgh, Pa.	Chicago, Ill.	Winnipeg, Man.	Denver, Colo.	Los Angeles, Cal.	San Francisco, Cal.	Rio de Janeiro, Brazil	Buenos Aires, Argentina	Cairo, Egypt	Cape Town, U. of S. A.
Montreal, Que. New York, N. Y.	314	429	671	1000	1528	2278	2298	5117	5742	5469	7891	
		313	711	1271	1628	2446	2568	4766	5352	5586	7695	
WORLD	Pittsburgh, Pa. Chicago, Ill.	411	1128	1320	2135	2264	4922	5430	5820	7969		
		670	918	1741	1855	5312	5703	6172	8477			
DISTANCES	Winnipeg, Man. Denver, Colo.	800	1486	1402	3937	6328	6094	8984				
			828	946	5781	5898	6836	9180				
1523	Tampico, Mexico Balboa, Canal Zone	ARE	Los Angeles, Cal. San Francisco, Cal.	345	6250	6133	7578	8922				
					6475	6328	7500	10078				
2266 3711 2148 3398	703	Victoria, B. C. Saskatoon, Sask.	GIVEN	Rio de Janeiro, Brazil Buenos Aires, Argentina	1250	6172	3750					
						7344	4219					
1953 3203 1914 2539	859 156 2187 1445	1563	Regina, Sask. Ottawa, Ont.	ABOVE	Cairo, Egypt Cape Town, U. of S. A.	4492						
2344 2734 2422 2773	2305 1562 2656 1875	1445 430 1797 586	117	Quebec, Que. Moncton, N. B.	THIS	Madrid, Spain London, England						
3711 5117 1992 1094	2695 3477 3750 2969	3516 4766 2969 1914	4922 5312 1953 1953	3703	Honolulu, Hawaii San Juan, Porto Rico	LINE:						
2070 3594 1953 3437	273 898 352 586	816 810 570 715	2422 2734 2109 2422	2539 3672 2852 3398	352	Portland, Ore. Spokane, Wash.						
1406 2930 820 898	820 859 1641 1328	781 1888 1250 1397	1953 2305 1602 1875	3008 3281 3711 3437	664 547 1523 1328	862						
625 1797 1094 2383	1797 1523 1523 1094	1328 2656 820 1055	1641 1914 1289 1602	3789 2070 3867 2187	1680 1484 1484 1211	977 188 922 293						
1250 2422 1562 2656	1523 1016 1406 781	664 1094 547 859	1094 1484 1055 1523	3906 2227 3789 2422	1328 1094 1367 1094	952 469 988 692						
1172 2227 1094 1992	1758 1211 1914 1406	1016 898 1211 937	1289 1445 1172 1445	4023 2031 4258 1758	1680 1406 1797 1562	1158 456 1390 602						
1328 2187 1055 1758	1914 1367 2227 1719	1172 664 1523 937	898 1172 1172 1367	4297 1836 4414 1484	1875 1602 2148 1914	1450 755 1580 753						
1797 2461 1562 2070	2070 1406 2305 1680	1211 156 1484 469	430 742 625 820	4648 1875 4805 1523	2070 1707 2305 2031	1701 1117 1845 1150						
1719 2148 1914 2461	2383 1724 2397 1678	1770 386 1979 301	586 703 273 430	4883 1484 5041 1680	2422 2148 2500 2148	1923 1256 2099 1490						
Tampico, Mexico Balboa, Canal Zone	Victoria, B. C. Saskatoon, Sask.	Regina, Sask. Ottawa, Ont.	Quebec, Que. Moncton, N. B.	Honolulu, Hawaii San Juan, Porto Rico	Portland, Ore. Spokane, Wash.	Salt Lake City, Utah Oklahoma, Okla.						
MEXICO, ETC.	CANADA				UNITED STATES							

THE SURFACE OF THE EARTH

you want to know the real airline distances between important places, use a string and measure them on the face of a globe, or refer to the more convenient chart below. This is easily consulted and saves the radio fan the trouble of figuring the distance according to

the somewhat cramped scale on the globe. Space limitations make it impractical to include many small cities. However, the places shown are scattered in such a manner that approximate distances to nearby places may readily be calculated.

