RADIO EX



The All-Wave Radio Log Authority

November 1939

No. 133

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FIFTEEN ARTICLES
SEVEN INDEXES





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lator. 80 Rectifier.

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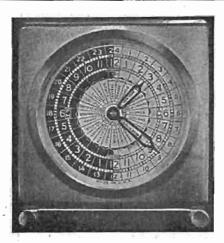
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SIXTEENTH YEAR

NOVEMBER 1, 1939

No. 133

Page Taylor, Editor
B. Francis Dashiell, Technical Editor

Ray LaRocque, Eastern Editor Anthony C. Tarr, Western Editor

SOUTH AMERICA HO!

Now the radio spotlight moves to South America. The coming of winter naturally improves broadcast bandreception so that many of the regular South American broadcasters can be heard, and also the winter time is the most ideal time for reception of the rather long shortwave lengths that the Latin Americans use. Since their time, too, is the same as ours, their evening programs are broadcast during our evening hours, enabling us to tune in on their best programs at our most convenient listening time.

This year, more than ever, interest should center on South America. With some of the major European nations at war, and others desparately trying to remain neutral, their radio programs now can hardly be called "entertaining." Heavy censorship, even in, the "democratic" countries." colors the news broadcasts, and programs of an entertainment nature are frequently side tracked to make way for news or discussions. The South American stations, however, still present entertaining and lively programs. Some minor restrictions are in force, such as the one in Colombia which prohibits the use of a foreign language, but radio listeners, we are sure, will find plenty of music and plenty of DX if they point their aerials southward.

The language difficulty is the only one that American DXers have to contend with when listening to Latin Americans. These stations, broadcasting usually for only local listeners,

generally announce in Spanish only, but a knoweldge of the Spanish language is not necessary for one to identify Spanish - speaking broadcasters. The names of the cities and countries, pronounced in Spanish, are similar to the English pronunciation. If the DXers will listen just a little more carefully when lisening to Spanish announcements, he will neary always be able to catch the name of the city and country. All the Spanish that is required, then, is the alphabet, which is easily learned. Knowing this, you are fully equipped to tackle any South American that may come along, except probably a Brazilian, since Portugese is spoken in Brazil. Nevertheless, the Spanish and Portuguese languages are similar enough that the Spanish alphabet will do, in a pinch. even in Brazil.

Here is the Spanish alphabet:

A-ah	N—en-nay
B—ba y	Ooh
C—say	P—pay
D—day	Q-koo
E—ay	R—air-ray
F-ef-fay	S-ess-say
G—hay	T-tay
H-ah-chay	U—oo
I—ee	V—vay
J—ho-tah	W-doo-ble-vay
K—kah	X-ek-key

Y—yay

Z--zed

L-el-lay

M-em-may

The Spanish nuerals, also very important, are:

1—óo-no 6—sase
2—dose 7—say-tay
3—trace 8—oh-cho
4—koo-ah-tro 9—noo-ay-ve
5—theeng-ko 10—deeayth
There is your "open sesame"

There is your "open sesame" to South American catches. Take a fairly good radio, a good aerial, most any fall or winter night, mix them with your knowledge of the alphabet and a little careful tuning and careful listening, and you will turn up some good listening from interesting and romantic places, such as Uruguay, which will occupy our attenion for a few moments.

The Banda Oriental

The smallest of the South American republics, slightly larger than the State of Oklahoma, is Uruguay, known to Uruguayans as Banda Oriental del Uruguay. The chances are that if you hear one of her radio stations, it will be announced simpy as "Uruguay," pronounced OOr'-u-gwai.

The capital of Uruguay is Montevideo, and other important cities which have radio stations are Pay-Sandu, Colonia, San Jose, Canelones. Minas, Duranzo, Salto, Mercedes, Florida, Rocha, Rivera, Tacuarembo. Melo, and Maldonado.

Montevideo was founded in 1726, and in 1727 it consisted of only two stone buildings and about forty shelters made of hides. Today it is one of the metropoli of South America, being third in importance of the cities east of the Andes, and to DXers, a city of the first rank, with its 24 broadcasting stations and 16 shortwave stations. Montevideo's stations will be found listed in the complete Uruguayan list which closes this article. The list has just been received by us from Sr. Eduardo Zubia, Minister of National Defense, Direccion do los Servicios Radiocommunicaciones, at Montevideo, and is, of course, the most accurate and complete that has been published up to this time.

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20 m. 8 Recard scratch suppressor.

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Readers who are interested in Uruguay can read about this most interesting country in the pleasantly-written and very informative book "Uruguay," by W. H. Koebel, published by Charles Scribner's Sons.

Republica Oriental del Uruguay Official List of Broadcasting Stations

CX4, 610 kcs, 5 kw, Direccion de Agrononima, Uruguay 821, Montevideo. Daily except Sunday 9:30 am-12:30 pm; 4-5:30 pm. CX6, 650 kcs, 10 kw, Servicio Oficial de Di-fusion Radio Electrica, Mercedes 823, Montevideo. Daily 10:30 am-12:30 pm; 3:30-9:30 pm.

3:30-9:30 pm.

CX8. 690 kcs, 500 w., Raymon Puyal. Caigua 3719, Montevideo. Daily 9:30 ann-12:30 pm; 4:30-9:30 pm.

CX10. 730 kcs. 1 kw. Ferrera. Gestoso v Cia. Avda. 18 de Julio 1275, Montevideo. Daily 6:30 am-10:30 pm.

CX12, 770 kcs. 5 kw., Luis A. Artola. Olimar 1364. Dailv 8:30 am-9:30 pm.

CX14. 810 kcs, 5 kw. "El Espectador Ltda,"

Olimar 1364. Montevideo. Dailv 9:30 am-

Olimar 1364, Montevideo. Daily 9:30 am-

9:30 pm. CX16, 850 kcs., 10 kw., "S. A. D. R. E. P.," Avda. 18 de Julio 928, Montevideo, Daily

7:30 am-9:30 pm.

18. 890 kcs., 5 kw.. "El Espectador Ltda.."

Olimar 1364, Montevideo. Daily 9:30 am-9.30 pm.

O.30 pm.
CX20, 930 kcs., 2 kw., Carlos L. Romay, Humberto I, 4033. Montevideo. Daily 9:30 am1 pmffi 2:30 pm-10:30 pm.
CX22, 970 kcs., 1500 w., Harispuru Hnos., Avda. 18 de Julio 1092, Montevideo. Daily 7:30 am-10:30 pm.
CX24, 1010 kcs., 2500 w., "S. A. D. R. E. P.," Avda. 18 de Julio 1092, Montevideo. Daily 7:30 am-10:30 pm
CX26 1050 kcs., 2 kw., A. Canepa y Cia. Millan 2370 Montevideo. Daily 7:30 am-1 pm: 2:30-9:30 pm.
CX28, 1090 kcs., 3 kw., Lorenzo Alberto Gori

1 pm; 2:30-9:30 pm. CX28, 1090 kcs., 3 kw., Lorenzo Alberto Gori Salvo, Convencion 1379, Montevideo, Daily 9:15 am-9:30 pm.

CX30, 1130 kcs., 1 kw., Silva y Larrea, Avda.

18 de Inlio 1764, Montevideo, Daily 6:30

am-10:30 pm.

CX32 1170 kcs. 500 w.. Bianchi y Patron, Plaza Libertad 1334, Montevideo, Daily 7:30 am-10:30 pm.

34 1210 kcs, 500 w., A. Canepa y Cia., Millan 2370. Montevideo. Daily 8:30 am-CX34

2:30 pm; 4:30-9:30 pm, 36. 1250 kcs., 250 w., Vazquez y Walder, Olimar 1364, Montevideo, Daily 7:30 am-

12:30 pm; 3:30-9:30 pm. CX38 1290, kcs., 5 kw., Servicio Official de Dufusion Radio Electrica. Mercedes 823, Montevideo. Daily 10:30 am-12:30 pm;

3:30-9:30 pm. CX40. 1330 kcs, 500 w., Julio J. Rabassa, Cuareim 1331, Montevideo. 6:30 am-midnight

CX42. 1370 kcs., 500 w., Hector Vernazza, Mercedes 1039. Montevideo. Daily 9:30 am-12:30 pm: 2:30-11:30 pm. CX44, 1410 kcs., 250 w., Iulio J Rabassa, Cuareim 1331, Montevideo. Daily 8:30

am-11:30 pm. 16 1450 kc. 1500 w.. Vitale v Bertacchi, Colonia 1193, Montevideo. Daily 8:30 am-10:30 pm,

CX48, 1490 kcs., 1500 w., Vazquez y Cin., Mil lan 2370, Montevideo. Daily 8:30 mm-2:30 pm; 4:30-10:30 pm. CX50, 1530 kcs., 300 w., Bernardino Ayala, Ibicuy 1285, Montevideo. Daily 8:30 am-

Ibicuy 1285, Montevideo. Daily 8:30 am10:30 pm.

CW35, 1240 kcs., 250 w. Buenaventura Mahler y Ordoqui. 18 de Julio 614. Pavsandu.
Daily 7:30-11:30 am; 3:30-8:30 pm.

CW29, 320 kcs., 100 w., Miguel Penna. 18 de
Julio entre Piedras y E. Rios, Pa/sandu.
Daily 9-11 am; 3:30-9:5 pm.

CW33A, 1200 kcs., 50 w., A. Canepa y Cia.,
Under construction in Paysandu.

CW37, 1400 kcs., 4500 w., Josefina C. de Bernotti, Ricardo BerNotti y Paul Montelianos, Ituzaingo y Rivadavia, Coonia. Daily
9:30-11 am; 6:30-8:30 pm.

CW41, 1360 kcs., 50 w., Juan J. Harispuru y
Pedro Bruccoleri, Asamblea esq. Sarandi,
San Jose. Daily 8:30 am-12:30 pm; 4:309:30 pm.

9:30 pm. CW47A, 1460 kcs., 100 w., Fassola Rios y Ti-boni, 18 de Julio 677, San Jose. (Schedule

CW47A, 1460 kcs., 100 w., Fassola Rios y Tiboni, 18 de Julio 677, San Jose. (Schedule not given).

CW47, 1480 kcs., 300 w., Julio J. Rabassa, Jose Battlle y Ordonez 672. Canelones. Daily 6:30 am.10:30 pm.

CW43, 1470 kcs., 100 w., Volante y Harispuru, Gray, de la Llana 500. Minas. Daily 9:30 am.noon: 6 pm.9 30 pm.

CW25, 1430 kcs., 500 w., Artola. Evangelisti y Cia., Manuel Oribe 785, Durazno. Daily 8:30-11:30 am, 4:30-9:30 pm.

CW31, 1120 kcs. 250 w. Salvador B. Pera, Brasil esq.Amorin. Salto. Daily 7:30 am. 11 am: 1:30-6:30 pm.

CW27, 680 kcs. 250 w. Ernesto Popelka, Avda. Jose Battlle y Ordonez 2320, Salto. Daily 6:30-7:30 am; 8:30 am-12:30 pm; 3:30-9:30 pm.

CW41A, 1300 kcs., 50 w. A. Canepa y Cia., Under construction in Salto.

CW29, 1980 kcs., 50 w., Pedro Telesca, Einsebio Gimenez 655. Mercedes. Daily 5:45-6:45 am: 10-11:30 am; 5:9 pm.

CW40, 340 kcs., 50 w., A Canepa v Cia. Under construction in Mercedes.

CW33, 1200 kcs., 76 w., Omar P., Boreiro, Ituzaingo 355. Florida Daily 6:30-8 am; 9:30.10:30 am; 6:30-8:30 pm.

CW2, 580 kcs. 500 w. davs. 300 w. uight Rodolfo J. Caissiols, 25:46 Mayo 545. Florida. Daily 8:30 am: 0:30 pm.

CW19, 1340 kcs., 50 w., Jorge Downton CW19A, 1340 kcs., 60 w., Jorge Downto

4:30-9:30 pm. CW19A, 1340 kcs., 60 w.. Jorge Downton Garcia, Ituzaingo 574 Rivera. Daily 6:30-

Garcia, Ituzaingo 574 Rivera, Daily 6:3010:30 am; 12:30-R:30 pm.
CW46A, 1470 kcs., 250 w., Luis S. Dini, 18
de Julio 306, Tacuarembo, Daily 7:3010:30 am; 11 am-10:30 pm.
CW43B, 1200 kcs., 50 w., A Canepa y Cia.,
Under construction in Tacuarembo.
CW41B, 1360 kcs., 50 w., A. Canepa y Cia.,
Under construction in Melo.
CW2A, 580 kcs., 50 w., A. Canepa y Cia.,
Under construction in Mald-nado.
The Shortwave Stations
(Montevideo)

(Montevideo)

(Montevideo)
CXA30. 6000 kcs.. 250 w., Silva y Larrea,
Under construction.
CXA3. 6075 kcs., 2500 w., Servicio Oficial de.
Difusion Radio Electrica. Mercedes 823,
Dailv 10:30 am-12:30 pm; 3:30-9:30 pm.
CXA9, 9440 kcs.. 250 w., Difusoras "El Espectador Ltda." Under Construction.
CXA5, 9485, kcs., 2500 w., A Canepa y Cia.,
Undergoing tests,

CXAz. 9570. kcs., 5 kw., Racine y Schmidt, Juan Carlos Gomez 1431. Daily 11 am-4 pm: 4:30-9:30 pm. CXA6, 9620 kcs., 5 kw., Servicio Oficial de Difusion Radio Electrica, Mercedes 823. Lrily 0:30 am-12:30 pm; 3:30-9:30 pm. CXA19, 11695 kcs., 2500 w., Diusoras 'El Espectador Ltda.," Under construction. CXA7 (11735 kcs., 2500 w., A. Canepa y Cia., Undergoing tests. Oceania. South and GSI-15260 kcs West Africa 6 GSD-11750 kcs GSB-9510 kcs Australia Australia, New Zealand 12:57 am Announcement's 1:15 am Full News Bulletin 2:15 am Supplementary News Bul-Undergoing tests.
CXA10, 11895 kcs., 2500 w., Servicio Oficial de Difusion Radio Electrica. Under conletin 3:00 am News Summary struction. CXA18, 15300 kcs., 2500 w., Servicio Oficial 4:00 am Full News Bulletin de Difusion Radio Electrica. Under con-5:00 am Supplementary News Bulstruction CXA16, 15380 kcs., 2500 w., A. Canepa y Cia., Undergoing tests. CXA17, 17800 kcs., 2500 w., A. Canepa y Cia., letin 5:15 am Close Down Under construction Transmissions 2 and 3 CXA21, 26500 kcs., 2500 w., Servicio Oficial de Difusion Radio Electrica. Under con-Stations Area Served stiuction. CXA22, 29500 kcs., 2500 w.. Servicio Oficial de Ditusion Radio Electrica. Under con-India, Malava and Aus-GSJ-21530 kcs tralia (until 10:30 am). struction. CXA23 on 43500 kcs and CXA24 on 58000 kcs., both with 2500 w., are also under GST-21530 kcs West Indies (Com-10:30 mencing at am). construction. India. Malaya and Aus-Shortwave Stations of Colonia GSF-15140 kcs CXA13, 6155 kcs. 2500 w. Isacc Raisenvitz, ... Rev. de San Carlos. Under construction. CXA8 9640 kcs. 5 kw. Jaime Yankelvich, ... Real de San Carlos. Daily 7-9:30 am; tralia (Commencing at 10:45 am). GSH-21470 kcs Africa Far East GSV-17810 kcs GSG-17790 kcs Canada and North5:30-10:30 pm. America GSG-17790 kcs India. Malaya and Aus-NEW BBC SCHEDULE tralia GST-21550 kcs South America On September 4 a revised schedule 5:45 am Announcements of transmissions by the BBC short-6:30 am Full News Bulletin wave stations at Daventry was an-7:30 am News in German nounced, and will be maintained until 7:45 am News in Italian further notice. The periods between the variors news bulletins are filled 8:00 am News in Portuguese

talks. With time given in Eastern Standard, the revised program is completely listed below.

with programs of music or topical

Transmission 1

Stations GSI'-15510 kcs

Area Served Near East and East

Africa

Noon Close Down See Subscription Blank on Page 96.

Published monthly except July and August by

THE RADEX PUBLISHING CO.

362 Cedar Lane

Teaneck, New Jersey

8:15 am Full News Bulletin

11:00 am Full News Bulletin

11:30 am News in Afrikaans

10:00 am Supplementary News Bul-

9:00 am News in Spanish

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PRINTED IN THE U.S.A.

FOR SALE AT YOUR NEWSSTAND



A green and black card from WKBN, Youngstown, Ohio broadcasting station. (Courtesy of Merlin Steen).

Transmission 4 (a)

Area Served East Africa; Near East Stations GSI—15260 kcs GSD—11750 kcs GSC—9580 kcs Africa Africa, commencing at 1:35 pm. Africa from 12:22-1:30 pm; Canada and N. GSG-17790 kcs America from 1:35 pm. Far East and New Zea-GSE-11860 kcs land, after 1:45 pm. 12:22 pm Announcements 12:30 pm Full News Bulletin 1:45 pm News in Afrikaans 2:00 pm News Summary 2:15 pm News in French 2:30 pm News in German 3:00 pm Supplementary News Bulletin

Transmission 4 (b) Stations Area Served GSP-15310 kcs North Canada and America South America West Indies; GSO-15180 kcs GSF-15140 kcs Central America India, Malaya, Austra-lia. New Zealand GSD-11750 kcs GSC-9580 kcs Africa 3:45 pm Announcements 3:50 pm News Summary 4:00 pm News in French 4:15 pm News in German 4:45 pm Full News Bulletin 5:15 pm News in Spanish 5:30 pm News in Portuguese 6:00 pm Close Down

Transmission 5

Stations

Area Served

GSF—15140 kcs GSD—11750 kcs GSC—9580 kcs South America India, Malaya, Australia GSB—9510 kcs Canada, North America, West Indies, Central America 6:22 pm Announcements
6:30 pm News Summary
6:45 pm News in French
7:00 pm News in Portuguese
7:30 pm Full News Bulletin
8:00 pm News in Portuguese and
Spanish
8:45 pm Supplementary News Bulletin
9:00 pm News in Spanish
9:15 pm Close Down

Transmission 6

Stations
GSD—11750 kcs V
GSC—9580 kcs V
GSB—9510 kcs I

Area Served
Western Canada
Western Canada, North
America, West Indies and Central
America: South
America

9:37 pm Announcements
9:45 pm News Summary
11:00 pm Full News Bulletin
12:15 am Supplementary News Bulletin

12:30 am Close Down.

Unless otherwise stated all news bulletins above are in English.

W2XDG on 38650 kcs. is heard here all day with an R9 signal. (Oskay—N. J.)

W2XDV on 31600 kcs. relaying the programs of CBS. Station heard daily and located in New York City. (Williams—R552, N. J.)

W2XHG on 4100 kcs. is also heard all day with an R9 signal. (Oskay—N. J.)

W4XA on 26150 kcs. is relaying the programs of WSM from 7:30 p.m. to 11 p.m. using 1000 watts power. (Dobbins—R672, Tenn.4)

W4XCA on 31600 kcs. at Memphis, Tenn. relays WMC daily from 9 a.m. to 5 p.m. They were heard (Wash.) at 3 p.m. with R6 signal. Average conditions on UHF poor. W4XCA requested reports from listeners. (Fern—R211, T.H.2; and Tarr—R274, Wash.)

LETTERS TO THE TECHNICAL EDITOR

R. W. M., of Rome, Ga., asks: "I have a Howard 430 receiver which has an outlet for a voltmeter or "R" meter that indicates volume of signals. However, can I use an ammeter instead of the voltmeter?"

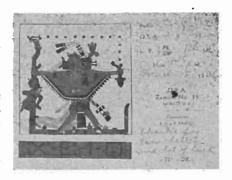
Answer: Provided you use a high resistance milliammeter instead of the normally high-resistance voltmeter, this can be done. You perhaps know, but most ammeters have very low resistances. The type of milliammeter to be used is a tuning meter and the resistance depends upon your set. These meters usually come in ranges from 5 to 15 milliamperes, the larger governed by the output current from the audio circuit of the receiver. Since this set has a four-prong socket the instructions accompanying the receiver will have a bearing upon the proper connections to be made. Ordinarily the meter would be attached to the B plus contact.

From J. N. R., Lachute, Can., comes: "Please send me the name and address of the makers of the Airline radio."

Answer: The Airline receiver is sold exclusively by the Montgomery Ward and Co. It is not manufactured by them, but all questions regarding these sets must be directed to the Radio Department (Service), at Chicago, Ill.

R. S. C., of Terminal Is., Calif., writes: "I am moving into a new home this winter. I don't like a big outside aerial. Will a neat vertical type work well, and how about inside aerials? I have a 1937 Philco 116X."

Answer: This 11-tube set has sufficient tube power to operate nicely on small aerials, such as those that can be placed indoors or looped on the back of the set itself. However, in any case, the larger outdoor antenna is the most efficient and satisfactory, and any deviation from that means certain losses. A vertical antenna consisting of a bare wire supported vertically from an offset arm and about 20 to 30 feet in length from



A six-color veri card from amateur station XEIQ in Mexico City. (Courtesy of Russell Fieberg).

the set will do. However, noise-reduction will not be so satisfactory. You can buy a vertical aerial for the roof. It is about 12 feet high, has a support and 40 feet of leadin wire and lightning arrester. Then there is a more expensive 25-foot vertical type to be mounted on a ground post and used with noise-reducing coupling unit, such as RCA Magic-Wave with transmission line placed underground of any length up to 500 feet.

A plea from C. D. C., of Wichita, Kans., begs: "Tell me who makes the Mercury, Tone Value, and Sargent radios."

Answer: Sargent is made by E. M. Sargent Co., 212 Ninth Street, Oakland, Calif. Perhaps some of our readers can help C. D. C. further about the Mercury and Tone Value receivers which we can not find listed.

An honest question is asked by G. A. C., of North Plainfield, N. J.: "What is the best low-priced shortwave receiver I can buy that will cover all the bands perfectly?"

Answer: We wish we could give such a brief reply. But we have to refrain from recommending this or that set; there are many good ones. However, we suggest that you look over the literature in the short-wave amateur field and select the one that

suits, your pocketbook. The standard all wave set brings in many shortwave stations, but it can never perform like a communications receiver and still maintain high-fidelity tone reproduction. You lose some of that in the professional set, because you have to sacrifice something to get the sharp selectivity you need for unlimited short-wave reception. There are such makes as Hammarlund. Howard, Hallicrafters, RME, and National. They cover the entire price range to suit many individuals. Their products are excellent. Prices range from about \$30 to \$300.

E. M. W., has a Super Skyrider set, and asks: "How can I get the utmost performance from this set by using the most efficient antenna? I am using a Philco doublet aerial just now, Shall I make a change?"

Answer: The doublet being used is very good, but this 13-tube set does not require much of an aerial. Why not try a good vertical type with noise reducing leadin and coupling. However, as in all cases, the manufacturer's recommendations should always be your guide. Their years of experimentation have provided data that the individual can seldom obtain by hirself.

R.B., of Minneaoplis, Minn., complains: "My receiver is an RCA C13-2, and it gives a great deal of double-spot trouble, and readjustments have not helped but have put the intermediate band out of operation. I get repeats as many as 100 times on the broadcast band."

Answer: It appears that you certainly have trouble. However, a good realignment and careful adjustment is your only salvation. This set, with its 13 tubes, is a good one. Image-frequency trouble ought not be a source of annoyance. We suggest you see your local RCA distributor (there is only one) and get his recommendations as to a satisfactory servicing organization. Evidently you failed to put your set into good

hands, for in this age aligning a set is quite easy if one has the aaparatus and knows how.

R. C S., up in Verdun, Quebec, writes: "Just got 10 new tubes and now my Northern Electric set has a hum that vanishes when the volume is turned up full."

Answer: New tubes should not hum. Evidently the trouble was there previously and new tubes tend to bring it out. Have your condenser and filtering system checked if practicable. Are you certain the tubes are exactly the same kinds (not by make) as the ones replaced? Sometimes this form of trouble calls for a new volume control unit.

From J. R., of Newark, N. J., comes this: "I built a short-wave receiver but when I added another 6V6 audio tube the set motor-boated loudly. Why is this?"

Answer: Without seeing the circuit there is little we can advise except to say that the cathode biasing and all other grid resistors and condensers should be checked. Perhaps a little more or less negative biasing will solve this trouble. The values of these parts in the audio circuit must be balanced and carefully worked out.

J. E. L., of Flushing, L. I., writes: "A catalog shows a 12-tube set at \$29 and a 9-tube set at \$28; both table models. Why such similar prices for 5-band sets of the same make? Which would be the best buy? Do you think the 12-tube set has dummy tubes?"

Answer: There is no accounting for some of the things we see in radio catalogs. Certainly there should be more difference in price when 3 tubes are concerned. The value of the tubes alone should make a greater difference than \$1. However, much depends upon how hard the sets are to sell and whether the dealer is anxious to part with them at a loss. At any rate a 12-tube 5-band set for \$28 is a bargain if it is well made and efficiently adjusted. We doubt wheth-

er there are any dummy tubes in a set of this size. If the concern making the offer is reliable, we think you might do well, but suggest you enter into correspondence with them first.

An interesting question sent in by C. P., of Quebec, Can.: "Is it possible to attach an amplifier to my commercial 12-tube all-wave set and get a richer tone, less static and more selectivity?"

Answer: By "amplifier" we feel certain you mean a "pre-amplifier" or "pre-selector" and not an additional stage of audio amplification. The principle of pre-amplification is to boost up the radio signal that comes in from the aerial, tune it somewhat roughly and send it to the receiver as an amplified and partially tuned signal. The result is you will get a louder signal and one that tunes sharper with easier rejection of interfering singals. . Static cannot be reduced, and the tone of the signal cannot be improved; the latter depends upon the audio circuits of the radio receiver and type of speaker. We think that any good 12-tube commercial all-wave set will be helped but little with an additional stage of radio-frequency amplification. If your set has two stages of r. f. amplification do not add an amplifier. If it has one stage, or even none, as some sets are now made, a pre-amplifier will help in getting more selective signals and more DX-ing.

S. E. Y., of West Linn, Oreg., is puzzled: "I read where a directional antenna towards the south overcame a dearth of signals in one direction, but a radio man told me a broadcast antenna must be 1,000 feet long before it becomes directional. Do these people with directional antennas really use that much length? What can I do without moving into the country so as to get so much space?"

Answer: The principle of radio transmission of energy is such that all receiving antennas are directional when hung in horizontal positions. Length, no doubt, has some bearing on the matter. However, any wire, when pointed towards a radio station, receives best from that station and not so well from an equally powerful station located the same distance away but at right angles to the aerial wire. The small sets now using built-in loop antennas are perfect examples of this. Turning the set around its position changes the plane of the loop aerial and varies the intensity of the signals being received. Any wire, of any length, has directional qualities. Your aerial, therefore, can be of a length that can conveniently hang in the space available when pointed toward some particular direction. A "T" type aerial is best for this purpose, while a vertical antenna receives equally well from all directions.

Here is a big order from W. M. D., of New Orleans, La.: 'I want to get a set that will bring in all shortwave signals from any point in the world, regardless of the strength of the station. What do you recommend, or can you give me plans for building such a set?"

Answer: If there was such a set we would unhesitatingly recommend it. This is simply one of those things that can't be done. Don't try to build a set to accomplish even a part of this feat. If you can, buy a good commercial short-wave set having from 12 to 18 tubes, ranging in price from \$150 to \$300. The latter should have at least 2 stages of tuned r. f. amplification, 4 stages of i. f., and crystal selectivity. Good sets of this kind will give you about all the short-wave tuning you can take care of at nights.

RADEX

FOR SWL'S ONLY

- have you any QSL'S from ultra high frequency stations? A list of these stations are receiving equipment. You can buy a guaranteed UHF converter designed to work on an all-wa symphetrodyne radio, complete and postpaid, for 50c! This is not a plan.
- Ingersoll's watch made the dollar famous; Our product will bring the half dollar equal fame.
- Send your order to PRINCETON RADIO, 15889 Princeton, Detroit, Michigan.

VUM-2 card is new and evidently right off the press! XTJ took an even four months en route according to postmark. It was posted Hankow and mailed just eight days before the fall of city. (By Al Bartholomew) . . . George A. McDermott is the recipient of the first verification in Spatari from 2RO in Rome. Excerps from the "We are sending you a letter: verification made out in Spatari and this should be quite a collective item. Since it is the first to be issued by the Italian shortwave station."... SP-19's veri card is brown, red, and white, with map of Poland in white and call in Red. W-10XAB —OX2QY are still verifying belated reports. . . . EAJ-43 sends a white. red, orange, and blue card with photo of Franco on it. . . . EAR's card bears a war scene. Three photos are contained on the TFI card. The Telephone Building (Broadcasting), The Radio Choir, and Interior of transmitter are pictured. The Icelandic Flag is in the upper right corner. . . . HC1GQ's card is red, white, and green showing "El Nariz del Diable" (Devil's Nose), a mountain!

RADEX is pleased to announce the Radex Readers Shopping Service, a service specially designed so you may obtain selected, recommended communications receivers through your favorite radio magazine.

The Editors of RADEX will buy your receiver for you from the most reliable stores in New York City or Chicago, and will arrange easy deferred payments if you wish.

The receivers offered this month are fully described in our advertising pages. All the sets are highly recommended for amateur work or for shortwave broadcast reception. The prices quoted are the lowest at which these first quality receivers can be bought anywhere.

You will pay no more if you buy your set through the Radex Readers Shopping Service, but the Service will benefit you because it will benefit your magazine.

YUA on 6100 kcs. verify with a booklet and schedule with many pictures. DJP, Germany relays their program on 11850 kcs. Reports may be sent to either station. . . J. G. Leitch signs verifications for WCAU, Philadelphia. I also have ultra high W3XIR (relaying WCAU) verified on 41000 kcs. No permanent schedule as yet. . . . TG2 on 6190 kcs. has a pretty QSL card. On the front side is a quetzal bird perched on scroll which rests on crossed guns and sabers in a wreath of coffee branches. These are all in color. On the information side is native scene in blue and brief ·history of Guatamala City. They also send booklet entitled "Best Coffee in the World."

Radexing With The Radexers

By Ray LaRoque

Comes meeting time, and once again the great RADEX clan gathers, through the medium of this department, for discussion of the news of the month. When you read this month's RADEX, the DX season will be well on it's way toward the mid-season peak. So, stop putting off your entry into the funfest. Another month's waiting and you will have missed a very nice slice of DX reception weather which will never return.

By the time we are ready for the next issue of RADEX, we expect to have a magazine-full of actual reports of foreign reception by our readers here in the East. By reports of foreign we mean TP's as well as TA's, for we wouldn't for a minute want to

think that all of our eastern DXers are content with Europeans. West coast fans aren't the only ones who can hear TP's, you know. It has been proven that early in the morning, just before sun-up, many an Australian or New Zealander has been logged—even way over here on the Eastern shores.

THIS 'N' DATA

A copy of the Montreux Wavelength plan has been forwarded to us from England by Richard Wright. All changes were shown in parenthesis in the September RADEX. Most of the changes are merely frequency changes, but there are a few outstanding ones. Spain has never had any stations on the medium waves which reached any degree of impor-

ORDER FORM

Please buy for me the following articles for which I enclose remittance in U.S. funds of

Radex Readers Shopping Service 362 Cedar Lane Teaneck, N J.

	II payment, or \$	as a part payment.	PRICE EACH	TOTAL			
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Material is to be sent express collect from New York or Chicago, depending upon cheap- est route. Where part payment is made it is understood that order is subject to acceptance of supplier. (Time payments apply to U.S. only).							
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tance. Under the new plan, Spain will have a 120 kw. Madrid station on 589 kcs. Lithuania comes down into the medium waves with a station on 635 kcs.—a clear channel in Europe. With conditions in Europe as they are at present, it is doubtful if the plan will go into effect as anticipated. Anyhow, it will be interesting to watch for developments.

Iack Varner of Roanoke. Va. wants to know how many DXer's renuember the super peewee stations KFPM and IOBQ! Jack has veries from both. NNRC "Parades Across Ohio" in October, and does the same across Indiana in November. See the DX Calendar. "My greatest distance on the broadcast band", says E. W. Coney, R380, of San Francisco, "is WJR- 2300 miles and I also have KFOY, KOBH and KLPM."... The World DX Alliance and the Globe Circler's DX Club extend an invitation to all DXers to join this club. Bulletins are issued semi-monthly during the DX season and once a month in the Summer season. Sample bulletins can be had by writing to P. O. Box 422, Perth Amboy, N. J.

POST OFFICE BOX R9

Hagerstown, Maryland—Hubert L. Martz, 22 N. Potomac Street: "During the Summer I heard two stations using Spanish on 900 and 1030 kcs.,



An extra large-sized veri card, 4x7 inches, issued by WRAL of Raleigh, N. C. The picture on the left is the North Carolina State Capitol. (Courtesy of Roy Shaffar).

and neither was Cuban or Mexican. Has anyone any idea where they are located?"

Philadelphia, Pennsylvania—Sidney Tallis, R1271: "I would like to become a member of the RADEX Club. I have been DXing on the broadcast band for six months and have 112 stations logged and 107 verified. Previous to this, I was strictly a shortwave DXer. I have been reading RADEX for two years."

Romney, West Virginia—Jim Walker: "I have heard 898 stations of which 832 are verified. Delinquints are mostly Cubans and Mexicans, and CX18, YV1RA, YV1RF, HJ1-ABH, HJ1ABN, LR3 Poste Parisien, Lille, Rennes, and Belfast CFCT, and WKAT. The latter station has been reported six times. Return postage was sent twice and typed veri cards twice but still no verification. Will someone please tell me how to get a verifiaction from WKAT."

Swarthmore, Pennsylvania—Richard Wright, Swarthmore College: "You might mention in your column some time in answer to Desmond Callan of Readville, Mass., that I have a veri from WSYU as well as from WSYR on an FCC test."

Rochester, Pennsylvania — A. G. Schleiter: "I started DXing all over again on June 28th and in a little over one month I have 190 stations including 51 of the frequency checks. Of course, I expect to hear around 900 or more by January 1st when the weather gets colder. I get more pleasure out of radioing in the U.S. than trying for foreign stations."

West Hamburg, Pennsylvania-Nicholas Evangelista, R557: "Here are some of the best stations which I verified last winter. KWJB, KCRJ, KVEC, KRE, KSAN, KGFJ, KPFA, KGFL, KJCA, KSUB, KWYO, KVRS, CJCJ, CMKE, CMKM. CMHJ, CMJW, CMHP, TIPG, TG-1, XEDH, XEFC, LRA, LS-11, LR5, PRF3, HJ1ABN, JOAK-1, JOBK-1, JOCK-2, 4BU, 1YA, 3YA, 4YA, 2YC,

Radio Normandie, Radio Toulouse,

and Radio Lyons."

East Chicago, Indiana—Frank Susoreny: "I have been DXing on the broadcast band since last November and my log now stands at 310 stations—286 in the United States, 13 in Canada, 9 in Mexico and one each in Cuba and Guatamala. Lately, I have started to send for verifications and eight stations have verified: KLUF, KWOS, WBNY, WCOU, WPIC, WRTD, WSIX, and WW-SW."

East Vassalboro, Maine—Joseph T. Lippincott: "It seems to me that long wave DX has been too long neglected. I have heard 15 countries on this band and know that it is possible to do some fine DXing. For this reason I am starting a contest as follows: At present prizes will be 20 IRC's and 10 IRC's with hope that much interest will be shown and more prizes added.

1.—Anyone living in North Amer-

ica is eligible.

2.—Veries must be obtained but will not be called for until the end of contest.

3.—All stations eligible except

strictly CW.

4.—Points as follows: Five (5) for each country verified, three (3) for each veri outside the U.S. and Canada, and one (1) for each veri in the United States and Canada.

5.—Stations must be heard between 1/9/39 and 1/5/40. All reports must

be in by 1/6/40.

6.—Contestants must write directly to J. Lippincott, E. Vassalboro, Maine at least once a month.

7.—There is no entrance fee, but those desiring late list of long wave TA's may have same by sending 10c."

VERI SIGNERS

Additional verification signatures are furnished this month by George Hotton, R1224, Milwaukee, Wisconsin: WEEU—M. Leonard Savage, Engineer, KITE—Wayne J. Hatchett; KOAM—R. L. Jones; WILL—A. James Ebel, Ch. Engineer; KTHS

—Mary F. Floyd, Secretary; KOTN —B. J. Parish, Mgr.; WLAP—Sanford Helt; KPO—W. Woodward; WSIX—Jim Turner; WJSV— Clyde A. Hunt; WJJD—J. L. Allabough; WOC—Allen R. Richter.

COVERING THE CONTINENTS Domestic Dialings

FORECAST: November means that the DX season is definitely here and the only obstacles the DXer will encounter in domestic DX this month are local atmospheric disturbances. We suggest you start listening to those frequency checks now if you want a real big list of domestic stations this season. There are many new ones which were not there last season.

Komments from the "K" District: KSL now broadcasts its Thursday morning tip program weekly. KSL's 50000 watts on 1130 kcs. make it easily heard all over the nation at the hour of 2:45 a.m. (RL)

W's in the East: WELL is now on 930 kcs. (Robert Trubee, R671, Brentwood, N.Y.)

WJAG will conduct their annual DX program this season on Friday morning Dec. 8, from 1:30-7:30 a.m., This program, an annual event at WJAG is well worth hearing and provides an opportunity for listeners in the East to hear a station that is not too easily logged otherwise. WJAG is also on frequency checks from 1:30-2 a.m. on the second Friday of each month. (RX)

WGNC at Gastonia, N. C. is running 250 watts full time now and has an application in for 500 watts. All reports sent to the chief engineer, Vernon Upton, Jr., will be promptly verified if correct and return postage is enclosed! Arrangements have been made with Mr. Upton for dedication of the October and November FCC tests to the RADEX Club and if he receives a reasonable number of reports he has promised to put on a three hour program for the club. (Frank Billingsley, Jr., Ellenbord, N.C.)

WRGA on 1500 kcs. has made some changes in its operation. A telegram from the FCC authorized the use of 250 watts full time instead of changing to 100 watts at local sunset and it has already been put into effect. Schedule is now from 7a.m. to midnight. This is announced by the FCC as a temporary measure, but the engineer assures me it probably will be permament. (Robert May, R689, Rome, Ga.)

The audio station for television station W2XBS was heard on approximately 1602 kcs. The reception was during the afternoon in late August. No interval or identification signal used. (Irwin Schon, R1069, Woodside, N.Y.)

Early a.m. sign on times of some New England stations are listed in the following: WCOP-7:00, WEEI - 6:30; WHDH - 7:00, WMEX-8:00, WAAB — 7:00, WBZ-WBZA—6:00, WNAC — 6:00, WORL—7:00, WSAR-7:30, WHAI-7:00, WLAW --7:00. WNBH---7:30. WLLH---7:30. WHEB-7:00, WRDO-8:00, WLBZ -8:00, WCOU-6:00, WCSH-7:30, WGAN-6:30, WCAX-7:30, WSYB -8:30, WQDM-6:00, WNBX-7:00, WDEV-6:00, WEAN-6:00, WPRO -6:00, WJAR - 7:30, WICC-6:00, WDRC-7:00, WTHT-7:00, WTIC -6:00, WNBC-7:00, WELI-7:00, WNLC-7:30, WBRY - 8:30, and WATR — 8:00. (Desmond Callan. R987, Readville, Mass.)

Canada: CBL in Toronto sends a neat verification card to all correct reporters. It is a cream colored card with red and black writing. A radio tower is shown on the left side of the card. CKLW on 1030 kcs. comes in very clearly around 2 a.m. They verify any correct report with a blue and white card. (Philippe Bates, R1231, Philadelphia, Penna.)

CHSJ and CFCY were visited while on trip to St. John, N.B. and Charlottetown, P. E. I. At CHSJ, I found out that the man who announces the early morning weather re-



Broadcasting station KGGM, "The High Fidelity Voice of New Mexico," verifies listeners' reports with this card. (Courtesy of Merlin Steen).

ports at 5:00 a.m. is a night watchman and stops in at the station on his way home from work. Incidentally, the announcer on regular programs said that he had never seen the weather report announcer. . . . At CFCY it was learned that they had bought out CHCK and now use it only on occasions in order to hold the license. CFCY is officially listed by the CBC as the Canadian National Hotel, but reported to be in Brace Block, Queen St. (Robert E. Base, Baltimore, Md.)

Latin America

Argentina: LR-1, LR3, LR5, LR6, and LS2 are heard with strong signals when conditions are good. LR-1 has been heard several times with a stronger and better signal than shortwave LRX. (Robert Skyten, R786, E. Brookfield, Mass.)

Costa Rica: TIEP of San Jose, heard on 830 kcs. in the evening (Robert L. Martz, Hagerstown, Md.)

Cuba: CMCY and all of the following were heard during the summer months with good signals, CMCY. CMCR. CMBG. CMCD. CMK. CMCU, CMCF, CMX. CMBL, CMKD, CMCK, CMCP. CMBZ. CMCP, CMBF, CMBH. (Hubert L. Martz, Hagerstown, Md.)

CMHI on 830 kcs. at Santa Clara is now using 10000 watts. . . . CMJX is in Ciego de Avila now, not Camaguey. CMHJ on 1160

kcs. will broadcast two DX programs this season with Enrique Hidalgo at the "mike" and directing the answering of DX mail. The programs will be on January 14 and February 18, 1940 from 2-6 a.m.. Ten cents in coin is required for the stations's verification. . . . CMHO is now in Cienfuegos and operating on 1000 kcs. with 200 watts, having moved from Sagua la Grande. This station and CMHI, along with CMHM are the only stations in the "Pearl of the South", as Cienfuegos is known. (CMHX evidently has been deleted.) . . . Cuba has three networks in operation. They are:

Cadena Crusellas (Crusellas Network): CMQ (key station), CMJK, CMJA, CMKD, and shortwave sta-

tions COCQ and COKG.

Cadena .Azul (Blue Network): CMHI (key station) along with CMCF (occasionally used as key station on programs from Havana), CMKQ, and shortwave stations CO-HI and COCH.

Radio Cadena Nacional (National Radio Network): CMK (key station), CMHW, CMGF, CMAR, CMKR, CMJC, and shortwave station COGF. (Enrique Hidalgo, Cienfuegos, Cuba)

Guatamala: TGW comes in fine every night when there is not too much interference. They have been verified. (Jack Varner, Roanoke, Va.)

TGW heard about 11 p.m. on Sept. 6 using a bedspring for an antenna and no ground. Now use an RCA doublet and will try for the FCC checks soon. Previously, my DXing was confined to the amateur bands. (Winship Haylor, Baltimore, Md.)

TG-1 will broadcast a special DX program for the World DX Alliance and Globe Circlers DX Club on Sunday morning October 15th. from 1-2 a.m. and again on November 12th at the same time. Verifications from TG-1 and TG-2, which will also carry the program, are now printed in the Spatari Radio Language.

Mexico: XEAW in Reynosa, Tamps., comes in clear at midnight on 960 kcs. (Philippe Bates, R1231, Philadelphia, Penna.)