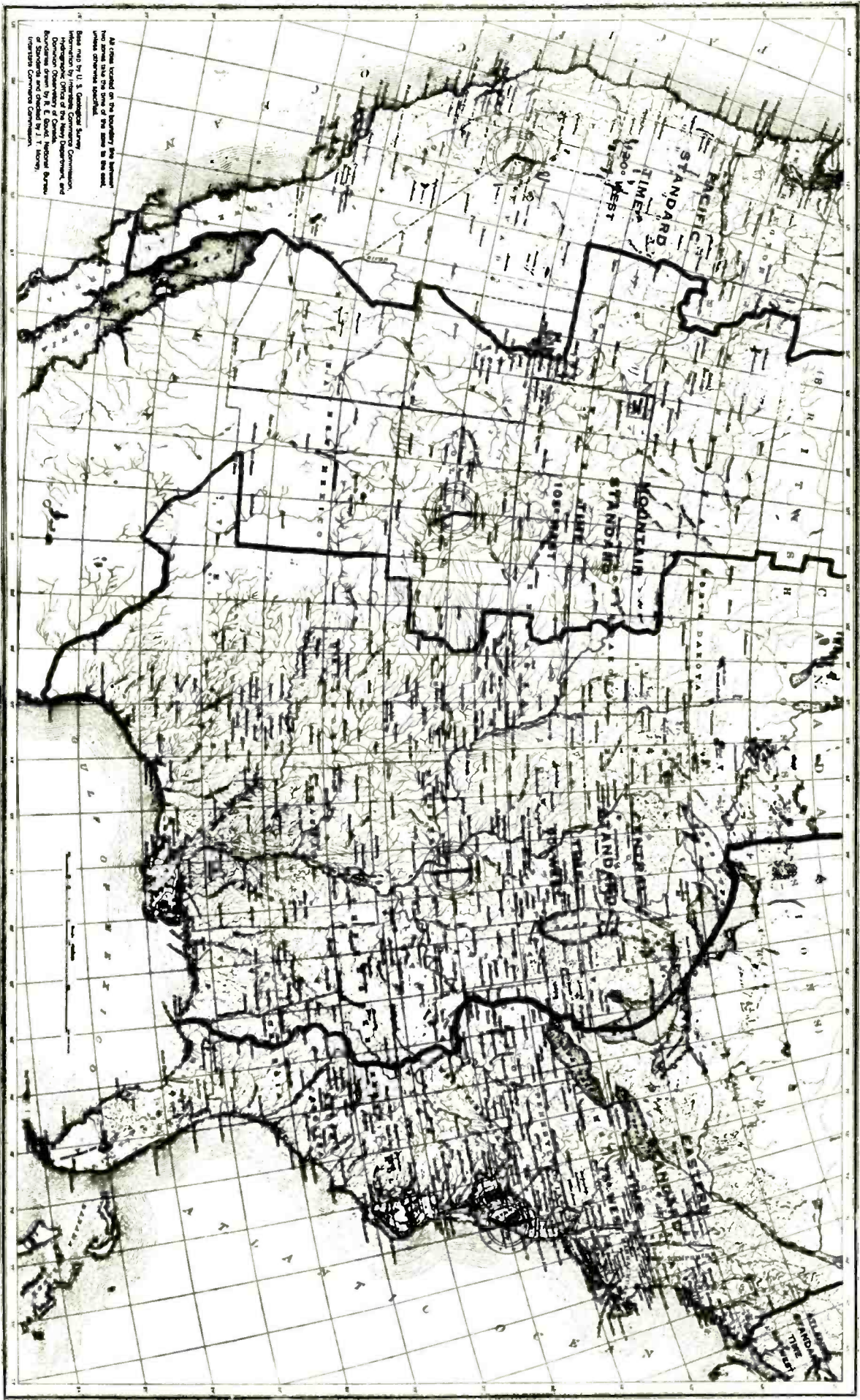
EUROPE				EUROPE-ASIA		ASIA				OCEANIA			
Madrid, Spain	London, England	Paris, France	Rome, Italy	Vienna, Austria	Stockholm, Sweden	Leningrad, U. S. R.	Moscow, U. S. R.	Calcutta, India	Bandoeng, Java	Manila, P. I.	Tokyo, Japan	Melbourne, Victoria	Sydney, New So. Wales
3398	3164	3477	4062	3984	3555	3906	4219	7578	9766	8144	6434	10440	10031
3477	3320	3555	4180	4141	3789	4102	4453	7773	10039	8580	7717	10522	10111
3789	3633	3867	4492	4414	3789	4414	4727	7930	10273	8320	6484	10039	9687
4141	3906	4141	4805	4687	4180	4492	4844	8047	10117	8008	6133	9648	9219
4258	3867	4141	4805	4648	3984	4258	4570	7344	9023	7305	4219	9713	8904
4922	4648	4844	5508	5391	4766	5000	5352	7891	9453	5742	5742	8834	8398
5742	5508	5769	6475	6094	5352	5706	6156	7930	8828	7345	5504	7930	7500
5703	5273	5664	6314	6055	5273	5504	5928	7695	8633	7041	5182	7891	7461
5039	5703	5703	5742	6055	6680	7109	7148	9414	9727	11250	11446	8279	8435
6250	6875	6836	6953	7266	7852	8281	8281	10234	9453	11326	11655	7285	7441
2148	2227	1992	1367	1484	2227	2109	1836	3477	5547	5508	5781	8398	8760
5273	5977	5742	5234	5547	6484	6523	6211	6055	5859	7461	9062	6289	6719
.....	742	625	859	1055	1641	1953	2031	5273	7578	7031	6484	10781	10859
.....	.....	273	898	820	977	1328	1484	4922	7305	6562	5781	10547	10508
Paris, France	.....	.....	690	586	1016	1367	1445	4805	7187	6602	5898	10360	10602
Rome, Italy	.....	.....	.....	352	1289	1484	1367	4414	6719	6250	5977	9945	10091
DISTANCES	Vienna, Austria		.....	781	1094	1016	4219	6562	5976	5625	9609	9766	9766
.....		Stockholm, Sweden		.....	352	664	4141	6562	5789	5021	9570	9570	9570
..... Salt Lake City, Utah	BETWEEN		Leningrad, U. S. S. R.	.....	344	3711	6172	4570	4531	9141	9180	9141	9180
..... Oklahoma City, Okla.	.....		Moscow, U. S. S. R.	.....	.....	3516	5937	4570	4570	8945	9023	8945	9023
.....	.....	..... Ft. Worth, Tex.	NORTH		Calcutta, India	.....	2422	2070	3125	5469	5547	5469	5547
460	.....	..... Kansas City, Kans.	..... Des Moines, Iowa	.....	Bandoeng, Java	.....	.....	1758	3633	3086	3203	3086	3203
640	180	.....	..... Minneapolis, Minn.	AMERICAN		Manila, P. I.	.....	.....	1875	1445	1406	5156	4922
870	413	235	.....	..... St. Louis, Mo.	.....	.....	.....	.....	.....	.....	.....	.....	.....
568	238	270	464	..... Nashville, Tenn.	RADIO		Melbourne, Victoria	.....	.....	.....	430	.....	.....
643	472	523	695	253	..... Cincinnati, Ohio	.....	.....	.....	.....	.....	.....	.....	.....
839	541	509	603	308	239	..... Atlanta, Ga.	CENTERS		.....	.....	.....	.....	.....
750	675	738	905	467	218	368	.....	..... Buffalo, N. Y.	.....	.....	.....	.....	.....
1221	862	762	733	662	626	392	695	..... Washington, D. C.	.....	.....	.....	.....	.....
1210	943	895	936	710	567	403	542	290	.....	.....	.....	.....	.....
1324	1037	972	985	808	683	501	663	278	122	.....	.....	.....	.....
1574	1250	1159	1125	1036	941	737	933	398	392	268	.....	.....	.....
.....
.....
FL. Worth, Texas	Kansas City, Kans.	Des Moines, Iowa	Minneapolis, Minn.	St. Louis, Mo.	Nashville, Tenn.	Cincinnati, Ohio	Atlanta, Ga.	Buffalo, N. Y.	Washington, D. C.	Philadelphia Pa.	Boston, Mass.	FROM TO 	
UNITED STATES													