Tuning the TA's

FORECAST: November will bring about a near peak on reception of trans-Atlantic stations. Keep an ear out for the Europeans all through the month and you may be rewarded with a log-full of TA's.

Great Britain: Just after few items last month had been written, explaining radio and how it operates in England, news comes that due to the war in Europe, all transmitters except the following have been closed down: Westerglen and Burghead on 767 kcs., Moorside Edge on 668 kcs., and Brookman's Park, Moorside Edge, and Westerglen on 1149 kcs. 767 and 668 kcs. are in parallel and operate as the "Home Service station. That is the new call. 1149 kcs. broadcast in parallel with Daventry on all its transmittions and is as usual announced as "London Calling." The schedule for the Home Service stations is from 2 a.m. to 6:15 p.m. (7 a.m. to 12:15 a.m. in London). This will give the boys over here a chance to hear England this winter as the British stations will be signing on much earlier than in previous seasons. Bow bells sometimes followed by time signal (six pips) is the interval signal for "Home Service" stations. (Richard Wright, R23, Swarthmore, Penna.)

France: Most of the stations in France came on the air at 1:45 or 2 a.m. last season, and this country was, by far, the most easily logged of all European countries. Try for Rennes on 1040 kcs., and Poste Parisien on 959 kcs., as well as all of the other superpower French stations. (RL)

Union of South Africa: Kimberley on 1380 kcs. relaying Johannesburg on 645 kcs. is a new station (Mrs. R. S. Roche, Aliwal North, South Africa)

(Please turn to Page 83)



TURNER DIAL SAYS:

It's time to clean up.

Dust out the radio. The cleaning tool of a vacuum cleaner will suck out most of the dirt. Be careful of delicate parts. A soft paint brush also is a big help. Polish tubes and other parts with a soft cloth.

Are you buying a set?

Readers want to know what set to buy. RADEX leans backward from recommending radio receivers. But there are consumer research organizations that make it their business to tell people these things. For a small consideration they will call names. Buyers' guides and a year's subscription brings discussions about recommended and tested and faulty radios, as well as other things people buy.

Put new tubes in old sets.

Time for new tubes. Reliable makes predominate the market, and metal-glass replacements instead of some older glass types often work nicely. Your service man can make the necessary socket and grounded alterations. And new life in the oscillator works wonders when DX-ing on short waves.

I wonder why they don't think.

Newspapers reported that radio big-shots sent shortwave signals toward Mars when it paid a recent visit. They hoped the waves would be reflected back to Earth. Why don't they experiment by aiming at the Moon? Its closer bv. I figure that experimental signals reflected from the Moon would return to Earth in 2½ seconds instead of 6½ minutes from tiny Mars. Certainly the Moon offers greater possibilities in this line,

Have you heard 10 meters?

All-wave sets will receive interesting local 5-meter and world-wide 10-meter stations by using a small converter that utilizes 3 tubes and plug-in coils. Tuning is done by the convertor dial.

New sockets often help.

In old sets noise and signal cutting might be due to worn tube sockets. Replacements are inexpensive. Soldering and fitting is easy. Keep wires from becoming mixed. Radio people use rosin-core solder, but acid-core solder is best for novices. As it is corrosive, a bit of alcohol will brush off remaining acid after solder cools.

Tune slowly and patiently for short



The October issue of "OSA5", official bulletin of the DXer's Interna-Club, tional Exchange Drvden. Wash., appeared in the form of a printed 12 page magazine, which added considerable attraction to its varied contents. The club plans to issue it in this form every three months, interspersed with the regular mimeographed bulletins the other eight months of the year, until such time as their rapidly growing membership reaches the point where monthly printed bulletins will be feasible. A limited number of these October editions is available to serious DXers or hobby fans, and may be obtained by addressing the DXIEC Secretary, Merton M. Hiatt, Box 7, Dryden, Wash.

The Australian DX Radio Club was inaugurated in 1933, and in these past six years it has become a well-known organization throughout the Commonwealth of Australia. The

Maxine Gray, famous singing telestar featured on the Don Lee Television Station. (Photo by Maurice Seymour, courtesy of Don Lee System).

membership is gradually approaching the thousand mark, and official representatives are located in many overseas countries Membership in this club is open to anyone who is interested in DX. Overseas members may join by sending 24 stamps, each equal to the first class mail rate (5c each in 'U.S.A.). In return they will receive a club certificate and number. and the next twelve issues of the club bulletin. Communications concerning this club should be addressed to Graham D. Hutchins, 10 Ordnance Quarters, Maribyrnong W3, Vic., Australia.

Plans for the contest sponsored by the National Radio Club are complete, and can be obtained from headquarters at 317 E. Tenth St., Erie, is a cash prize of \$20.00, donated by one of the club members.

Pa. Among the worth-wide prizes



Mexican amateur station XE2FC, in Tampico, acknowledges corect reports with this multi-colored card. (Courtesy of Russell Fieberg).

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



VIDEO VARIETIES

Television's first season of intercollegiate football broadcasts is now in full swing. The first game was televised on September 30, when Fordham University met Waynesburg College at Randall's Island. The National Broadcasting Company, over W2XBS, also broadcast the Manhattan-St. Bonaventure game on October 7, and during the month of November, televiewers will see C. C. N. Y. play St. Joseph's on the 18th, and Long Island University versus Catholic University on Nov. 23.

The director of outside telecasts for NBC, Burke Grotty, believes that some big-time contests will be televised, and he also announces that there is a possibility of one or more professional football contests being telecast.

Words

Television's own glossary of slang designates a blonde as "blizzard head," a brunette as a "dark angel" and a redhaired actress as a "problem child."

When all three are booked on the same program it means a lot of head-aches for the studio lighting crew, according to Thomas S. Lee, president of the Mutual Don Lee System, and owner of W6XAO, the only television station in the west.

A brunette's hair absorbs light, whereas a blonde head reflects light. Because auburn hair is in between, tests must be made to determine the degree of lighting required. Hence the owner of red tresses is called a "problem child."

Other terms used are:

Spot: a lighting unit capable of throwing a narrow, intense beam of light on a particular object.

Washed Out: is a term applied to a person's face when too much light causes the features to become indistinct. Too much light overloads the camera tube and shows clothing and hair floating around by themselves because wearer's face and hands are 'washed out."

Truck Back: action by the camera when it is moved back for a long shot. To "truck up" is the movement forward for a closeup.

Reports

Some reports received from viewers of the Don Lee television station in Los Angeles:

Roger A. Howell, one of the best known television experimenters in the southwest, is perhaps the most consistent reporter to this station. He has reported, at times, that pictures are received with almost perfect detail and contrast. A resident of Los Angeles, six miles from the transmitter, reports especially good reception of W6XAO since they started using the new Type "D" antenna structure; no fading of the viedo signal has been noticed, but a little difficulty has been encountered in keeping the oral channel properly tuned in. He uses a Hallicrafter 5-10 Skyrider for sound. This experimenter employs a 14-inch black and white cathode ray tube.

THE RADEX CLUB



At the first fall meeting of the Brooklyn-Metropolitan Chapter The Radex Club the following officers were elected: George Nahas, president: Robert Blanchard, vice-president; John DeRosa, secretary; Arthur Johnson and Robert Mellor, technical advisors. A membership committee of three was also appointed. Fred Lisanti, Herbert Frenkel and Victor Samardza. Sixteen members were present at this meeting, nearly every part of New York being represented. Eleven of the members were Brooklynites, three from the Bronx, one from Manhattan, and one from Staten Island (Tottenville)

The Irvington Chapter of The Radex Club enrolled two new members at its first fall meeting, and four days later started the season off very auspiciously by entertaining about fifty guests at a card party. While all the members joined in making this affair a success, the efforts of Evelyn Carpenter, Catherine Bosset, Margaret Bossett, John Howe and John Mauris deserve special mention.

Discussions of interest to DXers, demonstrations of communications receivers, instruction and assistance in technical matters, as well as refreshments and social activities mark the meetings of the Radex Club Chapters. Any DXer living in the New York Metropolitan area, or in the vicinity of Irvington-Newark, N. J., is welcome to attend the meetings of these chapters. The BrooklynMetropolitan Chapter meets on the last Friday of

every month, usually at the home of George Nahas, 6637 Ovington Court, Brooklyn. The Irvington Chapter meets on the first Monday of every month at the home of the Bossetts, at 870 Sanford Ave., Irvington, N. J.

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

V. A. C.

The VAC awards of The Radex Club are "different." A series of six plaques, each different, suitable to hang on the wall of the radio den, is awarded to listeners who verify all continents. But (and herein they are different from other awards), the plaques may be obtained one at a time. If you have verified only one continent, you may get a plaque for that continent. Any DXer who hears a radio station can qualify for at least one of these awards, and they are available whether you tune the broadcast band, the shortwave bands or the amateur bands. And the nominal charge of ten cents each just covers the cost of mailing them to members and returning the verifications which are submitted as required.

To get these VAC plaques, one verification from each continent is required, except that three veries from the continent on which you live are required for your own continent's plaque. Thus, members living in North America can send one verification for Europe, Asia, Africa, South America or Oceania, and three for North America. The three veries from your own continent must be from three different countries.

The Continents

NORTH AMERICA: Includes the countries of Canada, Newfoundland, Greenland, The United States, the Territory of Alaska and all the Aleutian Islands, the countries of Central America, Bermuda, all the countries of the West Indies, i. e., the Bahamas, the Greater Antilles, the Lesser Antilles, the French West Indies, the British West Indies, but not the Netherland Antilles. In the Pacific Ocean, the Cocos and Clipperton Islands are included in the continent Through the Bering Sea to the North Pole the continental boundary follows the International Date Line.

SOUTH AMERICA: Includes the entire mainland, and the Netherland Antilles to the north. In the Atlantic Ocean the several islands belonging to Brazil are included, as are the Falkland Islands. In the Pacific Ocean, the Galapagos and the several islands belonging to Chile are included.

EUROPE: Includes, to the north, Novaya Zembla, Spitzbergen and Iceland. In the Atlantic Ocean, the Azores are included. In the Mediterranean Sea, the following islands are considered as European: Sardinia, Balearics, Corsica, Malta and Crete. The eastern boundary of Europe starts in Kara Bay, continues southward through the Obdorsk Mountains, the Ural Mountains and the Ural River, to the Caspian Sea, then through the Caucasus Mountains to the Black Sea.

AFRICA: Includes none of the Mediterranean Islands. In the Atlantic Ocean, it includes the Madeiras, the Canaries, the Cape Verdes, Ascension and St. Helena. In the Indian Ocean, Madagascar, the Seychelles, Reunion, Mauritius, and Rodriguez. Africa's eastern boundary goes through the Suez Canal, the Red Sea and the Gulf of Aden.

ASIA: The western boundary of Asia is the same as the eastern boundaries of Europe and Africa. All the islands in the Arabian Sea are included in Asia, as well as those in the Bay of Bengal. Asia's eastern frontier includes all of Japan, the island of Taiwan and Hong Kong Island. From Taiwan the boundary passes through the South China Sea to Singapore, then through the Malacra Straits to the Bay of Bengal.

(Please turn to Page 34)

DXer's Picture Gallery



On a recent visit to the Atlantic Coast, Merlin Steen of Decorah, lowa, visited DXers in every part of the east. He is shown here, on the left, with sim Walker of Romney, W. Va.



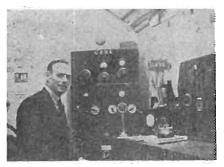
The pretty two-color SWL card of J. I. Vaught of New Orleans. Commencing with this one, we shall print one attractive SWL card each month.



The neat listening post of Ag. Albion of Niagara Falls. The Howard Receiver and the essential RADEX are shown.



Nicholas Woytan, Syracuse, N. Y., shown with a few of his many veri cards. The cards are from broadcast band and shortwave stations, and amateurs on both phone and CW.



This English ham, G8BK, suggests an anecdote (see this month's Ham Hounding), if you don't like his picture. We like it.

ON THE WEST COAST

■ ● By ANTHONY C. TARR

As we prepare to write this column for the third month, we are gratified by the increasing number of reports that are being received

from RADEX, readers and their swell comments on the column. There seems little doubt but that the West Coast readers have been waiting a long time for something like this and now that RADEX has taken the initiative they are generous with their praise.

On, reporter asked us, "Is the Radex Ciub only for shortwave DX-ers?" By no means! Anyone interested in radio as a hobby is welcome to join, whether they do their DX-ing on the ultra short waves or the broadcast band or anywhere in between! All that is necessary is to apply to the RADEX editor and you will be enrolled promptly. And please use your membership number when reporting to this coumn, will you?

ALL TIMES P.S.T. EROADCAST BAND

We are giving the BCB "top billing" this month because it has easily proven to be the "surprise band" of the seas in thus far. Early one morning in mid September we thought we do see if the TP's were beginning to break through, and so donned our trusty earphones at about three o'clock preparing to battle the usual high noise level we experience in our location.

Hardly a sound was to be heard! The almost entire lack of static seemed incredible and we actually thought our receiver was at fault until we fished around for some stations. To our amagement, the band seemed literally crowded with signals from the Aussies and Zedders, many of them pushing the R meter up past the R7 mark at times. To make a

Reporters in the mountain Standard and Pacific Standard Time Zones may send their reports directo to Anthony C. Tarr 909 W. Lee St., Seattle, Wash. long story short, the result was about 25 TP signals heard in the space of little more than an hour!
Our most important discovery was 2FC,

Sydney, operating with an R7 plus signal on 850 kcs., having apparently moved recently from 610 kcs., on which frequency we never had logged them. Their station announcement was very clearly heard. The most remarkable signal, considering past experience, was an R7 signal from 2WG, Wagga on 1150 kcs., where they have never before been more than a barely intelligible whisper. Our complete list of stations heard follows below, and shows the time each was tuned in (P.S.T.) and the signal strength at that partimoment. Naturally, fading might have been at its peak or its lowest depth on some of the stations when we tuned in, but here they are:

Time	Station	Freq.	Q/R report
3:04	4BC	1120	4/6-7
3:06	2NR	700	5/7
3:06	3YA	720	4/6
3:07	2CO	670	4/6
3:08	2CA	1050	3/4
3:15	4AK	1220	3/4
3:20	3LK	·1090	5/7
3:21	4BH	1380	4/5
3:22	2UW	1110	4/6
3:24	2CH	1190	3/4
3:26	3SR	1260	3/4
3:31	3HA	1010	4/5
3:34	4YA	790	4/5
3:35	4QG	800	5/7 plus
3:35	2BL	740	4/6
3:36	3G1	830	5/7 plus
3:38	2FC	850	5/7 plus
3:40	'2NC	1230	5/7
3:55	2KY	1020	4/6 plus
3:58	3LO	770	5/7 plus
4:07	4RK	910	4/5
4:09	2GB	870	4/5
4:10	1YA	650	4/6



The Hong Kong broadcasting station ZBW verifies shortwave listeners' reports with this card which shows views of a studio, the transmitter and the aerial. (Courtesy of Jerry Hahn).

From the above, we feel fairly sate in predicting that this may prove to be an unusually favorable season for DX. Be sure to keep us posted on what you hear. We are especially anxious to receive reports on South and Central American BCB reception on the West Coast.

Delete the following New Zealand stations: 4ZM, Dunedin, 1010 kc. 4ZC, Cromwell, 1280 kc. (Alan Hutchinson, R 1180, NZ 2).

A letter from CJGX, Yorkton, Sask., asks us to correct their listing in accordance with their official advice that the station operates on 1430 kc. with 1 kw. power. Their schedule on this regional channel is 7:30 am to 11:30 pm daily, and 11:00 am to 11:00 pm Sundays, Central Standard Time.

KTOH, Lihue, Hawaii, will be on the air before February 1, 1940, on 1500 kc. The address will be Box 1748, Lihue, Kauai, Hawaii. Through our reporter, C. J. Fern, Jr., whose father holds the construction permit, they invite ideas for DX programs. Here is a station that will be the most friendly toward DXers of any in the Islands. Let's all show our appreciation by sending in reports!

A query from Victor West, (R 673), San Rafael, Calif., asks why the

veri card from WCKY, Covington, Ky., gives their slogan as "Voice of Cincinnati", and was mailed from that city. It puzzled us for a moment, too, until we looked at our map. The two cities are just across the state line from each other and undoubtedly WCKY derives greater part of their commercial support from sponsors in the larger city of Cincinnati, where their coverage is greatest. Mr. West also reports verifications received from JOIK, JOAK-1, and 2FC.

Thos. C. Roberts, (R-1139, Wyo. 4), Casper, Wyo., reports on the reception of domestic stations in his locality. Among the calls recently heard were KIRO, KOMO, KFWB, KJR, K1DO, KGER, W1BW, XEAC, XEAF, and KOOS. He inquires about KTW, a station in Seattle operated by the First Presbyterian Church, which seems to be a tough one for DXers. All your editor can say is that they usually sign off at 10 pm, PST, operating only on Sundays and Thursdays. While we understand they do verify reports fairly regularly they have not so far been receptive to suggestions for a DX program which is hardly surprising considering the type of station which this is. Their signal at our location here in Seattle is weaker than any other local station.

RADEXERS REMARKS

"For a long while" remarks L. E. Yarnes, West Linn, Ore., "I've wished someone would pay a little attention to West Coast DXers. I realize that the success of your column depends to a considerable degree on the reports you receive from the West Coasters themselves. I read RADEX regularly and expect to continue to do so."

"I am glad that someone has been appointed to handle the West Coast and hope that you have luck with the column," pens Victor West, (R-673), San Rafael, Calif.

All the old time DXers will remem-

ber Eric Butcher, Cokeville, Wyo., who turned to the Merchant Marine some time ago for fields of adventure. "I am now back in the States again", he advises, "having been in Puerto Rico and Venezuela, but am leaving again shortly. I have a new RME-70 with DB preselector and like it fine." We hope you'll soon return, Eric!

"It is with a great deal of genuine sorrow that my DX-ing days will have to come to a close", writes Warren E. Winkley, Modesto, Calif. "The hobby has been fascinating but the pitter-patter of baby feet make it necessary for me to go to sleep at regular hours—but I'll be back some day! Warren recalls many of his experiences in years of successful DX-ing and sends his regards to all his old friends. Looks like we'll soon have two DXers down in Modesto!

C. J. Fern, Jr., (R 211, TH 2), Lihue, Hawaii, writes that he now has the amateur call K6RRA. "But", he adds, "I will not devote myself to hamming' exclusively as my father wants me to write a DX column for the 'Garden Island', his newspaper."

ULTRA-HIGH

W9XPD, St. Louis, Mo., now on . 25.9 mc. with one kilowatt. W2XQO Flushing, N. Y. on 25.5 mc. W8XUJ, Crosely facsimile station on 26 mc. heard well. KQAO, Long Beach, Calif., on 32.1 mc. verifies through the Chief of Police, using 100 watts. Sgt. Henri Kirby, San Jose, Calif. Police Department, Chief Radio Technician, advises the cars of San Jose, Watsonville, Alameda County and Sacramento Police Departments operate on 35.22 mc. with control station KQBR, 31.6 mc. KQBR, Alameda, and WQ-KB, Evansville, Ind., contact each other daily at noon, PST, on 31.6 mc. (Fern, R 211 TH 2, Hawaii).

Midland Broadcasting Co., Kansas City, Mo. now using W9XER on 42.46 mc. relaying KMBC. W9XYH, Superior, Wisc., intended for service on 26.30 mc. will instead operate on

43.00 mc. with 1 kw power and will begin tests about Dec. 1st. (QSA5, Dryden, Wash)

SHORTWAVES Australia

The new shortwave station at Perth, Western Australia, will operate on the following frequencies: VLW, 6130; VLW-2, 9560; VLW-3, 11830 kcs. It is anticipated that programs will commence in December. (Honda—Calif.)

Canada

CFVP, Calgary, is now back on the air on 6030 kcs. signing off at 11 pm. (Honda)

Japan

A new station that may be added to the list given in September RA-DEX is JVZ-2, 11825 kcs. They were heard testing irregularly around 10 pm. (Honda) According to a verification letter received, JIB, 7295 kc. and JFO, 9630 kc. relay JFAK, 750 kc The message states that they present English news "nightly at 11:55 pm our time." (Equivalent to 6:55 am, PST). They also sent four scenic cards in a beautiful folder. (Harold Satterthwaite—Calif.)

Manchukuo

A new station made its appearance on the air just too late to be included in last month's column. It's MTCY, Hsingking, operating on 11780 kcs., although announcing 11775 kcs. Reports are requested giving full details of your receiver, antenna, comments on programs, etc. The program is directed to the West Coast and Hawaii, they announce, and is heard nightly from 10:30 to 11:20 pm. On some nights they are R8 but on others are practically unintelligible. (RT, and Victor West, R-673, San Rafael, Calif.) They are also on from 6:50 to 7:55 am. (Honda).

New Zealand

The National Broadcasting System plans six new 500 watt stations at Wellington to operate as follows: ZL-1, 6080; ZL-2, 9540; ZL-3, 11780; ZL-4, 15280; ZL-5, 17770; and ZL-6.



A photograph of the transmitter building is sent to reporters as a verification of reception of KTKC in Visalia, California. This attractive building is in typical southwest "adobe" style, with roof beams protruding all around. (Courtesy of Merlin Steen).

25800. (Honda). Station 2ZX is reported to be operating on 6060 kc. with 180 watts but your editor has thus far been unsuccessful in logging them.

Philippines

At this writing, none of our reporters are quite sure of the correct call of the Manila station heard nightly on 6140 kcs. It has been definitely established that they are owned and operated by the same company operating KZRM on 9570 kcs., and inasmuch as this is announced during station breaks, it has given rise to reports that such is their call on 6140 kcs. The Quixote Radio Club reports the call as KZRF, and we are inclined to believe this is correct, but that tantalizing last letter still eludes us amid untimely bits of static or fading.

KZIB, also in Manila, has shifted slightly to 9507 kcs. They were heard at one a.m. broadcasting a basketball game. (Honda).

Thai

That's the new name for Siam, in case you've forgotten, and as such is used by HS6PJ during their Monday morning programs from 5 to 7 am on 19020 kcs. (Honda).

During our first three months of conducting this coumn, we are deeply

grateful for reports and letters from the following RADEX readers:

THE REPORTERS

RT: Your West Coast Editor

R21, Sask. 1: Paul Sampson, Regina, Sask.
R211, T.H.2: C. J. Fern, Jr., Lihue, Hawaii
R289: Warren E. Winkley, Modesto, Caiii.
R839: William Cuningham, Pasadena, Calif.
R590: Eric Butcher, Cokeville, Wyo.
R673: Victor West, San Ratael, Calif.
R1180, N.Z.2: Alan Hutchinson, Dunedin,

R1213: H. H. Crow, Jr., Sacramento, Calif. R1203: D. C. Morrison, Berkeley, Calif. R1220, N.Z.3: Arthur T. Cushen, Invercargill, N. Z. R1245: L. E. Yarnes, West Linn, Ore.

R1245: L. E. Yarnes, West Linn, Ore. Harry Honda, Los Angeles, Calif. Graham D. Hutchins, Marybyrnong, Australia Arthur Mills. Engineer of CJGX, Yorkton, Sask.

Harond Satterthwaite, Los Angeles, Calif. R1139, Wyo. 4: Thomas C. Roberts, Casper, Wyo.

WWV of the National Bureau of Standards verified and also sent a copy of "Radio Publications." HAT-4 at Budapest, after five months, verified with a card of white, printed in red, green, and black. Card is in English, call in large red letters at bottom, and in center of card is a red outlined square with a candid picture of HAT-4 directional antenna. Signals are a good R8. Program consists of classical music, news in English "Radio National" at Salamanca, now at Burgos, on 10370 kcs. verifies by card of solid chocolate color with a picture in white showing Don Quixote heard during the DX contest along with 163 other foreign stations which were logged in a period of 28 hours.) "Radio Nacional" and windmill. printed in chocolate across middle of card. They also send a booklet "Social Help." W9XHW confirms with a typed postcard signed M. A. Guldin A dandy card is issued by OAX4]. It is a double card, borders in red and print in black. Towers and antenna in red on one card bearing call and print in black, and on the other a lama in red poses gracefully as a background for the veri message in black.

HAM HOUNDING

By HUGH HUNTEM



Those who have this QSL card of Aurora de Franco, who is XE1LK, will probably say that it is the most beautiful they have ever seen. The color is blue, in several varying shades, and the call letters are yellow.

Since we last convened for a session with Hugh Huntem, a war has descended upon this world—nowhere are the effects more noticeable than on the ham bands.

Once the Canadians fought with the Australians and the G stations for clear QSO's. Now all that can be heard is Spanish, as the South American, Central American and Mexican hams find themselves almost sole possessors of the foreign frequencies.

Only an occasional English voice is heard of some lonesome American stuck on one of the small islands in the West Indies, or of some mining engineer down in Chile. How long, must this thing be?

England, France, Canada, Australia, and New Zealand have placed a temporary ban on amateur radio. In fact, all of the British Empire hams have been closed down with the exception of South Africans and in a few minor districts.

T. O. Rocheford, operator of VP6-TR, a ham on the British island of Barbados, tells us that amateur radio was banned there Sept. 1, and that VP6YB is being used as a local broadcast station by the government.

The station is on about 6:15 p.m. every evening on 4.2 and 3.7 megs. Reports will be welcome, advises VP-6TR. More about him later.

From "Radio Amateur", official publication of the Radio Club of Cuba, we note that members are advised to send QSL's under cover if

writing to hams in Curacao, Surinam, Yugoslavia, Bulgaria, Ethiopia, Italy, Honduras, or Salvador. The same item states that PJ3CO in Curacao was forced to pay a fine and that stations YU7GL, LZ7VN, YT7KP, and I7AA have been closed down by their governments.

We might also add that there is still a ban on the Palestine stations and reports to them should also be sent under cover.

Conditions have been rather uncertain the past month, but every indication points to better reception from now on. But before we outline the DX situation, let's take a look at a few personalities in the amateur radio field.

VK2AGU—Two brothers operate this well-known Australian station, heard often on 20 meters when there is no war. Their names are Harry and Ken Hatton, and their QSL card is pictured here. The antenna and the rig are shown on the novel QSL. To date the brothers have worked 68 countries on phone, the latest being EA7BA.

The shack is located seven miles from the center of Sydney, where the lowest recorded temperature last winter was about 40 degrees (and he's not a member of the chamber of commerce, hi-hi's Ken). We thought it got cold down there.

XE1LK-Aurora de Franco is one the few woman amateurs in Mexico of whom we know. Perhaps being a woman accounts for the fact that she has one of the most beautiful OSL cards that we have ever seen. By all means get her card and inclose postage in your request to make sure that you won't be overlooked. We do not know whether she QSL's for SWL's or not, but her card is worth a couple of tries. It is all blue, with various shades, except the letters, which are a bright vellow. We have reproduced it in this section.

NY2AE—The boys at the submarine base at Coco Solo, Panama Canal Zone, have not been on the air as much as they were a few years ago when they issued the card that is also shown on these pages. Looking through our collection the other day we ran across it and we are still impressed with the novel design.

G8BK—Glen Ottley, operator, is the manager of a radio servicing department that covers half of the west of England. Since he was once an SWL he will answer all SWL reports—providing, of course, that postage is sent. With his photo he penned these words: "I enclose a photograph of my handsome countenance and shack. If it upsets you, have a large whiskey on me!" And although it didn't upset us, we had the large whiskey, anyhow!

Glen's choice of receiver; Philco and Hammarlund. He thinks that our cheaper sets suffer too much from image interference, a great deal of which can be reduced, he believes, by incorporating an IF filter in the aerial circuit.

Because of the cost of printing the QSL cards and because of the great number of reports received by those hams in foreign countries, Bireley Ross, of Austin, Texas, thinks that SWL's should send three interna-



The U. S. Submarine Base at Coco Solo, Panama Canal Zone, is the QRA of NY2AE. The boys send this novel QSL.

tional reply coupons when asking for a QSL!!! He thinks that one should be for the postage, one for the card, and the other for the trouble.

All well and good, Bireley, but how about we poor unfortunates who groan every time we hand out nine cents for just ONE coupon? Let's not speak too loudly of this. It may give the amateurs some mighty bad ideas!!!

Now for a review of the continents. We'll begin with Euorpe, since there isn't much doing over there in the way of ham radio.

EUROPE

While the ham stations of major countries are off the air, some fine DX catches may be made from Sweden, Norway, Hungary, Esthonia, Switzerland, Spain, Portugal, and other smaller European nations still neutral.

Recently WI's were heard calling ES4G and LA6X, both of whom were on 20 meter fone. The QRA of the Esthonian station is not known, but LA6X is Carl Clementz, Solbraaten, Mo pr. Sandefjord, Norway.

YL2CD will again be on the air for SWL's this month. This time he will broadcast on 28.08 megs. at 10 to 10:10 a.m., EST. on Nov. 12 and again on Nov 19 Be on the lookout for him. Should the band be all right you will hear him. His QRA once

more: A. Vitolin, Miera Isla 52-5, Riga, Latvia.

LX1SI is reported by many to be on the air nearly every night between 11 p.m. and 3a.m. EST. The QRA is: M. Schiltz, rue de Belval 55, Esch Alz., Luxembourg. He will QSL but SWL's must send international reply corpons.

"Will SV1KE and EI2L QSL?" asks Richard Daneker (R1122). He has had reports out to them since the

contests in March.

Not many CT stations have been reported ,although listeners are still hearing CT2BP in the Azores on 14.13 megs. CT1QA in Portugal was heard recently with good volume.

NORTH AMERICA

VP6TR, mentioned previously, has been on the air since 1934, officially licensed in 1935. Regulations governing VP6's had not been framed in 1934, and 'he and a few other hams down there were operating with tentative permission.

One day, he relates, the local gendarmes swarmed down on the boys and they were hailed before whatever tribunal they have and fined the staggering sum of \$2.40 apiece. That was the last gesture of law enforcement, however, for immediately afterward the VP6's were granted their licenses

Rocheford's big thrill of radio came in 1922 when he logged WWJ in Detroit, Mich., and received a verification. It was the first time that any radio broadcast had been verified for an inhabitant of the island of Barbados.

Incidentally, VP6TR reads Radex, and writes that he thinks it a fine business publication. Tnx, T.O.

Down in the Canal. Zone there is much agitation for private amateur stations, which are not allowed by the United States government. Only army radio training stations are on the air, operated by members of army and navy and under supervision of signal officers.

Probably the reasons are the spy scares and interference with naval

stations. Although not in the strict sense of the word amateur stations, those government stations follow as closely as posible amateur regulations

Furthermore, no photographs of these stations are allowed to be sent at present outside of the zone because of the war scare. We don't know whether that rule applies to QSL cards or not, but we have had some reports out to C.Z. stations for a long time-with no QSL's in the few answers we have received. There are about two dozen stations down there with many operators to a station. For example, there are seven ops at K5AG: Sgt. Fuller, Sgt. Hale, Sgt. Poiesez, Sgt. Dubose, Corp. O'Neal, Private Earle, and Private Boynton

Motto of K5AG is "always on from dusk to dawn." The station belongs to the Radio Section Headquarters' Battery, First Battalion, Second Field Artillery. An average of ten QSO's per day since 1933 is a conservative estimate. Last Christmas, seasons greetings to relatives and friends of the personnel of Fort Clayton sent numbered over 350. The boys QSL only when postage is enclosed—and then 100 percent.

You may have noticed that Cuban hams have been off the air for some time. The war is not the reason. The answer is furnished by a friend of



The much sought-after card of K60]I, amateur station in Honolulu. DXers who hear this station must send a dime to get Lani's picture. (Courtesy of Weston Richards).

our's on the island whose name must remain unmentioned, since he and his fellow hams are very much incensed over the ban.

Behind the ban is Cuban Radio Director Juan V. Govea, and although our informant did not give us the reasons behind the move, he did say that the director was hostile to hams, being unfamiliar with the ideals behind their great fraternity. He even thinks that U.S. hams have too many rights!

Our friend cites many grievances: only Americans are allowed to operate since the ban; recent prohibitions on broadcasts banned comments on religion and politics; maximum power allowed is 200 watts to the final;

Cuba is the only country where CW and phone hams have different prefixes (cw hams have the prefix CM; phone hams are CO); and of 25 American countries, Cuba is the only one where a ban is in effect.

Our friend also points out that most of the radio equipment sold in Cuba' is manufactured and imported from the United States into the island. He claims that all the hams in Cuba are very bitter because of the ban and have combined forces to fight what they declare is a downright intrusion as far as natural rights are concerned.

Have the tuners on 10 meters heard the two Puerto Rican women amateurs? Last month we printed the QSL card of K4EZR. There is one other regular on the ten-meter band, K4FOW. Her name is Jenny L. Ramirez, and her QRA: 46 Bellavista, Santurce. She is the XYL of K4FAB.

HI6Q has been heard quite frequently on 20 meter fone.

Others heard more or less often in the islands are: VI'5AJ, HH2B, HH-5PA, HI3N, K4FAY, VP7NH, and VP9L. Some of these are silent now because of the war.

Many have reported that VP7NS has not QSL'ed. About five months ago he told us that he had not ob-

tained any QSL cards as yet but was going to do so and that he would then send everyone he had QSO'ed a card. So either he has not yet obtained any cards or else he is not sending cards to SWL's.

T13AV was heard R9 calling CQ on 40 meter fone. Many of the southern hams are turning to this band for their QSO's.

SOUTH' AMERICA

There are two Uruguay stations heard nearly every evening on 20 meter fone: CX2CO and CX2BK. Both roll into the States with an R9 signal when the band is the least bit open. Both are located in Montevideo. Whether they QSL or not is as yet unknown.

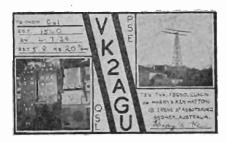
CE1BC is being logged again. Many Chilean stations are on 20 meter fone, although not quite as many are being heard this month as last.

The mystery station, SX4C, has finally been identified by a few listeners as being on a ship in the South Atlantic when heard last month. More than that we do not know. If anyone can tell us the name of the ship and operator we would appreciate it very much.

Another station that has bothered ham hounders for some time is ZX4M. This station, we are advised by Victor Samardza of the Bronx, is a portable-mobile unit operated by amateur W9AM, on board an oil tanker which is now returning, or perhaps by this time has returned from the Antarctic, where they obtained whate oil. The station runs a power of 15 watts in the aerial.

OA4AI, OA4AW, and OA4R used to be the regulars in Peru but now OA4C is coming in rather consistently. VP3CO was on the air from Demerara, British Guiana, but we do not know whether the war forced him off the air or not.

LU2BG, Luis Lefevre, states that Argentina prohibits more than 100 watts input to the final, but he has



Rig and 41-foot antenna of VK2AGU, operated by Harry and Ken Hatton, seven miles from sunny Sydney.

worked fine DX with his rig, using that much power. He has worked 42 countries on fone, including French Indochina, Japan, Philippines, Australia, Sweden, and Greece. He will gladly QSL providing return postage accompanies the SWL's request.

Has anyone heard a Bolivian station recently? There are only five or six in the country and we know of only one on 20 meters—CP1AA, on 14.00 megs. There are only four stations in French Guiana, but we doubt whether any of the four are on 20 meter fone. We would like some dope concerning this data.

The usual number of Colombian and Venezuelan stations have been heard. HC2HP is the most consistent Ecuador phone, located in the high part of the 14 meg. band.

AFŘICA

If you happen to combine the hobbies of stamp collecting and ham hunting, you will certainly profit by writing a Morocco ham. We have received three from that country, and each letter was covered with stamps. There were eight, seven of them different, on the last letter we received, mailed to us by CN8BB. The other easily heard North African ham in this country is CN8BA, who is the brother of French F8VC. Pierre lives in Rabat and brother Jean lives in Paris.

There are six amateurs in Rabat,

writes, CN8BA. Amateurs are regulated from France. There is one broadcast station, "Radio Maroc," on 500 and 25.42 meters.

EK1AF is still being heard frequently.

FQ8AB, Gabriel Duval, may be logged on 10 meters, since he puts a good signal into the United States. He was having a QSO with K4EZR and was evidently heard on the west coast since a W6 called him immediately after K4EZR lost him via the fadeout route.

His QRA is Agent des Chargeurs Reunis, Port Gentil (Gabon), French Equitorial Africa. He is the only ham in this African country.

From the WDXA bulletin we learn that VQ2CM in Northern Rhodesia is on the air every evening at 6 p.m. He is not on very long since it is 2 a.m. over there when it is 7 p.m. here His QRA: C. Miller, Luanshya, Northern Rhodesia. ZE1JA in Salisbury, Southern Rhodesia, is reported on 14.05 megs.

The South African stations are still on the air. ZS6CJ and ZS6AJ have been heard quite often during the past month.

The South Africans report that ZS4P, the only amateur in Basutoland, will soon be on 20 meter fone, although operating at present on 40 meter cw.

ASIA

UX1AA is the call of a legitimate expedition in the heart of frozen Siberia, C. J. Fern, Jr., of Lihue, Hawaii, informs us. The frequency is approximately 14.09 megs.

Try listening for MX1AM in Manchuokuo. Fern reports that he heard KA1ME calling him a short while ago. Although VS1AE is not in the Callbook, it is believed that he is a legitimate station, since many of the KA's have worked him and have passed him along to some of the W6's, says Fern.

This wide-awake Hawaiian DX-er also reports that J8Cl keeps putting a 05R8 signal into the islands. The

Japanese station QSL'ed in five weeks, sending both a card and a photo. The rig, says Fern, is a 6L6, 865, 203A, running 80 watts into a 40-meter Zepp antenna modulated by a 6L6 in Class B.

Reports concerning Asiatic reception in the middle west and east are few and far between. We would like to remind all SWL's that if they log any of the Asiatics let us hear about it. We still are determined to put up another antenna beamed on Asia to see if we can hear some of those elusive catches.

J8CA on 14.396 megs. is reported heard around 8 a.m. by an eastern listener, although it is believed he was using only 20 watts. His antenna is a rotary beam—turned to the United States.

XU8RB in Shanghai is still on the air. He can be heard best between 6:45 and 7:15 a.m., calling K or W stations. The well-known Indian station, VU2CQ, should be logged every Saturday night when the band is right. He is on from 8:30 to 10 p.m., calling America. Reports should be sent to H. Mozoomber, India Radio & Cable, Co., Ltd., Radio House, Apollo Bunder, Bombay, India.

FN1C is on every morning at 8 a.m. on 20 meters with a power of 100 watts.

OCEANIA

Now that the New Zealand and Australian hams are off the air, the Hawaiian and Philippine amateurs are heard best. And if you hear K6OJI by all means write him for his QSL card. He charges a dime for it but it is certainly worth those ten pennies. He calls his card "local interference" and it's a breath of old Hawaii!

KA1MM on 14.13 megs, is the station of the 28th Bombardment Squadron at Clark Field, Fort Statsenburg, Philippines, furnished by C. J. Fern, Jr.

Fern also tells one on KF6QKH, heard on 28.55 megs. occasionally.

It seems that he took a tuxedo along when he was stationed on the island, and that there were only four Americans there. All they ever wore were swimming trunks! So they dubbed him "The Mayor of Baker Island."

VK4NK in Port Moresby, Papua, is heard in Hawaii on 14.05 and 14.30 megs.

VR6AY went back on the air Sept. 15, according to a W2USA QST broadcast to amateurs.

KB6OCL in Guam has been reported on 20 meter fone.

CHATTER: Robert May, even with his new Howard receiver, says that ten meters has been "lousy", but has heard 57 stations in the past two months.....XUOA heard in Ha-. waii from 4-10:30 a.m., EST, but who in the U.S. has heard this station?W2USA broadcasts dope amateurs from 8:45 to 9 p.m. on Fridays.....Winship Taylor (R 9 6 2) used a bedspring for an aerial and no ground to log TGW on the broadcast band and Bill Wells used a cellar clothesline to log a flock of 20 meter-Dx

Amateur Calls Heard

The calls are listed under the time zones in which they are heard. The names and addresses of persons reporting the stations are indicated by small letters following the call signs. Key to the small letters is given at the end of the column.

EST-10 Meters K4EZR. K4FAY and XE2AS, by (1). EST-20 Meters

(m); CE1AH (m); (m); CE1AR (m); (k); CE4AC (k); CE1AC (m); CE1AG CE1AO CE3AA CN8BB CEIAM CEIAS (km); (m); CN8AM (k); CN8MI (cm); CP1BA (k); 'CT1AY (k); (km); (m) CT1QA CT2BP CX2BK (k); CT1QG CT1PW (kl); (k); CT1ON CX1AG (k); (k); CX1AA CX2CO (km) EI2L (k); E HB9DE (c); HC2CC (k); (m); EK1AF EA7BA HB9DO (m); (k); HC2HP HH2B (kl); HH2HB (k); HH5PA H13N (k); H14O (k); H15X (k); (k); H17G (1); HK1AA (k); HK1AG HK1AK (k); HK3CG (1); HK4DF Hì7C

Radio Amateur Call Book

LATEST EDITION

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



We pay the postage. RADEX 362 Cédar Lane, TEANECK, N. J.

HP1A (1); I1PB (m); I1SM (m); 1ITKM (k); K4AOP (k); K4DSE (k); K4EJF (1); K4EMG (k); K4ENT (kl); K4FAB (1); K4FAY (kl); K4FKC (kl); K4FSP (k); K4SA (k); K4UG (kl); K6BNR (k); K6LEJ (k); K6OJI (k); LA1F (k): LU1BA (k); LU1QA (k); LU2AW (kl); LU2HA (k); LU3HA (1); LU4BD (k);

LU5CZ (k); LY1J (km); LY1S (k). NY2AE (k); ON4AM (k); ON4AU (k); ON4BG (lm); ON4DI (cm); ON4HS (m); ON4OU (m); ON4MZ (m); ON4SC (m); ON4UC (m); ON4US (m); OQ5ZZ (k); OZ5BW (k); PA0AD (k); PA0BE (m); PAODR (km); PAOEO (k); PAOFB (k); PAOGN (k); PAOMQ (m); PAOMZ (km); PK6XX (akl); PY2AC (k); PY2BH (k); PY2DA (k); PY2GC (k); PY2KT (k); PY3DZ (k); PY7AE (k); SM5KP (k); SM6WE (k); SU1MW (km); SU1RD (k); SV1CA (k); SV1KE (k); TG5JG (k); TG9AA (k); TG9BA (k); VK2ABG (j); VK2ADE (k); VK2ADT (1); VK2ADU (k); VK2AEN (k); VK2AGD (1); VK2-AKK (k); VK2NS (k); VK2UC (kl); VK2YO (1); VK3BZ (1); VK3DG (k); VK1IG (1); VK3KU (1); VK3KX (KL); VK3VP (1); VK4CW (k); VK4JP (1); VK4KH (1); VK4KO (1); VK4KS (k); VK4VJ (k); VK5BF (1); VK5CS (jl); VK5GS (1); VK5RQ (1); VK7CL (j); VP1WB (1); VP2LC (1); VP3CO (ackl); VY3LF (k); VP5PZ (1); VP6FO (kl); VP6LN (ckl); VP6MY (k); VP6TR (1); VP6YB (kl); VP7NH (k); VP7NS (kl); VP7NU (kl); VP9L (1); VR6AY (a); YN1IP (kl); YR5AA (k); YV1AP (1); YV1AQ (kl); YV3AQ (kl); YV4AA (k); Y-V-4AE (kl); YV4AL (k); V5)BF (akl); YV5(BQ (kl); YV5AE (1); YV5AK (kl); Z64H. (k); ZS5BZ. (k); ZS6AJ (m); ZS6DW (m); ZX4M (k).

CST-Ten Meters

K4EZR (f); K4FOW (ef); K6MVV (ef); K6OQM (e); K6PLZ (f); K6POR (f); K6QLG (e); K6QNX (e); K6RVG (e); T12FG (f); VP5(J (f); VP6YB (f); YN-3DG (f); ZL4IR (f).

CST-Twenty Meters

(e); CT1PK (f) CE1AC d); CE3AG CE3DW (1); (1); (1); EA9G HC2HP (de); EK1AF HC1FG (f): (ef); (f); (de); HH5PA HH2B HI3N (ef); HK1AG HK4DC HK3CG (d); (f); (f); HK3CK HP1A KA1ME KAIHF (d); (f); (e); KA1LJ K4FAY K4EJF (d); (d) K4FKC K6ILW K6NYD (e); K6BNR (d) K61AE (e); (f); K6LCV K6OJI K6LEJ K6PTW (e); (e); LU1QA (f); PA0MV (f); SX4C (e); TI2PG (e); (f); K6OMT ON4BO OH2ON PA0MZ (d); PK6XX (f); 114AC TIZGC (e); 1121 VK2ADU VP1WE TG9BA TI2RC TI4AC (e); VK4KH (d); VK4JU (f); VK4KH (d); VP1WB (1); VP5PZ (d); VP7NH (f); VP9L (f); YN1IP (f); YVAC9 (f); YV1AP (e); YV1AQ (e); YV4AE (de); YV5ABF (f).

MST-Twenty Meters

HC1FU, KA1FB, KA1JM, KA1ME, 20V, KA4LH, KA7EF, K7AOC, K7 T12FC, VK3WA, all reported by (g). PST—Twenty Meters K7GSC.

K4FAY, TC51G, TG9BA, VK21G, VK3JF, VK4JP, VP1WB, reported by (b). VK3XN, VK3ZI, VK4AB, VK4FN, VK4GG, VK4GS, VK4HG, VK4HJ, VK4SA, VK4VD, VK4VJ, VK4WS, VK5BF, VK5BG, VK6WO, YV4AE, ZE1JX, ZS2AH, ZS4L, ZS5AW, ZS5BJ, ZS6DJ, all reported by (i).

The Reporters

Robert Blanchard, Brooklyn, N. Y. Elwyn C. Covey, Napa. Calif. Richard Dan-ker, Lansdale, Pa. Lewis Hill, Maywood, Ill. Ralph Kastner, New Braunfels, Texas Robert W. May, Rome. Ga. Ken Munn, Albuquerque, N. Mex. George Nahas, Brooklyn, N. Y. William Piener, Los Argeles, Calif. (a) (b) (c) (d) (f) (g) (h) (i)

William Pieper, Los Angeles, Calif. Bertram Podall, Gilman, Vt. Winship Taylor, Baltimore, Md. Walter E. Welch, Lynn, Mass. Wm. Wells, Hamilton, Ont., Canada (j) (k) (1)

(m)

You'll Want These Issues

About the Art of Tuning and Hearing. Foreign Broadcast Band Stations, written by Count De Veries, Oct., Nov. and Dec., 1938.

This Hobby Called DXing, in Jan. 1939.

When Radio Sets See Spots, and what to do about, March 1939.

When Radios Get The Jitters, and their cure, June 1939.
Television is Here, in June, 1939.

Canada's Friendly Station - CFCO

By JACK BEARDALL

If there is a truly Community Radio Station anywhere in the Dominion of Canada, officials of the Canadian Broadcasting Corportation would probably direct your attention to CFCO at Chatham, Ontario, which has been built up to become one of the finest local stations in the dominion through the guidance and development of Jack Beardall, a radio enthusiast whose activities in radio

date back to 1922.

It was in the fall of 1928 when Mayor Milo J. Smith first gave public utterance to the splendid work being carried on in an experimental and community way by Jack Beardall and suggested in the council meeting that recognition should be given to these excellent efforts by a modest financial grant, and the council on that night voted a \$50.00 grant to help defray some of the expense and to pay the government license to carry on the experimental work which was attracting wide-spread interest in Western Ontario. From that time to the present, CFCO has received an annual grant from the city Council, the only station in the dominion to receive such a continuous favour from a civic body.

were conducted in was granted under the call letters of VE-3AEO. The transmitter operated under this license was very modest, being a 201-A tube with 6 volts on the filament and 45 volts on the plate and messages were sent to-nearby neighbours which caused a great thrill in the city. The first experiments were conducted in

in the city.

In recognition of the experiments conducted by young Mr. Beardall a special experimental license was issued in his favour by the department in 1925, known as VE9AT, which in those days carried with it a special privilege to broadcast exerimentally on 275 metres (at that time all broadcasting was done on 360 and 400 metres). However, in 1926 by international agreement, the broadcast spectrum was reallocated to it's present form and the 275 metre length was alloted for commercial use; therefore young Bearfor commercial use; therefore young Bear-dall's experiments on 275 metres were withdrawn and an amateur broadcasting license on 250 metres replaced the privilege surrendered on 275, and the new form of license known as on 275, and the new form of license known as 10BT was organized as a radio club known as "The Western Ontario — Better Radio Club", of which Mr. Beardall was the president and mechanical head. Two other local gentlemen. Mr. Con E. Shea who acted as secretary-treasurer and Mr. Victor R. Weatherhead as musical and program director assisted the president. The club continued to grow year by year until in 1299 it became the assisted the president. The club continued to grow year by vear until in 1929 it became the largest radio club ever organized in the dominion, with over 2000 paid-up members, not only from South Western Ontario but large qumber were included from the States of Michigan. Pennsylvania and Ohio. One of the main features of the club was its regular Sunday morning broadcasts which varied lar Sunday morning broadcasts which varied as time went on from 9.00 to 11.00 a.m. for a one hour period during which the president read mail from the radio fans and answered questions relative to radio problems and as a result received newspaper recognition in all the principle newspapers in Western Ontario because of the excellent service rendered to rural listeners who at times got into diffi-culty with their radio equipment and because



John Beardall conducting one of the regular Radio Club broadcasts over CFCO, from "B" studio, during which RADEX is often quoted.

of the lack of radio service men, were able to adjust many of their troubles by follow-ing advice given over the air. These radio club broadcasts are still carried on to this day during the period of the year when standard time is observed, the summer months being taken advantage of for vacation purposes. The Chatter Period has now passed it's 14th Anniversary of continuous operation and is one of the oldest programs on the Canadian airwaves.

In November 1927 the station broadcast the first Salvation Army Open Air Service ever broadcast in Canada. Just ten minutes before the announced time of the open air service, a terrific rain storm began but so enthusiastic were the Salvationists as well as the radio club officials, that the service was carried on in the pouring rain, completely drenching those who took part. The microdrenching those who took part. The micro-phone which at that time was an ordinary telephone mouthpiece had to be placed in a waterproof box.

The real commercial expansion of the station began in 1928 with the station surrendering it's amateur broadcasting license in favour of the present commercial license known as CFCO, with a power of 15 watts Soon after that, a studio of the early type was erected in the basement of young Bear. dall's home but things began to grow and in 1929 the station moved into the spacious William Pitt Hotel where it still occupies dignified quarters consisting of a main studio on the mezzanine floor and a "B" studio, transmitting room, business office and news department on the fourth floor of the hotel. On top of the hotel can be seen for some considerable distance, the two sixty-foot masts which hold the aerial and are 110 feet

above ground level
CFCO's network connections date back to
1929 when it was first added to Canada's



Main input panels and amplifiers used in connection with VE9HU, in control and transmitter room in William Pitt Hotel. Shortwave receiving equipment is also shown.

pioneer network, the Canadian National Railway's chain of stations. In 1929 the station became a member of the Canadian Associa-tion of Broadcasters and has been active ever since in that organization and in 1937 Mr. Beardall was elected one of the six directors of the Association, which is Dominion-wide, as representative of the 100 Watt

or local stations.

During the next five years the station progressed steadily and conducted each winter, DX programs which ran from midnight until sunrise, in an effort to ascertain the efficiency of the station's equipment and the response of the audience. Out of some ten or twelve DX programs which were held about six weeks apart the mail often exceded 2,000 six weeks apart the mail often exceded 2,000 letters per broadcast. Reports were consistantly received as far away as New Zealand and the prize for the most distant report was a \$5.00 gold piece which went to New Zealand on every occasion. The station still has over 20.000 letters received during these broadcasts which are contained in a bathtub in the transmitting room on the fourth fluor. in the transmitting room on the fourth floor of the hotel.

When the Canadian Radio Commission was first formed, CFCO was one of the Charter Members of the network and as such has carried all the Christmas Day speeches and Enpire Broadcasts of King George V, and all royal broadcasts including those of the pre-sent King's tour in Canada and the United States. The most important broadcast which States. The most important broadcast which has ever been carried by the station was it's participation in the CBC's special Christmas Day broadcast in 1937 when CFCO furnished a seven and one-half minute program of "How the People of this District Spend Their Christmas Day." which was not only fed to the National network of the CBC from the Atlantic to the Pacific but which from the Atlantic to the Pacific but which was also relayed by shortwave to the BBC in the British Isles and to all parts of the British Empire, a distinct honour which is stations in the dominion.

In 1932 the station installed remote con-

trol broadcast equipment in the city council chambers and broadcast the inaugural ceremonies and address by the incoming mayor and from that time to the present, CFCO

performs this civic duty each year. During the municipal election period each year, the station permits every candidate to present his views briefly, without charge, and on election night, December 1st, the station is turned over to the civic authorities for the announc-ing of the voting results and brief speeches by both the victors and the vanquished. The same procedure is also carried out when the county council holds its election on New Years' Day.

Years' Day.

Considerable time has also been devoted to local sports including the broadcasting of hockey games, baseball, basketball, tennis, curling and lawn bowling. The station has often been quoted as the "Sports Station of Western Ontario."

CFCO also works in close conjunction with the city and provincial police and during the past twelve months has given out fity police notices, rendering valuable assistance in the capturing of criminals and locating missing persons.

ing missing persons.

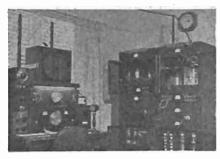
CFCO is one of the few stations which at present devotes ninety percent of it's time on Sunday to religious organizations at low rates. The station has it's own wire system around town and has permanent wires into eleven churches and in thirteen other public places, the total comprising more than ten miles of lines.

Today CFCO operates eleven hours daily and devotes a lot of its time to the parti-cular interest of the rural listeners and has the oldest Farm Hour Program in Canada, running from 12.00 to 1.30 daily, during which time farm hints, government bulletins on agriculture, and hillbilly music are featured. The station carries Transradio Worldwide Press Savuice and has been sent to the station of the s tured. The station carries Transradio Worldwide Press Service and has its own local news editor giving four local and world newscasts daily. The Dominion Metreological weather the official weather t newscasts daily. The Dominion Metreological Department's telegraphs the official weather report twice a day to the station for the farmers of South Western Ontario. The station is closely connected with the CBC's National nework as well as the newly formed Subsidiary network of private stations supervised by the CBC. The station's mechanical equipment is of the very latest order and operates at 100 Watts on a frequency of 630 Kcs, and has duplicate speech imput equipment capable of handling four different programs at one time. CFCO was one of the first 100 Watt stations in the dominion to operate actively an up-to-date mobile shortwave broadcæst unti which is often seen in uptown sections of the city broadcasting street scenes, community undertakings and fraternal and social activities. The special licenses for this portable transmitter is VE-9HU and has, four different wavelengths which can be used according to circumstances cal Department telegraphs the official weathwhich can be used according to circumstances and conditions surrounding the broadcast. This special license was granted by the Department of Transport two years ago.

In 1925 the Department realized the necessity of having a Dominion Governmental Part-Time Radio Inspector to serve Chatham and the surrunding district and Mr. Bear-dall received the appointment a position which he has continuously held for the past fiften years.

During the hours of recreation, Mr. Bear-dal put in most of his time at his home where he has one of the finest amateur transmitting and receiving stations in Western Ontario and since the experimental license VE9AT was not required for broadcasting purposes after the commercial licenses were

issued, the use of VE9AT has been devoted to amateur activities and today the voice of VE9AT is a familiar one in the twenty metre band and has created many good friends in such far away places as Australia, New Zealand, South Africa, the British Isles, Portugal, France, Hawaiian Islands, British West Indies, Brazil, Argentina, Chile, Peru and many other foreign countries as well as from coast to coast in Canada and the United States. A special radio room at Mr. Beardall's residence contains the 20 metre transmitter capable of an imput up to 1 KW and a second transmitter which has just been completed for operation in the 80 metre fone band with 200 Watts imput. The receiving equipment consists of a Super Skyrider SX17, a Hallicrafter frequency standard Type HT-7, a Triplett 1295 modulation and phase shift metre and the latest type coaxial vertical antennae which is mounted on top of a sixtynine foot hydro pole. All the equipment is of the very finest type and is partly responsible for the excellent results obtained through its operation. Both transmitters are remote control operated and all equipment is automatic, being controlled by relays, and all metres on both transmitters are illuminated and housed in standard nineteen inch racks, six feet high. The walls of the radio room are adorned with certificates, maps and charts of special design for radio use, and over three hundred QSL cards received from some forty different countries with whom conversations have been held and twenty out of forty world DX zones, worked exclusively on twenty metre phone. Hundreds of SWL cards have also been received from Australia, South Africa, British Isles and South America, all of which have received a VE-9AT QSL card in return.



VE9AT, 14 megacycle amateur phone station owned by Jack Beardall of Chatham, Ontario. This equipment is all of the very latest design, and the station is one of the best known amateurs on the continent.

Back to DXing

"I have been more or less active in DXing since 1934," indicates Ken Smith, Portland, Ore. "In 1935 I was a member of the Canadian Radio Club. From the latter part of 1936 to last fall, I was working away from home and didn't have a chance to do much listening. When I started up again last fall, I bought a 1938 9-tube Zenith, and with this I have built up a log of 371 stations. Best of these were WKNEL, WKAQ, WLAK and WNLC. Latest verie to be received is from CFGP, Grand Prairie, Alta., and it certainly is a nice confirmation for my file."

Cleveland's Police Radio

The largest and most modern twoway police radio system in the world has been installed by the Cleveland Police Department to provide communication facilities for all parts of the city and for the police departments of its 56 suburbs, covering an area of 600 square miles. The system, consisting of RCA equipment, will include three powerful transmitters, and two-way equipment in nearly every police car in the area. With Cleveland and its suburbs all connected by one radio system, all incoming calls can be handled immediately without going through several intermediate communication channels, and in many cases a police car is dispatched before a telephone caller hangs up his receiver. As a patrol car is within three eighth of a mile of any point in the city at all times, it takes but a few seconds to summon cars to emergency or routine assignments at any time of the day or night.

HIGH FREQUENCY GLOBE TROTTING

By Ray La Rocque

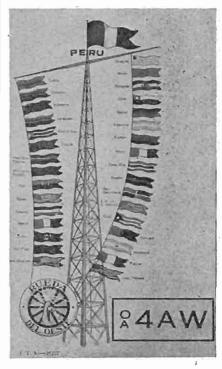
G. R. Jewell Jr	100%
Robert Skyten	39%
Jack Wells	25%
Mrs. R. S. Roche	24%
Enrique Hidalgo`	10%

You'll find the Alabama contingent of our RADEX Club back in action this month with the result that Bob Skyten finished second to Radexer Jewell of Alabama. Jack Wells, who also does his DXing in Alabama finished third, not too far behind Bob. The rest of the meter, this month, is made up of representatives from outside the U.S.A. Mrs. Roche of South Africa and Senor Hidalgo of Cuba occupy the other two choice spots.

NEWS IN ENGLISH

R. W. Davis, West Allis, Wisconsln: "In view of the chaotic state of world affairs today the news in English broadcasts from the several countries of the world is especially important, realizing, of course, that each nation in general dresses the broadcast to suit its own propaganda. By listening to the broadcasts from the several important nations of the world the listener can arrive at a fairly accurate overall estimate of the facts in spite of the censorship imposed by the several governments. I believe, therefore, you would be contributing much to the proper interpretation of world news and events if you would list news broadcasts as radioed from short wave stations in all important countries."

With the war in Euorpe going into its third month, broadcasting conditions in the various countries involved is becoming more stabilized and a schedule of newscasts in English can be depended upon with a little more assurance than previously. We have compiled a list of news programs in English from several coun-



A Rueda del Oeste card, from OA4AW of Peru. The Rueda del Oeste cards are all identical, except that the flag of the country from which it comes is always on top. Thirty-three countries are represented on this card, with their flags all in natural colors. (Courtesy of W. O. Richards).

tries from the reports of various DXers and from the stations them-selves.

FRANCE—"Paris Mondial" on 9680 kcs. at 12:30 a.m.

"Paris Mondial" on

15243 kcs. at 1 p.m.

"Paris Mondial" on

11885 kcs. at 10 p.m.

GERMANY—DJD on 11770 kcs. and DJB on 15200 kcs. at 6 and 8:15 p.m.

DJL on 15110 kcs. and DXB on 9610 kcs. at 4:15 p.m.

GREAT BRITAIN—GSD on 11750 kcs. at 11 a.m. and 8:15 p.m.

CHINA—XGX on 11900 kcs. at 6:15 p.m.

XGOY on 11950 kcs. at 6:15 a.m.

FR. INDO CHINA—"Radio Saigon" on 6166 kcs. at 6 a.m.

YUGOSLAVIA -- YUG on 9505 kcs. at 4:15 p.m.

U.S.S.R.—RAN on 9600 kcs. at 7 p.m.

HUNGARY—HAT-4 on 9625 kcs. at 7:30 p.m.

It must be remembered that any of these schedules can be and often are changed upon a moment's notice. We thank the following for the above items: Jack Wells, Robert Skyten, George Jacobs.

ASK US ANOTHER

Matthew Leshner, R757, 181 Bailey St., Lawrence, Mass., asks about the new German station heard just below 2RO-3 at 8:15 p.m. States R757, "I was unable to get the call or any particulars other than that they gave news in Spanish followed by musical selections. Then came news in German." (The station is DXB, apparently an experimental Berlin frequency-RL) "Is JIE on 7290 kcs. still on the air, and who is heard with Oriental music on 7500 kcs.?" This is the query of Mrs. R. S. 'Roche, 81 Smith St., Aliwal North, South Africa. . . . Bob Wilson, 69 Grant St., Portland, Maine wants to know who the GS station is on 17000 kcs. in the evening with R9 signals?

In answer to Dick Neller, 8655 Rivershore Drive, Niagara Falls, N.Y., we'd like to say that the station heard iust above DJQ broadcasting Hindu music was actually broadcasting that type of music. It was VUD-4 at Delhi on 15290 kcs. . . . J. R. Hahn, 108 S. Balch St., Akron, Ohio asks, "As a favor to an old correspondent and contributor to your magazine, can you help me in indentifying a station in Caracas, Venezuela that is nearly driving me nuts. My call book lists WWV at 5000 kcs. with the standard frequency transmissions. This one in Caracas comes in just above 5000 and should be about 5002 or 3. The first part of the call is YV5R (?) but it is impossible to catch the last letter.". (YV5RK is the station—RL)

"Is the station on an announced frequency of 6116 kcs. Radio Praha?" That is the puzzler sent by Jim Walker of Romney, West Virginia who states that it was heard at 6 a.m. with the latest news in English and American tunes. Robert Skyten, Podunk Rd., East Brookfield, Mass., would like someone to identify an unidentified Chinese station on approximately 7960 kcs. heard around 6 a.m. with fairly strong signal but with very poor quality.

QUOTE AND UNQUOTE

Frank Gravely, Martinsville, Virginia: "I read RADEX as often as I can get a copy. My best catches include at least 100 U.S. stations, two Mexicans and three Canadians. My best foreign catches include EAQ, VLR, PCJ, HP5G, ZNS, TIPG, and London, Rome, Paris Berlin Warsaw, and Guatamala."

ULTRA HIGH

W1XKA 42220 kcs. in Boston is operating with frequency modulated signals. They have a decidedly distorted signal on ordinary type receivers. (Simpson—R1253, Mass., and Horton, Mass.)

W1XOJ on 43000 kcs. in Paxton, Mass., heard on this channel. Signal strength is high but very distorted as is to be expected on a standard receiver from a frequency modulated type of broadcast. (Simpson—R1253, Mass.)

W1XZR on 31220, 25620, 37020, 39620 kcs. are used as relay stations by WLAW in Lawrence, Mass. 31220 kcs. was used to broadcast the raising of the Squalus, but W1XRZ was not the call used. (Leshner—R757, Mass.)

NOT SO SHORT WAVES

CZ71 and CZ7J heard on 2250 kcs. recently. Can anyone supply the type of service and QRA of these stations? (Schwartz—Bronx, N.Y.) CZ71 is at Tareau, P.Q. on 2238 kcs. and CZ7J at Shawinigan Falls, P. Q. on 2014 kcs. Both are owned by Schawinigan Water and Power Co.—Editor

The following coast guard stations work on 2662 kcs: NMD at Cleveland, Ohio; NMW at Grays Harbor, Wash.; NMV at Jacksonville, Fla.; NMG at Mobile, Ala.; NMN at Princess Anne, Va.; NMY at Rockaway, Pt.; N. Y.; NMC at San Francisco,; NMH at Washington, D.C.; NMP at Wilmette, Ill.; NMF at Winthrop, Mass.; NOB at Buffalo, N.Y.; NOV at Cape May, N.J.; NOL at Ft. Lauderdale, Fla.; NOY at Galveston, Tex.; NNO at Honolulu, T.H.; NNS at Los Angeles; NOU at New London, Conn.; NOQ at New Orleans; NNJ at Oakland, Calif.; NOJ at Pt. Vincente, Calif.; and NNW at Seattle, Wash. (Schwartz-R1109, N.Y.)

WYFF and WYFG on 2738 kcs., two Army stations, were heard and believed to be operating portable in Oswego, N.Y. They were heard at 10:09 p.m. calling WYFS "Gulf Stream" and at 12:45 a.m. calling WYFG and E.

VCCD the "Alberta" and VGQT the "Athabasca" on 2182 kcs. heard at 8:45 p.m.

NZMCP on 3385 kcs., the navy blimp "TG-14", 11 miles south of New Haven heard at midnight in contact with NEL at Lakehurst. N.J. who were on the same frequency. Coast Guard stations "Mahoney" and Cutter "Nansemond" and "Wal-

nut" heard on 2670 kcs.

On 2738 kcs. the following ships were heard: KFKW, yacht "Spray III"; KJCI "S.S. Back Bay"; KJMN "Henry Steers"; KLON yacht "Elinor"; KLSK yacht "Dawn III", WDGT dredge "Indiana" and WM-BC "Olive K." (All above from Roman—III.)

SHORTWAVES IN REVIEW Argentina

LRA on 9695 kcs. is putting in a signal of R7-8 nightly. Very good orchestra music.

LRX on 9660 kcs, is being heard again with a much stronger signal. Address: Radio El Mundo, Calle Maipu 555, Buenos Aires. They verify by card. (Jewell—R834, Ala.)

LRU on 15290 kcs. excellent this month from 9 a.m. (Roche—South Africa)

Australia

VK3ME on 9500 kcs., and VK2ME on 9590 kcs., as well as VK6ME on 9590 kcs. have not been heard since the start of the war in Europe. (Skyten—R786, Mass.)

VLR on 9580 kcs. at Melbourne is still being heard daily with a strong signal. They now verify by card which is white with black lettering. Mailing address: Australian Broadcasting Commission, G. P. O. Box 1686, Melbourne, Australia. Robert C. McCall is Mgr. (Skyten — R786, Mass.; Wells—Ala.; and Jewell, Ala.)

VLW, a new station to be located at Wanneroo, Western Australia, will operate throughout the day (Australia Time) on the following three frequencies: 11830 kcs., 9560, and 6130 kcs. with 2000 watts. VLW will relay, for the most part, programs from station 6WN. Station is scheduled to come on the air in four months according to the March issue of the Broadcaster. (Walker — W. Va.) (VLW was officially scheduled to go on the air May 4, 1939—Editor).

Brazil

PSH on 10220 kcs. at Rio de Janeiro using 12000 watts is still coming through with R7-8 signals each Monday with their half hour English program. Program consists of Brazilian popular music and talks of Brazil and news. Program opens and closes with the Brazilian National Anthem. Mondays from 8-8:30 p.m. Address: Cia. Radio International do Brasil, Caixa Postal 709, Rio de Janeiro.

PRA-8 on 6010 kcs. at Pernambuco verifies by blue and white card. Signal is about R-4. Address: Radio Club of Pernambuco S.A., Pernambuco, Brazil. (Jewell—R834, Ala.)

British Guiana

VP3BG on 6130 kcs. at Georgetown broadcasts daily from 10:30-11:30 a.m. and from 4-8 p.m. VP3BG puts in a fair signal—usually about R5. Address is British Guiana United Broadcasting Co., Ltd., P. O. Box 11, Georgetown, British Guiana. Verifies promptly with black and white card. (Jewell—R834, Ala.)

British Honduras

ZIK-2 on 10600 kcs. at Belize was heard on that frequency for the first time in several months on Sept. 21 with R7 signal. (Jewell—R834, Ala.)

Canada

CHNX on 6130 kcs. at Halifax, N.S. is on the air with a mail bag program twice every Sunday at 4 and 9 p.m. Address is: The Maritime Broadcasting Co., Ltd., Lord Nelson Hotel, Halifax, N.S. Verification card is peach and black.

CIRX on 11720 kcs. at Winnipeg is a 2000 watt station owned by James Richardson and Sons, Ltd. Has an R7 signal. Verifications are black and white and signed by M. Mitchell. (Jewell—R834, Ala.)

Chile

CB960 on 9600 kcs. at Santiago has been heard as early as 6 p.m. somewhat off the published schedule. During the recent heavy magnetic storms, CB960 was regularly R9 at 6:30 p.m., while the nominally louder



A verification from the Norwegian shortwave station. (Courtesy of Jerry Hahn).

Europeans were weak and fading. (Wells—Ala.)

China

XGX on 11900 kcs. at Yunnan (not Chungking) is the new call and location for XGOY. They come on the air at 5:30 a.m. with news in English at 6:15 a.m. They announce as "This is Yunnan, China, operating on 25.2 meters, 11.9 megacycles." (Skyten—R786, Mass.)

XMHA on 11855 kcs. heard very weakly. They are better from 9 a.m. XPSA on 7010 kcs. are heard with good signal from 10 a.m. (Roche—South Africa)

Colombia

HJ3CAX on 6012 kcs. at Bogota operates officially from 10:30 a.m. to 2 p.m., 5:30-11:30 p.m. Sundays from noon to 1:30 p.m. and 6-11 p.m. Signal is R7-8. Colombian and popular American music are featured. Address: "La Voz de Colombia", Apartado 26-65, Bogota. Verifies by card in red, white, and blue with Statue of Liberty on the face of the card. Sign off with the "Indian Love Call." (Jewell—R834, Ala.)

Costa Rica

TIPG on 9610 kcs. is broadcasting, an English hour every Wed. and Sat. from 9-10 p.m. called "The Hour of Costa Rica." TIPG puts in a very strong signal. Programs are also

worth hearing. Address: La Voz de La Victor, Box 225, San Jose.

TI2XD on 11920 kcs. issues an attractive veri of peach printed in black and red call. Card is signed by Sr. Carlos E. Rodriguez—"La Vox de Radio Pilot", P. O. Box 1729. (Jewell—R834, Ala.)

T14NRH on 9690 kcs. at Heredia frequently tests with 20 meter amateurs at 1 a.m. and plays phonograph records. (Wells—Ala.)

Cuba

COCE on 12230 kcs. now, and COCX is on 11753 kcs. and COCA on 9700 kcs. after recent changes.

COHI on 11800 kcs., or somewhere close to that frequency, will be a new station in Santa Clara, Cuba using 5000 watts and relaying broadcast band CMHI (Hidalgo—Cuba).

Denmark

OZF on 9520 kcs. at Skamlebak is a 6000 watt station located 50 miles northwest of Copenhagen. They are heard with R8 signal from 9:30-11 p.m. They sign off with town clock striking 5 a.m. Program consists of classical music and talks. Verifies by white card with Denmark printed in red. (Jewell—R834, Ala.)

Fiji Islands

VPD-2 on 9535 kcs. at Suva went off the air at the beginning of the war along with the Australian stations. VPD-2 is operated by Amalgamated Wireless. (Skyten—R786, Mass.)

Finland

OFD on 9500 kcs. at Lahti is often heard in the afternoon with strong signal over-riding XEWW, Mexico City until sign off at 5 p.m.

OIE on 15190 kcs. at Lahti, was heard with program in English at 4:30 p.m. Station indentification for all stations announced as: "Lahti, Soumi." Other Finnish stations are: OFE—11780 kcs., OIH—17800 kcs., OII—21550 kcs. (Skyten—R786, Mass.; and Jewell—R834, Ala.)

France

Latest official schedule:

TPA-4 on 11718 kcs. from 8:30-11 Mass.)

p.m. (No. and Cent. America) and 6-8:15 p.m. (So. America)

TPA-2 on 15243 kcs. from 5-10 a.m. (East and Far East).

TPB-3 on 17850 kcs. from 8:30-10 a.m. (East and Far East).

TPB-6 on 15130 kcs. from 1-4 a.m. (East and West Africa)

TPB-11 on 7280 kcs. from 10:15 a.m. to 12:45 p.m. and 1-5:15 p.m. (East and West Africa)

TPB-11 on 11885 kcs. from 8:30-11 p.m. (No. and Cent. America)

TPB-12 on 11885 kcs. from 6-8:15 p.m. (South America)

(RX)

"Paris Mondial" on 9680 kcs. is one of the first 100 kw. transmiters to go on the air. The signal is excellent. They broadcast for South America from 6-7:45 p.m. and then to North America from 8 p.m. along with TPB-11 and TPA-4. (Skyten—R786, Mass.; Jewell—R834, Ala.; and Wells—Ala.)

French Indo China

"Radio Saigon" on 6166 kcs. heard daily at 6 a.m. with news in English announced by a lady. The signal is very strong.

"Radio Saigon" on 11780 kcs. is heard quite regularly with good signal from 6:30-6:45 a.m. with program in English. Reports sent to "Radio Saigon", P. O. Box 412. Saigon, Fr. Indo China. (Skyten—R786, Mass.)

Germany

DXB on 9610 kcs. at Berlin heard daily at 4:15 p.m. with news in English. Also heard in the evening. Another DJ station on 9700 kcs. heard in the evening near 7 p.m. broadcasting to Latin America and using Spanish only. (Podall—R946, Vt.; Skyten—R786, Mass.; and Wells—Ala.)

Great Britain

GST on 21550 kcs., "T for Transmitter", at Daventry is heard mornings until noon, along with GSH on 21470 and GSJ on 21530 kcs. on the 13 meter band. (Skyten — R786,

GSW on 7230 kcs. at Daventry is a new BBC station being used lately in the first transmission. (Jewell—R834, Ala.)

Guatemala

TGWA on 9685 kcs. broadcasts a special concert dedicated to the people of the United States and Canada from 10-11:30 p.m. every Monday, Tuesday, Thursday, and Saturday. On the first and third Sunday morning of each month from 1-3:30 a.m. a special DX program is conducted for all listeners. Besides on the above programs, English announcements are made every day including Sunday from 12:45-1:45 p.m., and Sunday only from 7:45-10:30 p.m. (RX)

TGWB on 6480 kcs. now, having moved from 6490. (Jewell-R834, Ala.)

Honduras

HRN on 5875 kcs. at Tegucigalpa signs off at 11:20 p.m. with Ted Lewis' Goodnight Song. Since IRC's are not redeemable in Honduras. 10c in coin should be sent when requesting a veri from Honduran stations. (Wells—Ala.)

Hungary

HAT-4 on 9125 kcs. is now heard daily. They come on the air using an identifying chime five minutes before the program starts. Daily 7-8 p.m. and Sat. 6-7 p.m. Announcements in several languages. They have a strong signal. Address: Radiolabor of Royal Hungarian Post, Budapest. (Jewell—R834, Ala.)

Iceland

TFJ on 12235 kcs. at Reykjavik is heard on Sundays from 1:40-2:30 p.m. with weak signal. TFJ uses 7 kw. and can be addressed. Iceland State Broadcasting Service, Reykjavik. They verify promptly by card. Very important that every detail in report be correct. (Jewell—R834, Ala.)

India

VUD-2 on 9590 kcs, of All India Radio at Delhi now comes on the air at 6:30 a.m. with chimes and clock striking the hour. From 6:27-6:29 a.m. a series of notes is sounded on a native flute. At 6:30 an interval signal consisting of soft-toned chimes sounds, then the news in English follows, read by a male announcer. Newscast in Hindustani begins at 6:35 a.m. Music of the typical nature follows. (Wells—Ala.; Skyten—R786, Mass.)

VUM-2 on 4920 kcs., VUB-2 on 4880 kcs., and VUC-2 on 4840 kcs. are all heard at 11 a.m., but uninteresting except for news. (Roche—South Africa)

VUD-4 on 15290 kcs. at Delhi has begun coming in again with weak signal about R4. Programs from 8-10:30 p.m. (Jewell—R834, Ala.)

Ireland

"Irish S.W. Station" on 17840 kcs. heard with a signal that compares favorably with the best of them. They are heard from 5-6 p.m. broadcasting news bulletin with a female commentator. (Horton—Mass.)

Italy

Official schedule for all short wave stations: remains the same as published last month except for:

1QA on 14795 kcs. from 4:30-4:55

IQY on 11673 kcs. from 5:20-5:40 a.m., 1:50-2:30 p.m.

IRF on 9835 kcs. from 5:20-5:40 a.m., 12-1 p.m., 1:50-2:30 p.m. and 6-9 p.m.

IAC on 6355 kcs. from 3-3:55 p.m. (RX)

12RO-6 on 15300 kcs. at Rome heard signing off at 1:32 p.m. with news in English. At 1:37 p.m. it signed on the same frequency with a program for Spanish listeners. Closed with chimes and playing of the Royal Facist March. (Billingsley—N.C.)

Japan

Complete Schedule of all stations: JZI on 9535 kcs. from 4:30-5:30 p.m. (South America)

JZJ on 11800 kcs. from 7-9:30 a.m. (China and So. Seas) and 2-4 p.m. (Europe).

JZK on 15160 kcs. from midnight to 1:30 a.m. (Pacific Coast of No. America and Hawaii), and 7-9:30 a.m. (China and So. Seas) and 2-4 p.m. (Europe).

JZL on 17785 kcs. from 4:30-5:30 p.m. (So. America) and 8-9 p.m. (Eastern No. America). (RX)

JFO on 9636 kcs. is heard with good signal from 8:30-9:30 a.m. (Roche—South Africa)

Java

PLP on 11000 kcs. at Bandoeng is putting in a good signal reaching its best at 7:45 a.m. (Heard till 10:30 a.m. sign off in South Africa). Other NIROM stations operating in parallel with PLP are: PMN on 10260 kcs., YDB on 9550 kcs., YDC on 15150 kcs., PMY on 5140 kcs., and a new one at Batavia on 4875 kcs. The latter two stations not reported heard in the U.S.A. Address: The Netherlands India Broadcasting Co., Ltd., Batavia, Java. (Jewell—R834, Ala., and Roche—South Africa)

Luxembourg

"Radio Luxembourg" on 11782.5 kcs. verified by a letter in 22 days despite the war, enclosing a schedule of transmissions. (Skyten — R786, Mass.)

Madagascar

"Madagascar" on 5800 kcs. since Sept. 8 and still troubled with a muffle. Heard from 10-11 a.m. They usually operate on two wave lengths, but I have unable to find the other as it is neither of the two old channels. (Roche—South Africa)

Manchukuo

MCCY on 11775 kcs. at Shinkyo testing and asking for reports, heard at 10:30 a.m. till 11:10 a.m. (Roche—South Africa)

Mauritius

New station on 7190 kcs. heard from 9:30-10:30 a.m. with weak signal at beginning and gradually increasing to an excellent signal at closing I have written for information and will forward reply. (Roche—South Africa)

Mexico

XEXA on 6132 kcs. "Cadena Radiodifusora Dapp" at Mexico City broadcasts an English program every Friday at 11 p.m. with an R7 signal. Veri in form of letter signed by Sr. Jose Rivera. (Jewell—R834, Ala.)

Mozambique

CR7BH on 11718 kcs. and CR7BA on 6020 kcs. are heard with good signal daily from 4:30-7 a.m., but they fade out on other transmissions. (Roche—South Africa)

Netherlands

PCJ-2 on 15220 kcs. at Huizen was heard Sept. 25 at 3:30-4:30 p.m. in direct contact with RCA in New York. Announcer Eddie Startz announced the special program for WEB. (Jewell—R834, Ala.)

New Caledonia

FK8AA on 6122 kcs. heard at 2:45 a.m. asking for reports. (Horton—Mass.)

Norway

LLG on 9610 kcs. is being heard with fair signals after 11 p.m. LKC on 9530 kcs. is also heard with about an R6 signal. Reports should be sent to: "Norsk Rikskringkasting Shortingagaten 28, Oslo. Verification by card. (Jewell—R834, Ala.)

Panama -

HP5K on 6005 kcs. at Colon is being heard with fair signal, but is badly QRM'd at times. Veri is red, white, and blue card. Address: "La Voz de la Victor", Aptdo. 33, Colon. (Jewell—R834, Ala.)

Paraguay

ZP-14 on 11720 kcs. at Villarica heard from 8-9 p.m. with R7 signals. They verify promptly with a gray card and blue print. Address: Estacion ZP-14. Friedmann Hermanos, Villarica (Wells—Ala.; and Jewell—R834, Ala.)

Philippine Islands

KZIB verifies with a carbon copy letter signed by A. L. Naftaly. Studio, Mgr. The station relays KZIB on 900 kcs. Transmitter is located at Novaliches, studio is atop the Crystal Arcade Bldg. in Manila. Power output is 1 kw. and station changes are being planned. Plans call for the use of another frequency, as yet undetermined Postal Address: l. Beck, Inc., P. O. Box 440, Manila. (Wells—Ala.)

KZRM on 9570 kcs. is heard with good signals from 8-10 a.m. (Roche

-South Africa)

Poland

SPW. SPD, SP19, and SP25, the Polish short wave stations went off the air soon after the beginning of the war. (Skyten — R786, Mass.; Green—R1207, Ohio; Wells—Ala.; and Jewell—R834, Ala.)

Salvador

YSM on 11710 kcs. at San Salvador verifies by card of yellow, blue, red, and black. (Jewell—R834, Ala.)

Spain

"Radio Malaga" on 14440 kcs. at Malaga is still in operation. It is heard irregularly at 7 pm. with Spanish music and talks. Uses both male and female announcers. (Wells—Ala.)

EAO on 9860 at Madrid heard with R8 signal Sign off was at 8:45 p.m. with playing of the National Anthem. (Jewell—R834, Ala.)

Strait Settlements

ZHP on 9690 kcs. at Singapore is being heard early mornings from 5:30-6 a.m. with fair signals. QRM has become rather bad lately. Send reports to: "Malava Broadcasting Co., 1.td., Broadcasting House, Thomas Rd., Singapore. Reports are welcomed and a beautiful card is sent for verification. (Jewell—R834, Ala.)

Sweden

SM5SX on 15155 kcs. at Stockholm heard best on Sundays from 9 a.m. to 5 p.m.

SBP on 11705 kcs. is being heard with a program to North America on Weds. and Sat. from 8-9 p.m. with a good signal. (Tewell—R834, Ala.)

SBT on 15155 kcs. is heard till 4:15 p.m. and SBU on 9535 kcs. from that time until 5 p.m. Both are new Swedish stations working in parallel with

SBP and SBO respectively. (Simpson —R1253, Mass.)

Switzerland

HBO on 11402 kcs. was heard on Sunday Sept. 23 with a Swiss musical program. Their signal was a good R9, from 7-7:45 p.m.

HBL on 9345 kes. and HBP on 7797 kes. are broadcasting simultaneously to North America with strong, signals from 7:30-8 p.m. Address: Radio Nations, 12, Ouai de la Poste, Geneva. (Jewell—R834, Ala.)

Turkey

TAP on 9460 kcs. in Ankara, Turkey will conduct a special program in English on October 21st, 1939 in order to commemorate the tenth anniversary of the founding of the International Short Wave Club of East Liverpool Ohio. The program will start at 4:15 p.m. and last forty minutes. (ISWC)

Union of South Africa

ZRK on 6097.5 kcs. at Capetown is heard in the late afternoon until 4 p.m. when they sign off with clock striking 11 p.m. and playing of "Die Stem Van Suid Afrika" and "God Save the King." (Skyten—R786, Mass.)

ZRL on 9696 kcs. at Capetown is now being heard with their regular programs from 11:45 p.m. to 12:50 a.m. At midnight you hear the town clock strike the hour of 7 a.m. The signal is a bugle call followed by setting up exercise, news, market reports and music. Address: P. O. Box 4559, Johannesburg. (Jewell—R834, Ala.)

ZRO on 6140 kcs. and 4820 kcs. at Durban is on the former frequency days and the latter nights. The latter frequency is a recent change. (Roche—South Africa)

U.S.S.R.

RAN on 9600 kcs, has been QRM'd very badly for the past few weeks. This QRM has also ruined PCJ and GSC reception. RAN comes on at 4:00 and continues till 9:15 p.m. daily. RKI on 15080 kcs, is being heard

from 7:30-8 p.m. with an English program using both male and female announcers.

RV-96 on 15180 kcs. is also being heard in parallel with RKI with the English program. All reports to Radio Center, Moscow. Veri cards are all actual photographs. (Jewell—R834, Ala.)

RNE on 12000 kcs. heard daily from 7-8:50 p.m. with English program to North America. Program also broadcast over RV-96, RKI, and RAN. (Skyten—R786, Mass.)

U.S.A.

WBOS on 9570 kcs. is the Boston outlet on the shortwaves for the networks. (Horton-Mass.)

WCAB (formerly W3XAU and WCAI) in Philadelphia operates on following schedule:

15270 kcs. from 1-6 p.m. daily (South America)

6060 kcs. from 7:30 p.m. to midnight (Europe) (RX)

WCBX (formerly W2XE) complete schedule:

17830 kcs. daily 8:15-10 a.m. and 1-6 p.m., Sat. 8:15-6 p.m. and Sunday 8 a.m. to 6 p.m. (Europe)

15270 kcs. daily 6:30-8:30 p.m. including Sat. and Sun. (So. America).

11830 kcs. daily including Sat. and Sun. 9-11:30 p.m. (So. America)

6120 kcs. (October and December) or 6170 kcs. (November) from midnight to 1 a.m. daily including Sat. and Sun. (Europe) (RX)

W3XAL now uses the call WRCA and W3XL uses WNBI (Trubee—R671, N. Y.; and Simpson—R1253, Mass.)