U. S. DEPARTMENT OF COMMERCE
BUREAU OF STANDARDS
OFFICE OF STANDARD TIME
WASHINGTON, D. C.

STANDARD TIME ZONES OF THE UNITED STATES

And adjacent parts of Canada and Mexico
As of April 1, 1930

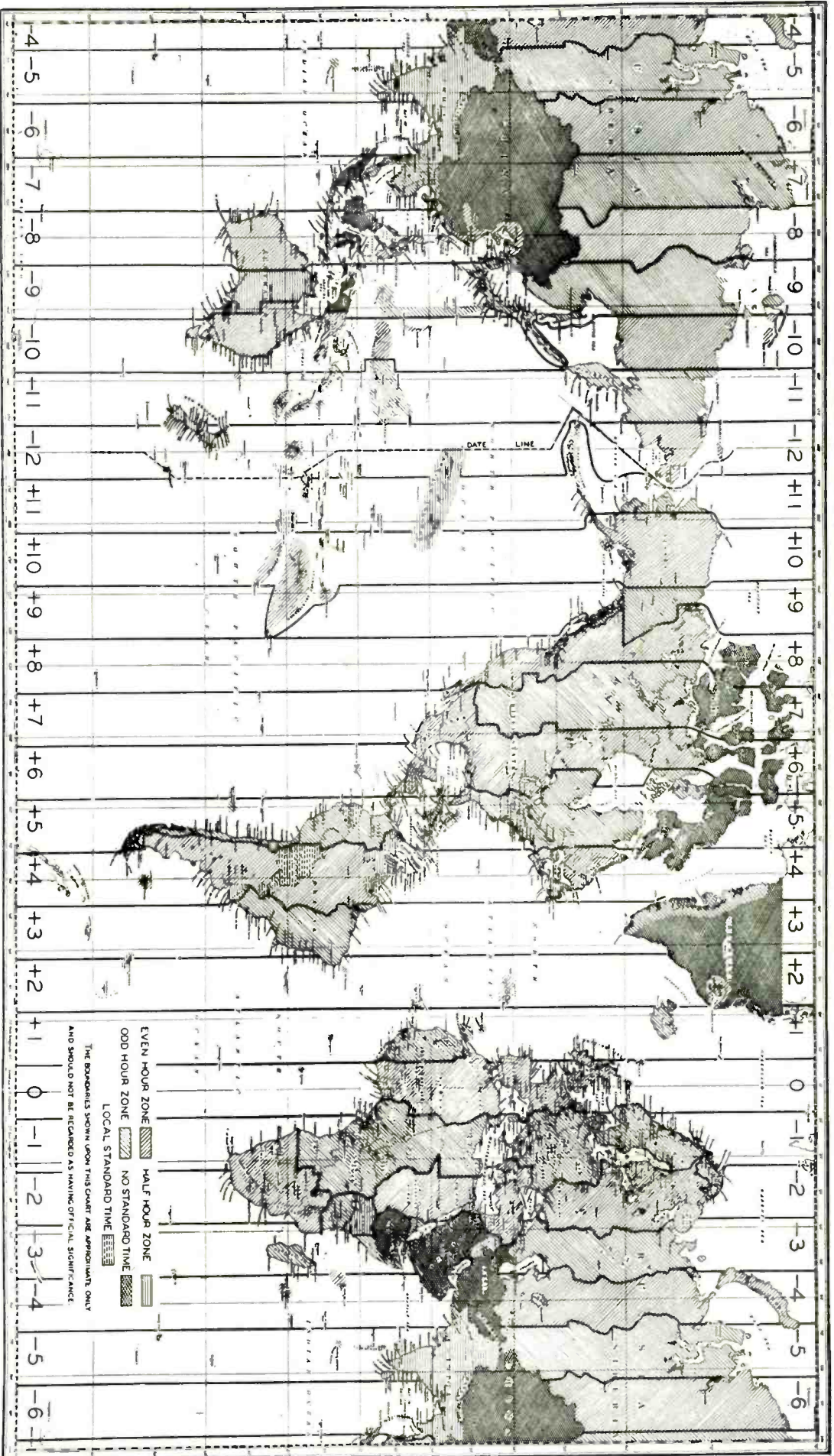
BUREAU OF STANDARDS
WASHINGTON, D. C.



All lines based on the boundary line between the zones and the time of the zone to the west is one hour slower than that to the east.

Since the preparation of this map, the time zones of Mexico have been changed by presidential decree. Effective April 1, 1932, all of Mexico, except the northern territory of Lower California, takes the time of the 90th meridian west, six hours slower than Greenwich, which is the same as our Central Standard. Each zone has time an hour slower than that to the east, an hour faster than that to the west.

STANDARD TIME ZONES OF THE WORLD—OUTLINE CHART OF THE WORLD



This map shows the approximate boundaries of the Time Zones, as used under the International Standard Time Zone System, with the meridian of Greenwich, England, as zero. To convert the local mean time of any place to Greenwich Civil Time (G.C.T. or G.M.T.) subtract (—) or add (+) the number of hours indicated for that zone. To convert Greenwich Time to local time, reverse the operation: adding instead of subtracting, and subtracting instead of adding. Example: Melbourne, Australia, is in the —10 zone. It is 11 p. m. at Melbourne; subtracting 10, we find that it is 1 p. m. at Greenwich. (13:00 G. M. T., which runs from 0 to 24 hours.) Chicago is in the +6 zone. Reversing the sign, and subtracting, we find that 13:00 G. M. T. is 7:00 a. m., standard time, at Chicago; corresponding to 11 p. m. the same day at Melbourne. (Avoid figuring hours directly across the Date Line, in the middle of the Pacific; as you may make an error in the date.)

<h1>INTERNATIONAL MORSE CODE AND CONVENTIONAL SIGNALS</h1>	
<p>A R</p> <p>B S</p> <p>C T</p> <p>D U</p> <p>E V</p> <p>F W</p> <p>G X</p> <p>H Y</p> <p>I Z</p> <p>J 1</p> <p>K 2</p> <p>L 3</p> <p>M 4</p> <p>N 5</p> <p>O 6</p> <p>P 7</p> <p>Q 8</p> <p>R 9</p> <p>S 0</p> <p>T A</p> <p>U B</p> <p>V C</p> <p>W D</p> <p>X E</p> <p>Y F</p> <p>Z G</p> <p>CH H</p> <p>CH I</p> <p>CH J</p> <p>CH K</p> <p>CH L</p> <p>CH M</p> <p>CH N</p> <p>CH O</p> <p>CH P</p> <p>CH Q</p> <p>CH R</p> <p>CH S</p> <p>CH T</p> <p>CH U</p> <p>CH V</p> <p>CH W</p> <p>CH X</p> <p>CH Y</p> <p>CH Z</p>	<p>FROM (DE) []</p> <p>INVITATION TO TRANSMIT []</p> <p>(GO AHEAD) []</p> <p>WARNING - HIGH POWER []</p> <p>QUESTION (PLEASE REPEAT AFTER) []</p> <p>INTERRUPTING LONG MESSAGES []</p> <p>WAIT []</p> <p>BREAK (BK) (DOUBLE DASH) []</p> <p>UNDERSTAND []</p> <p>RECEIVED (O.K.) []</p> <p>POSITION REPORT (TO PRECEDE ALL POSITION MESSAGES) []</p> <p>END OF EACH MESSAGE (CROSS) []</p> <p>TRANSMISSION FINISHED (END OF WORK) CONCLUSION OF CORRESPONDENCE []</p>
<p>NOTE</p> <p>[TO BE USED FOR ALL GENERAL PUBLIC-SERVICE RADIO COMMUNICATION. (1) A DASH IS EQUAL TO THREE DOTS; (2) THE SPACE BETWEEN PARTS OF THE SAME LETTER IS EQUAL TO ONE DOT (3) THE SPACE BETWEEN TWO LETTERS IS EQUAL TO THREE DOTS; (4) THE SPACE BETWEEN TWO WORDS IS EQUAL TO FIVE DOTS]</p>	
<p>PERIOD []</p> <p>SEMICOLON []</p> <p>COMMA []</p> <p>COLON []</p> <p>INTERROGATION []</p> <p>EXCLAMATION POINT []</p> <p>APOSTROPHE []</p> <p>HYPHEN []</p> <p>BAR INDICATING FRACTION []</p> <p>PARENTHESES []</p> <p>INVERTED COMMAS []</p> <p>UNDERLINE []</p> <p>DOUBLE DASH []</p> <p>DISTRESS CALL []</p> <p>ATTENTION CALL TO PRECEDE EVERY TRANSMISSION []</p> <p>GENERAL INQUIRY CALL []</p>	<p>(GERMAN) []</p> <p>(SPANISH) []</p> <p>(FRENCH) []</p> <p>(GERMAN-SPANISH) []</p> <p>(SPANISH-SCANDINAVIAN) []</p> <p>(GERMAN) []</p> <p>(GERMAN) []</p>

Above, we have the International Morse Code and Abbreviations, which the student must learn. The most important rule which can be laid down for the code student, is that he should learn to send slowly at first, with accurate spacing of the dots and dashes and also, the correct length of the characters themselves. The great mistake that many code students make is to speed up their "sending," before they have thoroughly learned how to transmit properly and accurately space the dots and dashes. To become a good code operator requires plenty of practice.