WPIT complete official schedule: 21540 kcs. from 6:30-10 a.m. (Europe)

15210 kcs. from 10 a.m. to 3 p.m.

(Europe and So. America)

11870 kcs. from 3-8 p.m. (Europe and So. America) and 8 p.m. to miduight . (So. America only)

6140 kcs. from 12-1 a.m. (So. America (RX).

W9XPD on 6425 kcs. testing. Station in St. Louis, Mo. and relays KSD. They were heard Sept. 23 at 11:45 p.m. with R9 signal. (Jewell—R834, Ala.)

Yugoslavia

YUC on 9505 kcs. at Belgrade is heard daily until 5:30 p.m. with news in English at 4:15 p.m. Program also transmitted over YUA on 6100 kcs. Closes with National Anthem. (Skyten—R786, Mass.)

YUG on 15240 kcs. of Belgrade is heard daily in parallel with YUA on 6100 kcs. from 7:30-9 p.m. or later. Broadcasts alternate nights for North and South America. Official word from Belgrade gives the following available channels for Belgrade: 19.96 meters, 31.56 meters, 25.56 meters, and 49.18 meters. Reports are requested and verified promptly. (Carl and Anne Eder—R184-5, Minn.; and Skyten—R786, Mass.)

RADEX REPORTERS

RL: Your Shortwave Editor, Worcester.

Mass.
RX: Official News Item
R185: Anne Eder, Willmar, Minn.
R185: Anne Eder, Millmar, Minn.
R519: George Jacobs, Cincinnati, Ohio
R622, La.3: A. V. Deterly, Baton Rouge,
La.
R671: Robert Trubee, Brentwood, N. Y.
R757: Matthew Leshner, Lawrence, Mass.
R786: Robert Skyten, E. Brookfield, Mass.
R834: G. R. Jewell, Jr., Montgomery, Ala.
R884: F. T. Coradetti, New York, N.Y.
R946: Bertram Podall, Gilman, Vt.
R1109: Joseph Schwartz, Bronx, N.Y.
R1207: Bob Green, Dayton, Ohio
R1224: George Hotton, Wilwaukee, Wis.
R1253: Ralph Simpson, Wollaston, Mass.
Haigis Bedrosian, Careyville, Mass.
Frank Billingsley, Jr., Ellenboro, N.C.
Renato Brossa, Chieri, Italy (I-1BAG)
Warren Dame, Saxonville, Mass.
Frank Gravely, Martinsville, Va.
R. W. Davis, West Allis, Wis.
J. R. Hahn, Akron, Ohio
Carl Horton, Athol, Mass.
Enrique Hidalgo, Cienfuegos, Cuba
Hubert L. Martz, Hagerstown, Md.
Albert Pickering, West Medway, Mass.
Mrs. R. S. Roche, Aliwal North, South Africa.
Chester Roman, Chicago, Ill.
Walter V. Scholz, 2nd; Webster Groves, Mo.
Jim Walker, Romney, W. Va.
Jack Wells, Phenix City, Ala.
Bob Wilson, Portland, Me.
NOTE: If you have a RADEX CLUB indicia, please use it always when writing.
Otherwise you may find yourself listed with non-members.

The SHORTWAVE STATIONS

● The shortwave list, arranged by frequencies in kilocycles, gives the schedules of the shortwave broadcasting stations. When requesting verifications from radio stations, return postage should always be sent. Return postage to foreign countries can be sent in the form of an International Reply Coupon, available at any post office at 9c each. Unused postage stamps from many foreign countries, which can be sent instead of Reply Coupons, are available from the Return Postage Bureau, 85 Francisco Ave., Rutherford, N. J.

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

2320	TGWC	Guatemala City, Guat. 1 kw. See TGWA. Sun, 10:30 am-	4810	YV1RU	Maracaibo, Venez. "Radio- difusora Maracaibo," Luis Mantellini H.
•••	***	See TGWA. Sun, 10:30 am- 5:15 pm; 7 pm-midnight. Other days, 7:45-9 am; 12:45- 3:45 pm; 7:30 pm-12:15 am.	4815	НЈ2ВАВ	Cucuta, Colombia. 600 w. Relays HJ2BAC, "La Voz de
2340	ноа	Panama City, Panama. "Ron Dalley." Salvador Graziani, Box 1121. (6-10 pm). Tegucigalpa, Honduras, 500	4820	YV3RN	Cucuta." Barquisimeto, Venez. "Radio Barquisimeto," Amilcar Se-
2437	HRN	Tegucigalpa, Honduras. 500 w. Noon-1:30 pm; 7-10:30 pm. "La Voz de Honduras."	4825	нј5еар	gura. Cali, Colombia. 720 w. "La Voz del Valle."
3 400	YV5RW	Caracas, Venez. 'Radio Tur- merito,' Cesar Banuls.	4830	YV5RH	Caracas, Venez. Relays YV5RG, "Ondas Populares,"
3 450	YV6RC	merito," Cesar Banuls. Barcelona, Venez. Gobierno Edo Anzoategui.			Apido, 1931.
3 480	YV3RF	Acarigua, Venez. "La Voz del Llano," Pausides Sigala.	4835	HJ1ABE	Cartagena, Colombia. 525 w. Relays HJ1ABF, "La Voz
3 480	2ZB	Wellington, New Zealand. 200 w. At 7 am.			de los Labs. Fuentes," Apartado 31.
3 488	XZZ	Rangoon, Burma, 50 w. W.	4840	VUC2	Calcutta, India. 10 kw. 7:30 am-1 pm. All-India Radio.
		J. Byrnes, Burma Independent Wireless Sub-Division, Strand		YV4RX	Maracay, Venez. "Radio
		Road. (Sun, 8:30-10:30 pm; Daily 5:30-9 am; 8:20-10:30	4845	н J 3CAD	Maracay, Venez. "Radio Maracay," Luis Croquer. Bogota, Colombia, 720 w.
3 490	CR7AB	pm). Lourenco Marques, Mozam-	4850	YV1RZ	"Nueva Granada." Trujillo, Venez. "Radio
		bique. Sun. 5-7 am; 10 am-2 pm; Weekdays, midnight to 1	4860	YV1RL	Trujillo, Venez. "Radio Valera." L. Febres Jelambi. Maracaibo, Venez. 300 w.
		am; 4:30-6ffi30 am; 9:30-11 am; noon-4 pm. Radio Club de Mocambique, Box 594.			Relays YV1RK "Radio Popular." sign off "National Em-
		de Mocambique, Box 594.			blem March. Jose A.
3 500	YV5RV	La Guaira, Venez. "Emisora Vargas," Gonzalo Veloz			Higuera, Apartado 247. (6-11 pm).
4002	CT2AJ	Mancera. Ponta Delgada, Azores. Wed,	4865	HJ2BAJ	Santa Marta, Colombia. 751 w. 10:30 am-2 pm; 5-11 pm.
	•	Sat, 5-7 pm.		*****	"La Voz de Santa Marta."
4107	НСЈВ2	Quito, Ecuador. 1 kw. 7-8:15 am; 11:30 am-2:30 pm; 2:45-10:15 pm. "Broadcasting Provincial," Clarence W.	4870	YV2RN	San Cristobal, Venez. "La Voz del Tachira," Jesus Diaz Gonzaalez.
		Provincial," Clarence W. Jones, Casilla 691.	4875	HJ6FAH	Armenia, Colombia. 600 w.
4273	RVI5	Khabarovsk, U.S.S.R. 20 kw.			9 am-2 pm; 6-11:30 pm. "La Voz de Armenia."
		4-10 am. Miss Rowena Meyer, Radio Committee.	4878	ZTD	Durban, Union of S. Africa. See "Johannesburg." (11:45
4300	4ZB	Dunedin, New Zealand. 30 w.	4000	TTTTD0	pm-12:50 am).
4 7 70	YV1RT	At 6 am. Maracaibo, Venez. "La Voz de la Fe," Pedro A. Ber-	4880	VUB2	Bombay, India. 10 kw. 8 am-1 pm. All-India Radio.
		de la Fe," Pedro A. Ber- mudez V.		YV6RU	Ciudad Bolivar, Venez. "Ecos del Orinoco," E. Torres Val-
4775	HJGAB	Bucaramanga, Colombia. 750	4005		encia.
		Santandar."	4883	нј4раг	Medellin, Colombia. 501 w. Relays HJ4DAQ. 9 am-2
4780	YV1RO	Trujillo, Venez. "Radio Trujillo," Pedro J. Torres. Barranquilla, Colombia. 600			pm; 7 pm-midnight. "Em- isora Claridad."
4785	HJ1ABB	Barranquilla, Colombia. 600	4890	YV1RX	Maracaibo, Venez. "Ondas
		w. Relays HJ1ABA, "La Voz de Barranquilla," Apartado 715. Interval signal, 3 chimes.			Quintero.
4790	YV5RY		4895	НЈ3САН	Bogota, Colombia. 720 w. "La Voz de la Victor." Re-
4705	TITOCAR	la Esfera," Edmundo Suegart. Bogota, Colombia. 750 w. La Voz de Bogota.			lays HJ3CAI. Almacenes
4/95		Du 102 de Dogotal	4900	YV6RT	Victor, Aptdo 565. Ciudad Bolivar, Venez.
		Ibague, Colombia. 501 w. "Ecos del Combeima."			"Radio Bolivar," Miranda & Behrens.
4800	YV1RV	Maracaibo, Venez. "Ecos del	4910	YV1RY	Coro, Venez. "Radio Coro," Roger Leyba.
4805	нј6јаВ	Maracaibo, Venez. "Ecos del del Zulia," Luis Garcia. Manizales, Colombia. 501 w.	4920	VUM2	Madras, India. 10 kw. 7:30
	1	"Radio Manizales."			am-1 pm. All-India Radio.

	YV5RU	Caracas, Venez. "Estudios Universo," Mario Garcia Arocha.	6000 CXA2	Montevideo, Uruguay, 5 kw) Cia. de Radio Publicidad Continental, J. C. Gomez 1431. 10 am-10 pm.
4930	YV4RP	Valencia, Venez. "Radio	HH2S	1431. 10 am-10 pm.
49 40	YV5RC	Valencia, Venez. "Radio Valencia," Luis Croquer. Caracas, Venez. "La Voz de Venez." Marquis y Linares. Valencia, Venez. "La Voz de	HH25	Haitine de Radiodiffusion,
4950	YV4RO	Valencia, Venez. "La Voz de	RV59 XEBT	Moscow, U.S.S.R. 7-9:15 pm.
4960	VUD2	Carabobo." Herman Degwitz, Delhi, India. 10 kw. 7:30 am-1 pm. All-India Radio.	AEBI	1431. 10 am-10 pm. Port-au-Prince, Haiti. Societe Haitienne de Radiodiffusion, Box 103. (7-10 pm). Moscow, U.S.S.R. 7-9:15 pm. Mexico City, D. F. 500 w, Interval signal, cuckoo calls, and sign off with "Liebes- traume." El Buen Tono, S. A., Apartado 79-44. 11 am-1 am.
	YV5RS	Caracas, Venez. "Radio Lib- ertador," Victor M. Soto.		A., Apartado 79-44. 11 am-1
4975	YV1RJ	Coro, Venez. "Radio Falcon." J. A. Mendoza.	6005 CFCX	Montreal, P. Q. 75 w. Re-
4980	YV5ŖT	Caracas, Venez. "Gobierno Nacional."		Montreal, P. Q. 75 w. Relays CFCF. Canadian Marconi Co., Ltd., Box 1690. Sun, 10 am-11:15 pm. Weekdays 8:45 am-2 am.
4990	YV3RX		HP5K	
5000	YV5RK	Maggi.		lays HOK, 'La Voz de La Victor, Apartado 33. Noon-2.
	YV5RM	Nacional.	6007 XYZ	
3010	IVSKM	difusora Venez." Degwitz y		Rangoon, Burma. 1500 w. Burma Independent Wireless Sub-Division, W. J. Byrnes, Strand Road. Sun, 8:30-10:39
5020	YV4RQ			pm; Daily 5:30-9 am; 8:20-10:30 pm).
5040	YV5RN		ZRH	Pretoria, Union of So. Africa. 5 kw. See "Johannesburg."
		acas," Almacen Americano.		5 kw. See "Johannesburg.", Sat. 9:30 am-4:45 pm: Sun.
3140	PMY	Caracas, Venez. Radio Caracas," Almacen Americano. Bandoeng, Java, N. E. 1. 1 kw. Sat, 8 pm-3:30 am. Sun, 5:30 am-noon. Other days, 5:30 am-noon; 7 pm-3 am. Belize, Brit Hondwas (8:30)		8:40 am-noon; 12:15-3:15 pm; Other days, 9:30 am-3:30 pm;
		5:30 am-noon. Other days, 5:30 am-noon: 7 pm-3 am.	6010 CJCX	11:45 pm-12:50 am.
5300	ZIK3	Belize, Brit. Honduras. (8:30-8:50 pm).	OUL CICX	Sew. See "Johannesburg." Sat, 9:30 am-4:45 pm; Sun, 8:40 am-noon; 12:15-3:15 pm; Other days, 9:30 am-3:30 pm; 11:45 pm-12:50 am. Sydney, N. S. 1 kw. Relays CJCB. Eastern Broadcasters, Ltd. Radio Ridge Sun, prom.
5713	TGS	Guatemala City, Guat. 200 w. Wed, Thur, Sat, 6-9 pm. Radiotransmisora de la Casa	•	1:30 pm: Weekdays 9 am-
		Radiotransmisora de la Casa	PRA8	2:30 pm. Recife, Brazil. 5 kw.
5824	TIGPH	Presidencial." San Jose, Costa Rica. 1 kw.		"A Vox do Norte." Radio
	,	San Jose, Costa Rica. 1 kw. 'Alma Tica," Gonzalo Pinto H., Aptdo. 800. (7 pm-		Recife, Brazil. 5 kw. "A Vox do Norte." Radio Club do Brasil, Avenida Cruz Cabuga 394. Time signals at Noon and 7 pm Brazil Time. Sign off with national an- them. 9 am-noon; 1-3 pm; 4-
5 875	HRN	midn't). Tegucigalpa, Honduras. 500		Sign off with national an-
		w. "La Voz de Honduras," Mr. Paul John. Interval,	2015 FTT2T1	9 pm.
		w. "La Voz de Honduras." Mr. Paul John. Interval, notes from national anthem, and signs off with "Goodnight Waltz." 8 pm-midnight.	6015 HI3U	D. R. 100 w. "La Voz del
58 80	ZEA	Waltz." 8 pm-midnight.		Apartado 23. Sign off
		Waltz." 8 pm-midnight. Salisbury, Southern Rhodesia. 325 w. Gen'l. P. O., Station Sec'y., Box 792. Sun, 3-5 am.		D. R. 100 w. "La Voz del Comercio," Fernando Bertran, Apartado 23. Sign off- "Mario la O" on organ ano national anthem. 7:15-9 am;
59 40	PJC1		XEWI	noon-2 pm; 4:45-8 pm. Mexico City, D. F. 400 w.
		Wilemstad, Curacao. 150 w. "Radio Curom," Curacaosche Radio Vereeniging, Emmastad, Curacao. 7:45-9:35 pm.		noon-2 pm; 4:45-8 pm. Mexico City, D. F. 400 w. Institucion Muncial de la V. I., Mina 56.
5945	TG2X	Guatemala City, Guat. 200 w.	6020 DJC	"Berlin, Germany. 50 kw. See"
		Guatemala City, Guat. 200 w. "Policia Nacional." Tue, Wed, Fri, 11 am-1 pm. Sat,	XEUW	Veracruz, Ver. C. 20 w. "El Eco de Sotavento desde Veracruz," Av. Independencia 98. Veries for 3c USA stamp.
FOTE	CEAUT	11 am-3 pm.		Veracruz," Av. Independencia
39/3	CS2WD	Lisbon, Portugal. 250 w. Radio Renascenca, Rua do Capelo 5-2 esq.		o am-munight.
	OAX4P	Capelo 5-2 esq. Huancayo, Peru. 250 w.	6025 HI1J	San Pedro de Macoris, D. R. 100 w. Fausto M. Donastorg,
	0212112	"Radio Andina Junin," J. Alberto Maduana, Cuzco 25.	6030 CFVP	Aptdo. 204.
59 80	VONG	St. John's Newfoundland		Calgary, Alta. 100 w. Voice of the Prairies, Ltd., Toronto General Trusts Bldg. (Thur,
		Newfoundland Brdcstg. Corp. Relays VONF. 8:30 am-	HP5B	9 am-1 am; Sun, noon-midn't.)
59 84	HJ4DAG	12:30 pm; 4:30-9:30 pm. Quibdo, Colombia. 150 w.	111 315	9 am-1 am; Sun, noon-midn't.) Panama City, Panama. 100 w. Estacion Radiodifusora
	VUD2	"La Voz del Choco.	6025 TITTE	Miliamar de la Kadio Panama
4 990	, UD2	Delhi, India. 10 kw. All- India Radio. 7:30 am-12:30	0033 117KVM	Apartado 910. 5-10 pm, Las Juntas, C. Rica. 500 w. "La Voz del Guanacasto," Ruben Venegas M.
		pm.	*	Kuben Venegas M.

6035	XEQQ	Mexico City, D. F. Sign off.			pm: Weekdays. 3:20-7:20
	TITCY A	Mexico City, D. F. Sign off, Ravel's "Bolero." Boston, Mass. 20 kw. See			pm; Weekdays, 3:20-7:20 am; 9-11:45 am; noon-4 pm; 11:45 pm-12:50 am.
	WDJM	Moston, Mass. 20 kw. See WSLA. Miami, Fla. 5 kw. 10 pm-1 am. Relays WIOD. Ruth Richardson, Isle of Dreams Broadcasting Corp.	6100	W9XF	Chicago, Ill. 10 kw. Relays NBC-WENR. Audience Mail
		Richardson, Isle of Dreams			dise Mart. Sat, 1:05-2 am;
	YDA	am. Relays WIOD. Ruth Richardson, Isle of Dreams Broadcasting Corp. Tandjong Priok, N.E.I. 10 kw. NIROM. Sign off, "End of a Periect Day." Barranquilla, Colombia. 600 w. Relays HJIABH. "Emisora Atlantico," Aptdo. 445 Villarrica, Paraguay. 1 kw. "Radio Cultura."			Chicago, Ill. 10 kw. Relays NBC-WENR. Audience Mail Dept., NBC, Inc., Merchan- dise Mart. Sat, 1:05-2 am; 4-5:30 pm; Sun, 1-5:45 pm; Other days, 1:05-2 am; 4-5:45 pm.
6042	HJ1ABG	"End of a Perfect Day." Barranquilla, Colombia. 600 w. Relays HIIABH. "Emi-		YUA	Belgrade, Yugoslavia. 1 kw. 12:45 am.5:30 pm. "Radio Beograd," Bureau Central de Presse, Poste Emetteur a Ondes Courtes. Announce in Serbian, Italian, Enghsh, Ger- man. Turkish, Hungarian, Albanica and Greak (12:45)
6044	ZP14	sora Atlantico," Aptdo. 445			Beograd," Bureau Central de Presse, Poste Emetteur a
6045	VETW	"Radio Cultura."			Ondes Courtes. Announce in
0043	ALI W	lays XEFW, Flores y Mar-			man. Turkish, Hungarian,
		204 Ote. Sun, 10 am-4 pm.	,		Albanian, and Greek. (12:45 am-5:05 pm).
6053	VK9MI	Weekdays, 10 am-10 pm. M. V. "Kanimbla." 50 w.	6105	HI3C	La Romana, D. R. 30 w. A. Herrero Hernandez.
		sora Atlantico," Aptdo. 445 Villarrica, Paraguay. 1 kw. "Radio Cultura." Tampico, Tams. 100 w. Re- lays XEFW, Flores y Mar- tinez, Francisco 1, Madero 204 Ote. Sun, 10 am-4 pm. Weekdays, 10 am-10 pm. M. V. "Kanimbla." 50 w. Sign off "God Save the King." McIlwraith & McEacharn, Ltd., Melbourne, Australia.	6110	GSL	London, Gt. Britain. "L for Liberty." See "London."
6054	нј6FАВ	(7:15 am). Pereira, Colombia. 501 w. "La Voz de Pereira." Bern, Switzerland. 25 kw. See eBrn."		XEGW	Mexico City, D. F. 250 w. Jose G. Garza Fox, San Juan de Letran 81.
6 055	••••	Bern, Switzerland. 25 kw. See eBrn."	6116	••••	Saigon, Fr. Indo-China.
€ 060	VQ7LO	Nairobi, Kenya. Cable & Wireless, Ltd., Box 777. 11 am-2:30 pm.	6120	WCBX	New York, N. Y. 10 kw. See "WCBX." (Midnight-2
6 060	WCAB	Philadelphia, Pa. 10 kw. See "WCAB." (Sun, 6:30-11 pm; Tu, F, 6:30-11 pm; Wed, 6:30-8:30 pm).	6122	HI8T	San Cristobal, D. R. 30 w.
		pm; Tu, F, 6:30-11 pm;	6122	FK8AA	Noumea, New Caledonia. Re-
	wLwo	Cincinnati, Ohio. 10 kw. See "WLWO".			San Cristobal, D. R. 30 w. Raul Henriquez. Noumea, New Caledonia. Relays FJP. Announces, "Ici Noumea," and signs off with Marseillaise 44 rue de l'Alma
6065	sBo	Stockholm, Sweden, 500 w.		****	Tues, Sat, 2:30-3:30 am.
		5:15-5 pm. Telegrafverket		НЈЗСАХ	Noumea," and signs off with Marseillaise. 44 rue de l'Alma. Tues, Sat, 2:30-3:30 am. Bogota, Colombia. 750 w. Relays HJ3CAZ, La Voz de Colombia, Aptdo 772. Guatemala City, Guat. 1 kw. Sun, 10:30 am-5:15 pm; 7 pm-midnight. Weekdays.
6070	CFRX	Tjanstebrev 5. Toronto, Ont. 1 kw. Sun, 10:30 am-midnight. Week- days 7:30 am-midnight. Re-		TGWB	Colombia, Aptdo 772. Guatemala City, Guat. 1 kw. Sun, 10:30 am-5:15 pm; 7 pm-midnight. Weekdays, 7:45-9 am; 12:45-3:45 pm; 7:30 pm-12:15 pm. See TGWA. Halifax, N. S. 500 w. Sat,
		10:30 am-midnight. Week- days 7:30 am-midnight. Re- lays CFRB. Rogers Radio Broadcasting Co., 622 Fleet			7 pm-midnight. Weekdays,
		St.			7:30 pm-12:15 pm. See
6 07 9	DJM	Berlin, Germany. 50 kw. See Berlin."	6130	CHNX	Halifar N S 500 mr Sat
6080	CKFX	Vancouver, B. C. 10 w. Re-	0130	CIIIIA	Halifax, N. S. 500 w. Sat, 8 am-11:30 pm; Sun, noon-
		Vancouver, B. C. 10 w. Relays CKFC Standard Brdcstg. Sys., 1504 Sun Bldg. 2 pm-			8 am-11:30 pm; Sun, noon- 11:15 pm; other days, 7 am- 11:15 pm. Maritime Broad- casting Co., Lord Nelson
	HP5F	Colon. Panama.			
	WCBI	Chicago, Ill. 500 w. See "WCBI".		COCD	Havana, Cuba. 250 w. Relays CMCD. "La Voz del
6082	OAX4Z	Lima, Peru. 10 kw. Radio Nacional." Relays OAX4A, Av. Petit Thouars 447. Nassau, Bahamas. Superin- tendent of Telegraphs, Box 48			Havana, Cuba. 250 w. Relays CMCD. "La Voz del Aire," S. A., Sr. J. Benitez, Aptdo. 2294.
6000	ZNS	Av. Petit Thouars 447.		LKJ	Oslo, Norway, 5 kw. See "Oslo."
0090	LNS	tendent of Telegraphs, Box 48	6132	VP3BG	Georgetown, British Guiana.
		(No postage required for		XEXA	Georgetown, British Guiana. Mexico City, D, F. 100 w. Depto. de Publicidad y Propaganda, Sr. Jose Rivera.
6097	½ ZRJ	Johannesburg, Union of So. Africa. 200 w. See "Johan-	6137	OR7AA	Propaganda, Sr. Jose Rivera. Lourenco Marques. Port.
		nesburg." Sat, midnight to 12:50 am; 3:15-7 am; 8:30-	0137	OKIAA	East Africa. Radio Club de
		11:30 am; Sun, 3:30-4:30 am (or 4-5 am): 5:30-7 am: 8:40-			Lourenco Marques, Port. East Africa. Radio Club de Mocambique, Caixo Postal 594. Sun, 5-7 am; 10 am-2 pm; Weekdays, midnight-1 am; 4:30.6:30 am; 0:30.11
		veries). Johannesburg, Union of So. Africa. 200 w. See "Johannesburg." Sat, midnight to 12:50 am; 3:15-7 am; 8:30- 11:30 am; Sun, 3:30-4:30 am (or 4-5 am); 5:30-7 am; 8:40- 11:30 am; Other days, 3:15-7 am; 9 am-1:30 pm; 11:45 pm-12:50 am.			
	ZRK	pm-12:50 am.	6140	KZRM	am; noon-4 pm. Manila, Philippines.
	LKK	Africa. 5 kw. See "Johan-		WPIT	Pittsburgh, Pa. 40 kw. See "WPIT." (11 am-noon).
		Dirical State of So. Africa. 5 kw. See "Johannesburg." Sun; 3:30-4:30 am (or 4-5 am); 5:30-7 am; 9 am-11:45 am; noon-3:20	6145	НЈ4ДАЕ	Medellin, Colombia. 700 w. "La Voz de la Antioquia."
		9 am-11:45 am; noon-3:20		,	"La Voz de la Antioquia."

6147	½ ZRD	Durban, Union of So. Africa. 200 w. See "Johannesburg."	6295	OAX4G	Lima, Peru. 400 w. Relays OAX4B, "Radio Grellaud." Roberto Grellaud y Cia., Sen Abencay 915-23 (7-9:30 pm).
	•	Sat, 3:30-7:30 am; 9-11:15 am; Sun, 5:30-7 am; 9-11:16 am; Weekdays, 11:45 pm-	6312	ZP14	Abencay 915-23 (7-9:30 pm). Villarica, Paraguay, i kw. "Radio Cultura."
6150	CJRO	12:50 am. Winnipeg, Man. 2 kw. James Richardson & Sons, Ltd., 157	6316	HI1Z	Trujillo, D. R. 100 w. Relays HIZ. Frank Hatton.
		Royal Alexandra Hotel.	6330	cocw	Havana, Cuba. 7 am-midnight. Relays CMW. "La Voz de las Antillas," Apartado 130.
6150	TIEMC	San Jose, C. Rica. 250 w. "Radio El Mundo," Rafael Hine Ch.	6335	OAX1A	las Antillas," Apartado 130.
6165	TILS	San Jose, Costa Rica. 2 kw. "Para Ti," Luis Saenz Mata, Aptdo. 3.			Voz de Chiclayo." Elias Aguirre 171, Casilla 9. Sign off "Good Night Waltz"
6165	••••	Bern, Switzerland. 25 kw. See "Bern."	6340	HI1X	(Sat, 10 pm-midnight; Other days, 8-11 pm). Trujillo, D. R. 900 w. Relays HIX. J. R. Saladin.
6170	HI4V	San Francisco de Macoris, D. R. 100 w. Luis R. Betances	0340	,	lays HIX. J. R. Saladin. (Tues, Fri, 8-10 pm).
6174	XEXA	R.	6351	HRP1	San Pedro Sula, Honduras. 100 w. 12:30 pm-12:30 am.
0174	ALAA	Mexico City, D. F. Relays XEXM. Departamento Auto- nomo de Prensa Publicidad	6355	IAC	"El Eco de Honduras." Rome, Italy. See "Rome."
		nomo de Prensa Publicidad (DAPP). Sign off, "March of the Toys." 8:30 am-mid-			(3-3:35 nm).
6182	HI1A	night.	6380	ZIZ	Basseterre, St. Kitts. (Reported on 6384). Daily 4-5 pm; Wed, 7-7:30 pm. Santiago, D. R. 200 w. Jacinto L. Sanchez, Aptdo. 95. Santiago de los Caballeros, D. R. 200 w. "La Voz de La Hispaniola." Generoso Sarnelli (6.11 pm)
		Santiago de los Caballeros, D. R. 75 w. "La Voz del Yaque," Rafael Western. (Weekdays, 8-10 pm). Vatican City. 15 kw. Mon, Thur, Santiago pm; Tues, Fri. 2-3 pm; Wed, 2-2:30 pm; 3-3:30 pm. See HVJ.	6383	HI9B	Santiago, D. R. 200 w.
6190	HVI	(Weekdays, 8-10 pm). Vatican City. 15 kw. Mon.	6420	HIIS	Santiago de los Caballeros,
		Thur, Sat, 2-3:30 pm; Tues, Fri. 2-3 pm; Wed. 2-2:30 pm;			La Hispaniola." Generoso
6190	KGEI	3-3:30 pm. See HVJ.	,	TGQA	Sarnelli. (6-11 pm). Quezaltenango, Guat. 200 w. Relays TGQ, "La Voz de Quezaltenango," Director
6190		San Francisco, Calif. 20 kw. See "KGEL."			Quezaltenango," Director General of Electrical Com-
0190	102	See "KGEI." Guatemala City, Guat. 200 w. "Radio Morse." Director General of Electrical Com- munications. (Sat. 7:30-9 am. 6 pm. 1 am. 5 pm. 230-11			General of Electrical Com- munications. (Sat, 10 pm-1 am; Sun, 1-3 pm; Other days,
		munications. (Sat, 7:30-9 am; 6 pm-1 am; Sun, 7:30-11 am; 3-8 pm; Other days, 7:30-	6480	HIIL	9-11 pm).
		am; 3-8 pm; Other days, 7:30- 9 am; 6-11 pm).			Santiago, D. R. 100 w. "Emisora Nacional," Maria J. Tavarez, Calle Pres. Trujillo
	WGEO	Schenectady, N. Y. 40 kw. See "WGEA."	o end	Waxeen	Tavarez, Calle Pres, Trujilo 97. (6:30-8 am; 5:30-7 pm; 8-9:45 pm). Hicksville, N. Y. 10 kw. Press Wireless, Inc.
6200		Ashlana Indonesia "	6425	W2XGB	Press Wireless, Inc.
0200	CONG	Santiago de Cuba, 1200 w. Relays CMKG. "Ask For Bacardi." Sres. Grau y Caminero, Aptdo. 137. Daily exc. Sat. 9 am-11 pm. Mexico City, D. F. 100 w. Departamento de Salubridad Publica	6490	TGWB	Guatemala City, Guat. 1 kw. (Reported on 6495). See TGWA.
		Caminero, Aptdo. 137. Daily exc. Sat, 9 am-11 pm.	6500	$_{ m HIL}$	Trujillo, D. R. 60 w. J. C. Teixido, Aptdo. 623. San Jose, C. Rica. 500 w.
	XEXS	Mexico City, D. F. 100 w. Departamento de Salubridad	6550	TIRCC	San Jose, C. Rica. 500 w. Accion Catolica, Prbo. Carlos
	ZGE	Publica. Kuala Lampur, F.M.S. Insti-	6565	HI5P	Borge, Aptdo, 1064.
		tute of Medical Research, Sun, Tue, Fri, 6:40-8:40 am. Saigon, Fr Indo-China.	6590	COCU	J. M. Modesto.
		Radio Boy-Landry, Etablis-			Havana, Cuba. Jorge Garcia Serra. Estrada aPlma 25, Vibora. (Sun. 6:55 am-mid-
am.		sements Boy-Landry, 5:30-9	6600	HI6P	Serra. Estrada aPlma 25, Vibora. (Sun, 6:55 am-mid- night; Weekdays, 6:55 am-1 Trujillo, D. R. 100 w.
6235	HRD2	La Ceiba, Honduras. 250 w. 8-11 pm. "La Voz de Atlan- tida."			Trujillo, D. R. 100 w. Emilio Garden, Jr. Rio Bamba, Ecuador. Fabrica de Tejidos de "El Prado,"
6243	HI1N	Trujillo, D. R. 700 w. Week-			de Tejidos de "El Prado," Aptdo. 98. (Thur, 9-11 pm).
		dys, noon-2:30 pm; 5:45-10 pm. Sign off national an-	6630	HIT ·	de Tejidos de "El Prado," Aptdo. 98. (Thur, 9-11 pm). Trujillo, D. R. 100 w. "La Voz de La RCA-Victor," F. A. Sanabia, Aptdo. 1105. Interval, bells; sign off, na- tional anthem. (Sun, 10:45 pm-12:45 am: Weekdays.
6290		Bonetti Burgos.			A. Sanabia, Aptdo. 1105. Interval, bells; sign off, na-
0200		Trujillo, D. R. 200 w. Relays HIG. Andres Cordero Puello.			tional anthem. (Sun, 10:45 pm-12:45 am; Weekdays, 5:45.8:45 pm)
6282	сонв	Sancti-Spiritus, Cuba 150 w. Relays CMHB, V. E. Wiess y O. Ramirez, Calle Inde-	6638	HC2RL	First-13-13 am; Weekdays, 5:45-8:45 pm). Guayaquil, Ecuador. 200 w. "Quinta Piedad," Dr. Roberto Levi, Casilla 759. Interval, "Hello, America," sign off,
		y O. Ramirez, Calle Inde- pendencia 33. 9-11 pm.			Levi, Casilla 759. Interval,
					mend, sign on,

					C' 12 12 42
6660	H16 Y	national anthem. (Sun, 5:30-7:30 pm; Tues, 9-11 pm). Trujillo, D. R. 30 w. Alfonso Cuervo. Geneva Switzerland. "Radio	8700	coco	Cie., Finlay #3. Havana, Cuba. 1 kw. Re- lays CMCK, Luis Casas
6675	нво	fonso Cuervo. Geneva, Switzerland. "Radio Nations." (Sun, 1:45-2:45	8820	нсјв	Romero, Aptdo 98. Ouito, Ecuador. 1 kw. "La Voz de los Andes," Clarence
6690	VK8SK	pm). Broken Hill, Australia. At 2:30 am. Australian Aerial	8830	COCQ	Havana, Cuba. 1 kw. Relays CMO. "De La RCA-Victor," Calle 25 No. 225. (Reported on 8850).
6700	TIEP	San Jose, C. Rica. 1 kw. "La Voz del Tropico." Eduardo Pinto H., Aptdo.	9030	COBZ	Havana, Cuba. 250 w. Re lays CMBZ, "Radio Salas," Aptdo. 866. Opens, nighting-
	PMH HIH	257. (4-11 pm). Bandoeng, Java, N.E.I. 1500 w. San Pedro de Macoris, D. R. 250 w. "La Voz de Hig- uamo." Domingo Dominguez.	9100	совх	ales and canaries; interval, 4 chimes; closes, national anthem. (6:45 am-1 am). Havana, Cuba, Relays CMBX, Alberto Alvarez, San
6800 6960	PZH 2ZB	Wellington, New Zealand.	0105	TT 4 TT 4	CMBX. Alberto Alvarez, San Miguel 194.
7000 7006	to 7300 FET1	200 w. Amateurs. Valladolid, Spain. 7:30 am- 5:30 pm.	9125	НАТ4	Miguel 194. Budapest, Hungary. 20 kw. Sun, Wed, 7-8 pm; Sat, 6-7 pm. Radiolabor, Kiserleti Allomasa, Gyali-ut 22, Buda-
7010	XPSA	Kweiyang, China. 10 kw. (Reported on 6970 and 7140). (5:30-10:55 am).	9125	HC2CW	Guayaquil, Ecuador. "Ondas del Pacifico," Aptdo 1166.
7088	PI1J	Dortrecht, Netherlands. 50 w. Technical College. (Sat, 10	9163	HC1GQ	Quito, Ecuador. "Radiodi- fusora Nariz del Diablo."
7090	FO8AA	am-12:50 pm). Papeete, Tahiti. Radio Club Oceanien. (Tues, Fri, 11 pm- midnight).			Quito, Ecuador. "Radiodi- fusora Nariz del Diablo." Sign off. "Blue Danube Waltz." Guayaquil & Quito R. R. Co., Aptdo. 159. (8:30- 11 pm).
7100 7177	EA9BJ CR6AA	Spanish Morocco. Lobiro, Angola. (Wed, Sat, 2-45-4-30 pm). Las Palmas, Canaries. (Re-	9234	••••	Bucuresti, Romania. 2 kw. "Radio Experimental." Societatea Romana de Radiodifu-
7200	EA8AE	Las Palmas, Canaries. (Re-	9290	HI2G	tatea Romana de Radiodifuziune, Str. Gral. Berthelot 60. Trujillo, D. R. 200 w. Re-
7220	12RO11	Las Palmas, Canaries. (Reported on 7150). Rome. Italy. 100 kw. See "2RO."			Puello. Andres Cordero
7222	YV9AB	In Venezuela on Guiana- Brazil Border. Expedicion Tecnico de Mineria y Geo- logia, Ministerio de Fomento,	9295 9350	XTC HS8PJ	Shanghai, China. (8-9 am). Bangkok, Thailand (formerly "Siam"). Post and Telegraph Dept. Fort de France, Martinique.
	FET8 EA8AS	Caracas. Spanish Morocco. (5-7 pm). Teneriff. Canaries. Relays	9363	COBC	Fort de France, Martinique. "Radio Fort de France." Havana, Cuba. Relays
	VIG	Spanish Morocco. (5-7 pm). Spanish Morocco. (5-7 pm). Teneriff, Canaries. Relays EAJ43. (Wed, 4-5 pm). Port Moresby Papula. Re- lays 4 pm. A call sign, not			Havana, Cuba. Relays CMBC, "El Progreso Cubano," Aptdo 132. (6:55 am-midnight). (Reported on 10000).
7310	••••	Madrid, Spain. "Radio Na-	9400	••••	Saigon, Fr. Indo-China. 10 w. "Radio Michel Robert,"
7380	XECR	Mexico City, D. F. 20 kw. Secretaria de Relaciones Ex- teriores. (Sun. 6-8 pm). Pointe-a-Pitre, Guadeloupe.	9415	PJC2	(Weekdays, 7-8:30 am). Willemstad, Curacao. "Radio Curom." Emmastad.
7435	FG8AH	"Radio Guadeloupe," Box 125.	9415	PLV	Bandoeng, Java, N.E.I. 80 kw. Governments Radio- Dienst.
7 500	EAJ43	(6-7:30 pm). Santa Cruz de Teneriffe, Canaries. Relays "Radio Na-	9437	сосн	Havana, Cuba. 5 kw. Cadena Azul de Radio, Prado 63. (Sun, 8 am-10 pm: other
7510	JVP	Tokyo, Japan. 50 kw. See	9465	TAP	Ankara, Turkey, 20 kw. 11:30
7797	нвр	Santa Cruz de Teneritte, Canaries. Relays "Radio Na- tional of Burgos. (8-9 am). Tokyo, Japan. 50 kw. See "Tokyo" at end of list. Geneva, Switzerland. "Radio Nations." (Sat, 5:30-6:30 pm).	9490	KZIB	Am-5 pm. See "Ankara." Manila, P. I. I Beck. Inc., Box 440. (Sat through
	YSD	San Salvador. Relays YSS, "Alma Cuscatleca." Director	9500	OFD	Havana, Cuba. 5 kw. Cadena Azul de Radio, Prado 63. (Sun, 8 am-10 pm; other days, 8 am-midnight). Ankara. Turkey. 20 kw. 11:30 am-5 pm. See "Ankara." Manila, P. I. I Beck. Inc., Box 440. (Sat through Thurs, 8:30 pm-2:45 am). Lahti. Finland. 1 kw. See "Lahti." (Weekdays, 5-6:30 am; 10 am-5 pm.)
8650	HJ4DAU	General de Telegrafos, Tele- fonos, y Radio Nacionales. J Medellin, Colombia. 250 w. Universidad Antioquia.	9500	PRF5	Rio de Janeiro, D. F., Brazil. 12 kw. "A Vox do Brasil." Cia. Radio Inter-
8664	сојк	Camaguey, Cuba. 1 kw. 11:30 am-12:30 pm; 8-10 pm. (Reported on 8660 and 8680) Relays CMJK, "Radio Zenith," Jones Castillon y		XEWW	D. F. (4:45-5:45 pm).

	XGOY	Mexico." Aptdo. 2516. Relays XEW. Cadena Radio- difusora Mexicana.	9562	OAX4T	Lima, Peru. 10 kw. "Radio Nacional." Relays OAX4A. (Reported on 9560). Peru- vian Gov't., Av. Petit Thouars 447. (7-8 am; 11:30 am-1:30
9 510	CXA8	Colonia, Uruguay. 2500 w. Relays LR3. "Real de San			447. (7-8 am; 11:30 am-1:30 pm).
95 10	GSB	lays XEW. Cadena Radio- difusora Mexicana. Lungtso, China. Colona, Uruguay. 2500 w. Relays LR3. "Real de San Carlos." (6 am-10 pm). London, Gt. Britain. 20 kw. "B for Broadcasting." See "London." (1:30-3:50 am; 6:20-9:15 pm: 9:40-11:30 pm).	9570	wbos	Springfield, Mass. 10 kw. Retays NBC-WBZ-WBZA. Westinghouse Electric & Mig. Co
		pm).		WPIT	Pittsburgh, Pa. 40 kw. See "WPIT."
	HS8PJ	Bangkok, Thailand (formerly "Siam"). Opening and interval signals, 3 ascending chimes. Post and Telegraph Dept., Col. Phra Aram.	9580	GSC	London, Gt. Britain. 20 kw. "C for Corporation." See "London." (1:30-4 pm.; 4:20-6 pm; 6:25-9:20 pm; 9:40-11:30 pm).
	V K3ME	chimes. Post and Telegraph Dept., Col. Phra Aram, Melbourne, Australia. 5 kw. Weekdays, 4-7 am. Amalgam- ated Wireless, (A/sia), Ltd., 167 King St.		VLR	Melbourne, Vic., Australia. 2000 w. 3:15-9:45 am. See VI.R.
9 520	OZF	Copenhagen, Denmark. 6 kw. 2-6 pm; 10-11 pm. Stats- radiofonicn, Heibergsgade 7.	958 5 9590	KZEH HP5J	Manila, Philippines. Box 119. Panama City, Panama. 1 kw. (Reported on 9610). 6:30-11 pm. "La Voz de Panama." Apartado 867.
	XEDQ	Guadalajara, Jal. 100 w. "Hablando a los Continentes desde Guadalajara." Relavs XED, Aptdo. 197. Interval, 4 chimes; sign off, "Jarabe		РСЈ	pm. "La Voz de Panama." Apartado 867. Huizen. Netherlands. 60 kw. See "Hilversum." (Sun, 1:40- 3 pm; 7:15-9:50 pm; Tu,
0522	7DC				1:45-3:30 pm; 7-10:15 pm; W,
9523	ZKG	Pretoria, Union of So. Africa. 5 kw. See "Johannesburg." (Sat. 5-7 am; 9:30 am-4:45 pm: 11:45 pm-12:50 am: Sut, 5:30-7 am; 8:30 am-noon;		VK2ME	Huizen, Netherlands, 60 kw, 5ee "Hilversum." (Sun, 1:40-3 pm; 7:15-9:50 pm; Tu, 1:45-3:30 pm; 7-10:15 pm; W, 7:15-8:40 pm; F, 8-9 pm). Sydney, Australia. 20 kw, 5un, 1-3 am; 5-11 am. Signature, laughing notes of kookabure.
		5:30-7 am; 8:30 am-noon;			kookaburra. Amalgamated
		12:15-3:15 pm; Other days, 5-7 am; 9:30 am-3:30 pm; 11:45 pm-12:50 am).			Wireless. (A/sia). l.td., 47 York St. (Sun, midn't-2 am; 4:30-8:30 am; 11:30 am-1:30
9524	••••	Luxembourg. "Radio Luxembourg." (11 am-1 pm).		WEARE	pm).
9525	ZBW3	Hong Kong. 2500 w. Hong Kong Broadcasting Commit-		VUD2	Perth, Australia. 5 kw. Week- days. 6-8 am Amalgamated Wireless. (A/sia), Ltd.
	KGEI	tee, Box 200. San Francisco, Calif. 20 kw. See 'KGEI." (3-9 am).			Wireless. (A/sia), Ltd. Delhi, India 10 kw. 2-4:15 am; 8 am 1 pm; 10 pm-mid- night. All-India Radio.
9530		Oslo, Norway. 5 kw. See "Oslo."		VUD3	Delhi, India. 5 kw. 8 am-1 pm All India Radio.
	VUCE2	4:30 am. All-India Radio.	95 90	WCAB	Philadelphia. Pa. 10 kw. See "WCAB." (M. Th. Sat. 6:30
9535	WGEO IZI	Schenectady, N. Y. 40 kw. See WGEA." Tokyo, Japan. 20 kw. See		wLwo	Philadelphia. Pa. 10 kw. See "WCAB." (M. Th. Sat. 6:30 pm-2 am; Wed, 9 pm-2 am). Cincinnati. Ohio. 10 kw. See "WLWO."
		Tokyo, Japan. 20 kw. See "Tokyo," (4:40.5:30 pm). Bern. Switzerland. 25 kw. See "Bern."	9595	HBL	"Radio Nations."
9536	VPD2	See "Bern." Suva, Fiii. 2 kw. Amalgamated Wireless, (A/sia), Ltd. (5:30-7 am).	9600 9606	XEYU ZRL	Mexico City, D. F. (9-11 pm). Capetown, Union of So, Africa, 5 kw. See"Johannesburg." (Sun, 3:30-4:30 am (or 4-5 am), 5:30-7 am: 9-11:45 am;
9540	DJN	Berlin, Germany, 50 kw. (12:05-2:30 am; 4:50-10:50 pm). See "Berlin" at end of			(Sun, 3:30-4:30 am (or 4-5 am), 5:30-7 am; 9-11:45 am; noon-3 pm; Weekdays, 3:20- 7:20 am; 9-11:45 am; noon-4 pm; 11:45 pm-12:50 pm).
9544	HH2S	list. Port-au-Prince. Hairi. So- ciere Haitienne de Radio- diffusion. Boite Postal 103.	9615	TIPG	San Jose, C. Rica. 2 kw. "La Voz de la Victor."
9550	-	Vatican City. 15 kw. Wed, 2:30-3 pm; Sun, 5-5:30 am. See HVI		•	Claudia Martinez. (Reported on 9610). (7 am-11:30 pm; English hour Wed, Sat, 9-10 pm).
	TPB11	Paris, France. 25 kw 11:15 pm-6 pm. See "Paris" at end	9616	НЈ1АВР	Cartagena, Colombia. 608 w. 4:30-10:30 pm. "Radio Cartagena." Aprado 37.
	VUB2	Bombay, India. 10 kw. 12:30-4 am: 5-7:30 am; 10-11 pm. All India Radio. Schenectarly N. Y. 25 kw. See "WGEA."	9620	HAD	Budapest, Hungary, (6-9 pm).
	WGEA	Schenectady N. Y. 25 kw. See "WGEA."	2.00	10000	Bucaramanga, Colombia. 650 w. Relays HJ7GAE. "Radio Bucaramanga."
9560	DJA	Berlin, Germany. 50 kw. See "Berlin." (6:30-10:30 pm).	9635	12RO3 12RO3	Rome, Italy. 100 kw. See Rome, Italy. 100 kw. See 1:01-2:55 pm; 5:30-9 pm).

9645	HH3W	Port-au-Prince, Haiti. 30 w. 1-2 and 7-8 pm. C. Ricardo Widmaier, Box A-117.	11650 COCX	Havana, Cuba. 1 kw. (Reported on 11740). Sun. 6-9 pm; Weekdays, 8 am-midnight. Relays CMX, "Casa Lavin," Box 32,
9 645	JLT2	Tokyo, Japan. See "Tokyo." (8-8:30 pm).	11660 JVL	
9650	IABA	Addis Ababa, Ethiopia. 1 kw. E. I. A. R. (Sun, 3:30-3:55 am).	11673 IQY	Tokyo, Japan. Rome, Italy. See "Rome." (5:20-5:40 am; 12:07-12:56 pm; 1:50-2:30 pm).
	WCBX	New York, N. Y. 10 kw. See "WCBX." (10:30-11:30 pm).	11700 HP5A	Danama City 300 m Sun 0
9660	CR6AA HVJ	Lobito, Angola. Vatican City. 15 kw. Wed, 2:30-3 pm; Sun, 5-5:30 am. See HVI.		am-l pm; 6-10 pm, Week-days, 11:45 am-l pm; 6-10 pm. "Radio Teatro Estrella de Panama." Sign off with "Anvil Chorus." Radio Teatro, Aptdo. 954.
9670	I2RO9	Rome, Italy. 100 kw. See "Rome." (12:40-5:30 pm; 6-6:30 pm).	11705 JLG3 11705 SBP	Tokyo, Japan. See "Tokyo." (8-8:30 pm). Stockholm, Sweden. 500 w.
9675	DJX	Berlin, Germany. 10:35 am- 4:25 pm. See "Berlin" at end of list.		Sun, 1:15-4:15 pm; Wed, Sat, 8-9 pm; Daily 1-4:15 pm. Telegrafyerket Tianstebrey 5.
	TGWA · · ·	Guatemala Cirv, Guat. 10 kw. See "TGWA." (Sun, 7 pm-midnight; Weekdays, 7:30 pm-12:15 am). Baghdad, Iraq. Qasr-El-	11718 CR7B1	H Lourenco Marques, Port. E. Agrica. 200 w. Radio Club de Mocambique, Caixa 594. (Sun, 5-7 am; 10 am; 12 pm; Weekdays, midn't-1 am; 4:30-6:30 am; 9:30-11 am; noon-4
		Lahoor Brdcstg. Station. (3 pm).	11718 TPB6	pm).
9692	TI4NRH	Heredia, Costa Rica. 750 w. Sun, 7-8 am; Tu, Th, Sat, 9-10 pm. Amando Cespedes	TPA4	See "Paris."
		Marin, Apartado 40.	11720 CJRX	Paris, France. 7-9:15 pm; 9:30 pm-midnight, See "Paris." Winnipeg, Man. 2 kw. James Richardson & Sons, 157 Royal
9700		"Radio Martinique," Fort de France, Martinique 1500 w. 1:15-2:45 pm; 6-10 pm. Sign off with Marseillaise. Poste Seri. Boite 136.	11721 ZP14	Alexandra Hotel. Villarrica, Paraguay. "Radio Cultura." (7:07-9:07 pm).
9730	CB970	Seri. Boite 136. Valparaiso, Chile. (Reported on 9710). 6:30-11 pm.	11730 PHI	Huizen Netherlands. 23.6 kw. See Hilversum.
0777	77 0		WSLA	
9755	ZRO	Durban, Union of So. Africa. 200 w. See "Johannesburg." (Sat, 3:30-7:30 am; 9-11:15 am; 11:20 am-4 pm; Sun, 5:30-7 am; 9-11:15 am; 11:20	11730 WSLR	Boston, Mass. 20 kw. See "WSLA."
		am; 11:20 am-4 pm; Sun, 5:30-7 am; 9-11:15 am; 11:20	11735 LKQ	Oslo, Norway. 5 kw. See
		am-3:20 pm; Other days, 3:30-7:30 am; 9-11:15 am; 11:20 am-3:45 pm).	11740 HVJ	Oslo, Norway. 5 kw. See "Oslo." (11 am-2 pm). Vatican City. 15 kw. Tues, 8:30-9 am. See HVJ.
9835	IRF	Rome, Italy. 20 kw. See "Rome." (5:20-5:40 am; noon-12:25 pm; 12:40-1 pm; 1:50-2:30 pm; 6-9 pm).	11750 GSD	London, Gt. Britain. 20 kw. "D For Daventry." See "London." (1:30-3:50 am; 12:35-4 pm; 4:20-6 pm; 6:20-9:15 pm; 9:40-11:30
	EAQ	Madrid, Spain.	11760 TGWA	pm).
9925	JDY	Dairen, Kwantung. 10 kw. 7-8 am. Manchuria Tele- phone and Telegraph Co.	11700 TGWA	Guatemala City, Guat. 10 kw. Sun, 12:45-5:15 pm; Week- days, 12:45-1:45 pm. See TGWA.
9985	СОСМ	Havana, Cuba. 1 kw. Relays CMCM, "Trans Radio Colum- bia," 23 No. 1113, Vedado.	11770 DJD	Berlin, Germany. 50 kw. 11:30 am-4:30 pm; 4:50-10:50 pm. See "Berlin."
10220 .	PSH	Rio de Janeiro, Brazil. 12 kw. Relays PRF4; signs off with Brazilian National Hymn. Cia. Radio Internacional do Brasil, Caixa Postal 709. (Weekdays, 6-7 pm; M, 8-8:30 pm; F, 7-7:30 pm).	11770 MTCY 11780 HP5G	Hsingking, Manchukuo, Panama City, Pan. 750 w. "Ron Dalley." Opens, closes, with Prelude from "Traviata." Salvador Graziani, Box 1121. (6-10 pm).
10330	ORK	Brussels, Belgium. 11 kw. 1:30-3 pm.	11780	Saigon, Fr. Indo-China. "Radio Saigon." (6 am).
10660	JVN	Tokyo, Japan.	11790 WSLA	Boston, Mass. 20 kw. See "WSLA."
10740 11402		Tokyo, Japan. Geneva, Switzerland. "Radio Nations." Sun, 7-7:45 pm.	11800 JZJ	Tokyo, Japan. 50 kw. See "Tokyo." (7-9:30 am; 2:30-4 pm).

11801		Vienna, Germany. 50 kw. See "Berlin." (4:50-10:50 pm).	15120 HVJ	Vatican City. 15 kw. Tues, 10:30-11 am; Sun, 1-1:30 pm.
11810	I2RO4	Rome, Italy. 100 kw. See "Rome." (4:30-4:55 am; 5-7:25 am; 7:30-8:45 am; 10 am-3 pm; 6-9 pm).	15130 TPB11	See HVJ. Paris, France. 25 kw. 2-5 am See "Paris." Boston, Mass. 20 kw. See "WSLA."
		am-3 pm; 6-9 pm).	WSLA	Boston, Mass. 20 kw. See
11820 11830	GSN WCBI	London, Gt. Britain. Chicago, Ill. 500 w. See "WCBI."	15130 WSLR	"WSLA." Boston, Mass. 20 kw. See "WSLA."
11830	WCBX		15140 GSF	London, Gt. Britain. 15 kw.
		See "WCBX." (Sun, 3-6 pm; Daily exc. Sun, 4-6 pm; Daily 6:30-10 pm).		"F For Fortune." See "London." (5:45-8:50 am; 9 amnoon; 4:20-6 pm; 6:20-9:15 pm).
11840	OLR4A	Prague, Bohemia. 35 kw. "Radio Podebrady." (M, Tu, W, Th, F, 8-10:30 am; Sun, 7:15-9:55 pm).	15160 JZK	Tokyo, Japan. 50 kw. See "Tokyo." (Midnight-1:30 am; 7-9:30 am; 2:30-4 pm).
11850	HAD	Budapest, Hungary. (2-6 pm).	VUD3	Delhi, India. 5 kw. 2-4:15
	VUM2	Budapest, Hungary. (2-6 pm). Madras, India 10 kw. 4-4:30 am. All-India Radio.	77 77 77 77 77 77 77 77 77 77 77 77 77	India Radio.
	WPIT	Pittsburgh, Pa. 40 kw. See "WPIT." (2-11 pm). Melbourne, Australia. 1-3 am.	XEWW	Mexico City, D. F. 10 kw. "La Voz de la America Latina desde Mexico," Apido. 2516.
, 11880	VLR3	Melbourne, Australia. 1-3 am. See VLR.	15170 LKV	Oslo, Norway. 5 kw. See
11885	TPA3	Paris, France. 25 kw. 2-5 am; 11:15 am-6 pm. See "Paris."		Oslo.
	MDD 7	"Paris."	15170 TGWA	Guatemala City, Guat. 10 kw. See "TGWA." (Sun, 12:01-
	TPB7	Paris, France. 25 kw. 9:30 pm-midnight. See "Paris."		See "IGWA." (Sun, 12:01- 1 am; 10:30 am-5:15 pm; Weekdays, 7:45-9 am; 12:45-
11900	I2RO13	Rome, Italy. 100 kw. See	15180 GSO	3:45 pm).
11900	XGOY	Chungking, China. Central	400	London, Gt. Britain. "O For Ocean." See "London." (4:20-6 pm; 6:25-9:20 pm).
11900	XMHA	am; 11-11:30 am; 4-6:30 pm). Shanghai, China. 445 Race-course Road. (Reported on	15195 TAQ	Ankara, Turkey. 20 kw. Turkish Brdcstg. System. Daily 5:30-7 am.
11900	• • • •	11840 and 11857). (6 am). Hanoi, Fr. Indo-China. "Radio Hanoi II." 20 rue de la Pepiniere. (Sat. 8:30-10:30 pm; Sun, 12:01-9:30 am; Other days, 12:01-2:30 am;	15200 DJB	Berlin, Germany. 8 kw. See "Berlin." (5-11 am; 4:50- 10:50 pm; Sun, 11:10 am- 12:25 pm).
		Other days, 12:01-2:30 am; 6-9:30 am).	15210 WPIT	Pittsburgh, Pa. 40 kw. See
11930	PPH	Rio de Janeiro, Brazil. (5:30 am).	15220 PCJ2	Hilversum, Netherlands. 60 kw. See "Hilversum." (Sun. 7:40.9:05 am: M. Th. 7:40.0
11960	HI2X	Trujillo, D. R. 900 w. Relays HIX. J. R. Saladin, Gobierno Dominicano. (Sun, 7:40-10:40 am).		Hilversum, Netherlands. 60 kw. See "Hilversum." (Sun, 7:40-9:05 am; M, Th, 7:40-9 am; Tu, 1-2:30 am; W, 9:30-11:30 am; Tu, W, F, Sat, 7:40-8:45 am).
12220	COCE	7:40-10:40 am).	15240 CR7BD	Lourenco Marques, Mozama
12230	COCE	Havana, Cuba. "La Voz del Transporte," Prado 18. (8 am-midn't.)	•	bique. Radio Club de Mocam- bique, Box 594. (Sun, 5-7 am; 10 am-2 pm; Other days,
12235	TFJ	Reykjavik, Iceland. 7500 w. Sun, 1:45-2:30 pm Icelandic State Broadcasting Service,		midn't-1 am; 4:30-6:30 am; 9:30-11 am; noon-4 pm).
		State Broadcasting Service, Box 547.	15243 TPA2	Paris, France. 25 kw. 6-11
12460	нсјв	Quito, Ecuador. (Reported on 12450). Clarence W. Jones, Casilla 691. (Daily exc. Mon, 10-11 pm).	15260 GSI	Paris, France. 25 kw. 6-11 am. See "Paris." London, Gt. Britain. "I For Island." See "London." (1:30 am-3:50 am; 12:25-4 pm).
13900	YN3DG		15270 WCBX	New York, N. Y. 10 kw. See "WCBX." (Sun. 1-2:30
14125	YV9AB	In Venezuela on Guiana- Brazil Border. Expedicion de la Gran Sabana, Ministerio de Fomento, Caracas.	15280 DJQ	pm). New York, N. Y. 10 kw. See "WCBX." (Sun. 1-2:30 pm; Other days, 1-3:30 pm). Berlin, Germany. 50 kw. Daily, 12:05-11 am; 4:50- 10:50 pm. See "Berlin."
14795	IQA	Rome, Italy. See "Rome." (4:30-4:55 am).	15280 HI3X	Trujillo, D. R. 900 w. (Reported on 17400). Relays HIX. Secretaria de Comuni-
14935	PSE	Rio de Janeiro, Brazil. W, 4- 4:10 pm; Th, Sat, 3-3:30 pm).		Caciones y Obras Publicas, (Tu, F, 8:10-10:10 pm; Sun, 7:40-9:40 pm).
15110	DJL ·	Berlin, Germany. 50 kw. 12:05-2 am; 8-9 am; 10:35 am-4:25 pm. See "Berlin."	LRU	Buenos Aires, Argentina. 5 kw. 8 am-1 am. "Radio El Mundo," Calle Maipu 555.

15300 I2RO6	Rome, Italy. 100 kw. See "Rome." (4:10-4:55 am; 10	26050 W9XH South Bend, Ind. 100 w. South Bend Tribune. (Week-
15200 T W74	am-12:06 pm; 1:40-2:30 pm; 3-5:30 pm; 7:30-9 pm).	days, 1:30-5:30 pm). 26300 W3XJI Newark, N. J. (WOR). (Sat, 4-4:45 pm).
15300 LYZ4	Kaunas, Lithuania. (Reported on 15130). (Sun, 1 pm).	26500 W9XTA Harrisburg, Ill. 500 w.
15310 GSP	London, Gt. Britain. "P For	Schenert Radio Service.
	Progress." See "London."	(Ham Forum Saturday at
	(12:17-1:15 pm; 1:15-4 pm;	2:15 pm).
	4:20-6 pm).	30660 W3XAB Camden, N. J. RCA Mfg. Co. 30820 W9XEG Aurora, Ill. 6 w. Martin R.
15330 KGEI	San Francisco, Calif. 20 kw. See "KGEI." (1-4 am; 5-8	O'Brien.
	am; 12:30-8 pm).	31100 W3XIW Reading, Pa.
15340 DJR	Berlin, Germany. 50 kw.	31600 WIXEQ Fairhaven, Mass. WNBH.
	See "Berlin." (4:55-10:50	W1XER Boston, Mass. The Yankee Network.
4.5.4.0	pm).	W1XKA Boston, Mass. WBZ.
15410	Bucuresti, Romania. 50 kw. "Radio Bucuresti," (9-10:15	W1XKB Springfield, Mass. WBZA.
	pm).	W1XOE Boston, Mass. CBS.
17760 DJE	Berlin, Germany. 50 kw.	W2XDG New York, N. Y. WEAF-
	See "Berlin." (12:05-5:50	WJZ.
	am; 6-7:45 am; 8-11 am;	W2XDV New York, N. Y. WABC. W2XHG Bound Brook, N. J. WJZ.
	11:10 am-12:25 pm; 4:55-9 pm).	W3XES Baltimore, Md. WCAO.
17770 PHI2	Huizen, Netherlands, 23.6	W3XEX Norfolk, Va. WTAR.
17770 11112	kw. See "Hilversum." (Sun,	W3XEY Baltimore, Md. WFBR.
	6:40-10:05 am; M, Th, 7:40-	W3XIR Philadelphia, Pa. WCAU.
	9 am; Tu, W, F, Sat, 7:40-	W3XKA Philadelphia, Pa. KYW.
	8:45 am).	W4XBW Chattanooga, Tenn. WDOD. W4XCA Memphis, Tenn. WMCA.
17785 JZL	Tokyo, Japan. See "Tokyo."	W5XAU Oklahoma City, Okla. WKY.
17790 GSG	(4:30-:530 pm; 8-8:30 pm). London, Gt. Britain. 5:45-	W5XD Dallas, Texas.
17790 GSG	8:50 am; 9 am-noon; 12:20-4	W5XGB Pasadena, Texas, Houston
	pm. See "London."	Lighting & Power Co.
17800 TGWA	Guatemala City, Guat. 10 kw.	W5XGC Humble, Texas. Houston Lighting & Power Co.
17810 GSV	See "TGWA." London, Gt. Britain. 5:45-	W6XAS San Francisco, Calif. KJBS.
17010 GSV	8:50 am; 12:20-4 pm. See	W6XXT Portable. Press Wireless, Ltd.
	"London."	W8XAI Rochester, N. Y. WHAM.
17840 HVJ	Vatican City. 15 kw. See	W8XH Buffalo, N. Y. WBEN.
	HVJ.	W8XKA Pittsburgh, Pa. KDKA.
21470 GSH	London, Gt. Britain. 5:45-	W8XNT Cleveland, Ohio. WGAR.
	8:50 am; 9 am-noon. See "London."	W8XOY Akron, Ohio. WADC. W8XWJ Detroit, Mich. WWJ.
21520 WCAB	Philadelphia, Pa. 10 kw. See	W9XBS Chicago, Ill. WENR.
21320 11 0112	"WCAB." (Noon-6 pm).	W9XER Kansas City, Mo. KMBC.
21530 GSJ	London, Gt. Britain. 5:45-	W9XHW Minneapolis, Minn. WCCO.
	8:50 am. See "London."	W9XLA Denver, Colo. KLZ.
21540 WPIT	Pittsburgh, Pa. 40 kw. See	W9XOK St. Louis, Mo.
OUTSE DIT	"WPIT." (5:30-9 am).	W9XPD St. Louis, Mo KSD.
21565 DJJ	Berlin, Germany. 6-7:50 am. See "Berlin."	W9XUY Omaha, Nebr.
21570 WCBX.	New York, N. Y. 10 kw.	42460 W9XER Kansas City, Mo. 500 w.
	See "WCBX." (8 am-12:30	Midland Brdcstg. Co., Inc. 300000 W4XFM Nashville, Tenn. Nat'l, Life
	pm).	and Accident Ins. Co.
21680 HAD	Budapest, Hungary. (11 am-	
	2 pm).	

25950 W8XNU Cincinnati, Ohio. 1 kw. Crosley Corp. (Sun, 8 am-1 am; Other days, 7 am-1 am). The Addresses were given in the October issue, and will be printed again in December.

DXer's Appointment Calendar

The time shown in this Calendar is EST. For CST, subtract 1 hour; for MST, subtract 2 hours; for PST, subtract 3 hours: for GMT, add 5 hours.

tract 3 hours; for GMT, add 5 hours.

Clubs: Newark News Radio Club (NNRC);
Universal Radio DX Club (URDXC); Cleveland Radio Club (CRC).
Oct. 27, 8 pm, meeting of Brooklyn-Metropolitan Chapter, The Radex Club, 6637 Ovington Court, Brooklyn, N. Y.
Oct. 29, 1-2 am, WCPO, Cincinnati, Ohio, 1200 kcs., "Parade Across Ohio" for NNRC.
Oct. 29, 1-2 am, TG1 on 1310 and TG2 on 6190 will dedicate a special program to RADEX, arranged by Prof. Carlo Spatari. This station verifies free of charge. Address Col. Eduardo Perez F. Director General of Communications, Radio Morse, Guatemala City, Guat.
Oct. 31, 3-5 am, LS11, La Plata, Argentina, 30 kw., 1310 kcs. Send IRC for veriest Cadio Provincia. (Arranged by Wm. Cunningham for URDXC).
Nov. 2, 1:30-2 am, WLW on 700 and WLWO on 6060 kcs., Cincinnati, Ohio, for National Lutheran Radio Week. Reports to Pastor Barth, c/o WLW.
Nov. 6, 8 pm, meeting of the Irvington Chapter of The Radex Club, at 870 Sanford

Nov. 6, 8 pm, meeting of the Irvington Chapter of The Radex Club, at 870 Sanford

Ave., Irvington, N. J.
Nov. 8, 4:30-4:45 am, WEOA, Evansville,
Ind., 1370 kcs, "Parade Across Indiana,"

Ind., 1370 kcs, "Parade Across Indiana," for NNRC.
 Nov. 9, 4:25-4:40 am, WGBF, Evansville, Ind, 630 kcs., "Parade Across Indiana" for

NNRC.
Nov. 12, 10-10:10 am, YL2CD, 28080 kcs.
Cand reports to A. Vitolius, Miera-iela, Send reports to A. Vitolius, Miera-iela, 52-5, Riga, Latvia. (Arranged by J. E. Gardner, for CRC).

Nov. 13, 3:30-3:45 am, WQDM, 1390 kcs., St. Albans, Vt. Talks on ham radio.



Verification from "Radio Morse," Guatamala City, with message printed in the Spatari Radio Language. The picture is green, the printing blue and the wireless decoration on the top is gold. (Courtesy of Erick R. Johnson).

Nov. 15. 4-6 am. ZP15 on 700 kcs. and ZP14 on 11721 kcs., Villarrica, Paraguay. Arranged by Wm. Cunningham for URDXC. Nov. 18, 2-5 am, WGNC, Gastonia, N. C.,

1420 kcs. (NNRC).

Nov. 19, 10-10:10 am, YL2CD, 28080 kcs. Send reports with IRC to A. Virolus, Miera-iela, 52-5, Riga, Latvia. Arranged by J. E. Gardner for CRC.

Nov. 24. 8 pm, meeting of Brooklyn-Metropolitan Chapter, The Radex Club, 6637 Ovington Court, Brooklyn, N Y.

Nov. 24, 2-3 am, WGRC. New Albany, Ind., 1370 kcs., "Parade Across Indiana," for NNRC.

Dec. 8, 1:30-5: Norfolk, Nebr. 1:30-5:30 am, WJAG, 1060 kcs.,

Regular DX Programs

First day of month, 4-4:30 am, WPAY, 1370 kcs., Portsmouth, Ohio.

Last day of month, 3-5 am, KWSC, 1220 kes., Pullman, Wash.

Every Saturday, 2:30-2:45 am, KLS, 1280 kcs., Oakland, Calif.

Every Saturday, 10:15-10:30 am, WEEU, 836 kcs., Reading, Pa.

Every Saturday at 10 pm, YN3DG, 13906 kcs.. Leon, Nicaragua. (Spatart-10c for

Every Saturday, 4:15-4:45 pm, W2XJI, 26300 kcs., Newark, N. J. (NNRC tips).

Every Saturday, 10 pm, YN3DG, 13900 kcs., Leon, Nicaragua. (Spatari program).

Every Sunday, 2-2:30 am, TG1 on 1310 and TG2 on 6190 kcs., Guatemala City, Guat.

Every Sunday, 10:15-10:45 am, CFCO, 630 kcs., Chatham, Ont.

Every Sunday, 3-Tijuana, B. Cfa. 3-5 am, XEAC, 980 kcs.,

Every Sunday, 12:30-1 am, TGQA on 6400 and TGQ on 1450 kcs., Quezaltenango, Guatemala. (Spatari program, all reports verified free).

First Sunday, at 1 am, YN3DG, 13900 kcs., Leon, Nicaragua. (Spatari program).

First and Third Sunday, 2-4 am, WJBO, 1120 kcs., Baton Rouge, La.

Every Tuesday, 11:45 am-noon, W9XA, 26456 kcs., Kansas City, Mo.

Every Wednesday, 12:30 am, KOY, 1390 kcs., Phoenix, Ariz.

First and Third Wednesday, 1:45-2 pm. WTAR, 780 kcs., Norfolk,

Every Thursday, 2:45-3 am, KSL, 1130 kcs., Salt Lake City, Utah. (Spatari announcements).

1st to 7th, midnight to 6 am, KPAB, 1500 kcs., Laredo, Tex. (Mexico Tourist Program; Mexican souvenirs sent to reporters).

8th to 14th, midnight to 2 am, KPAB, 1500 kcs., Laredo, Tex. (Mexico Tourist Program; Mexican souvenirs sent to reporters).

15th to 31st, midnight to 6 am, KPAB, 1500 kes., Laredo, Tex. (Mexico Tourist Program; Mexico souvenirs sent to reporters). Second Friday, 12:30-1 am, WJAG, 1060 kes., Norfolk, Nebr.

The WORLD'S Radio Stations

(Continued From October Issue)

A complete listing of the radio stations of the world, from 500 kcs to 500,000 kcs.

The addresses and broadcasting schedules of the shortwave broadcasting stations are not shown in this list. Readers are referred to The Shortwave Broadcasting Station List for this information.

2500	KNKA	C		Grand Canyon, Ariz. (North Rim)
2506	XEXP KLH WOU	B ••	30	Monterrey, N. L. Presidencia Municipal. San Rafael, Calif. Pacific Teleg. & Telephone Co.
		••	••••	Marshfield, Mass. New England Telephone & Teleg. Co.
2512	KGJK	S	••••	"Jeannette E." Skinner & Eddy Corp.
	KGM KGNM	s s	• • • •	Ketchikan, T. A. Same as KGJK. "Doris E." Same as KGJK. "Yes Bay." Same as KGJK.
	KGNX	š		"Yes Bay." Same as KGIK.
	KIAO	••	••••	Rose Inlet, T. A. Alaska Pacific Salmon Co.
	KIAP	••	• • • •	Rose Inlet, T. A. Same as KIAO.
	KIAV	٠	• • • •	Port Althrop, T. A. Same as KIAO.
•	KIAW	••	• • • •	Port Althrop, I. A. Same as KIAO.
1	KIAX KIAY	• • • • • • • • • • • • • • • • • • • •	••••	Rose Inlet, T. A. Alaska Pacific Salmon Co. Rose Inlet, T. A. Same as KIAO. Port Althrop, T. A. Same as KIAO. Port Althrop, T. A. Same as KIAO. Ketchikan, T. A. Same as KIAO. Ketchikan, T. A. Same as KIAO. Ketchikan, T. A. Same as KIAO.
	KIAZ	::		Kake, T. A. Same as KIAO.
	KIBA	•••	••••	Volta T A Cama as TILAO
	KLB			Rake, T. A. Same as KIAO. Port Althrop, T. A. Same as KIAO. Kake, T. A. Same as KIAO. Rose Inlet, T. A. Same as KIAO. "Wm. T. Muir." Same as KGJK. "France F." Same as KGJK.
	KLC	• •	• • • •	Kake, T. A. Same as KIAO.
	KLE	•:	••••	Rose Inlet, T. A. Same as KIAO,
	WDEM WFFR	5	••••	"Frances E" Same as KGJK.
	WIDL	š	••••	"Leonine" Same as KCIK
	WIDM	š	••••	
	WIDN	SSSSSSS	• • • •	"Virginia E." Same as KGIK.
	WNFM		****	"Alco." Same as KGJK.
2514	WCY	CHT	400	West Dover, Ohio. (600 w. days). Radiomarine Corp.
	WDR	CHT	400	Miami Beach, Fla. Southern Bell Te. & Teleg. Co.
2515	KAKL	CT	••••	Kasaan, T. A. Pacific American Fisheries, Inc.
	KIDB	CH	••••	Kasaan, T. A. Same as KAKL. Kasaan, T. A. Same as KAKL.
2520	KZS KNJB	CH F	••••	Kasaan, T. A. Same as KAKL.
2320	KNKP	F	••••	Yellowstone Nat'l. Park, Wyo. Rocky Mt. Nat'l. Park, Colo.
2522	KOW	Ť		Edmonds, Wash. Pacific Telephone & Teleg. Co.
	woo	T	• • • •	Ocean Gate, N. J. Am. Tele. & Teleg. Co.,
				Long Lines Dept.
2530	WCT	CHT	400	San Juan, P. R. Radio Corp. of P. R.
0520	wox	С	••••	St. George, S. I., N. Y. New York Tele, Co.
2538	KALG KALI	••	••••	Squaw Harbor, T. A. Lazy Bay, T. A.
	KALI		••••	
	KDK	• • • • • • • • • • • • • • • • • • • •	••••	King Cove, T. A. Wrangell, T. A. A. R. Brueger.
	ŘFC	CH	50	Hood Ray, T. A. Hood Ray Canning Co.
	KILD		• • • •	Cordova (Eyak River) T. A.
	KLU	cii	••••	Cordova (Eyak River) T. A. Sitka, T. A. Pyramid Packing Co. Seldovia, T. A. Cook Inlet Packing Co. (Ministrate)
	KMK	СH	10	Seldovia, T. A. Cook Inlet Packing Co.
	WOMW WOMX	20		"Minniehaha." "Empress."
	WOMY	š		"Glenwood."
	WOPE	S S S T	••••	"Admiralty."
2542	KLH		••••	San Francisco, Calif. Pacific Tele. & Teleg. Co.
·2550	WAD	$\mathbf{c}_{\mathbf{HC}}$	• • • • •	Pt. Washington, Wis. Lorain County Radio Corp.
	WAS	CH	400	Duluth, Minn. Same as WAD.
	WAY	CHT	400	Lake Blun, III. I norne Donnelley.
2558	WMI WAK	CHC CC	500 400	Duluth, Minn. Same as WAD. Lake Bluff, Ill. Thorne Donnelley. Lorain, Ohio. Same as WAD. Port Sulphur, La. Southern Bell Tele. & Teleg.
4330	WAK .	CC	400	Co.
2566	KADY	T	40	Petersville, T. A. W. N. Cuddy.
	KFF	••	••••	Petersville, T. A. W. N. Cuddy. Union Bay. T. A. Nakat Packing Corp., Dexter
		-		Horton Bldg., Seattle, Wash. "A & P Nakeen." Same as KFF.
	KGFQ	S	••••	"A & P Nakeen." Same as K.F.F.

				•
	777737			Nakeen, T. A. Same as KFF. Waterfall, T. A. Same as KFF. Nakeen. T. A. Same as KFF. Waterfall, T. A. Same as KFF. Hidden Inlet, T. A. Same as KFF. Wilmington, Calif. Southern Calif. Tele. & Teleg. Co.
	KHV	Ϋ́	• • • •	Warnefall T A Same as n. F.
	KIBZ		• • • •	Walerian, T. A. Same as KIF.
	KICC	••	• • • •	Wasseful T A Come as VFF
	KLA KLD	••	• • • •	Waterian, I. A. Same as KFF.
		••	• • • •	Hidden Inlet, T. A. Same as KFF. Wilmington, Calif. Southern Calif. Tele. &
	KOU	••	••••	Teleg Co
	700	CH	25	Wilmington, Calif. Southern Calif. Tele. & Teleg. Co. Teleg. Co. A. Alaska Traders. "Ruth B." Same as KFF. "Genevieve H". Same as KFF. "Rudolph N." Same as KFF. "Hazel Robb." Same as KFF. "Barron F." Same as KFF. "Barron F." Same as KFF. "Sacco." Same as KFF. "Lummi Bay." Same as KFF. "Lummi Bay." Same as KFF. "Superior." Same as KFF. "Ouaker Maid." Same as KFF. "Petrel." Same as KFF. "Petrel." Same as KFF. "Nakeen." Same as KFF. "Nakeen." Same as KFF. "West Dover, Ohio. (600 w. days). Radiomarine
	KQO WFFW	CII		"Ruth B." Same as KFF.
	WHFF	š		"Genevieve H". Same as KFF.
	wind	Š		"Rudolph N." Same as KFF.
	WIDR	š		"Hazel Robb." Same as KFF.
	WIDS	š		"Barron F." Same as KFF.
	WIDT	Š.		"Sacco." Same as KFF.
	WNFN	Š	••••	"Lummi Bay." Same as KFF.
	WNFN WOFJ	š		"Superior." Same as KFF.
	WOFL	š	• • • •	"Quaker Maid." Same as KFF.
	WRBR	Ŝ	• • • •	"Frederick C." Same as KFF.
	WRBS	S		"Petrel." Same as KFF.
	WSBM	S	9 • • • •	"Nakeen." Same as KFF.
2572	\mathbf{wcy}	CH	400	West Dover, Ohio. (600 w. days). Radiomarine
				Corp.
2590	KOU	Ţ	• • • •	Wilmington, Calif. Southern Calif. Tele. Co. Glacier Nat'l. Park, Mont.
2600	KNIA	F. T	• • • • •	Secreta Week Alector Tole Co 517 Federal
2 604	WVD	1	500	Office Bldg
	WXA	T	400	Seattle, Wash. Alaskan Tele. Co., 517 Federal Office Bldg. Juneau, T. A. U. S. Signal Corp. Ketchikan, T. A.
	WXH			Ketchikan, T. A.
2608	WXH KNCI	$\mathbf{F}\mathbf{A}$		Monroe, La. Aeronautical Radio, Inc. Dallas, Texas. Same as KNCI.
	KNCT	$\mathbf{F}\mathbf{A}$		Dallas, Texas. Same as KNCI.
	KNCJ KNCY	$\mathbf{F}\mathbf{A}$		Shreveport, La. Same as KNCI. Jackson, Miss. Same as KNCI.
	WAID	$\mathbf{F}\mathbf{A}$	• • • • •	Jackson, Miss. Same as KNCI.
	WAJE	$\mathbf{F}\mathbf{A}$	300	Birmingham, Ala. (600 w. days). Same as
	TIT A D.C.	T2 A	45	KNC1.
	WARG WEEA	FA FA	45	Atlanta Ca. Same as KNCI.
*	WEEC	FA	·····	Charleston S C. Same as KNCI
	WEEF	fΑ		Spartanburg, S. C. Same as KNCI.
	WEEG	FA		Greensboro, N. C. Same as KNCI.
	WEEL	FA	••••	Jacksonville, Fa. Same as KNCI.
	WEEK KGTF KGUA	$\mathbf{F}\mathbf{A}$	• • • •	S. Washington, Va. Same as KNCI.
2612	KGTF	$\mathbf{F}\mathbf{A}$	• • • •	Ft. Worth, Tex. Aeronautical Radio, Inc.
	KGUA	$\mathbf{F}\mathbf{A}$		El Paso, Texas. Same as KGTF.
	KGUG	$\mathbf{F}\mathbf{A}$	• • • •	Big Spring, Tex. Same as KGTF.
	KGUP	FA	• • • •	Phoenix, Ariz. Same as KGIF.
	KGUQ	FA	• • • •	Clandola Calif American Airlinea
	KGUR KGUS	FA	• • • •	Rlythe Calif Same as KGTE
	KGUS KCUT	FA FA	••••	Robertson Mo Same as KCTF
	KGUT KIOO	FA	••••	Oklahoma City, Okla, Same as KGTF.
	ĸios	FA	• • • •	Springfield, Mo. Same as KGTF.
	KIOT	FA		Tulsa, Okla. Same as KGTF.
2616	KIOT KAEB	FAT	40	Hydaburg, T. A. Territory of Alaska.
	KAED	T	40	Angoon, T. A. Same as KAEB.
	KAEF	Т	40	Jack Wade, T. A. Same as KAEB.
	KAEH	$\underline{\mathbf{T}}$	• • • •	Kake, T. A. Same as KAEB.
	KAEP	T		Jenakee, I. A. Same as KAEB.
	KAEW	T	50	Hood Pay T A Hood Pay Coming Co
	KAG1 KAJJ KAJU	T		Atla T A Same as VAFR
	KAJJ	ት	••••	Attu T A Same as KAEB.
	KAJU	TTTTTTTTT	• • • •	Vakutat T A Same as KAFR
	KAKJ		50	Port Oceanic, T. A. Oceanic Fisheries Co.
	KAMY	τ̈́		Unalaska, T. A. Same as KAEB.
	KAOF KBNO	T T T FA FA	io	Haycock, T. A. Wien Alaska Airlines, Inc.
	KGXW	Ť		Port Alexander, T. A. Karl Hansen,
	WGLM	$\mathbf{F}\mathbf{A}$	50	Middleriver, Md. Aeronautical Radio, Inc.
	WGLN '	$\mathbf{F}\mathbf{A}$	50	Portable on crash boat. Same as WGLM.
2630	KYZA KYZF	- G G	• • • •	Birmingham, Ala. (600 w. days). Same as KNCI. Augusta, Ga. Same as KNCI. Charleston, S.C. Same as KNCI. Spartanburg, S. C. Same as KNCI. Greensboro, N. C. Same as KNCI. Jacksonville, Fa. Same as KNCI. S. Washington, Va. Same as KNCI. Ft. Worth, Tex. Aeronautical Radio, Inc. El Paso, Texas. Same as KGTF. Big Spring, Tex. Same as KGTF. Phoenix, Ariz. Same as KGTF. Indio, Calif. Same as KGTF. Robertson, Mo. Same as KGTF. Oklahoma City, Okla. Same as KGTF. Hydaburg, T. A. Territory of Alaska. Angoon, T. A. Same as KAEB. Hydaburg, T. A. Same as KAEB. Lack Wade, T. A. Same as KAEB. Lack Wade, T. A. Same as KAEB. Lond Bay, T. A. Hood Bay Canning Co. Atka. T. A. Same as KAEB. Vakutat, T. A. Same as KAEB. Port Oceanic, T. A. Oceanic Fisheries Co. Unalaska, T. A. Same as KAEB. Port Oceanic, T. A. Karl Hansen. Middleriver, Md. Aeronautical Radio, Inc. Port Alexander, T. A. Karl Hansen. Middleriver, Md. Aeronautical Radio, Inc. Port Alexander, T. A. Same as KYEA. El Paso, Tex. U. S. Immigration Border Patrol. Alpine, Tex. Same as KYZA. Tucson, Ariz. Same as KYZA. Port Oceanic, T. A. Oceanic Fisheries Co. Port Williams, T. A. Washington Fish & Oys-
	KYZF	G	• • • •	Alpine, Tex. Same as KYZA.
0600	KYZG		50	Port Occario T. A. Occario Pintonio C.
2632	KAMY	• •	50 50	Port Williams T. A. Weshington Fish 9 O
	KANA	• • •		ter Co
	KAPO	С	50 50	ter Co. Carmel, T. A. Alaska Red Salmon Packers, Inc. Ouzinskie, T. A. O. L. Grimes. Nonah. T. A. Icy Straits Salmon Co. Nulato, T. A. (Kqiyuh Mining District). Three Miners, Inc.
	KAOI		50	Ouzinskie, T. A. O. L. Grimes.
	KAQI KAYM	τ̈́	50	Noonah. T. A. Icy Straits Salmon Co.
	KBMQ	Ť	84	Nulato, T. A. (Kqiyuh Mining District). Three
				Miners, Inc.