**INTERNATIONAL RADIOTELEGRAPHIC CONVENTION
LIST OF ABBREVIATIONS TO BE USED IN RADIO TRANSMISSIONS**

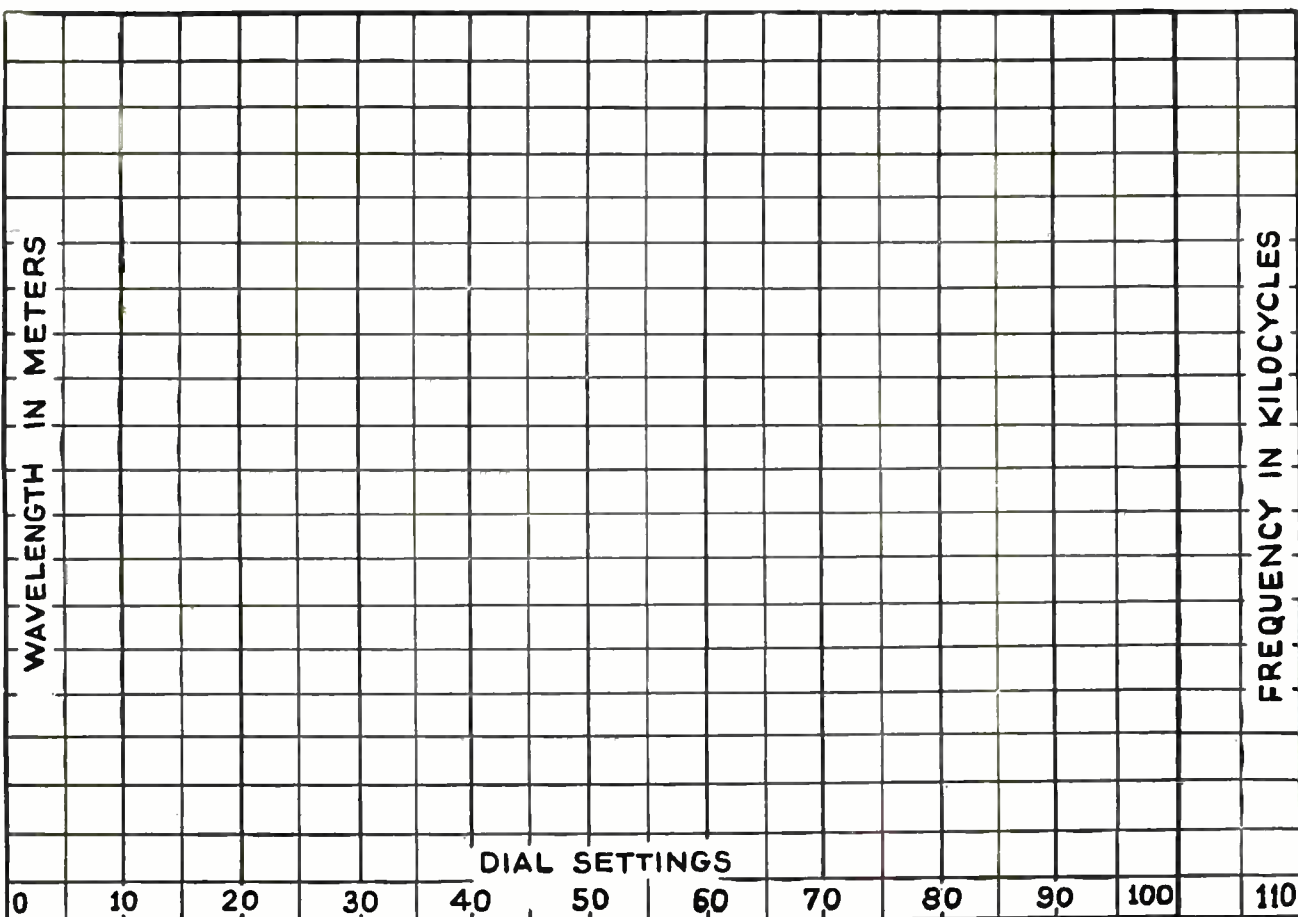
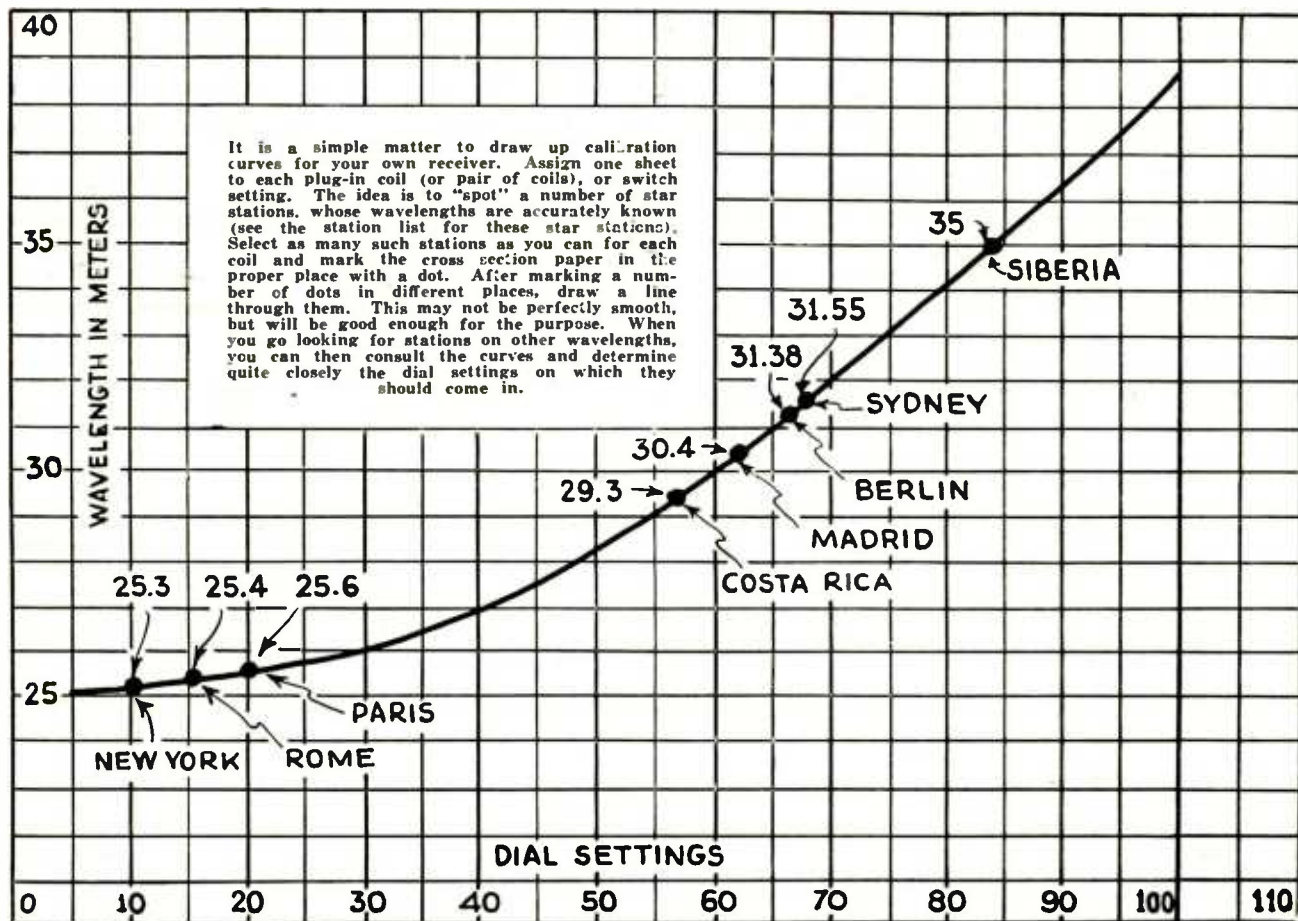
Abbreviations to be used in all services

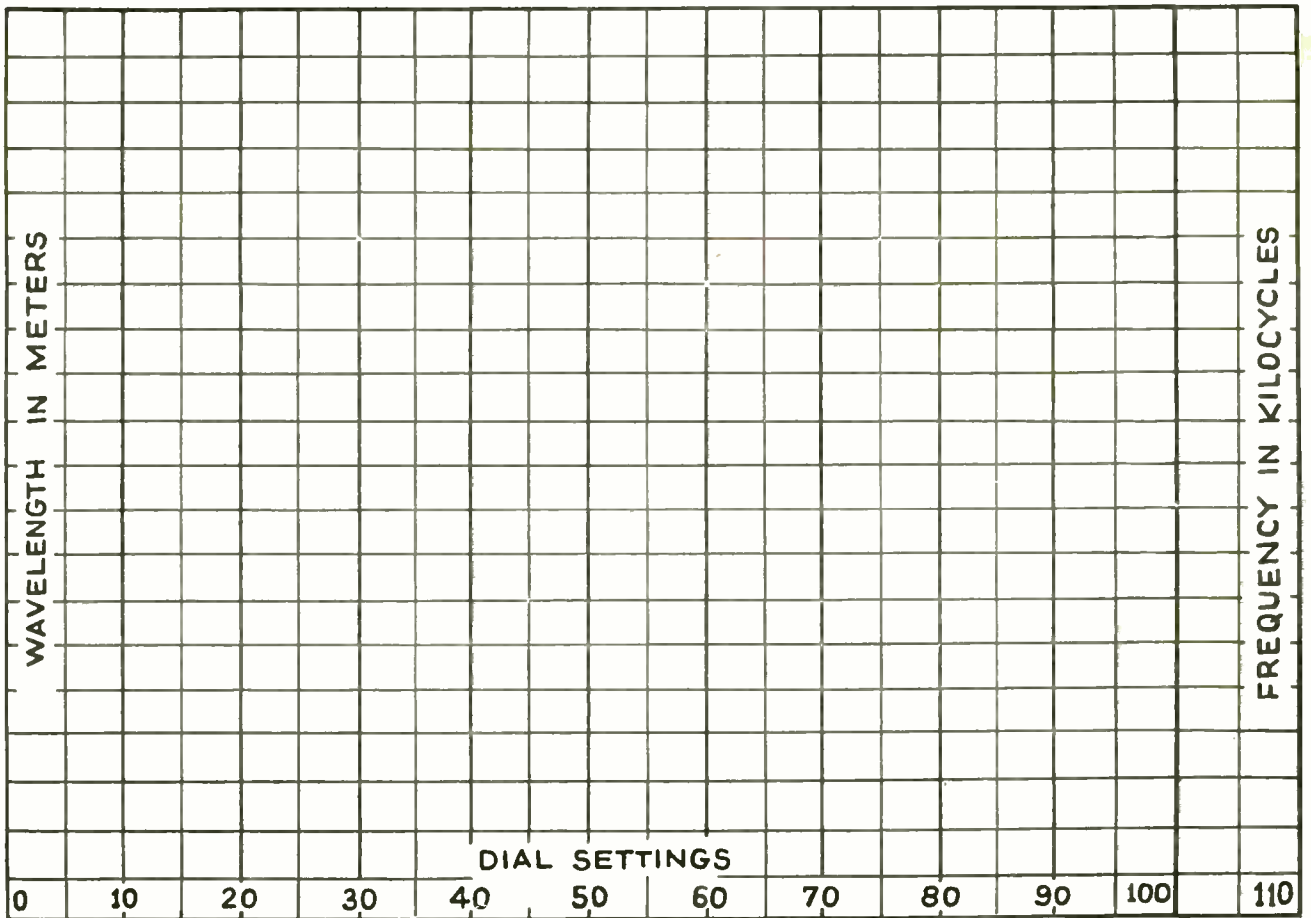
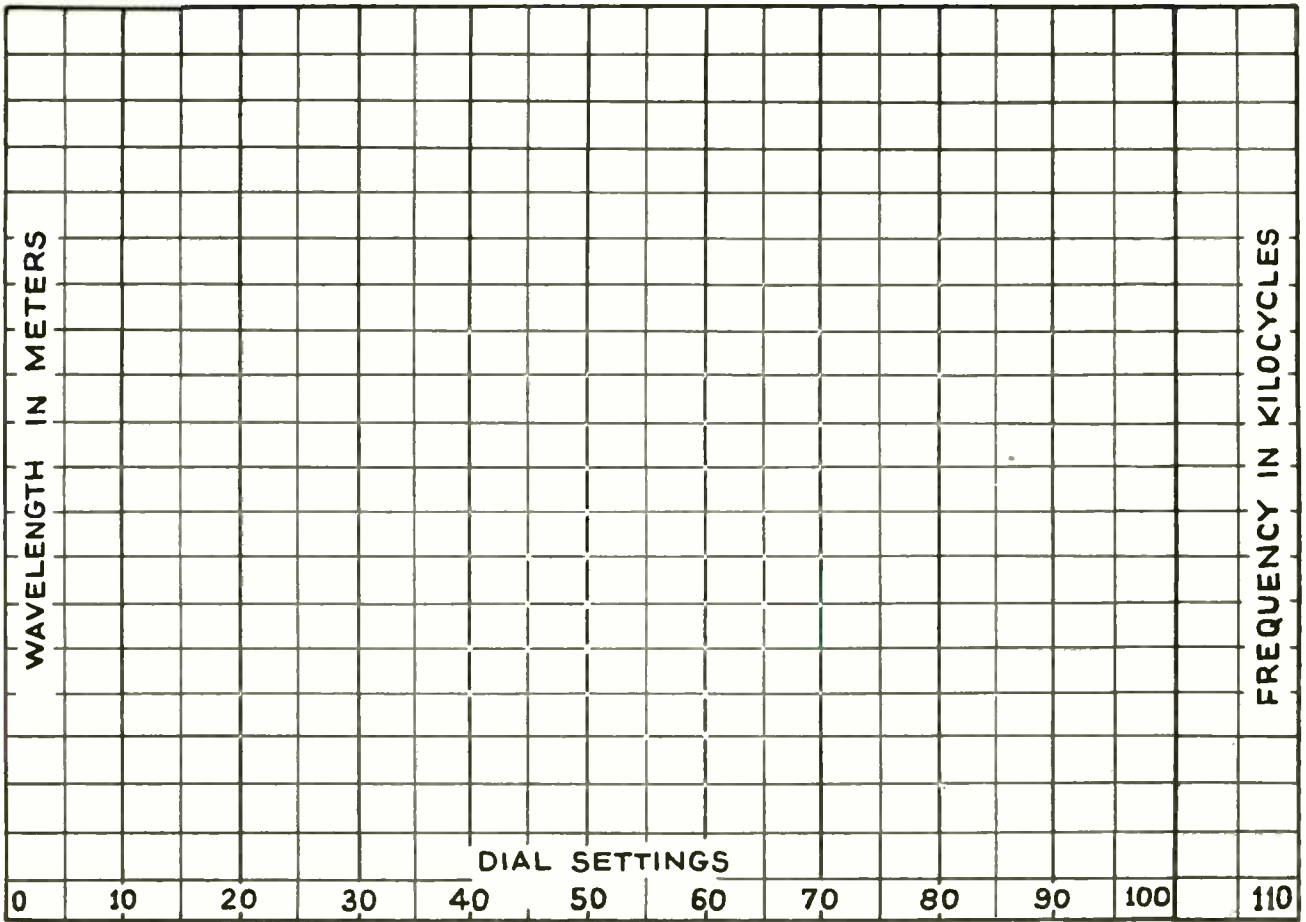
Abbreviation	QUESTION	ANSWER OR NOTICE	Abbreviation	QUESTION	ANSWER OR NOTICE
QRA	What is the name of your station?	The name of my station is	QSO	Can you communicate with directly (or through the intermediary of)?	I can communicate with directly (or through the intermediary of).
QRB	At what approximate distance are you from my station?	The approximate distance between our stations is nautical miles (or kilometers).	QSP	Will you relay to free of charge?	I will relay to free of charge.
QBC	By what private company (or government administration) are the accounts for charges of your station liquidated?	The accounts for charges of my station are liquidated by the private company (or by the government administration of).	QSR	Has the distress call received from been attended to?	The distress call received from has been attended to by
QRD	Where do you come from?	I am going to	*QSU	Must I send on meters (or on kilocycles) waves of type A1, A2, A3, or B?	Send on meters (or on kilocycles) waves of type A1, A2, A3, or B. I am listening for you.
QRE	What is the nationality of your station?	The nationality of my station is	QSV	Must I shift to the wave of meters (or of kilocycles), for the balance of our communications, and continue after having sent several V's.	Shift to wave of meters (or of kilocycles) for the balance of our communications and continue after having sent several V's.
QRF	Will you indicate to me my exact wave length in meters (or frequency in kilocycles)?	Your exact wave length is meters (or kilocycles).	*QSW	Will you send on meters (or on kilocycles) waves of type A1, A2, A3, or B?	I will send on meters (or on kilocycles) waves of types A1, A2, A3, or B. Continue to listen.
QBG	What is your exact wave length in meters (frequency in kilocycles)?	My exact wave length is meters (frequency in kilocycles).	QSY	Does my wave length (frequency) vary?	Your wave length (frequency) varies.
QRI	In my tone bad?	I can not receive you. Your signals are too weak.	QSZ	Must I send on the wave of meters (or kilocycles) without changing the type of wave?	Send on the wave of meters (or kilocycles) without changing the type of wave.
QRJ	Are you receiving me badly? Are my signals weak?	I receive you well. Your signals are good.	QTA	Must I cancel telegram No. as if it had not been sent?	Cancel telegram No. as if it had not been sent.
QRE	Are you receiving me well? Are my signals good?	I receive you well. Your signals are good.	QTB	Do you agree with my word count?	I do not agree with your word count; I shall repeat the first letter of each word and the first figure of each number.
QRL	Are you busy?	I am busy. Or, I am busy with	QTC	How many telegrams have you to send?	I have telegrams for you or for
QRM	Are you being interfered with?	I am being interfered with.	QTD	Is the word count which I am confirming to you accepted?	The word count which you confirm to me is accepted.
QRN	Are you troubled by atmospheric interference?	I am troubled by atmospheric interference.	QTE	What is my true bearing? (or) What is my true bearing relative to?	Your true bearing is degrees (or) degrees at (o'clock).
QRO	Must I increase power?	Increase power.	QTF	Will you give me the position of my station based on the bearings taken by the radio-compass stations which you control?	The position of your station based on the bearings taken by the radio-compass stations which I am sending my call signal for one minute on a wave length of meters (or kilocycles) in order that I may take your radio-compass bearing?