	KFA KIJP	CH T	50	Hoonah, T. A. Same as KAYM. Uganik Bay, T. A. San Juan Fishering & Packing Co.
	KIJW		50	Packing Co. Shearwater Bay, T. A. Kadiak Fisheries Co.,
	KIJX KIMA	::	• • • •	Kodiak Island, T. A. Same as KIJW. Port Hobron, T. A. American Pacific Whaling
	KIOC KIOD KIOH	Ť Ť	10 50 50	Packing Co. Shearwater Bay, T. A. Kadiak Fisheries Co., 412 Lowman Co., Seattle, Wash. Kodiak Island, T. A. Same as KIJW. Port Hobron, T. A. American Pacific Whaling Co., Bellevue, Wash. Port Wakefield, T. A. Apex Fish Co. Nellie Juan, T. A. Copper River Packing Co. Iron Creek, Raspberry Straits, T. A. Southwestern Herring Co., 2212 Pacific Ave., Everett, Wash.
2640	KIOI KKAC KSZ KNBJ KNBK KNBM KNBN KNBN KNBO KNBP	T T FA FA FA FA FA	50 50 50	Akutan, T. A. Same as KIMA. Zachar Bay, T. A. Chatham Strait Fish Co.
,	KNBQ KNBR KNBS KNBU KNBV KNKS KNKU KNKW	FA FA FA F F F F F FA		Zachar Bay, T. A. Same as KKAC. Dallas, Texas. Aeronautical Radio. Inc. Brownsville, Tex. Same as KNBI. Okahoma City. Okla. Same as KNBI. Houston, Tex. Same as KNBI. Kansas City. Mo. Same as KNBI. Kansas City. Mo. Same as KNBI. Wichita Falls. Tex. Same as KNBI. Orpus Christi, Tex. Same as KNBI. Corpus Christi, Tex. Same as KNBI. San Antonio, Tex. Same as KNBJ. Ft. Worth. Tex. Same as KNBJ. Yosemite Park. Calif. Yosemite Nat'l. Park. Calif. Yosemite Nat'l. Park. Calif. Devil's Post Pile Nat'l. Monument. Calif. Devil's Post Pile Nat'l. Monument. Calif. Billings. Mont. Aeronautical Radio. Inc.
2644	KNLO KGSK KNCV KNWA KNWB KNWD WAEH WSDS	FA FA FA FA FA FA FA	400	Death Valley, Calif. Billings, Mont. Aeronautical Radio, Inc. Miles City, Mont. Same as KGSK. St. Paul. Minn. Same as KGSK. Fargo, N. Dak. Same as KGSK. Bismarck, N. Dak. Milwaukee, Wis. Chicago, Ill.
2670	NMC	G	200	San Francisco, Calif. Treasury Dept. The Commandant, U. S. Coast Guard, Washington, D. C.
	NMD NMF NMG NMH NMN	66666	200 200 200 200	Cleveland, Ohio. Same as NMC. Winthrop, Mass. Same as NMC. Mohile. Ala. Same as NMC. Washington. D. C. Same as NMC. Princes Anne (Virginia Beach), Va. Same as
	NMP NMV NMW	G G	200 200 200	NMC. Wilmette, Ill. Same as NMC. Jacksonville Beach. Fla. Same as NMC. Westport. (Grays Harbor) Wash. Same as NMC.
	NMY NNO NOB NOC NOF NOJ NOM NOP	000000000	200 200 200 200 200 200 200 200 200	Rockaway Beach, N. Y. Same as NMC. Honolulu, T. H. Same as NMC. Buffalo, N. Y. Same as NMC. Charleston, S. C. Same as NMC. St. Petersburg, Fla. Same as NMC. San Pedro (Point Vicence). Calif. Same as NMC. Fort Lauderdale, Fla. Same as NMC. Miami Fla. Same as NMC. New York (Floyd Bennett Field), N. Y. Same as NMC.
	NOO NOR NOS NOU NOV NOW NOX NOY NRGP NRID NRXV NRYA NRYB WWAK	GGGGGGGG L s	200 200 200 200 200 200 200	New Orleans, I.a. Same as NMC. San Diego, Calif. Same as NMC. Salem. Mass. Same as NMC. New London, Conn. Same as NMC. Cape May, N. F. Same as NMC. Port Angeles, Wash. Same as NMC. Biloxi, Miss. Same as NMC. Galveston. Tex. Same as NMC. U.S.C.G. "Aurora" Same as NMC. U.S.C.G. "Perseus." Same as NMC. U.S.C.G. "Tahoe." Same as NMC. U.S.C.G. "CG254." Same as NMC. U.S.C.G. "CG250" Same as NMC. U.S.C.G. "CG260." Same as NMC. S. S. "Velasco."
2698	ксво	LH	••••	Tillamook Rock, Ore.

				•
	NMC	G	••••	San Francisco (Pt. Bonita), Calif. Treasury Dept., The Commandant, U.S. Coast Guard,
	NMW	G	••••	Washington, D. C. Westport (Grays Harbor), Wash. Same as
	NOJ	G		NMC. San Pedro (Point Vincente), Calif. Same as NMC.
2710	KYZM	G	• • • •	Lynden, Wash. U. S. Immigration Border Patrol. Detroit, Mich. Same as KYZM. Marine City. Mich. Same as KYZM. Burbank Calif. Aeronautical Radio. Inc.
	WWMA	G G		Detroit, Mich. Same as KYZM.
2720	WWMC KAFH	FA	500	Burbank, Calif. Aeronautical Radio, Inc. Salt Lake City, Utah. Same as KAFH. Las Vegas, Nev. Same as KAFH. Glendale, Calif. Same as KAFH. Kansas City. Mo. Same as KAFH.
2,20	KAFH KCTH	FA FA		Salt Lake City, Utah. Same as KAFH.
	KGTĴ KSI	FA FA		Glendale Calif Same as KAFH.
	KST	FA		Kansas City. Mo. Same as KAFH.
	KSX	FA		Albuquerque, N. Mex. Same as KAFH. Newark, N. J. Same as KAFH. Chicago. Ill. Same as KAFH.
	WAEF WAEO	FA FA		Newark, N. J. Same as KAFH.
	WHG	FA		Columbus, Ohio. Same as KAFH.
2726	KAGJ KAGK	SFM SEM	250	Columbus, Ohio. Same as KAFH. Shreveport, La. Root Petroleum Co.
	KAGK KAIV	SEM SEM	250 50	Perris Calif. Stare of Calif. Dept. of Natural
	KAIV	Silin	50	Shreveport, La. Roof Petroleum Co. El Dorado, Ark. Same as KAGJ. Perris, Calif. State of Calif. Dept. of Natural Resources, Div. or Forestrv. Yucaipa, Calif. Same as KAIV. Portable. Same as KAIV. Alhambra, Calif. Southern Calif. Edison Co. Salt Lake City, Utah. Telegram Pub. Co. Portable—Salt Lake City. Same as KASY. Grass Valley, Calif. Idaho Maryland Mines Corn.
	KAIW	$_{ m SEM}$	50	Yucaipa, Calif. Same as KAIV.
	KAIX KAMB	SEM	50	Alhambra, Calif. Southern Calif. Edison Co.
	KASY KASZ	SEM SEM	100	Salt Lake City, Utah. Telegram Pub. Co.
	KASZ KATA	SEM SEM	50	Grass Valley Calif Idaho Maryland Mines
	KAIA			Corp.
	PATR	SEM	50 53	Forbestown, Calif. Same as KATA.
	KATR K.\\\ J	SEM SEM	500	Norden, Calif. Southern Pacific Co.
	KAWK	SEM	50	Emigrant Gap. Calif. Same as KAWJ.
	KIIW	SEM	175	trol District 205 So. Broadway, L. A.
	KIIY	SEM	400	Corp. Forbestown, Calif. Same as KATA. Mt. Shasta City, Calif. Same as KAIV. Norden, Calif. Southern Pacific Co. Emigrant Gap. Calif. Same as KAWJ. Los Angeles, Calif. L. A. County Floof Control District, 205 So. Broadway, L. A. Los Angeles, Calif. Same as KIIW. Los Angeles, Calif. Restrice Nebr. Natural Gas Pipeline Co. of
	KINT	SEM SEM	••••	Los Angeles, Calif. Beatrice, Nebr. Natural Gas Pipeline Co. of
	KIPI	SEM	50	America. Box 486.
	KIPN	SEM	100	Pacoima Dam, Calif. Same as KIIW. San Gabriel Dam. Calif. Same as KIIW. Los Angeles County. Calif. Same as KIV. Beatrice, Nebr. Same as KIPI. Red Oak, Iowa. Same as KIPI. Truro, Iowa. Same as KIPI. Harper, Iowa. Same as KIPI. Tujunga Dam, Calif. Same as KIIW. Forbestown, Calif. Grass Valley, Calif. Downieville, Caif. Rattlesnake Placer Mine.
	KIPO	SEM SEM SEM	100 50	Los Angeles County, Calif. Same as KIIW.
	KIPQ KIPQ	SEM	50	Beatrice, Nebr. Same as KIPI.
	KIPR	SEM	50	Red Oak, Iowa. Same as KIPI.
	KIPT	SEM SEM SEM	50 50	Harper, Iowa, Same as KIPI.
	KIPT KIPU KIPW	SEM	100	Tujunga Dam, Calif. Same as KIIW.
	KNAA	• • •	• • • •	Forbestown, Calif.
	KNAB	SEM	50	Downieville, Caif. Rattlesnake Placer Mine.
	KODK KODL	SEM	20	Downieville, Caif. Rattlesnake Placer Mine. 8 miles n. of Downieville, Calif. Same as KQDK. Portable-Mobile. Lakeside Radio Club.
	KODL WAGE	crii	500	Portable Superior Pine Products Co.
	WAGG WAGI WAGU	SEM SEM	100	Portable-Mobile. Lakeside Radio Club. Portable. Superior Pine Products Co. Shamrock, Fla. Fla. State Board of Forestry. Lake City, Fla. Same as WAGI. Geneseo, Ill. Same as KIPI. De Leon Springs. Fla. Same as WAGI. Portable. Am. Tel. and Teleg. Co. Portable. Same as WAIV.
	WAGU		200	Lake City, Fla. Same as WAGI.
	WAGO WAGZ	SEM SEM	50 100	De Leon Springs, Fla. Same as WAGI.
	WAJV	SEM	50	Portable. Am. Tel. and Teleg. Co.
	WAIW	SEM	-100	
	WAJN	Ğ	30	Guayana, P. R.
	WAJU WAJV	G	4.0	Mayaguez, P. R.
	WALC	SEM	250	Portable in Fla Same as WAGI. Guayana. P. R. Mayaguez, P. R. Brunswick, Ga. Ga. Coastal Plains Timber Protective Ass'n.
	WANB WEIT	SEM	100	Dismore, Fla. Same as WAGI. Portable. Edward L. Thompson. Portable in III. State of III. Dept. of Public
	WEI T WOPX		50 500	Portable in Ill. State of Ill. Dept. of Public
			300	Works and Bldgs. Portable in I'l. Same as WQPX.
	WQPY \\ K(()	SEM	50	Portable. Chespeake & Potomac Iel. Co. of
				Baltimore. Portable. Same as WRCO.
	WRCS WRCT	SEM SEM	50 50	Portable. Chesapeake & Potomac Tel. Co. of W. Va.
	WRCU WAGG	SEM	50	Portable. Same as WRCT.
2736 2738	WAGG KBEP	····	10	Portable-Mobile. Superior Pine Products Co. Patrol Boat "Ranger 7" in Alaska.
2/30	KDEF	Г	••••	ration boat Ranger / in Alaska.

	KBFM	F		Patrol Boat "Ranger 9" at Juneau, T. A. Patrol Boat "Ranger 8" at Petersburg, T. A.
	KBFN	_ F		Patrol Boat "Ranger 8" at Petersburg, T. A.
	KBFO	F-SS S		Juneau, T. A.
	KFSH	S		Juneau, T. A. "Stranger." S. S. "Elizabeth River." Philadelphia & Nor-
	КЈЈВ	5	50	S. S. "Elizabeth River." Philadelphia & Norfolk S. S. Co. S. S. "Hampton Roads." Same as KJJB. Tug "Mamo." Wm. G. Anderson, Young Bros., Pier 21, Honolulu, T. H. S. S. "Caroline." (In vicinity of San Pedro). Jos. M. Schenck, 20th Century-Fox Film Corp., Beverly Hills, Calif. Yacht "Gipsy." Yacht "Samona." S. S. "Islamorada." John D. Reilly. Patrol Boat "Forester" in Alaska. Patrol Boat "Ranger 10" in Alaska.
	KJLY	· s	50	S. S. "Hampton Roads." Same as KIIR.
	KLGU	š	50	Tug "Mamo," Wm. G. Anderson, Young Bros.
	11200	J	50	Pier 21, Honolulu, T. H.
	KLQE	S	50	S. S. "Caroline." (In vicinity of San Pedro).
				Jos. M. Schenck, 20th Century-Fox Film Corp.,
	777 33737			Beverly Hills, Calit.
	KLWY KMKH	5	• • • •	Vacht "Samona"
	KMKK	Š	• • • •	S. S. "Islamorada." Tohn D. Reilly.
	KMYA	š		Patrol Boat "Forester" in Alaska.
	KMYB	១១១១៥១ ១		Patrol Boat "Ranger 10" in Alaska.
	VGBQ	S	50	Yacht "Seyelyn." S. S. "Bluffin." State of Calif., Dept. of Nat-
	WCEK	S	50	S. S. "Bluffin." State of Calif., Dept. of Nat-
	WCY	CHT	400	ural Resources. West Dover, Ohio (600 w. days). Radiomarine
	WC1	CIII	400	Corp. Corp. Cono (600 w. days). Radiomarine
	WDFL	S		Vacht "F) Ferrito"
	WDFY	S S SS		Yacht "Content."
	WDFY	S	50	Tug "Mikioi." Same as KLGU.
	WDOI	S	• • • •	S. S. "Maliko." Matson Nav. Co., 215 Market
	33/T TO A	c		St., San Francisco, Calif.
	WIFA	5	• • • •	Tug "Lorna Foss."
	WIDM	SSS	• • • •	West Dover, Ohio (600 w. days). Radiomarine Corp. Yacht "El Ferrito." Yacht "Content." Tug "Mikioi." Same as KLGU. S. S. "Maliko." Matson Nav. Co., 215 Market St., San Francisco, Calif. Tug "Lorna Foss." "Cadrew." Yacht "Sartarsia."
	WIFI WJDM WJFD	s		Yacht "Sartarsia." Yacht "Migrator." Memphis. Tenn. Warner & Tremble Radio
	WJG	CHT	25	Memphis, Tenn. Warner & Tremble Radio
	THO CTT			Service.
	WOCK	S	100	Yacht "Mako." Thorne Donnelley. Cruiser "Kenova." S. M. Stoody, Whittier,
	WOKQ	8	350	Cruiser "Kenova." S. M. Stoody, Whittier,
	WPKS	S	30	Calif.
	WPMP	š	30	S. S. "I. B. Edwards." Ole I. Edwards.
	WPPC .	ssss	50	S. S. "North Star." Sam Lonero.
	WQBM			S. S. "Aleksander I." Pete Damaria. S. S. "J. B. Edwards." Ole J. Edwards. S. S. "North Star." Sam Lonero. S. S. "Abacore." Same as WCEK.
27 48	KAZV	FA	100	Fairbanks, T. A. Harold Gillam.
	KBRN KAHM	FA	3000 50	Brownsville, Tex. Aeronautical Radio, Inc.
	WAHY	RB FA FA	1000	Mamphic Tenn Same as KRPN
	WAHY WOET	FA	1000	Charlotte N. C. Same as KBRN.
	WSJM	FA	400	Tampa, Fla. Same as KBRN.
2752	CJD	\mathbf{F}	• • • •	S. S. "Albacore." Same as WCEK. Fairbanks, T. A. Harold Gillam. Brownsville, Tex. Aeronautical Radio, Inc. Richmond, Va. Richmond Radio Corp Memphis, Tenn. Same as KBRN. Charlotte, N. C. Same as KBRN. Tampa, Fla. Same as KBRN. Campbell River, B. C. Minister of Lands for
0770	. TZ A TYT	D.D.	0.5	B. C. Portable. Earle C. Anthony, Inc. Duluth, Minn. Red River Brdcstg. Co., Inc. Bloomington, Ill. A. M. and D. C. McGregor. St. Paul, Minn. Minn. Brdcstg. Corp. Norfolk, Va. WTAR Radio Corp. Norfolk, Va. Same as WAHE. Aurora, Ill. Martin R. O'Brien. Tampa. Fla. Tampa Times Co. Syracuse, N. Y. Central N. Y. Brdcstg. Corp. Wilson. N. C. WGTM, Inc. Harrisburg, Pa. WHP, Inc. New York City. NBC, Inc. Armstrong, Ont. Sasswood, Ont. Cont. Dept. of Lands & Forests. Basswood, Ont. Same as CZ4B. Columbus, Ohio. Ohio Nat'l. Guard, 7th Ave.
2758	KAIH	RB RB	25	Portable. Earle C. Anthony, Inc.
	KBTA WAAO	RB	10 100	Bloomington III A M and D C McGregor.
	WAFY	RB	25 1	St Paul Minn, Minn, Brdcstg, Corp.
	WAHE	RB	25 I 50	Norfolk, Va. WTAR Radio Corp.
	\mathbf{WAHF}	RB	50	Norfolk, Va. Same as WAHE.
	WAOE	$_{\rm RB}$	50	Aurora, Ill. Martin R. O'Brien.
	WDAJ	RB	40	Tampa, Fla. Tampa Times Co.
	WDAJ WFYA WGTO	RB RB	100 25	Syracuse, N. Y. Central N. Y. Brdcstg. Corp.
	WHPA	ŔB	40	Harrichurg Pa WHP Inc
	WIEW	$\mathbf{R}\mathbf{B}$	25	New York City. NBC. Inc.
2760	CZ4B	\mathbf{F}	• • • •	Armstrong, Ont. Ont. Dept. of Lands & Forests.
	CZ5C	T	• • • •	Basswood, Ont. Same as CZ4B.
2764	WXMA	• • •	••••	Columbus, Ohio. Ohio Nat'l. Guard, 7th Ave.
	WYMD			Armory, 1368 N. High St.
	$\begin{array}{c} \mathbf{WXMD} \\ \mathbf{WXME} \end{array}$	• • • • • • • • • • • • • • • • • • • •	• • • •	Almon Ohio Sama as WYMD
	WXMF	• • • • • • • • • • • • • • • • • • • •		New York City. NBC, Inc. Armstrong, Ont. Ont. Dept. of Lands & Forests. Basswood, Ont. Same as CZ4B. Columbus, Ohio. Ohio Nat'l. Guard, 7th Ave. Armory, 1368 N. High St. Toledo, Ohio. Ohio Nat'l. Guard. Akron. Ohio. Same as WXMD. Youngstown, Ohio. Same as WXMD. Dayton, Ohio. Same as WXMD. Columbus. Ohio. Same as WXMA. Toledo. Ohio. Same as WXMD. Cleveland, Ohio. Same as WXMD.
	WXMG WXMH	•••	••••	Dayton, Ohio, Same as WXMD,
•	WXMH	• • •	• • • •	Columbus. Ohio. Same as WXMA.
	WXMI	•••	• • • •	Toledo. Ohio. Same as WXMD.
	WXMM	•••	• • • •	Cleveland, Ohio. Same as WXMD.
	WXMO WXMP	•••	• • • •	Wooster Ohio Same as WXMD
	WXMS	• • •	• • • •	Shreve, Ohio, Same as WXMD.
	WXMT			Cleveland, Ohio. Same as WXMD. Columbus, Ohio. Same as WXMD. Wooster, Ohio. Same as WXMD. Shreve, Ohio. Same as WXMD. Canton, Ohio. Same as WXMD.
	WXMV			St. Mary's, Ohio. Same as WXMD.
	WXMW	•••		Elyria, Ohio. Same as WXMD.
		•••	• • • •	
	WXMX	• • •	• • • •	Galion, Ohio. Same as WXMD.

	WXMY	• • •		Piqua, Ohio. Same as WXMD.
	WXMZ	• • •	·	Caldwell, Ohio. Same as WXMD.
2770	WXNA	 G	• • • •	Portsmouth, Ohio. Same as WXMD. Derby Line, Vt. U. S. Immigration Border
2//0	WWMD	G		Patrol.
	WWME	G		Chateaugay, N. Y. Same as WWMD. Ogdensburg, N. Y. Same as WWMD. Rousses Point, N. Y. Same as WWMD. Richford, Vt. Same as WWMD. Highgate Springs, Vt. U. S. Immigration bor-
	WWMO WWMP	G G G	• • • •	Ogdensburg, N. Y. Same as WWMD.
	WWMR	Ğ		Richford, Vt. Same as WWMD.
2775	WWMH	Ğ		Highgate Springs, Vt U. S. Immigration bor-
0776	ZDD	C		der ratioi.
2776 2790	KRR KAAR	C RB∻	40	Bolinas, Calif. Denver, Colo. KLZ Brdcstg. Co. Shenandoah, Iowa. KFNF, Inc. Shenandoah, Iowa. KFNF, Inc. Omaha, Nebr. Woodmen of the World. Fresno, Calif. George Harm. Kansas City, Mo. KANS. Mason City, Iowa. Globe-Gazette. Paducah, Kv. Paducah Brdcstg. Co.
	KAOE	RB	50	Shenandoah, lowa. KFNF, Inc.
	KAOF KBOL	RB RB	50 20	Shenandoah, Iowa. Krnr, Inc.
	KDAC	ŔB	25	Fresno, Calif. George Harm.
	\mathbf{KDEA}	RB	40	Kansas City, Mo. KANS.
	$f KDJB \ WAHL$	RB RB	125 40	Paducah, Ky. Paducah Brdestg, Co.
	WAIH	RB	50	Chicago, Ill. WGN, Inc.
	WATS WAUT	RB RB	100 50	Akron, Ohio. Allen T. Simmons.
	WAXE	RB	500	Richmond, Va. Havens & Martin, Inc.
	WBAO	$\mathbf{R}\mathbf{B}$	2	Newark, N. J. Bamberger Brdcstg. Serv., Inc.
	WBAQ	RB RB	30 10	Madison, Wis. Univ. of Wis.
	\mathbf{WGHB}	RB	40	Mason City, Iowa. Globe-Gazette. Paducah, Ky. Paducah Brdcstg. Co. Chicago, Ill. WGN, Inc. Akron, Ohio. Allen T. Simmons. Evansville, Ind. WEOA. Richmond. Va. Havens & Martin, Inc. Newark, N. J. Bamberger Brdcstg. Serv., Inc. Newark, N. J. Same as WBAO. Madison, Wis. Univ. of Wis. Tampa, Fla. Fla. West Coast Brdcstg. Co. Anniston, Ala. Harry M. Ayers, WHMA.
	WHMB	RB	10 50	Anniston, Ala. Harry M. Ayers, WHMA. New York City. Municipal Brdcstg. System.
	WNYK WNYL	RB RB	50 50	New York City. Same as WNYK.
	WNYN	RB	3	New York City. Same as WNYK.
	WNYO WRDI	RB RB	100	Danville, Ill. Northwestern Pub. Co.
	WTHB WTNK	RB	40	Tampa, Fla. WFLA.
0004	WTNK KGHP	RB	40	Trenton, N. J. WOAX, Inc.
2804	KGHZ	MP ZP	100	Little Rock, Ark. City of L. R.
	KHPF	ZP	500	New York City. Same as WNYK. New York City. Same as WNYK. New York City. Same as WNYK. Danville, Ill. Northwestern Pub. Co. Tampa, Fla. WFLA. Trenton, N. J. WOAX, Inc. Lawton, Okla. City of L. Little Rock, Ark. City of L. R. Jefferson City, Mo. State of Mo. Highway Patrol.
	KHPG	ZP	200	City of D. State of Ore., Police & Highway Depts.
	KNFE	ZP ZP ZP	500	Duluth, Minn. City of D.
	KQBX	ZP	50	Mobile. State of Wash.
	WDCC	ZP ·	300	Mobile. State of Wash. Findlay, Ohio. State of Ohio.
	WPGO WPHC WPHK	ZP ZP ZP	300	Columbus, Ohio. State of Ohio. Massillon, Ohio. Same as WPGG.
	WPHK	ZP ZP	300	Wilmington, Ohio. Same as WPGG.
	WPHN WPHT	ZP ZP	500 30 0	Tampa, Fla. City of T.
	WOMG	ZP	50	Pontiac, Mich City of P.
2808	WOPJ KGHX	ZP	250	French Village, Ill. State of Ill.
2000	KGPJ	ŽP ZP	500	Beaumont, Tex. City of B.
	WQPJ	ZP	250	French Village, Ill. State of Ill, Dept. of Pub.
	WOPZ	7 P	19	Portable in III. Same as WOPI.
2812	WOPZ KGHX KGHZ KGPJ	ZP ZP ZP	100	Massillon, Ohio. Same as WPGG. Wilmington, Ohio. Same as WPGG. Tampa, Fla. City of T. Cambridge, Ohio. Same as WPGG. Pontiac, Mich City of P. French Village, Ill. State of Ill. Santa Ana. Calif. Orange County. Beaumont, Tex. City of B. French Village, Ill. State of Ill, Dept. of Pub. Works & Bidgs., Div. of Highways. Portable in Ill. Same as WOPJ. Santa Ana, Calif. Orange County. Little Rock, Ark. City of L. R. Beaumont, Tex. City of B. Jefferson City, Mo. State of Mo. Duluth, Minn. City of D. State of Ore. Police & Highway Depts. Columbus. Ohio. State of Ohio.
	KGHZ	ZP	100 500	Little Rock, Ark. City of L. R.
	KHPF	ZP ZP	500	Jefferson City, Mo. State of Mo.
•	KNFE	ZP	500	Duluth, Minn. City of D.
	KOHM WPGQ	ZP ZP	••••	Columbus Ohio. State of Ohio.
	WPHN	ZP ZP	500	Tampa, Fla. City of T.
2822	WWMB KAOG	G RB	8	Buffalo, N. Y. U.S. Immigration Border Patrol.
2830	KEMA	RB	25	Shenandoah, Iowa, May Seed Co.
	KNEB	RB	10	State of Ore. Police & Highway Depts. Columbus. Ohio. State of Ohio. Tampa, Fla. City of T. Buffalo, N. Y. U.S. Immigration Border Patrol. Los Angeles, Calif. Don Lee. Shenandoah, Iowa. May Seed Co. Tacoma, Wash. Puget Sound Brdcstg. Co. Sacramento. Calif. McClatchey Brdcstg. Co. Nashville, Tenn. WSIX. Syracuse, N. Y. Onondaga Radio Brdcstg. Corp. Portable. N. J. Brdcstg. Corp. Cincinnati, Ohio. CBS, Inc. Detroit, Mich. WJR, the Good Will Station. Monroe, La. Aeronautical Radio, Inc. Dallas, Tex. Same as KNCI. Shreveport, La. Same as KNCI.
	KSCR WAUB	RB RB	100 40	Sacramento, Calif. McClatchey Brdcstg. Co.
	WAUO	ŔВ	50	Syracuse, N. Y. Onondaga Radio Brdestg. Corp.
	WBAC WFYB	RB	2	Portable. N. J. Bricstg. Corp.
	WJRA	$_{ m RB}$	50 250	Detroit, Mich. WIR, the Good Will Station
2854	KNCI	FA FA		Monroe, La. Aeronautical Radio, Inc.
	KNCJ KNCY	FA.	••••	Dallas, Tex. Same as KNCI.
	KNCY	FA	• • • •	Shreveport, La. Same as KNCL.

	WAJD WAJE	FA FA	300	Jackson, Miss. Birmingham, Ala. (600 w. days). Same as
	WAJF WAJG WAJH WAJI	FA FA FA FA		KNČI. Daytona Beach, Fla. Same as KNCI. Muffreesboro, Tenn. Same as KNCI. Indianapolis, Ind. Same as KNCI. Vero Beach, Fla. Same as KNCI.
	WAJI WAIY WARG WAZM	FA FÀ FA	400 45 40	Muffreesporo, Jenn. Same as KNCI. Indianapolis, Ind. Same as KNCI. Vero Beach, Fla. Same as KNCI. St. Petersburg, Fla. Same as KNCI. Augusta, Ga. Same as KNCI. Madison. Wis. Same as KNCI. Brownsville, Tex. Aeronautical Radio, Inc. El Paso, Tex. Same as KGJW. Bis Scripts Tex. Same as KGJW.
2870	KGJW KGUA	FA FA		Brownsville, Tex. Aeronautical Radio, Inc. El Paso, Tex. Same as KGJW.
	KGŪG KGUN KGUR KNCH	FA FA FA FA		Big Spring. Tex. Same as KGJW. Big Spring. Tex. Same as KGJW. Douglas, Ariz. Same as KGJW. Glendale, Calif. Same as KGJW. El Paso, Texas. Same as KGJW. Miami, Fla. Pan American Airways, Inc.
	W.KDI	FA FA	1000	Miami, Fla. Pan American Airways, Inc. San Juan, P. R.
	KAFH KBKD KGSV	FA FA FA	50 0 10 0	San Juan. P. R. Burbank, Calif. Aeronautical Radio, Inc. Portable. Same as KAFH.
	KGSW	FA FA	400	Great Falls, Mont. Same as KAFH. Helena, Mont. Same as KAFH. Winslow, Ariz. Same as KAFH.
	KGTA KGTD KGTH	FA FA FA	• • • •	Wichita, Kans. Same as KAFH. Salt Lake City, Utah. Same as KAFH.
	KGTI KGTI KGTR	FA FA	• • • •	Las Vegas, Nev. Same as KAFH. Kingman, Ariz. Same as KAFH. Robertson, Mo. Same as KAFH.
	KGTX KGTY KNCS	FA FA FA	• • • •	Pocatello, Idaho, Same as KAFH. Butte. Mont. Same as KAFH.
2912	KAIH KAMP		20 100	Anchorage, T. A. Libby McNeill & Libby. Craig, T. A. Same as KAJH.
	KAMS KAMT KANA	:::	100 50 50	Kingman, Ariz. Same as KAFH. Robertson, Mo. Same as KAFH. Pocatello, Idaho, Same as KAFH. Butte. Mont. Same as KAFH. West Yellowstone, Mont. Same as KAFH. Anchorage, T. A. Libby McNeill & Libby. Craig, T. A. Same as KAJH. Taku, T. A. Same as KAJH. Kenai T. A. Same as KAJH. Port Williams, T. A. Washington Fish & Oyster
		, 	10	Co. Burnett Inlet, T. A. Burnett Inlet Salmon Co.
	KANM KANQ KASJ KBME	 C T	20 20 20	Co. Burnett Inlet, T. A. Burnett Inlet Salmon Co. Caribou Creek, T. A. Lester B. Walbridge. Kantishna, T. A. Morris P. Kirk & Son. Caribou Creek, T. A. Morris P. Kirk & Son. Caribou Creek, T. A. Mortimer I. Stevens. Feldergale, T. A. Felder, Gale, Inc. American Creek, T. A. Ted. C. Mathews. Platinum, T. A. Alaska Traders. Dallas, Texas. Aeronautica, Radio, Inc. Brownsville. Texas. Same as KNB1. Kansas Ciry, Mo. Same as KNB1. Wichita Falls, Tex. Same as KNB1. Amarillo, Texas. Same as KNB1. Corpus Christi, Tex. Same as KNB1. Austin, Tex. Same as KNB1. San Antonio, Tex. Same as KNB1. Fort Worth, Texas. Same as KNB1. Fort Worth, Texas. Same as KNB1. Ekvik, Bristol Bav, T. A Libby, McNeill & Libby.
,	KRNC	† T T	20 20	Feldergale, T. A. Felder, Gale, Inc. American Creek, T. A. Ted C. Mathews.
	KRNM KNRT KNRK	T FA FA		Platinum, T. A. Alaska Traders. Dallas, Texass, Aeronautica Radio, Inc. Brownsvilla, Texas, Same as KNRI.
	KNBO KNBP	FA FA	• • • • •	Kansas Civy, Mo. Same as KNRI Wichita Falls, Tex. Same as KNRI.
	KNBQ KNRR	FA FA FA	• • • •	Amarillo, Texas. Same as KNBJ. Corpus Christi, Tex. Same as KNBJ. Austin Tex. Same as KNBJ.
	KNBS KNBU KNBV	FA FA		San Antonio, Tex. Same as KNBI. Fort Worth, Texas, Same as KNBJ.
	KNCE	•••	10 0 10 0	Ekhk, Bristol Bav, T. A Libby, McNeill & Libby.
2922	KNCF KNGS KAZV	FÁ	70 100	Keggiung, T. A. Same as KNCE. Fairbanks, T. A. Harold Gillam.
	KBI C KBOF	FA FA	50 50	Libby. Egekik, T. A. Same as KNCE. Keggiung, T. A. Same as KNCE. Fairbanks, T. A. Harold Gillam. Corpus Christi, Tex. Aeronautical Radio, Inc. Rainy Pass District, T. A. Star Air Lines, Rhon River Emergency Field. Rr. wnsville, Tex. Same as KBLC. Valdez, T. A. Lyle Airways. NC.552.N. Peek & Rice Airways, Bethel, T. A.
•	KRRN .	FA FA	3000 30	Brismsville, Tex. Same as KBLC. Valdez. T. A. Lyle Airways.
	KUCFI KUCIS WAUY	A A FA	30 30 1000	NC-552-N. Peck & Rice Airways, Bethel, T. A. NC 10795. Star Air Lines. Memphis. Tenn. Same as KBLC.
1	WAUZ	FA FA	50 50	Birmingham, Ala. Same as KBLC. Muscle Shoals, Ala. Same as KBLC.
	WFEL WGSA	FA FA	50 50	Beaumont, Tex. Same as KRLC.
2946	KBIC	FA FA	400 50	Greenville S. C. Same as KBLC. Tampa, Fla. Same as KBLC. Corpus Christi. Tex. Aeronautical Radio, Inc. Brownsville, Tex. Same as KBLC. Fr. Worth. Texas. Same as KBLC.
	KCL/. KCLe Kun/	ॐ FA FA FA	3000	Fi Worth, Texas, Same as KBLC. Resument Calif. Same as KBLC.
	KCI.O KCI.A	FA FA FA	• • • •	Beaumont, Calif. Same as KBLC. Douglas, Ariz. Same as KBLC. Tucson Ariz. Same as KBLC. Indio, Calif. Same as KBLC.
	KGUQ	FA		Indio, Calif. Same as KBLC.

2 952 ·	WAHY WAHZ WARS WATE WATF WEEL WGSA WSJM KBAZ KBCP KBCQ KBDF	FAA FAA FAA FAA FF FF FF	1000 50. 50 200 200 50 50 400	Memphis, Tenn. Birmingham, Ala. Same as KBLC. Muscle Shoals, Ala. Same as KBLC. Tallahassee, Fla. Same as KBLC. Tallahassee, Fla. Same as KBLC. Beaumont, Tex. Same as KBLC. Greenville, S. C. Same as KBLC. Tampa, Fla. Same as KBLC. Tampa, Fla. Same as KBLC. Same as KBLC. Boise, Idaho. Boise, Idaho. Boise, Idaho. Boise, Idaho (Boise Forest).
	KBDK	F		Susanville, Calif. Supply Depot.
2 986	KAFW KAGN	FA T	50	Panair VI-P. Pan American Airways Co. Portable. Alaska Aeronautics & Communications
		-		Commission.
	KAGO	Т	10	Portable. Same as KAGN.
	KAMX	C	40	Utopia Creek, T. A. L. McGee.
	KAMY	• • •	50	Port Oceanic, T. A. Oceanic Fisheries Co.
	KANF	<u></u>	40	Folger, T. A. E. Odin Strandberg.
	KB1.C	$\mathbf{F}\mathbf{A}$	50	Corpus Christi, Tex. Aeronautical Radio, Inc.
	KBMJ	• • • •	50	Drier Bay, T. A. Northwestern Herring Co.
	• KBNC	T	20	Drier Bay. T. A. Northwestern Herring Co. Feldergale, T. A. Felder, Gale, Inc. Platinum, T. A. Alaska, Traders.
	KBNM	_T	25	Platinum, T. A. Alaska, Traders.
	KBRN	FA	3000	Brownsville, Tex. Same as KBLC.
	KEXO	Ţ.	50	Portable. Same as KAGN.
	KEXP	T	50	Portable. Same as KAGN.
	KGQ	•••	50	Todd. T. A. Peril Straits Packing Co., Stacey St. and E. Waterway, Seattle, Wash.
	KIFM	$\mathbf{F}\mathbf{A}$		Fairbanks, T. A.
	KIMF			Todd T. A. Same as KGQ.
	KINH			Ketchikan, T. A.
	KINI,	FA		Juneau, T. A.
	KINZ	$\mathbf{F}\mathbf{A}$		Skagway, T. A.
	KNCQ	FA		Launch 'Gram." Same as KAFW.
	WAHY	FA	1000	Memphis, Tenn. Same as KBIC.
	WAIIZ	FA	50	Birmingham, Ala. Same as KRT.C.
	WARS	FA	50	Muscle Shoals, Ala. Same as KBLC.
	WEEL	FA	50	Beaumont, Tex. Same as KBI C.
	WGSA .	FA	50	Greenville. S. C. Same as KBLC.
	WSJM	FA	400	Tampa, Fla. Same as KBLC.

To Be Continued in December Issue

Explanation of the Third Column Symbols:

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SEM-Special emergency.
      -A<del>i</del>rcraft.
                                                                                           MF—Marine fire.
MR—Marine Relay.
PR—Press relay.
RB—Relay broadcast.
     -Broadcast.
      -Commercial Telegraph.
     Forestry.
     -Government.
                                                                                          TAC—Relay froatcast.
FAC—Facsimile.
TV—Television video.
TA—Television audio.
NCE—Non-commercial educational.
CC—Coastal Telegraph.
 P-Police.
    -Ship.
 T-Radio Telephone.
FA-Aeronautical (ground). GEO-Geophysical.
GEO—Geophysical.
RC—Circular radiobeacon.
RD—Directional radiobeacon.
RG—Direction finding station.
LH—Lighthouse.
RR—Radio range station.
                                                                                           CHC—Coastal harbor telegraph.
CHT—Coastal harbor telephone.
                                                                                           È
E1
                                                                                                        Experimental.
MP-Municipal police.
SP-State police.
ZP-Zone police.
                                                                                           E2 |
                                                                                           GE
                                                                                                    General Experimental.
                                                                                                   -Special Experimental.
EM-Emergency.
                                                                                           E3 J
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All the Mobile and Portable-Mobile police stations installed in police automobiles bear the same call letters as the Fixed police broadcast station to which they report, and in many cases they work on the same frequency. We list herewith the Fixed station, and in parentheses we show the number, and the power of the Portable and Portable-Mobile units attached to that station, as for example: WRHD

250 Louisville, Ky. (2 units-12 w).

Applications to the FCC CP-Construction permit. mod.—modification. lic.—license. Itd .- limited time. unltd .- unlimited time. S. H.—specified hours.
KABC, San Antonio, CP 630 kcs. 1000(5)
unltd. KDON, Monterey, CP 500(1), 1440 kcs. KEEN, Seattle, CP 1370 kcs. to 1420 kcs. KERN, Bakersfield, CP 1380 kcs., 1000 w. KEX, Portland, CP 1160 kcs. unltd. KFBB, Great Falls, mod. of lic. for 900 kcs., 5 kw. 5 kw.
KFIO, Spokane, CP 950 kcs., 1 kw. unltd.
KFNF, Shenandoah, mod. of CP to move
to Council Bluffs.
KFPW, Ft. Smith. CP 1370 kcs.
KFRU, Columbia, to 1370 kcs., 250 w. unltd.
KFYO, Lubbock, to 1380 kcs., 500(1).
KGDM, Stockton, 1530 kcs., 1 kw. unltd.
KGMB, Honolulu, CP 590 kcs. 1000(5) unltd. KMAC, San Antonio, CP 930 kcs., 1000 w. unltd.

KOH. Rero, CP 630 kcs., 1 kw. unltd.

KOVC, Valley City, CP 1340 kcs., 500(1).

KOY. Phoenix, mod. of lic. for 550 kcs.

KRMC. Jamestown. CP 900 kcs., 1 kw.

KROC. Rochester, CP 920 kcs., 500(1) unltd.

KRRV, Sherman. CP 880 kcs., 1 kw. unltd.

KSD. St. Louis. CP 630 kcs., 1 kw. unltd.

KSEI, Pocatello, CP 600 kcs., 1 kw. unltd.

KTBS, Shreveport. CP 620 kcs., 1000(5) unltd. unltd. KTRH, Houston, to 710 kcs.. 10 kw. unltd. KUTA. Salt Lake City, CP 570 kcs., 1 kw. KWK. St. Louis. CP 630 kcs. KXL. Portland. CP 730 kcs., 10 kw. unltd. KXOK. St. Louis. CP 630 kcs., 1000(5). WABI, Bangor, CP 560 kcs., 1 kw. unltd. WAPI, Birmingham, CP 1070 kcs., 50 kw. unltd. unltd. WCAD, Canton, CP Watertown, N. Y. WCOL, Columbus, to 1200 kcs., 250 w. unltd. WDAE. Tampa, mod. of lic., 780 kcs. WGBF, Evansville, CP 1250 kcs., 1000(5) unltd. WGRC New Albany, CP 880 kcs., 250 w. unltd. WHA. Madison, CP 670 kcs. 50 kw. unltd. (facilities of WMAQ).
WKAQ, San Juan. CP 620 kcs. 5 kw.
WLAP, Lexington, CP 1270 kcs. 1 kw. unltd.
WMBC, Detroit. CP 600 kcs. 250 w. unltd.
WMBR, Jacksonville, CP 1120 kcs. 500(1) unltd. WMFF. Plattsburg, CP 1240 kcs. 1 kw. WNBX. Springfield, CP Keene, N. H., kw. ·unltd. WPG, Atlantic City, CP New York (facilities WBIL and WOV).
WREN, Lawrence, CP Kansas City.
WROL, Knoxville, CP 620 kcs, 500(1). WROL, Knoxville, CP 620 kcs. 500(1). WSBT, South Bend, CP 930 kcs. 500 unltd. WSFA, Montgomery, CP 1410 kcs. 1 kw. unltd. WSPR. Springfield, mod. of lic. for 1240 kcs. 250 (.5) unltd. WTCN, Minneapolis, CP 710 kcs. 10 kw.

Applications for New Stations

unltd.

Albemarle, N. C., Albemarle Brdcstg. Station, 1370 kcs. 100 w. days.
Ashland, Wis., WJMS, Inc., 1370 kcs. 100 w. Albemarle Brdcstg. Staunltd.

Asheville, N. C., Publix-Bamford Theaters, Inc., 1430 kcs. 1 kw. unltd.
Atlantic City, N. J., Atl. City Brdcstg. Co., 1100 kcs. 5 kw. sharing with WBIL.
Atlantic City, N. J., Neptune Brdcstg. Corp., 1420 kcs. 100(.25).
Bellingham, Wash., Bell Brdcstg. Co., Inc., 1200 kcs. 100(.25). Birmingham, Ala., B. News Co., 590 kcs. 1 kw. unltd. Boston, Mass., M. 1410 kcs. 500(1). Mayflower Brdcstg. Corp., Bridgeport, Conn., Chas. Greenblatt, 1190 kcs. 250 w. ltd. Bridgeport, Conn., Harold Thomas, 1310 kcs. 100(.25) unitd. Bridgeport, Collin, Marcola 100(.25) united.
Brown City, Mich., Thumb Brdestg. Co., 880 kcs. 1 kw. days.
Brownwood, Tex., Brown County Brdestg. Co., 990 kcs. 1 kw. days. Co., 750 kes. 1 kw. uays.
Burlington, Iowa, Burlington Brdestg. Co.
Cedar Rapids, Iowa, The Gazette Co., 1420
kcs. 100 w. unltd.
Cheyenne, Wyo., Western Brdestg. Co., 1210
kcs. 100(.25). cheyenne, Wyo., Western Brdcstg. Co., 1210 kcs. 100(.25).
Cleveland, "Ohio, Cuyahoga Valley Brdcstg. Co., 1500 kcs. 100 w. days.
Clinton, Iowa, Clinton Brdcstg. Corp.
Columbus, Miss., Birney Imes, 1370 kcs. 100(.25) unltd.
Cordele, Ga., Cordele Dispatch Pub. Co., 1500 kcs. 100(.25).
Ely, Wyo., Eastern Nev. Brdcstg. Co., 1500 kcs. 100 days.
Erie, Pa., Presque 'Isle Brdcstg. Co., 1500 kcs. 100(.25) unltd.
Everett, Wash., Cascade Brdcstg. Co., 1420 kcs. 100(.25) unltd.
Fremont, Nebr., Nebr. Brdcstg. Corp., 1370 kcs. 100(.25) unltd.
Grants Pass, Ore., Ore. Brdcstg. System, 1370 kcs. 100(.25).
Grants Pass, Ore., Southern Ore. Brdcstg. Co., 1310 kcs. 100 unltd.
Hannibal, Mo., Courier Post Pub. Co.
Hickory, N. C., Catawba Valley Brdcstg. Co., 1370 kcs. 100(.25).
Jacksonville, Ill., Stephenson, Edge & Korsmeyer. 1370 kcs. 250 unltd. Jacksonville, Ill., Stephenson, Edge & Korsmeyer, 1370 kcs., 250 unltd.

Las Vegas, Nev., Las Vegas Brdcstg. Co., 1420 kcs., 100(.25).

Las Vegas, Nev., Nev. Brdcstg. Co., 1370 Las Vegas, Nev., N kcs. 100(.25) unltd. Lawton, Okla., Carver, 1420 kcs. 100 unltd. Williams & Ross. Logan, W. Va. kcs. 100 days. Va., Frey and Greever, 1200 Louisville, Ky., Gateway Brdcstg. Co., 880 kcs. 500 unltd.
Martinsville, W. Va., M. Brdcstg. Co., 1420 kcs. 250 days. Martinsville, W. Va., Patrick Henry Brdcstg. Co., 1420 kcs. 100(.25). Marysville, Calif., Yuba-Sutter Broadcasters, 1320 kcs. 250 unltd. Minneapolis, Minn., Independent Merchants Brdcstg. Co., 1300 kcs., 1 kw. unltd. Montebello, Calif., Bureau of Education, 1420 kcs. 100 days (request contingent upon move of KECA to San Diego). upon move of RECA to San Diego).
Norfolk, Va., Colonial Brdestg. Corp., 1370
kcs. 100(.26).
North Sacramento, Calif., Grant Union High
School District, 1370 kcs. 100 days.
Ogdensburg, N. Y., St. Lawrence Brdestg.
Corp., 1310 kcs. 100(.25).
Olney, Ill., Olney Brdestg. Co., 1210 kcs. Olney, Ill., Om. 100(.25) unitd. (Please turn to Page 95)

	Nonth's Change	s	· 830 CI	MHI	Networ Santa Cl	rk ara,	Cuba,	Cade	ena
in	Station Data		1210 337	CMI	Azul.	17	11	DC	
	New		1310 W 1380 W 1420 W	ING LAP	Ashland, Dayton (Lexington	Ny., Ohio. . Kv.,	new M new N new N	BS. 3C. MBS.	
1200 WECO	Pontiac, Wash. Sault Ste. Marie, Mi	ch.	1490 CI 1490 W	MKQ	Lexington Santiago, Covington	. ку.,	Caden new C	a Az	zul.
1210 KYUM Y 1240 XECW (1260 WHLD)	Sauri Ste. Marie, Mi Yuma, Ariz. Cordoba, Ver. C. Niagara Falls, N. Y. Mexico City, D. F. Victoria, Tams.		780 KI	ECA	Call Let	geles.	Calif.	fr	om
1270 XESM 1340 XEBJ	Mexico City, D. F. Victoria, Tams.		1200 W	DLP	KEHE. Panama WRSR.	City,	Fla.,	fr	om
1370 WFTL	Ft. Lauderdale, Fla.		1240 KI	FJZ	Fort Wo	orth,	Texas,	fr	om
1370 WMAN 1 1420 WLPM 1 1500 WGTC (Mansfield, Ohio. Suffolk, Va. Greenville, N. C. Mexico City, D. F. Brunswick, Ga.		1500 W	KNY	Kingston, Delete		., from	WKI	IN.
1500 XEQK	Mexico City, D. F.	e,	660 XI 1340 XI	EAL	Mexico C	ity, D	. F.		
1500 WMOG 1530 WAKR	Brunswick. Ga. Akron, Ohio.		1340 XI 1370 KI	EXD FJZ	Mexico C Orizaba, Fort Wor	Ver. (C. exas.		
830 XERC	Frequency Mexico City, D. F., i	rom 870.	690 CJ	CJ	Owner			n Pı	ub-
	Power Santa Cara, Cuba,		810 CM		Calgary, A lishing Havana.	Co., I Cuba,	Ltd. Caden	a A:	zul
1200 EMI D	from 200.) from		Down	de Radi	o, Pra	ado 63.		
1200 1111111	100(.25).		590 W	KZO	nit to Chan Kalamazoo				
1200 WIL S 1200 WJBC I	100(.25). St Louis, 250 from 1 Bloomington, Ill., 2 100(.25). Hibbing, Minn., 2	00 (.25). 50 from	630 W	PRO	Providence Seattle, to	, to 1	000(5).		
1210 WMFG	Hibbing, Minn., 25 100(.25).	50 from	770 KF 850 W	FAB KAR	Lincoln, to E. Lansing	5000			
1210 WRAL I	Raleigh, N. C., 2	50 from	880 W1 890 KF	KAR RNL FNF	Richmond,	to 10	000.	١.	
1210 WSIX N		50 from	900 KG	GBU ELJ	Shenandoa Ketchikan. New Have	to 10	00. 250(.5)		
	100(.25). Charleston, S. C., 2	50 from	920 KF 920 KV	EL	Denver, to	1,000	٠.		
1310 KOME 7	100(.25). Fulsa, Okla., 250 100(.25).	from	940 WI	I CA	Ashtabula, Visalia, to	to 50	00.		
1310 KRMD S	Shreveport, La., 25	60 from	1190 KT 1250 KT 1250 WF	T KST	Yakima, to New Castle	500((1).		
1310 KSRO S	100(.25). Santa Rosa, Calif., 2 100(.25). Laurel, Miss., 250	50 from	. 1350 KV		St. Louis, Richmond,	to 50	000.		
1310 WAML I	aurel, Miss., 250 00(.25).) from	1370 KF	rro.	Langview.	to 10	00		
1310 WTRC É	Ikhari, Ind., 250 1.00(.25).	from	1380 W A 1430 K J	ALA NY	Mavaguez. Mobile, to Juneau, to	1000	unltd.		
1370 KLUF 0	Falveston, Tex., 25 100(.25).	0 from	1430 WT 1460 KS	HP TP !	Harrisburg St. Paul. te	, to 10 5000	000(5).)0.		
1370 WEOA E	Evansville, Ind., 25 100(.25).	0 from	1460 WJ 1490 WC	SV CKY	Washington Covington, Salina, to	n, to	5000 0. /		
1370 WHLB \	Virginia, Minn., 25	0 from	1500 KS.						
1370 WSAU W	Vausau, Wis., 250 100(.25).	from	1050 KF	Bl A	to Change Abilene, to	Wich	ation iita. Ka	ns.	•
1420 KCMC T	exarkana, Tex., 25	60 from	1200 WH 1210 WC	HBY GRM (Abilene, to Green Bay Grenada to	to Ap	ppleton, iwood,	Wis Miss.	
1420 WCHV C	Charlottesville, Va., 2 100(.25).	50 from	1500 WK	CBB I	E. Dubuque to Change	e. to D	ubuque,	. Iow	a.
1420 WEED R	Rocky Mount, N. C., 2 100(.25).	250 from	770 KF	AB	Lincoln, N	ebr., 1	to 1080.		
1420 WGNC G	astonia, N. C., 25 100(.25).	0 from	900 -WE 920 KV	OD .	New Have Denver, to	630.	930.		
1420 WSLI J:	ackson, Miss., 250 100(.25).) from	1190 KT 1200 WJ	BL	Visalia, to Decatur, to	o 1310	0.		
1490 CMKQ S	antiago, Cuba, 100 200.	0 from	1260 KP. 1310 WB	3OW	Port Arthu Terre Hau				
1500 KPLT P	Paris. Tex., 100(.25) f days.	rom 250	1320 KG 1370 KF	MB RO	Honolulu, Longview,	to 590	١.		
	Venåtchee. Wash., 25	50 from	1370 WP 1450 KT	PRA	Mayaguez,	to 78	30.		
1500 WDNC D	Ourham, N. C., 25 100(.25).	0 from	1500 KS	AL	Shreveport, Salina, to				
	uskegon, Mich., 25 100(.25).	0 from	Call KIRO	City	sing Specia	Ass		s Usin 71	ıg 10
1500 WRGA R 1500 WSTP Sa	ome, Ga., 250 from 1	00(.25).	KTHS	Hot S	prings	• • • • • • • • • • • • • • • • • • • •	040	106	50
1500 WSTP Sa	llisbury, N. C., 25 100(.25).	u irom	KWKH WTIC	Hartfo	port rd		850 060	110 104	

KEY TO SYMBOLS

As shown in the index by Frequencies

Frequencies are given in kilocycles per second, and wavelengths in meters. Night power is shown in watts in third column and daytime power is shown in parentheses in kilowatts. Thus: (1.25) indicates 250 watts. Exact frequencies, when not multiples of ten are shown in the second column.

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

NORTH AMERICAN BROADCASTING STATIONS BY FREQUENCIES WITH SATURDAY'S TIME ON THE AIR

Time is Eastern Standard. Subtract 1 hour for Central, 2 hours for Mountain and 3 hours for Pacific. Add 5 hours for GMT. SS is "Sunset" and LS is "Local Sunset"

540 kcs. (552.2 m.)	Watrous, Sask.	Noon to midnight
550 kcs. (S	545.1 m.) 1000 a 1400 a 500(1) a	Fredericton, N. B. Havana Cuba. St. Louis, Mo.	7 am to 11 pm 7:55 am to 1230 am 8-9 am; 10:30-10:45 am; 4- 4:45 pm
KFYR N KOAC KSD 2R	1000(5) a 1000 a 1000(5) a	Bismarck, N. Dak. Corvallis, Ore. St. Louis, Mo.	8 am to 1 am Noon to midnight 9-10:30 am; 10:45 am-1:15 pm; 145-4 pm
KTSA C WDEV D WGR C WKRC WSVA D	1000(5) a 1000 a 1000(5) a 1000(5) a 500 a	San Antonio, Texas Waterbury, Vt. Buffalo, N. Y. Cincinnati, Ohio Harrisonburg, Va.	6 am to LS 7 am-midnight 6:30 am-2 am. 6:30 am-5 pm
560 kcs. (KFDM NKLZ CKSFO CKWTO DWFIL BMWIND CWIS WIND CWIS WIQAM C	535.4 m.). 500(1) a 1000(5) a 1000(5) a 1000 a 1000(5) a 1000(5) a 1000(5) a	Beaumont, Texas Denver, Colo. San Francisco, Call. Springfield, Mo. Philadelphia, Pa. Gary, Ind. Columbia, S. C. Miami, Fla.	8:30 am-2 am 10 am-4 am 7 am-LS 7 am-12:30 am 6 am-4 am 7 am-midnight 6:45 am-midnight
570 kcs. (526 m.)		•
KGKO N KMTR KVI TISCV 575 WKBN DP WMCA WNAX WOSU 1 WSYR Ba WSYU Qa WWNC G	1000 (5) a 1000 (5) a 1000 (5) a 100 z 500 (1) a 250 (1) a 1000 (5) a 1000 a 10	Fort Worth, Tex. Loś Angeles Calif. Tacoma, Wash. Alajeula, Costa Rica Youngstown, Ohio Marinette, Wis. New York, N. Y. Yankton, S. Däk. Columbus, Ohio. Syracuse, N. Y. Asheville, N. C.	7 am-? 8 am-2 am 9 am-3 am 7 am-? 9 am-11 pm 7 am-1 am

580 kcs.	(516.9 m.)			
CFPR CHRC CKCL FCKPR FCKUA FKMJ KSAC WCHS CWCHS CWIBW C2	100 100 1000	aaaabaaaa	Toronto Ont. Fort William Ont. Edmonton Alta. Fresno Calit. Manhattan Kans. Charleston, W. Va.	8 am-midnight 8 am-midnight 9 am-11 pm Silent 10:30 am-6:30 pm 6 am-11 am 7 am-midnight
WILL D WTAG R XEMU	5000 1000 250	a a z	Urbana, III. Worcester, Mass. Piedras Negras, Coah.	5:30-40:30 am; 11:30 am-1:30 pm; 3:30 pm-1 am 9 am-SS 7:30 am-1 am
590 kcs.	(508.2 m.)			
CMCY KHQ R WEEI C WKZO BDX WOW R	15000 1000 (5) 1000 (5) 1000	а а а а	Kalamazoo Mich.	8 am-10 pm 9:45 am-3 am 6:30 am-1 am 7 am-5:15 pm 7 am-3:30 am
600 kcs.	(499.7 m.)			
CFCF BF CFOC F CJOR FON 609 KFSD B TIGPH 605 WCAO C WICC BM WMT BM WREC C	500 1000 500 250 1000 1000 500(1) 500(1) 1000(5)	a a a a a a a a a a a	San Diego, Calif. San Jose, Costa Rica Baltimore, Md. Bridgeport, Conn. Cedar Rapids. Iowa	7:45 am-1 am 7:45 am-1 am 10 am-3 am 7 am-midnight 5 am-1 am 6:30 am-1 am
610 kcs.	(491.5 m.)			
CHNC F KFAR P KFRC M WCLE DM WDAF R WIOD Na WIP WMBF Qa	1000 1000 1000(5) 500 1000(5) 1000	a z b a a a a a	New Carlisle; P. Q. Fairbanks, Alaska San Francisco, Calif. Cleveland, Ohio Kansas City, Mo. Miami, Fla. Philadelphia, Pa. Miami, Fla.	7:30 am-11 pm 7 am-SS 7:30 am-1 am 7 am-midnight 7 am-1 am
620 kcs.	(483.6 m.)			
KGW R KTAR N KWFT C TIPG 625 WFLA Na WHJB CD WLBZ MN WSUN Na WTMJ N	250	aazbaaaa	Phoenix, Ariz. Wichita Falls, Tex. San Jose, Costa Rica Tampa, Fla.	9 am-2 am 9 am-1:15 am Silent 8 am-5 pm 8 am-7 7:55 am-1 am 7 am-1:30 am
630 kcs.	(475.9 m.)		n	+
CFCO F CFCY F CJRC F CKOV F CMCD KFRU 1 KGFX D WGBF N1 WMAL B WPRO CX XEZ	100 1000 1000 1000 1000 500(1) 200 500(1) 250(.5)	*************	Kelowna, B C. Havana, Cuba Columbia, Mo. Pierre, S. Dak. Evansville, Ind. Washington, D. C. Providence, R. I.	8 am-10:30 pm 9 am-11 pm 8:30 am-2 am 7 am-11 pm 9 am-10:30 pm Silent Silent 7 am-2 am 6 am-1 am 11 am-2:30 pm; 7:15-11 pm
640 kcs.	(468.5 m.)			
HOK KF! R	50000	z f	Colon, Panama Los Angeles, Calif.	Noon-2 pm; 6 pm-midnight 9:45 sm-3 sm

VONF	12500	а	St. John's, Nfld.	8:30 am-12:30 pm; 4:30-9:30
WGAN CL WHKC LM WOI D	500 500 5000	a a	Ames, Iowa	pm 7 am-SS on Pacific Coast 6:30 am-8:15 pm 7:30 am-LS
YSS	250 500	z a	Sabinas, Coah. San Salvador, E. S.	
650 kcs.	(461.3 m.)			*
TIGPH P WSM KN	50 0 00	z a	San Jose, C. R. Nashville, Tenn.	
660 kcs.	(454.3 m.)			
CMOA	200 500	z a	Havana, [°] Cuba Omàha, Neb r.	7 am-SS
WEAF R XEAO	50000 250	a	New York, N. Y. Mexicali, B. Cfa.	7:30 am-1 am
670 kcs.	(44 7 ,5 m.)			
WMAQ R	50000	b	Chicago, III.	7 am-1 am
680 kcs.	(440.9 m.)		C	
CMHW	200 500(2.5)	f	Santa Clara, Cub a St. Joseph, Mo.	7 am- LS
KPO R	50000	a	San Francisco, Calif. Glace Bay, N. S. Lawrence, Mass.	11 am-3 am Noon and 11 pm
VAS 685 WLAW D		a	Lawrence, Mass.	7 am-LS
. WPTF JN	5000	а	Raleigh, N. C.	6:30 am-11 pm
690 kcs.	(434.5 m.)			T 20
CFRB C CJCJ F	10000 100	a a	Toronto, Ont. Calgary, Alta.	7:30 am-midnight 9:30 am-1 am
CMBC	200 1000	z b	Havana, Cuba San Jose, Costa Rica	6:55 am-midnight
XET	5000	а	Monterrey, N. L.	5:30-9 pm
700 kcs.	(428.3 m.)			
VOWR WLW KMN	* 500 50000	b a	St. John's, Nfld. Cincinnati, Ohio	5:45 am-2 am
W8XO Exp	500000	a	Cincinnati, Ohio	• • • • • • • • • • • • • • • • • • • •
710 kcs.	(422.3 m.)			
CMKS KIRO CHJ	200 1000	a a	Guantanamo, Cub a Seattle, Wash.	Until 8 am
KMPC L	50 0	а	Seattle, Wash. Beverly Hills, Calif. Newark, N. J.	9 am-3 am 6:25 am-1:30 am
WOR KM	. 50000	а	Newark, N. J.	0.25 dili-1.50 dili
720 kcs.	(416.4 m.)		Havena Cuba	
CMK TI4NRH 725	750	a f–	Havana, Cuba Heredia, Costa Rica	
WGN KM XEH	50000 , 2 50	Б а	Chicago, III. Monterrey, -N. L.	••••••
730 kcs.	(410.7 m.)			
CFPL F	100 1000	à	London, Ont.	9 am-3 am 9 am-2 am
CKAC C	5000	a	Edmonton, Alta. Montreal, P. Q.	7:30 am-1 am
XELO XEPN AQ	50000 1 <i>0</i> 0000	a a	Montreal, P. Q. Tijuana, B. Cfa. Piedras Negras, Coah. Mexico City, D. F.	••••••
XEQ	50000	a	Mexico City, D. F.	
740 ·· kes:	(405.2 m.)			· · · · · · · · · · · · · · · · · · ·
CMJX	*200	·z	Camaguey, Cuba	

KMMJ L 1000 KTRB D 250 WHEB D 250 WSB R 50000	a Grand Island, Nebr. a Modesto, Calif. a Portsmouth, N. H. a Atlanta, Ga.	9 am-8:30 pm 7 am-LS 6:55 am-1 am
750 kcs. (399.8 m.) CMBL 200 KGU LN 2500 TINIG . 375 WJR C 50000 XEAA 200 XEAM 25	a Havana, Cuba a Honolulu, Hawaii z San Jose. Costa Rica a Detroit, Mich. a Mexicali, B. Cfa. z Matamoros, Tum.	11:30 am-4:30 am 5:30 am-2 am
760 kcs. (394.5 m.)		
KXA X 250(.5) WBAL BHMSy 2500 WCAL D2 5000 WEW D 1000 WJZ BSy 50000 WLB D2 5000	a Seattle, Wash. a Baltimore, Md. a Northfield, Minn. 5 t. Louis, Mo. a New York, N. Y. a Minneapolis, Minn.	Until 6 am 9 pm-1 am 7:30-11:30 am; 1:30-2:30 pm 8 am-LS 7:30 am-1 am
770 kcs. (389.4 m.)		
CMKW 200 KFAB CSyXZ 10000 TILJ 775 450 WBBM CSy 50000	z Santiago de Cuba a Lincoln. Nebr. z San Jose, C. Rica a Chicago, III.	7 am-1 am
780 kcs. (384.4 m.)		
CHWK F 100 CKSO F 1000 CMQ N 25000 KF-A 1000(5) KFDY D 1000 KFQD 250 KGHL N 1000(5) KWLK D 250 WEAN BM 1000(5) WMC JR 5000 WPIC D 250 WTAR JN 5000 XEN 1000	f Chilliwack, B. C. a Sudbury, Ont. Havana. Cuba Los Angeles, Calif. Brookings, S. Dak. Anchorage, Alaska Billings, Mont. Longview, Wash. Providence, R. I. Memphis, Tenn. Sharon, Pa. Nortolk, Va. Mexico City, D. F.	II am-1:15 am 9 am-midnight 6:50 am-1 am 9 am-? 1:30-3 pm 11 pm-5 am 9 am-1 am 10 am-LS 6 am-? 7:45 am-1 am 6:30 am-LS 6:30 am-1 am
790 kcs. (379.5 m.) CMGH 200 KGO B 7500 KOAM DN 1000 WGY R 50000 ZNS 1000	a Matanzas, Cuba a San Francisco, Calif. a Pittsburg Kans. a Schenectady, N. Y. d Nassau, Bahamas	7 am-1 am 7 am-LS 7 am-1 am
800 kcs. (374.8 m.) HIX 800 TIXD 1000 WBAP ENa 50000	a Trujillo, D. R. z San Jose, Costa R. a Fort Worth, Texas	6:45-8 am; 9:30-11:30 am; 1:30-4 pm; 6:30-730 pm; 8-
WFAA ENa 50000 WTBO D 250	a Dailas, Texas a Cumberland, Md.	11 pm 8-9:30 am; 11:30 am-1:30 pm; 4-6:30 pm; 7:30-8 pm. 8:30 am-LS
(850 8)		
810 kes. (370.2 m.) CMCF 5000 WCCO C 50000 WNYC D 1000 XEBZ 100 XEDF 100	a. Havana, Cuba g Minneapolis, Minn. a New York, N. Y. a Mexico City, D. F. a Nuevo Laredo, Tam.	7:30 am-1 am 11 am-3:15 pm; 7-8:15 pm

820 WHAS XEBG		(3 65.6 50000 1000		a z	Louisville, Ky. Tijuana, B. Cfa.	
830 CMHI KOA TIEP WEEU WHDH WRUF XERC	R DR	1000 50000 3000 1000 1000 5000 5000		a a a a a z	Denver, Colo. San Jose, C. Rica Reading, Pa. Bostor, Mass.	9 am-2 am
840 CBL VOGY	kcs. F 	50000 400 250000	m.)	a a	Toronto, Ont. St. John's, Nfld. Villa Acuna, Coah.	7:45 am-12:30 am 8:30 am-12:30 pm; 4:30-9:30 pm
050	l	(252.7	\			•
CMCM KIEV WFSG WKAR WWL	 D CD	200 250 1000 1000 50000		a a a a	Glendale, Calif. Elmira, N. Y. E. Lansing, Mich.	8 am-1130 pm 6:00 am to SS at New Orleans 7 am-5 pm
860 CMJA TIEMC WABC WBOQ WHB XEMO	kcs. Ca QA DM	200 250 50000 50000 1000 50000	m.)	а	San Jose, C. Rica New York, N. Y. New York, N. Y.	7:30 am-1 am 9:45 am-3 am
	_	(344.6	m .)	-	Tripasita, B. Cia.	ms c-ma cr.v
CMHO WENR WLS XEFB	Ba Ba	50000 50000 200	****/	a	Sagua la Grande, Cuba Chicago, III. Chicago, III. Monterrey, N. L.	Noon to midnight 8 am-noon
880	kcs.	(340.7	m.)		,	
CBO CFJC CMX KFKA KLX KPOF KVAN TILS WCOC WGBI WQAN WRNL WSUI	F F 2 DP C C C I 1 DX	1000 15000 15000 5000 1000 1000 250 500 1000 5000 5	1)	a a a a	Meridian, Miss. Scranton, Pa.	7:45 am-midnight 8 am-midnight 7:30 am-1 am 10:30 am-2:30 am 9:15-10:45 am, 430-6:30 pm; 8:30-10:30 pm 12:30-10:30 pm 12:30-10 pm 6:30 am-LS 10 am-11 pm
		(336.9	m.)			
KARK KFNF KFPY KUSD WBAA WGST WJAR WMMN XEW	N X2 C 2 .: C R C .:	1000 500 (1000 (500 500 (1000 (1000 (1000 (5) 1) 5) 5)	a a a a a a a a	Little Rock, Ark. Shenandoah, Iowa Spokane, Wash. Vermillion, S. Dak. W. Lafayette, Ind. Atlanta, Ga. Providence, R. I. Fairmont, W. Va. Mexico City, D. F.	7 am-1 am 7 am-1 am 9:50 am-3 am Noon-6 pm 7:30 am-1 am 6:30 am-1 am

900 kcs.	(333.1 m.)	,						
HIG KGBU X KHJ KSEI N TIAFB WBEN WELI DXZ WFMD D WJAX WKY WLGL WHALL WHALL WHALL WTAD D	500 1000 (5) 250 (1) 600 1000 (5) 500 500 1000 (5) 1000 (5)	z San Jose, C. Rica a Buffalo, N. Y. a New Haven, Conn. a Frederick, Md. a Jacksonville, Fla. a Oklahoma City, Okla. a Stevens Point, Wis.	9 am-4 am 9:30 am-1 am 7 am-1 am 7 am-2 6:30 am-LS 6:45 am-1 am 7:45 am-1 am 9 am-5 pm 8 am-5:45 pm					
910 kcs.	(329.6 m.)							
CBF FN CJAT F CKY F CMBQ CMKD	50000 1000 15000 5000	a Montreal, P. Q. a Tráil, B. C. winnipeg, Man. a Havana, Cuba a Santiago de Cuba a Nuevo Laredo, Tam.	8 am-midngiht 10 am-2 am 8:30 am-1 am 8 am-midnight 7 pm-8:15 am					
920 kcs. (325.9)								
CMHT KFEL aMX KOMO F KPRC EF KVOD B	(500 8 1000(5) 8 1000(5) 9 500	z Trinidad, Cuba a Denver, Colo. a Seattle, Wash. a Houston, Texas a Denver, Colo.	8 am-2:30 am \ 10 am-3 am \ 7 am-1 am \ 10:30 am-12:30 pm; 2:30-5 \ pm; 6:30-8 pm; 9:30 pm- 2:30 am					
WORL [WPEN WSPA [1000 500 1000 1000	z San Jose, C. Rica a Chicago, III. a Boston, Mass. a Philadelphia, Pa. a Spartanburg, S. C. betroit, Mich.	6 am-LS 7 am-LS 6 am-LS					
930 kcs.	(322.4 m.)							
CFCH I CFLC CHNS I CKPC CMJF KMA E KRÓW	100 100 100 100 100 200 3 1000(5) 1000 1000(5)	a Calgary, Alta. North Bay, Ont. a Prescott, Ont. a Halifax, N. S. a Brantford, Ont. c Camaguey, Cuba a Shenandoah, Iowa a Oakland, Calif. a Birmingham, Ala. a Roanoke, Va. a Hermosillo, Son.	9 am-2 am 7 am-10 pm 7:30 am-11 pm 9 am-5 am 8 am-12:30 am 7 am-midnight 1-3 pm; 9 pm-midnight					
940 kcs. (319 m.)								
	1000 (5) 500 1000 (2.5) 1000 (2.5) 1000 (5) 5000 250	a Havana, Cuba a Portland, Ore. z San Jose, C. Rica a Jersey City, N. J. a Louisville, Ky. a Portland, Maine a Fargo, N. Dak. a Madison, Wis. a Ashtabula, Ohio a Mexico City, D. F.	7:42 am-1 am 9:30 am-3 am 6:30 am-6 pm 8 am-1 am 7:30 am-midnight 7 am-1 am 9 am-5:30 pm 7 am-LS					
950 kcs.								
CBV CJRM CMKL	F 1000	a Quebec, P. Q. a Regina, Sask. z—Bayamo, Cuba a Los Angeles, Calif.	Noon-midnight 9:30 am-4 am					

кмвс	С	1000 (5)	а	Kansas City, Mo.	6:55 am-1 am
VOAR WRC	 R	25 1000(5)	z a	St. John's, Nfld. Washington, D. C.	
WTRY	DP	1000	z	Troy, N. Y.	
960	kcs.	(312.3 m.)			
СВМ	FR	5000	а	Montreal, P. Q.	
CFRN	F	100	а	Edmonton, Ata.	Silent 5-7:15 am; 7pm-12:30 am
XEAW		100000	a z	Reynosa, Tam. Mexicali, B. Cfa.	5-7.15 am, 7pm-12.50 am
XECL	• • • •	1000	Z	Mexicall, B. Cla.	
	kcs.				7.50 12.20
CWCK		5000 5000	z a	Havana, Cuba Seattle, Wash.	7:50 am-12:30 am · 10 am-3 am
KJR WCFL	N	5000	a	Chicago, III.	
WIBG	Ď	100	а	Glenside, Pa.	7:30 am-LS
980	kcs.	(306 m.)			
KDKA	В	50000	ь	Pittsburgh, Pa.	
XEAC		5000	а	Tijuana, B. Cfa. Nuevo Laredo, Tam.	8 am-1 am
XEFE	• • •	250	Z	Nuevo Laredo, Tarri.	
990	kcs.	(302.8 m.)			
WBZ	B S y	50000	а	Boston, Mass.	6 am-1 am
WBZA XEAF	BSy	1000 750	a a	Springfield, Mass. Nogales Son.	6 am-1 am 11 am-3 pm; 7 pm-midnight
XEK	×	100	a	Mexico City, D. F.	
XE S	• • •	250	а	Tampico, Tam.	
1000	kcs.	(299.8 m.)			
KFVD	L	1000	а	Los Angeles, Calif.	9 am-8:15 pm
TIFA		250 50000	z a	San Jose, C. Rica Des Moines, Iowa	7 am-1 am
WHO XEBI	KR 	250	a	Aguascalientes, Ags.	
1010) kcs.	(296.9 m.)			
CHML	, KC3.	100	а	Hamilton, Ont.	8 am-midnight
CKCD	1	100	a	Vancouver, B. C.	Silent
CKCK	F	1000 100	a	Regina, Sask.	9:30 am-2 am Noon-11:30 pm
CKCO		50	a	Ottawa, Ont. Wolfville, N. S.	
CKWX	F1	100	а	Vancouver, B. C.	Noon-4 am 6:55 am-1 am
CMCU K G GF	M2	200 1000	а а		Silent
KQW	M	1000	а	San Jose, Calif.	9:30 am-3 am 7 am-1 am
WHN WNAE	· · · · · · · · · · · · · · · · · · ·	1000 (5) 1000		New York, N. Y. Norman, Okla.	3-10:15 pm
WNOX		1000(5)	a		6:30 am-2 am
XEFQ		50 250	a	Cananea, Son.	8 am-1 am
XEU	• • • •	250	а	Veracruz, Ver. C.	o am i am
1020	kcs.	(293.9 m.)			
KYW	R	10000	b	Philaceiphia, Pa.	7:05 am-10 pm
WDZ XEJ		1000 1000	a a	Tuscola, III. Juarez, Chih.	7 am-6 pm
) kcs	(291.1 m.)			
CFCN	F	10000	а	Calgary, Alta.	9 am-1:30 am
CJBR	F	1000	a	Rimouski, P. Q.	
CKLW	FM	5000	а	Windsor, Ont.	6:30 am-4 am
TIHO XEB		500 1 0 00 0	z a		10 am-12:15 am
			_		

1040 kcs. KRLD C KWJJ HL KYOS DM	(288.3 m.) 50000 500 250	a a a	Dallas, Texas Portland, Ore. Merced, Calif.	9 am-5:45 am 9 am-LS
VOCM	7 100 50000	z a	St. John's, Nfld. Hartford, Conn.	6 am-1 am
1050 kcs.	(285.5 m.)			
CBA F CMCH CMCP HIT KFBI LY KNX C WEAU L WIBC D	50000 200 50 5000 50000 1000 (5) 1000	a z	Sackville, N. B. -Havana, Cuba -Havana, Cuba Trujillo, D. R. Abilene Kans. Los Angeles, Calif. Eau Claire, Wis. Indianapolis, Ind.	7 am-midnight 7:55 am-midnight 7 am-7:45 pm 9:30 am-3:15 am Until SS at Abilene, Texas 7 am-LS
	(282.8 m.)			
KTHS HN VOAC 1065 WBAL BM WJAG L	10000 40 10000 1000	a z a a	Hot Springs, Ark. St. John's, Nfld. Baltimore, Md. Norfolk, Nebr.	7 am-LS; 9 pm-1 am 6 am-9 pm 7:30 am-LS
	. (280.2 m.)			
CMJW KJBS L TINBC P WCAZ D WTAM R	200 500 5000 100 50000	z a z a	Camaguey, Cuba San Francisco, Calif. San Jose, C. Rica Carthage, III. Cleveland, Ohio	l am-9:45 pm 8 am-5 pm 6 am-midnight
	(277.6 m.)	1		
CMBX CMKM WBT C WCBD LI WMBI LI XEBA XEBK XEDP	200 200 50000 5000 5000 20 100 500	a a a g z a	Charlotte, N. C.	6:45 am-midnight .8 am-5:30 pm
1090 kcs.				
CMHA HIN KMOX C XERB	200 100 50000 150000	z a a	Sagua la Grande, Cuba Trujillo, D. R. St. Louis, Mo. Rosarito Beach, B. Cfa.	7 am-1 am
1100 kcs.	,			
CBR F CMHP KGDM DM KWKH CH WBIL 1 WCAR DP WPG C1 XECL ?	5000 200 1000 50000 5000 1000 5000	a z f a a z a z	Vancouver, B. C. Placetas, Cuba Stockton, Calif, Shreveport, La. New York, N. Y. Pontiac, Mich. Atlantic City, N. J. Mexicali, B. Cfa.	9 am-LS
1110 kcs.	(270.1 m.)			
CMCJ KSOO LN WRVA CM	200 5000 50000	a a a	Havana, Cuba Sioux Falls, S. Dak. Richmond, Va.	8 am-10 pm 7 am-LS 6:30 am-1 am
1120 kcs	. (267.7 m.)		Chicoutimi P. C	2-15-11-15 (
CHLP F	100	a a	Chicoutimi, P. Q. Montreal, P. Q.	3:15-11:15 pm ' 9 am-11 pm '

CHSJ CKOC CKX CMGF KFIO KFSG KRKD KRSC KTBC WCOP WDEL WISN WJBO WTAW	FFF.Daa.PDRCBL	100 500 (1) 1000 200 100 500 (2.5) 500 (2.5) 250 1000 500 250 (1) 250 (1) 500 500	a a a a a a a a a a a a a	Spokane, Wash. Los Angeles, Calif. Los Angeles, Calif. Seattle, Wash. Austin, Texas Boston, Mass. Wilmington, Del. Milwaukee, Wis. Baton Rouge, La.	5 am-midnight
1130	kcs.	(265.3 m.)			·
XEIB MOA K2T WIID	 L D	200 50000 20000 1000 100	a a a z	Ciego de Avila, Cuba Salt Lake City, Utah Chicago, III. New York, N. Y. Mexico City, D. F.	Noon-10 pm 8:30 am-3 am 6 am-6:45 pm
1140	kcs.	(263 m.) `			et.
CMBG KVOO WAPI WSPR	.; NO ₹		z a a a	Havana, Cuba Tulsa, Okla. Birmingham, Ala. Springfield, Mass.	7:57 am-midnight 7 am-1 am 7 am-5:45 pm
1150	kcs.	(260.7 m.)		• ,	
CMKG WHAM XEBP XEC XEDW XEL	 N 	200 50000 250 100 300	а	Santiago, Cuba Rochester, N. Y. Durango, Dgo. Tıyuana, B. Cfa. Minatırlan, Ver. C. Mexico City, D. F.	7 am-midnight
1160	kcs.	(258.5 m.)			
CMHJ WOWO WWVA XEAS XED XEP	B1 C1	200 10000 5000 100 2500 500	а а а а а	Cienfuegos, Cuba Fort Wavne and Wheeling, W. Va. Saltillo. Coah. Guadalarara, Jal. Juarez, Chih.	6 am-? Noon-midnight 9 am-2 am
1170	kcs.	(256.3 m.)			
CMBS WCAU XEXX	∵ċ	200 50000 1000	a a z	Havana, Cuba Philadelphia, Pa. Mexico City, D. F.	7:27 am-11 pm 7:30 am-1 am
1180 l	kcs.	(254.1 m.)			
KEX KOB WDGY WINS WMAZ	M L CL	5000 10000 1000(5) 1000 1000(5)	a a a	Portland, Ore. Albuquerque, N. Mex. Minneapolis, Minn. New York, N. Y. Macon, Ga.	9:30 am-3 am 9 am-1 am 7 am-7:30 pm 7 am-7 pm
1190	kcs.	(252 m.)			
CMKX KTKC DA WOAI WSAZ	AXZ EN L		z f a a	Santiago de Cuba Visalia Calif. San Antonio, Texas Huntington, W. Va.	9 am-LS 7:30 am-12:30 am 7 am-7 pm
° 1200	kcs.	(249.9 m.)			
CFGP CHAB	···j	100 100(.25)	a	Grande Prairie, Alta. Moose Jaw, Sask.	9:45 am-5 pm; 7pm-midnight 9 am- 12:30 am

CHGB	F	100	z	St. Anne de la Pocatierre,	
CKNX		100	z	P Q Wingham, Ont.	11 am-1 am
CKTB	··· Ė	100	ā	St Catharines Ont.	9:30 am-11:30 pm 7:55 am-midnight
CMCO		200 200	a	Havana Cuba	7:55 am-midnight
KADA	M	100	ā	Ada Okia	· · · · · · · ·
KAST		100 (.25)	а	Astoria Ore.	
KBTM	Ď	100	а	Jonesboro Ark.	8:30 am-6:30 pm
KELO	N	100 (.25)	а	Sioux Falls, S. Dak.	pm-lam
KFJB		100 (.25)	а	Marshalltown, lowa	7 am-10 pm
KFXD		100 (.25)	ā	Nampa Idaho	8 am-11 pm
KFXJ		100 (.25)	а	Grand Junction, Colo.	8 am-10 pm
KGDE	· • •	100 (.25)	ь	Fergus Falls, Minn.	8 am-10 pm
KGEK		100	f		
KGFJ		100	а	Los, Angeles, Calif. Little Rock, Ark.	24 hours daily 8:30 am-11 pm
KGHI	• • •	100 (.25)	а	Little Rock, Ark.	8:30 am-11 pm
KHAS	Р	100 (.25)	z	mastings, Nebr.	******
KMLB		250		Monróe, La.	10 7 45
KOOS KSUN	M	100 (.25)	a	Marshfield, Ore. Lowell Ariz	10 am-7:45 p m
KVCV	M	100 (.25) 100	a	Redding, Calif.	11 am-midnight
				_	0.20
KVEC	M	100 (.25)	а	San Luis Obispo, Calif.	9:30 am-3 am
KVNU KVOS	Ä	100 100	a	Logan Utah Rellegham Wash	9:30 am-?
KwaD	DP	100	z	Plainview Texas	******
KWG	N.	100	ã	Stockton, Calif.	10 am 2 am
KWNO		100 (.25)		Winona, Minn.	10 am-3 am
TIRCC		500 /			******
WABI	ċ	100 (.25)	а	Bangor, Maine	
WAIM	С	100	а	Anderson, S. C.	6 am-10 p m
WAYX WBAB	···è	100 (.25)	a		7 am-9 p m
			z		*******
WBBZ WBHP	M	100 (.25) 100	a	Ponca City, Okla.	8 am-1 0 pm
WCAT	ò	100	a	Ranid City S Dak	No 2
WCAX		100 (.25)	a	Burlington, Vt.	Noon-2 pm
WCLO		250	a	Janesville, Wis.	7:30 am-9 pm
WCPO		100(.25)	а	Cincinnati, Ohio	8 am-10 pm 7 am-11:30 p m
WULF	۾	100(.25)	z		· · · · · · · ·
WDSM	P	100	z	Superior, Wis. Elmira, N. Y. Easton, Pa. Salem Mass	******
WENY	P	100 (.25)	z	Elmira, N. Y.	*****
WEST	•••	100 (.25)	а	Easton, Pa.	******
WESX	ρ	100			******
WFAM	4	100	a	South Bend, Ind.	••••••
WFTC	· • •	100 (.25) 100 (.∠ゔ)	a	Kinston, N. C.	•••••
WHBC WHBY	···•	100 (.25)			******
WIBX	č	100 (.25)	a	Green Bay, Wis.	Silent
WIL		250	a		5.30 am-1 am
WJBC	· · • 5	250	a		4.0.20
WJBL	ZŚ	100	a	Decatur, III.	4-8:30 pm
***			-	= ==w.w., III.	7-10 am, 1:30-4 pm; 8:30 pm- 1 am
WJBW	L	100	а	New Orleans, La.	
WJHL	-	100 (.25)	a	Johnson City, Tenn.	. 2 am-9 pm
MJNO	Ċ	100 (.25)	а	W Palm Beach, Fla.	7 midei-ht
WJRD	Ď	250	a	Tuscaloosa, Ala.	7 am-midnight
WKBO	N	100(.25)	а	Harrisburg Pa.	· · · · · · · · · · · · · · · · · · ·
WLVA		250	a	Lynchburg Va	8 am-11 pm 7 am-11 pm
WMFR		100	а	High Point, N. C.	630 am-10 am
WMOB	DP	100	z	Mobile, Ala.	/ am-11 pm 6.30 am-10 pm
WMPC	,	100(.25)	а	Lapeer, Mich.	******
WOLS		100	а	Florence, S. C.	7 am-?
WRBL	С	100(.25)	а	Columbus, Ga.	
WSAL	Ď	250	z	Salisbury, Md.	8 am-midnight
WSKB	DP	100	z	McComb. Miss.	•••••
WSOO	P	100 (.25)	z	Saul Ste. Marie, Mih.	• • • • • • •
WTHT	M	100	а	Hartford, Conn.	7 am-4:15 pm
WTOL		100	a	Toledo, Ohio	
, WIOL	• • •	100	-	Hammand Ind	*****

100

WWAE

a Hammond, Ind.