QRP	Must I decrease power?	Decrease power.	QTH	What is your position in latitude and longitude (or according to any other indication)?	My position is latitude longitude (or according to any other indication).
QRQ	Must I send faster?	Send faster (..... words per minute).	QTI	What is your true course?	My true course is degrees.
QRS	Must I send more slowly?	Send more slowly (..... words per minute).	QTL	What is your speed?	My speed is knots, or kilometers, per hour.
QRT	Must I stop sending?	Stop sending.	QTM	Send radio signals and submarine sound signals to enable me to determine my bearing and my distance.	I am sending radio signals and submarine sound signals to permit you to determine my bearing and my distance.
QRU	Have you anything for me?	I have nothing for you.	QTN	Can you take the bearing of my station (or of relative to you)?	I can not take the bearing of my station (or of relative to you).
QRV	Must I send a series of V's?	Please advise that I am calling him.	QTP	Are you going to enter the dock (or the port)?	I am going to enter the dock (or the port).
QRW	Must I advise that you are calling him?	Wait until I have finished communicating with I will call you immediately (or at o'clock).	QTR	What is the exact time?	The exact time is
QRX	Must I wait? When will you call me again?	Wait until I have finished communicating with I will call you immediately (or at o'clock).	QTS	What is the true bearing of my station relative to me?	The true bearing of my station relative to you is (o'clock).
QRY	Which is my turn?	Your turn is No. (or according to any other indication).	QTU	What are the hours during which your station is open?	My station is open from to
QRZ	By whom am I being called?	You are being called by			
QSA	What is the strength of my signals (1 to 5)?	The strength of your signals is (1 to 5).			
QSB	Does the strength of my signals vary?	Your signals disappear entirely at intervals.			
QSC	Do my signals disappear entirely at intervals?	Your signals disappear entirely at intervals.			
QSD	Is my keying bad?	Your signals are unreadable.			
QSE	Are my signals distinct?	Your signals run together.			
QSF	Is my automatic transmission good?	Your automatic transmission fades out.			
QSG	Must I transmit the telegram by a series of 5, 10 (or according to any other indication)?	Transmit the telegram by a series of 5, 10 (or according to any other indication).			
QSH	Must I send one telegram at a time, repeating it twice?	Transmit one telegram at a time, repeating it twice.			
QSL	Must I send the telegram in alternate order without repetition?	Send the telegram in alternate order without repetition.			
QSM	What is the charge to be collected per word for including your internal telegraph charge?	The charge to be collected per word for including your internal telegraph charge.			
QSN	Must I suspend traffic? At what time will you call me again?	Suspend traffic. I will call you again at			
QSO	Can you give me acknowledgment of receipt?	I give you acknowledgment of receipt.			
QSM	Have you received my acknowledgment of receipt?	I have not received your acknowledgment of receipt.			
QSN	Can you receive me now? Must I continue to listen?	I can not receive you now. Continue to listen.			

When an abbreviation is followed by a mark of interrogation, it refers to the question indicated for that abbreviation.

* A1=continuous waves, unmodulated (CW).
 A2=continuous waves, modulated (ICW or ACCW).
 A3=continuous waves, modulated by speech or music (phone).
 B=damped waves (spark).

Calibration Curve Sheets





NEW Summer Edition Sent **FREE**

RADIO

AND

**SHORT-
WAVE
TREATISE**

116 Pages

**100 New
Hook-ups**

**Over 1100
Illustrations**

**A VERITABLE
TEXTBOOK
ON RADIO**



**WRITE
TO-DAY**

DON'T DELAY. Enclose
4 cents for postage. Treatise
sent by return mail.

NOT JUST ANOTHER CATALOG

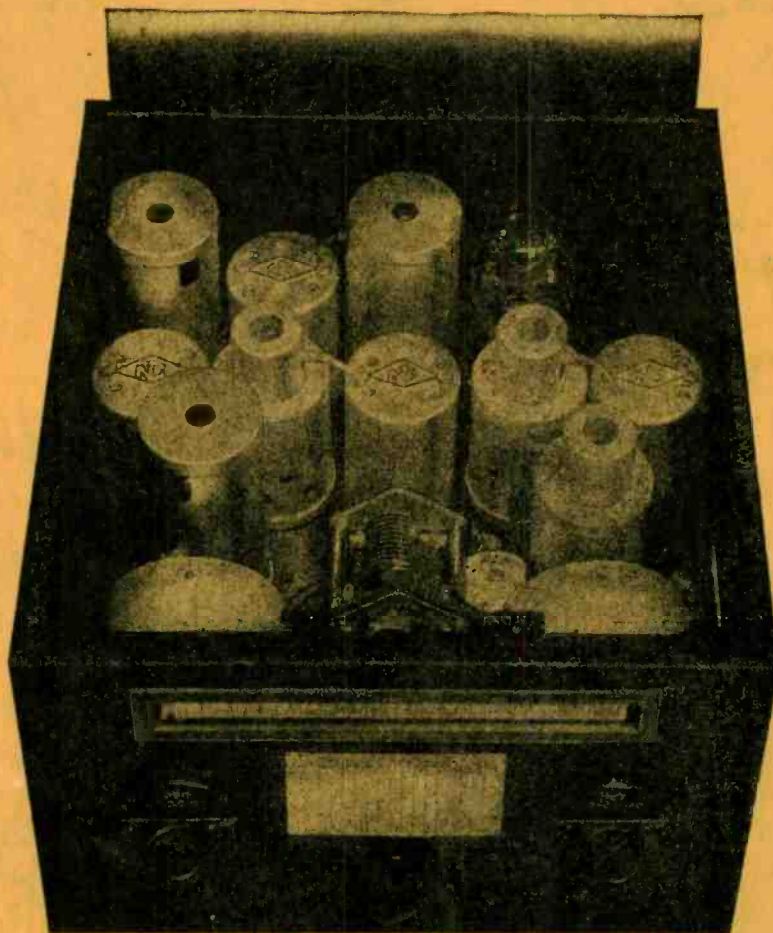
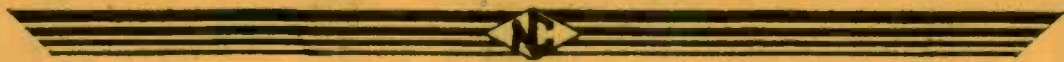
The new and enlarged Summer edition of our Catalog No. 26 contains 116 pages of useful radio information, diagrams, illustrations, radio kinks and latest radio merchandise. It contains more valuable radio information—more real, live “meat”—than many textbooks on the subject. If you have had our Treatise No. 25 and, incidentally, all our previous issues you are familiar with the type of book we publish; but this new No. 26—WHAT A BOOK!

Considerable space has been devoted to the Radio Beginner. The first article titled “Fundamental Principles Of Radio For The Beginner” aside from being a fine grounding in radio for the new fan, offers an excellent review to the old timers. This alone is worth its weight in gold. This book is not just another catalog but is a veritable mint of radio information which will be of infinite and everlasting value to you.

PARTIAL LIST OF CONTENTS

Fundamental Principles of Radio—Ohm's Law—Discussion of New Tubes—Constructing a “Triple-Twin” Amplifier—All about Superheterodynes—Eliminating Man-Made Static—Constructing a Two-Tube Short-Wave “Globe-Trotter” Receiver—\$3.00 Prize Suggestions—Radio Kinks, etc., etc.

RADIO TRADING COMPANY, 100C Park Place, New York City



1- - / - - /
W
- - -
- - - - -
WEG

FB-7 Designed specifically for the amateur, but embodying professional design details, this exceptional receiver offers a number of unusual refinements. Strictly single-control tuning and front-of-panel coil changing for swift and convenient operation—full vision dial and panel-mounted calibration curves for fast logging—efficient—compact—and inexpensive.

From such a receiver, National-built, one expects remarkable performance—and gets it. A seven-tube superheterodyne circuit provides ample selectivity and high gain. Electron coupled oscillators, and Litz wound transformers assure stability. And quality in every detail provides reliability.

We invite you to inspect the FB-7, and to compare it with any H.F. receiver on the market.

NATIONAL COMPANY INC., MALDEN, MASS.