1210	kcs.	(247.8 m.)		·	
CHLT		100	z		8 am-9 pm
CJCS		50	а	Stratford Ont.	8 am-9 pm
CJOC		100	а	Lethbridge, Alta.	9 am-1 am
CKBI	F	100	а		9:45_am-1_am 10_am-1_pm; 4-10_pm
CKCH CKMC	•	100 50		Hull, P. Q. Cobalt, Ont.	8 am-11 pm
CMHK	• • •			Cruces Cuba	•••••
KALB				Alexandria La.	
KANS	N	100	а	Wichita, Kans.	7:30 am-midnight
KASA	М	100	а	Elk City Okla.	7 am-8 pm
KDLR	:::	; 100 (.25)		Devils Lake N Dak.	7:30 am-9:30 pm 9:30-?
KDON	М	100 100	a	Monterey Calif Klamath Falls, Ore.	9.30-r 9 am -?
KFJI KFOR	CM	100 (.25)	a	Lincoln, Nebr.	9 am-? 8 am-11:15 pm
KFPW		1001.237	a		7:30 am-11 pm
KFVS	···;	100 (.25)	z	Cape Girardeau, Mo.	
KFXM	M2	100	а	San Bernardino Calif.	9 am-3 am 7 am-1 am
KGLO	c	100(.25)		Mason City, Iowa	
KGY	W	100		Olympia Wash. Okmulgee, Okla.	
KHBG KIUL	D	100 · 100	a	Garden City, Kans.	8 am-10 pm
KLAH	•••		a	Garden City, Kans. Carlsbad, N. Mex.	8:30 am-11 pm
KOCA		100 (.25) 100 (.25)	a	Kilgore, Texas	
KOVO	P	100(.25)	z	Provo, Utah	10:15 am-midnight
KPFA	EN	100(.25)	а		Silent ~
KPPC	2 C	100 100	а	Pasadena Calif. Sacramento Calif.	9:30 am-2:30 pm
KROY KVSO	й	100 (.25)	a	Ardmore, Okla.	8 am-11 pm
KWJB	•••	100 (.25)	a	Globe, Ariz.	10 am-midnight
KWTN	A	100	а	Watertown, S. Dak.	•••••
KXOX	DP	250	z	Sweetwater, Tex.	• • • • • • • • • • • • • • • • • • • •
KYUM WALR	Р	100 (.25) 100	z a	Yuma, Ariz. Zanesville. Ohio	7 am-9 pm
WBAX	· M	100	a	Wilkes-Barre, Pa.	
WBBL	S	100	а	Richmond, Va.	11 am-9:15 pm
WBRB	3	100	а	Red Bank, N. J.	4-7 pm
WCOL	N	100	а	Columbus, Ohio	7 am-11 pm
WCOU	. W	100 (.25)	a z	Lewiston, Maine Montgomery, Ala.	6 am-midnight
WCOV WCRW	4	100	a	Chicago III.	11 am-7 pm
WEBQ	5	100(.25)	a	Harrisburg, III.	7-10 am; 1-5 pm; 8:30-10 pm
WEDC	4	100	а	Chicago, III.	11 am-7 pm 7-10 am; 1-5 pm; 8:30-10 pm 10-11 am; 5-6 pm; 11 pm;mid-
WFAS	3	100	а	White Plains, N. Y.	mgm
WFOY		100 (.25)	a	St. Augustine, Fla.	7:30 am-midnight
WGBB	•••	100	а	Freeport, N. Y.	
WGCM	• • • • •	100(.25)	а	Guliport, Miss.	•••••
WGRM WHAI	Y M	100(.25)	а	Grenada, Miss. Greenfield, Mass.	7 am-?
WHBU		250	а		
WIBU	Ë	100 (.25) 100 (.25)	a a	Anderson, Ind. Poynette, Wis.	••••••
WINN	P	100 (.25)	z	Louisville, Ky.	
WJBY		100(.25)	a	Gadsden, Ala.	8 am-10:30 pm
MIEJ		100	а		7 am-11:30 pm
MILL	В	100(.25)	z	Lansing, Mich.	7:15 am-12:30 am
WJLS		250		Beckley, W. Va.	•••••
WJMC	D B	250	z a	Rice Lake, Wis.	7:30 am-12:30 am
WLW "		100 (.25) 100 (.25)	a	Jamestown, N. Y. Akron, Ohio	8 am-10:30 pm
WKOK		100 (.25)	a	Sunbury, Pa.	6 am-midnight
WLOK	Ď	100	а	Lima, Ohio	6 am-5:15 pm -
WMFG	С	250	а	Hibbing, Minn.	7:30 am-10 pm
WOCB	P	100 (.25)	z	Hyannis, Mass.	•••••
WOMT	• • •	100 (35)	а	Manitowoc, Wis.	9 6
WPAX WPIV	···	100 (.25) 100 (.25)		Thomasville, Ga. Petersburg, Va.	8 am-6 p m
WRAL	M	250	z z	Raleigh, N. C.	 6 am-1 a m
WSAY		100 (.25)	a	Rochester, N. Y.	7 am-12.30 am
WSBC	•••	250		Chicago, III.	6 am-midnight
WSIX	M	250	а	Nashville, Tenn.	7 am-1 am
				•	

WSNJ WSOC WTAX WTMA XEAT XEE XEFV XETH	MN 	100 (.25) 100 (.25) 100 250 250 50 50	a a a z a a a a	Bridgeton, N. J. Charlotte, N. C. Springfield, III. Charleston S. C. Parral, Chih. Durango, Dgo. Juarez, Chih. Puebla, Pue.	7 am-7 7 am-midnight 11 am-9 pm
1220 KFKU KTMS KTW KWSC TIGPH2 WCAD WCAE WDAE WGNY WREN XEBL XEDA XETF	kcs.	(245.8 m.) 1000 (5) 500 1000 1000 (5) 1000 1000 (5) 1000 (5) 250 1000 (5) 50 200 12	_	Lawrence, Kans, Santa Barbara, Calif. Seatrle, Wash, Pullman, Wash. San Jose, C. Rica Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Newburgh, N. Y. Lawrence, Kans, Mazatlan, Sin. Gral Anaya, D. F. Veracruz, Ver. C.	3:30-7:30 pm
1230	kcs.	(243.8 m.)			
CMCB CMJE KGBX KGGM KYA WFBM WNAC WOL XEG XECA	::ZO :ORX ::	200 200 500 1000 1000 (5) 1000 (5) 1000 (5) 1000 250 250	a 2 a a a a a z z	Havana. Cuba Camaguey. Cuba Springfield, Mo. Albuquerque, N. Mex. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Washington, D. C. Monterrey, N. L. Tampico, Tam.	8 am-11 pm 9:30 am-11:30 pm 9:30 am-3 am 7:30 am-1 am 5 am-1 am 6 am-2 am
1240	kcs.	(241.8 m.)			·
CJCB CMAB CMHB KFJZ KGCU KTFI WHBF WKAQ	F M .: M .: N M	1000 200 200 1000 250 1000	a z z a a	Sydney, N. S. Pinar dei Rio, Cuba Sancti Spiritus, Cuba Fort Worth, Texas Mandan, N. Dak. Twin Falls, Idaho	7 am-1 am
WXYZ XEBU XECW XEKL XEME	С В А	1000 (2.5) 1000 1000 50 250 500 50	a a z z b z	Rock Island, III. San Juan, Puerto Rico Detroit, Mich. Chihuahua, Chih. Cordupa, Ver. C. Leon, Gto. Merida, Yuc.	8 am-1 am 6 am-9:30 pm
WXYZ XEBU XECW XEKL XEME	 A 	1000 1000 50 250 500	a a z b	Rock Island, III. San Juan, Puerto Rico Detroit, Mich. Chihuahua, Chih. Cordupa, Ver. C. Leon, Gto.	6 am-9:30 pm
WXYZ XEBU XECW XEKL XEME	 A 	1000 1000 50 250 500 50	a a z b	Rock Island, III. San Juan, Puerto Rico Detroit, Mich. Chihuahua, Chith. Corapa. Ver. C. Leon, Gro. Merida, Yuc. Santiago, Cuba Long Beach, Calif. Yakima, Wash. St. Louis, Mo. Winston-Salem, N. C. New Orleans, La. Newark, N. J. New Castle, Pa. Aurora. III.	6 am-9:30 pm

KGVO KHSL KOIL KPAC KRGV KUOA KVOA WFVA WHIO WIII WNBX WTOC	CAWNZ DZP CP WC	1000 (5) 250 1000 (5) 500 1000 5000 1000 250 1000 (5)	a a a a a a a a z a z a a	Missoula, Mont, Chico, Calif, Omaha, Nebr Port Arthur, Texas Weslaco Texas Siloam Springs, Ark, Tucson Ariz Fredericksburg, Va. Dayton, Ohio Niagara Fa s N. Y. Springfield, Vt., Savannah, Ga.	8:50 am-1 am 6 am-5:45 pm 8 am-11 pm 7 am-LS 8 am-11:30 pm 6 am-1 am 7 am-midnight 7 am-midnight
1270	kcs.	(236.1 m.)			
CMHD KG A KOL KVOR KWLC WASH WFBR WJDX WOOD XFSM XEXB XEXE	DO2 MC D2 aDN R R aN	200 100 (5) 1000 100 500 1000 (5) 1000 (5) 500 100 250	daaaaaaaazaz	Caibarien, Cuba Decorah. Iowa Seattle, Wash. Colorado Springs, Colo. Decorah Iowa Grand Rapids, Mich. Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Mexico City D. F. Jalapa Ver C. Texcoco, D. F.	9 am-1 am 9:30 am-5:30 pm 7 am-LS 6:30 am-1:30 am 7 am-midnight
1280	kcs.	(234.2 m.)			•
CMKO KFBB KLS WCAM WCAP WDOD WIBA WORC WRR WTNJ XEMX	C 2 2 C N C M 2 kcs.	200 1000(5) 250 500 500 1000(5) 1000(5) 500 500 100 (232.4 m.)	z a a a a b a a a a z	Holguin. Cuba Great Falls Mont. Oakland, Callf. Camden, N. J. Asbury Park N J. Chattanooga Tenn. Madison, Wis. Worcester, Mass. Dallas Texas Trenton, N. J. Mexico City, D. F.	10 am-1 am Silent 10:30 am-4 pm; 7:30 am-12:30 am 8 am-1 am 8 am-midngiht 8 am-midnight
CMCG CMJK		200	a	Havana, Cuba Camaguey Cuba	7 am-midnight
KDYL KLCN KTRH WATR WEBC WJAS WJHP WNBZ WNEL	. D40Z: 00B	1000 (5) 1000 (5) 250 1000 (5) 1000 (5) 250 100 1000 (2.5)	a a a a a a a a a a a	Sait Lake City, Utah Blytheville, Ark. Houston, Texas Waterbury, Conn. Duluth, Minn. Pittsburgh, Pa. Jacksonville, Fla. Saranac Lake, N. Y. San Juan, Puerto Rico	8 am-3 am 7:30 am-3:30 am 8 am-? 8 am-1 am 7:30 am-12:30 am 9:30 am-LS 6:30 am-LS
1300	kcs.	(230.6 m.)		· ,	
KALE KFAC KFH WBBR WEVD WFBC WHAZ WHBL	M C 2 2 N 2	1000 1000 1000(5) 1000 1000 1000(5) 1000 250(1)	8 a a a a a a g	Portland, Ore. Los Angeles, Calif. Wichita, Kans. Brooklyn, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis.	9:15 am-3 am 24 hours daily 7 am-1 am Silent 6:45 am-midnight 6 pm-midnight 8 an-midnight
	kcs.	(228.9 m.)			
CHCK CJKL	···;	50 1 00	a a	Charlottetown, P. E. I. Kirkland Lake, Ont.	

CJLS	F	100	а	Yarmouth, N. S.		
CKCV	F	100	а	Yarmouth, N. S. Quebec P Q		7:55 am-11:30 pm
CMKE	7		z	Manzanillo, Cuba		
KAND	M	100	a	Corsicana Texas		7 am-?
KARM	Ċ	100	a	Fresno Calif.		9 am-3 am
KBND		100 (.25)	z	Bend Ore		
KCKN	• • •	100	a	Kansas City, Kans.		7 am-1 am
	• • •	100 (25)	a	Language Ania		/ alli-i alli
KCRJ	• • •	1001 251		Jerome Ariz. Dublin Texas		7 10 45
KFPL	• • • •	100 (25)	f	Dublin Texas		7 am-10:45 pm
KFYO	М	1007.253	а	Lubbock Texas		8 am-10:15 pm
KGFZ		100	а	Kalispell Mont.		9 am-11 pm
KGFW	• • •	100(.25)	а	Kearney Nebr.		7 am-10 pm
KHUB		100(. 2 5)	а	Watsonville, Calif.		7 am-10 pm 9 am-?
KOCY		100 (.25)	а	Oklahoma City, Okla.		7:45 am-?
KOME	EM	100(.25)	z	Tulsa Okla.		
KPDN		100				
	D		а	Pampa Texas Lufkin, Texas		<u></u>
KRBA	D	100	а	Lutkin, Texas		7 am-6:15 pm
KRWD	• • •	250	а	Shreveport La.		7:30 am-1 am
KROC	N	100(.25)	а	Shreveport La. Rochester, Minn.		7 am-12:15 am
KRRV	DM	2 50	а	Sherman Texas		
KSRO		250	а	Santa Rosa Calif.		10 am-2 am
KSUB		100	а	Cedar City Utah		
KTSM	N	100 (25)	а	FI Paso Texas		8:30 am-1 am
KVIC	P	100(.25)	z	Victoria Texas		0.50 am-1 am
KVOL	-	100(25)		Lafavette La		7 am-2 pm; 5-11 pm
KVOX	• • •	100(.25)	.a			7 am-2 pm; 5-11 pm
	• • •		a	Moorhead Minn.		7 am-10 pm
KVSF	• • •	100	а	Santa Fe, N. Mex.		
KWFC	P	100(.25)	z	Hot Springs, Ark. Poplar Bluff, Mo		
KWOC	D	100	а	Poplar Bluff Mo		7:30 am-LS
KWOS		100 (25)	а	Jefferson City Mo.		7 am-11 pm
KXRO	···	100(.25)	·a	Aberdeen Wash		10 am-2 am
TG1			ď	Guatemala City, Guat.		
WAML	• • •	250		Laurel Mars		6 pm-5 am
WBEO	<u>i</u>	100/ 25)	а	Laurel Miss		8 am-1 0 p m
WBOW	ΝŽ	100(25) 100(25)	а	Marguette Mich.		
		1004 257	а	Terre Haute Ind.		7 am-midnight
WBRE	N	100(.25)	а	Wilkes-Barre Pa.		
WBRK	W	(100(.25)	а	Pittsfield Mass.		7 am-1 am
WCLS	L	100	а	Joliet III		8 am-9:30 pm
WCWI	М	100(.25)	а	Ashland Kv.		6 am-11:30 pm
WDAH	S		a	El Paso, Texas		Silent
WEBR	В	250	а	Buffalo, N. Y.		
WEMP		250	a			7 am-midnight
WEXL		. 50		Milwaukee, Wis.		7:30 am-?
WFBG	• • •	100	а	Royal Oak, Mich.		8 am-4 am
WFDF	ъ	100	а	Altoona, Pa.		7 am-10:30 pm ~
WFIG	P		а	Flint Mich.		7 am-midnight
		100(.25)	z	Sumter, S. C.		
WGAU	• • •	100(.25)	а	Athens Ga.		7 am-midnight
WGH	• • •	100(.25)	а	Newport News, Va.		7 am-midnight
WGTM	D	100	а	Wilson, N. C.		
WHAT	4	100	а	Philadelphia Pa.		
WJPF	P	100(.25)	z	Herrin, III.		· · · · · · · · · ·
WJPR	P	100(.25)	z	Greenville, Miss.		• • • • • • • •
WLAK	Ν	250	z	Lakeland, Fla.		
WLBC		250				
			а	Muncie, Ind		7 am-midnight .
WLBJ	P	100(.25)	z	Bowling Green, Ky.		
WLNH	М	100	а	Laconia, N. H. Auburn N. Y.		7 am-midnight
WMBO		100 (.25)	а	Auburn N. Y.		
WMFF	В	100(.25)	а	Plattsburg N. Y.		7:45 am-midnight ,
WNBH	M	100(.25)	а	New Bedford, Mass.		7:30 am-11:15 pm
WRAW	0	1.00	а	Reading, Pa.		7 am-11 pm
WROL	N	100 (.25)	a	Knoxville, Tenn.		
WSAJ		100	_	,		
WSAV	P.	100	a	Grove City, Pa.	;	Silent
			Z	Savannah, Ga.		
WSGN	В	100 (.25)	а	Birmingham, Ala.		8 am-midnight
WSJS	С	2 50	а	Winston-Salem, N. C.		8 am-10 pm.
WTAL	•••	100(.25)	а	Tallahassee, Fla.		8 am-midnight
WTEL	4	100	а	Philadelphia, Pa.		8 am-midnight
WTJS	• • •	100 (.25)	а	Jackson, Tenn.		7 am-11 pm
WTRC		250	а	Jackson, Tenn. Elkhart, Ind.		7 am-8:30 pm
XEAG		10	z	Cordoba, Ver. C.		
XEBO		25	z	Irapuaro, Gro.		
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XEFW XETB XEX	. 500	a a a	Tampico, Tam. Torreon, Coah. Monterrey, N. L.	
1320 ka	s. (227.1 m.)			
CMCR KGHF KGMB CM KID KRNT WADC WORK	. 200 B 500 Z 1000 . 500(1) C 1000(5) C 1000(5) N 1000	z a a a	Idaho Falls, Idaho Des Moines, Iowa Akron, Ohio York, Pa.	9 am-1 am 1:30 am6 pm 6 am-? 6:30 am-1 am 7 am-1 am 8 am-10 pm
1330 ka	s. (225.4 m ^l .)		٠	
KGB KMO KRIS M KSCJ WDRC WSAI M	M 1000 M 1000 N 500 C 1000(5) C 1000(5)	a a a a g	San Diego, Calif. Tacoma, Wash. Corpus Christi, Tex. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Green Bay, Wis.	10 am-4 am 9 am-3 am 7:30 am-midnight 7 am-2 am 7 am-midnight 7 am-1 am 8 am-1 am
1340 kg	s. (223.7 m.)			•
KDTH D KGIR E KGNO WCOA WFEA M WFNC D	P 500 N 1000(5) . 250(1) N 500(1) N 500(1) P 250 B 1000(5) . 50 . 200 . 200	z a b a a z a z a z z a	Pensacola Fla. Manchester, N. H. Favetteville, N. C. Toledo, Ohio Obregon, Son. Victoria, Tam. Mexico City, D. F. Villa Acuna, Coah.	8:30 am-midnight 8 am-1 am 6:30 am-1 am
1350 kc	s. (222.1 m.)			
KWK B WAWZ WBNX	. 200 N 1000 (2.5) M 1000 (5) 2 1000 2 1000 X 500	a a a a a	Havana, Cuba Boise, Idaho St. Louis, Mo. Zarephath, N. J. New Cork, N. Y. Richmond, Va.	9 am-2 am 6:30 am-1 am 7:45 am-8:45 am; 6-7:30 pm 7 am-midnight
1360 ka	s. (220.4 m.)		-	
KGER KLPM KSLM WCSC WFBL WGES WOBC	E00(1)	a a	Ciego de Avila, Cuba Enid, Okla. Long Beach, Calif. Minot, N. Dak. Salem, Ore. Charleston, S. C. Syracuse, N. Y. Chicago, III. Vicksburg, Miss. South Bend, Ind.	8 am-11 pm 9 am-3 am 10 am-1 am 7 am-midnight 7 am-1 am 8 am-9 pm
1370 k	cs. (218.8 m.)	)		
CFAR CFOS CKCW CKRN CMGE HIZ KEEN	F 100 - 100 - 200	a z a z a z a	Flin Flon, Man. Owen Sound, Ont. Moncton, N. B. Rouyn, P. Q. Cardenas, Cuba Trujillo, D. R. Seattle, Wash.	8 am-2:15 pm; 6-10 pm  10 am-10:30 pm 3 pm-1 am

KELD		100	z	El Dorado, Ark.	
KERN	Ň	100	ā	El Dorado, Ark. Bakerstield, Calif.	11 am-3 <b>am</b>
KFGQ	D	100	а	Boone, Iowa	7 am-2 pm
KFRO E	MXZ	250	а	Longview, Texas	7:45 am-LS
KGFL	4 M	100	а	Roswell, N. Mex.	9 am-?
KGKL KICA	- M	100 (.25) 100	a a	San Angelo, Texas	9 am-11 pm
KIUN		100	a	Clovis, N. Mex. Pecos, Texas	8 am-10 pm
KIUP		100	a	Durango, Colo.	10 am-11 pm
KLUF	M	250	а	Galvaston Tax	8 am-1 am
KMAC	5	100(.25)	а	San Antonio, Tex. Rapid City, S. Dak. La Junta, Colo. San Antonio, Tex. Berkeley, Calif. Everett, Wash.	8 am - 0 am ·
KOBH		100 (.25) 100	а	Rapid City, S. Dak.	8 am-midnight 8 am-11:30 pm 7 am-11 pm 24 hours daily 10 am-3 pm; 7-10 pr
KOKO KONO	· · · · · · · · · · · · · · · · · · ·	100	а	La Junta, Colo.	8 am-11:30 pm
KRE		100 100(.25)	a a	Berkeley Calif	/ am-II pm
KRKO	÷÷	50	a	Everett, Wash.	10 am-3 pm: 7-10 pr
KRMC		100(.25)	а	Jamesiown, N. Dak.	
KTEM	M	100(.25)	а	Temple, Texas	7 am-1 am
KTOK KTSW	EMN	250 100	a a	Oklahoma City, Okla.	7 am-1 am
KTUC	···ċ	100 (.25)	a	Oklahoma City, Okla. Emporia, Kans. Tucson, Ariz. Walla Walla, Wash. Fort Dodge, Iowa Great Bend, Kans. Rock Springs, Wyo. Sheridan, Wyo. Albany, N. Y. Dothan, Ala. Atlanta, Ga. Clarksburg, W. Va. Buffalo, N. Y. Williamson, W. Va. Danville, Va.	9 am-1 am 9:30 am-1 am
KUJ		100	a	Walla Walla, Wash.	9:30 am-1 am
KVFD	LP	100'( 25)	z	Fort Dodge, Iowa	
KVGB		100	z	Great Bend, Kans.	
KVRS	• • •	100(.25)	а	Rock Springs, Wyo.	0 am midnight
KWYO WABY	ВM	100 100 (.25) 100 (.25) 100 (.25) 250	a	Albany N. Y.	9 am-midnight 7 am-midnight 9 am-LS
WAGF	Ď	250	a	Dothan, Ala.	9 am-LS
WATL		1001.25)	a	Atlanta, Ga.	7 am-1 am 6 am-11:30 pm 7:30 am-midnight
WBLK	 N 2	250 100(.25)	а	Clarksburg, W. Va.	6 am-11:30 pm
WBNY	Ď	100 (.25)	a	Buttalo, N. Y.	
WBTH WBTM		100 ( 25)	z a	Danville Va	7 am-10 pm
WCBM		100(.25) 100(.25) 100(.25) 100(.25)	a	Williamson, W. Va. Danville, Va. Baltimore Md. Elizabeth City, N. C. Columbia, S. C. Philadelphia, Pa. Champaign, Ill. Evansville, Ind.	
WCNC	P	100 ( 25)	z	Elizabeth City, N. C.	
wcos	P	100 (.25)	z	Columbia, S. C.	9 am midwight
WDAS	• • •	100(.25)	a	Champaign III	7 am-midnight
WDW\$ WEOA	ċ	250	a a	Evansville Ind.	8 am-1 am
WFOR	<u>`</u>	100	a	narriesburg, Miss.	8 am-midnight 7 am-midnight 8 am-1 am 8 am-9 pm
WFTL	Р	100(.25)	z	Ft. Lauderdale, Fla.	
WGBR	P	100 100(.25) 250	z	Goldshoro N.C.	• • • • • • • • • • • • • • • • • • • •
WGL WGRC	DM	250	а <b>а</b>	Fort Wavne, Ind. New Albany, Ind.	7 am-LS 8 am-11:30 pm 10:30 am-6:30 pm
WHBO		100	a	Memphis, Tenn. Calumet, Mich. Virginia, Minn.	8 am-11:30 pm
WHBQ WHDF		100 (.25) 250	а	Calumet, Mich.	10:30 am-6:30 pm
WHLB	··ċ	250	а	Virginia, Minn. Port Huron, Mich. Cookeville, Tenn.	6 am-7:30 pm
WHLS WHUB	···;	100 (.25) 100 (.25)	a Z	Cookeville Tenn.	
WIBM	В	100 (.25)	ā		6:30 am-12:30 am
WISE WJAC WLLH	P	100 100(.25) 100(.25)	z	Asheville, N. C.	
WJAC	MSy	100(.25)	а	Johnstown, Pa.	7:30 am-midnight
WLLH	MSy	100(.25)	a a	Lowell, Mass.	7:30 am-midnight 7:30 am-midnight
WLLH WMAN	Sy DP	100 250	z	Lawrence, Mass. Mansfield, Ohio	_
WMBR	Č	100(.25) 100(.25)	а	Jacksonville, Fla. Wilmington, N. C.	7:30 am-midnight 7:30 am-7 pm
WMFD		100(.25)	а	Wilmington, N. C.	7:30 am-7 pm
WMFO	D	100	a z	Decatur, Ala. Moultrie, Ga.	8 am-6:30 pm
WMGA WMIN	P	100 (.25)	a	Moultrie, Ga. St. Paul Minn.	7 am-1 am
WOC	ċ	100 (.25) 100 (.25) 100	a	Davenport, Iowa Portsmouth, Ohio Mayaguez, P. R. Williamsport, Pa.	7 am-1 am 7 am-1 am 7 am-10:15 pm
WOC WPAY		100	а	Portsmouth, Ohio	7 am-10:15 p <b>m</b>
WPRA	хх	1000 (2.5) 100 (.25) 100	;a	Mayaguez, P. R.	7:20 am 0 nm
WRAK	MN	100 (.25)	· a a	Augusta Maine	7:30 am-9 pm 8 am-11:15 pm
WRDO WRJN		100 (.25.)	.a	Augusta Maine Racine, Wis. Wausau, Wis. Buffalo N. Y.	8:45 am-midnight
WSAU		250 50 100(.25)	ā	Wausau, Wis.	8:45 am-midnight 7 am-11:15 pm 8:30 am-10 pm
WSVS	D2	50	Ь	Buffalo N. Y.	8:30 am-10 pm
WTSP	P	100(.25)	Z	St. Petersburg, Pla.	
XECZ XEI		100 125	z	San Luis Potosi, S. L. F	· · · · · · · · · · · · · · · · · · ·
XEI XELZ	• • •	. 100	a ·z	Morelia, Micho. Mexico City, D. F.	
ALLA		100	-		: ','
1200	lees	/217 2 \			
1380	kcs.	(21 <i>7</i> .3 m.)			
CMCW			ď	Havana, Cuba	6:55 am-midnight
	kcs.	(217.3 m.) 200 500 500(1)	d a b	Havana, Cuba Reno Nev. Pittsburgh, Pa.	6:55 am-midnight 11 am-3 am 7 am⇒10 pm

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WALA WING WKBH WNBC XEM	CXZOR :	500(1) 250(.5) 1000 250(1) 500	a a a z	Mobile, Ala. Dayton, Ohio La Crosse, Wis. New Britain, Conn. Chihuahua, Chih.	8:30 am-midnight 6 am-7:30 pm; 10 pm-1 am 7 am-midnight 7 am-midnight
1390	kcs.	(215.7 m.)	•		
CMJC KABR KLRA KOY KRLC WHK WQDM	 C C KBM D	200 500(1) 1000(5) 1000 250 1000(5)	z a g a a f	Little Rock, Ark. Phoeniz, Ariz.	8 am-11 pm 9 am-12:15 am 9:30 am-12:30 am 7 am-midnight 6 am-LS
1400	kcs.	(214.2 m.)			•
CMKR		200	z	Santiago de Cuba Hilo, Hawaii Ogden, Utah Tulsa Okla. Guatemala City, Guat. Brooklyn, N. Y. Brooklyn, N. Y. Olean, N. Y. Indianapolis, Ind. New York, N. Y. Brooklyn, N. Y.	Noon-4 am 9:30 am-1:30 am 7:30 am-1:30 am 3:45-6 pm 7-11 am; 7:30-9 pm 7:30 am-1 am 11 am-1:30 pm; 6-7:30 pm 1:30-3:45 pm; 9-10:30 pm
1410	kcs.	(212 m.)			
CKFC CKMO CMCQ KFJM KGNC KMED WAAB WBCM WHIS WROK WSFA	2 2  N N M 	50 100 200 500(1) 1000(2.5) 250 1000 500(1) 500(1) 500(1) 500(1)	a a a a a a a a a	Vancouver, B. C. Vancouver B C. Havana Cuba Grand Forks, N. Dak. Amarillo Texas Medford, Ore. Boston, Mass. Bav City Mich. Bluefield W. Va. Rockford III. Montgomery, Ala.	11 am-? 7 am-11 pm / 8 am-10 pm 7 am-? 9 am-12:30 am 5 am-10 pm 7:30 am-midnight 7:30 am-midnight
1420	kcs.	(2 ¹ .1 m.)			
CBLCANPC CKANPC CKLNPC CKLNPC CKLNPC CKLNPC CKLNPC CKANPC KKDNN KKNPC CKNPC CK	F.F. X .450 .ZEKS .m .DXXE	100 100(.25) 100(.25) 100(.25) 100(.25) 100 250 100 100(.25) 100 100(.25) 100 100(.25) 100 100(.25) 100 100(.25) 100(.25) 100(.25) 100(.25) 100(.25)	a z a z a a a a a a a a a a a a a a a z a a a z z a a f a z z	Fond du Lac Wis. Shawnee, Okla. Alamosa, Colo. Safford, Ariz. Lamar Colo. La Grande, Ore. Palestine Texas Eugene, Ore. Abilene, Texas Bozeman, Mont. Beaumont, Texas	7 am-12:15 am 7:30 am-? 2-3:30 pm; 7-8 pm 8 am-midnight 8 am-LS 9:30 am-midnight 8 am-10 pm 8 am-10 pm 9:30 am-10:30 pm 9 am-8 pm 10 am-? 10 am 8 am-10 pm 8 am-10 pm

KWBG KXL WACGM WAPO WAZGM WAPO WELL WFMIC WGPC WHMA WILM WILM WILM WHAP WHEN WMASC WMASC WMASC WMASC WMASD WPAR WNOE WPAR WSLI WSPB	 M B P	100 100 (.25) 250 100 (.25) 100 (.25) 250 100 (.25) 250 100 (.25) 100 (.25)	a zaaaaaa	Erie, Pa. Suffolk. Va. Springfield, Mass. Detroit, Mich. Joplin, Mo. Uniontown, Pa. Daytona Beach, Fla. Muscle Shoals City; Ala. New Orleans, La. Paducah, Ky. Paikersburg, W. Va. Ponce, Puerto Rico Jackson, Miss.	8 am-10 pm 9 am-3 am 9 am-1 am 11 am-7 pm 7 am-7 pm 9 am-10 pm 8 am-14 pm 7 am-midnight 7 am-8 pm 7 am-1 am 1.30 am-midnight 7 am-1 am 1.30 am-midnight 7 am-1 am 1.30 am-midnight 7 am-1 pm 8 am-11 pm 1 pm-midnight 7 am-midnight 7 am-midnight 7 am-midnight 8 am-11 pm 1 pm-midnight 7 am-midnight 7 am-midnight 7 am-midnight 8 am-11 pm
1430	kcs.	(209.7 m.)			
CJGX CMKZ KGNF KINY KSO WBNS WHEC WHP WMPS WOKO XERH	F : DXMCCCBK?	1000 200 1000 250 1000(5) 1000(5) 500(1) 500(1) 500(1) 500(1)	azaaaaaaa	Yorkton, Sask. Palma Soriano, Cuba Nortip Plarte, Nebr. Juneau, Al'aska Des Moines, Iowa Columbus, Ohio Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. Mexico City, D. F.	8:30 am-12:30 am  8 am-6:15 pm Noon-? 7:30 am-2 am 6 am-? 7:50 am-midnight 6:30 am-midnight 8 am-12:30 am 8 am-1 am
1440		(208.2 m.)			
CKGB CMBY KDFN KELA KXYZ WBIG WCBA WMBD WSAN XEFI	F  BM C a C aN	100 200 500 1000 1000 1000(5) 500 1000(5) 500 250	a a a a a a a a a	Timmins, Ont. Havana, Cuba Casper, Wyo. Centralia Wash. Houston, Texas Greensboro, N. C. Allentown, Pa., Peoria, III. Allentown, Pa. Chihuahua, Chih.	11 am-11:30 pm 7.55 am-11:30 pm 9:45 am-3 pm 124 hours daily 6:30 am-11:30 pm 7:30 am-11:30 pm 7 am-midnight 1 pm-11:30 pm
1450	kcs.	(206.8 m.)			•
CFCT CHGS CMHM HRN	 F 	500 50 200 500			10:45 am-1215 am 6:30 am-10 pm 
KCMO KGCX KIEM KTBS TGQ WAGA WGAR WHOM WSAR XEF	M NZ B C	1000 1000 500(1) 1000 200 500(1) 1000(5) 250 1000	a a a a a a a f a	Kansas City, Mo. Wolf Point, Mont. Eureka Calif. Shreveport. La. Quezaltenango, Guat. Atlanta, Ga. Cleveland. Ohio Jersey City, N. J. Fall River, Mass. Juarez, Chih.	pm 7 am-2 am 10 am-1 am 7:30 am-1 am 7:15 am-2 am 7 am-midnight 7 am-midnight 7:30 am-midnight

1460	kcs	(205.4 m.)			
CMKF		250	z z	Holguin, Cuba St. Paul, Minn.	
KSTP WJSV	RX CX	10000 (25) 10000	z a	St. Paul, Minn. Washington, D. C.	7 am2 am 7 am-1 am
1470	kcs.	(204 m.)		,	•
CMCX H18Q KGA WLAC	1475 BM	200 100 5000 5000	z z a a	Havana, Cuba Trujillo, D. R. Spokane, Wash. Nashville, Tenn.	9 am-11 pm 
1480	kcs.	(202.6 m.)			,
CWHX FOMA WHIP WKBW	 D C	200 5000 5000 5000	a a z a	Cienfuegos, Cuba Oklahoma City, Okla. Hammond, Ind. Buffalo, N. Y.	7:30 am-1 am 7:30 am-5:30 pm 8 am-1 am
1490	kcs.	(201.2 m.)			
CMKQ KFBK WCKY XECH XEDR	KN CX ?	1000 10000 10000 250 100	z a a z z	Santiago de Cuba Sacramento, Calif. Covington, Ky. Toluca. Mex. Guaymas, Son.	10 am-3 am 7 am-midnight
1500		(199.9 m.)			
CJKOXM  CJKAWIXRTAL  ORANIARRA  O	EPACKPA . X . SCD	100 200 100 100 100 100 100 100	aaaaxaaaxxaaaaaaaaaaaaaxaxxaaxxaaaaaaaxaaxaaaa	Sault Ste. Marie, Ont. Havana, Cuba Gallup, N. Mex. Muskogee, Okla. Baker, Ore. Big Spring, Texas Duluth, Minn. Santa Barbara, Calif. Sedalia, Mo. Amarillo, Texas Brownsville, Texas Tvler. Texas Scottsbluff, Nebr. Brady. Texas Austin, Texas Pine Bluff, Ark. Valley City. N. Dak. Laredo, Texas Lake Charles, La. Paris, Texas Wenatchee, Wash. Roseburg, Ore. El Paso, Texas Salina. Kans. Huntsvile, Texas Lihue. Hawaii Salt Lake City, Utah Santa Ana, Calif. Vernon, Texas Lihue. Hawaii Salt Lake City, Utah Santa Ana, Calif. Prescott, Ariz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa. Galesburg, Ill. Charleston, W. Va. Greenville, N. C Selma, Ala. Detroit, Mich. Mich. Mich. Mich. Griffin, Ga. Kingston, N. Y.	10 am-10 pm 10 am-10 pm 8 am-11 pm

WMEX WMOG WNBF WNLC WOMI WRDW WRGA WRTD WSYP WSYB WTMC WTMV WWRL WWRL WEQK	P C M C B M XM 2	100(.25) -00(.25) 100(.25) 100(.25) 100 100(.25) 100 250 100 250 100 100(.25) 100(.25) 100(.25)	a a z	Owensboro, Ky. Bristol, Tenn. Augusta, Ga. Rome, Ga. Richmond, Va. Salisbury, N. C. Rutland, Vt. Ocala, Fla. E. St. Louis, III.	8 am-? 7:30 am-? 6 am-9 pm 7 am-9 pm 8 am-11 pm 7 am-1 am 8:30 am-9 pm
CFRC CKCR		100 100	a	Kingston, Ont. Waterloo, Ont.	Noon-11 pm . 8 am-11 pm .
<b>1520</b> TGW	kcs.	( <b>197.3 m.</b> )	đ	Guatemala City, Guat.	7:45 am-9 am; 12:45-3:45 pm; 7:30 pm-12:15 am
1530 CMC KITE WAKR WBRY	kcs.	(196 m.) 200 1000 1000	Z	Havana, Cuba Kansas City, Mo. Akron Ohio Waterbury, Conn.	6 am-3 am 8:30 am-midnight
1550 KPMC WQXR	kcs. 	(193.4 m.) 1000 1000	a	Bakersfield, Calif. New York, N. Y.	10 am-2 am 10 am-9:15 pm
<b>1560</b> CMBF	kcs.	( <b>192.2 m.</b> )	z	Havana, Cuba	6:55 am-midnight
1580 cmart	kcs.	(189.8 m.)	z	Guines, Cuba	
<b>1600</b> смвн	kcs.	( <b>187.4 m.</b> )	z	Havana, Cuba	

## RADEXING

(Continue from Page 15)

#### TP Topics

FORECAST: Reception from down under in Australia and New Zealand should have passed its peak by November, but they ought to be heard for some time yet under good conditions. Perhaps in the latter part of November, some RADEXER in the East may succeed in snagging a Japanese or other Asiatic station.

For 'tis in December and January that the conditions will be at their best for Asiatics.

Australia: 6WF, assigned to 3500 watts at present is using 2500 watts and will soon have doubled power, that is 5000 watts. . . . 6WN uses 1000 watts on 790 kcs. and is not for DX listening. It uses a 300 ft. steel tower and is intended only for Metropolitan Perth reception. Both these items are from the Broadcaster. (Jim Walker, Romney, W. Va)

Frequency is given in kilocycles in second column. For power and network affiliations, refer to the list of North American stations by Frequencies.

ALABAMA	El Dorado -	San Bernardino	New Haven	Atlanta
	-KELD 1370	KFXM 1210	WELI 900	→WAGA 1450
Anniston	Fort Smith	San Diego	New London	-WATL 1370
-WIIMA 1420	-KFPW 1210	KFSD 600	WNLC 1500 Waterbury	WMB1 1080 WGST 890
Birmingham	Hot Springs	KGB 1330	WATR 1290	WGST 890 WSB 740
	KTHS 1060	San Francisco	WBRY 1530	Augusta
-WBRC 930	KWFC 1310	KFRC 610	11227	- WRDW 1500
WSGN 1310	- KBTM 1200	-KGO 790	DELAWARE	Brunswick
Decatur	Little Rook	-KJBS 1070		WMOG 1500
-WMFO 1370 Dothan	-KARK 890	КРО 680	Wilmington	Columbus WRBL 1200
WAGF 1370	KGHI 1200	KSAN 1420	WDEL 1120 WILM 1420	WRBL 1200.
Gadsden	-KLRA 1390	KSFO 560	WILM 1420	-WKEU 1500
WJBY 1210	Pine Bluff	KYA 1230	DISTRICT OF	Macon
Huntsville	KOTN 1500	San Jose	COLUMBIA	→WMAZ 1180
WBHP 1200	Siloam Springs	KQW 1010 San Luis Obispo	1 COLOWBIA	Moultrie
Mobile	KUOA 1260	KVEC 1200	WashIngton	WMGA 1:370 Rome
WALA 1380		Santa Ana	-WJSV 1460	WRGA 1500
WMOB 1200	CALIFORNIA	KVOE 1500	WMAL 630	Savannah
Montgomery	D-1A-14	Santa Barbara	WOL 1230	WSAV 1310
WCOV 1210	Bakersfield KERN 1370	KDB 1500	WRC 950	WTOC 1260
-WSFA 1410	KERN 1370 	KTMS 1220		Thomasville —WPAX 1210
Selma —WHBB 1500	Berkeley	Santa Rosa	FLORIDA	Wayeross 1210
Muscle Shoals	KRE 1370	KSRO 1310		WAYX 1200
City	Beverly Hills	Stockton	Daytona Beach	
***WMSD 1420	KMPC 710	KGDM 1100	WMFJ 1420	HAWAII
Tuscaloosa	Chico	KWG 1200	Ft. Lauderdale	
-WJRD 1200	- KHSL 1260	Visalia KTKC 1190	WFTL 1370	Hilo
	El Centro	Watsonville	Gainesville 	KHBC 1400
	KXO 1500	KHUB 1310	Jacksonville	Honolufu
ALASKA	Eureka	I IIIOZ	₩JA Ä 900	KGMB 1320
	KIEM 1450	201.07470	WJHP 1290	KGU 750
· Anchorage	Fresno KARM : 1310	COLORADO	WMBR 1370	KTOH 1500
KFQD 780	KMJ 580		Lakeland WLAK 1310	K10H 1000
Fairbank <b>s</b>	Glandala	Alamosa		IDAHO
Fairbanks KFAR 610	Glendale K1EV 850	-KGIW 1420	Mlami	IDAHO
KFAR 610 Juneau	K1EV 850	- KGIW 1420 Colorado Springs	Mlami	
KFAR 610 Juneau KINY 1430		Colorado Springs KVOR 1270	MlamlWIOD 610WMBF 610WQAM 560	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan	K1EV 850 Long Beach	Colorado Springs KVOR 1270 Denver	Mlaml   →WIOD   610   WMBF   610   →WQAM   560   Mlaml   Beach	Bolse
KFAR 610 Juneau KINY 1430	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles	Colorado Springs KVOR 1270	Mlami -WIOD 610 WMBF 610 -WQAM 560 Mlami Beach WKAT 1500	Bolse  STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE    Bolse   STATE   STATE
KFAR 610 Juneau KINY 1430 Ketchikan	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KBCA 780	— KGIW 1420 Colorado Springs — KVOR 1270 Denver — KFEL 920 — KLZ 560 — KOA 830	Mlami	Bolse 1350 Idaho Falls KID 1320 Lewiston
KFAR 610 Juneau KINY 1430 Ketchikan	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780 —KFAC 1300	— KGIW 1420 Colorado Springs   KVOR 1270 Denver   L270   KFEL 920   – KLZ 560   – KLZ 560   – KOA 830   KPOF 880	Mlami	Bolse  SKIDO 1350 Idaho Falls KID 1320 Lewiston KRLC 1390
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900	K1EV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KECA   780   KFAC   1300   ⇒KFI   640	— KGIW 1420 Colorado Springs — KVOR 1270 Denver   920 — KLZ 560 — KOA 830 KPOF 880 — KVOD 920	. Mlaml →WIOD 610 WMBF 610	Bolse  SERVIDO 1350 Idaho Falls KID 1320 Lewiston KRLC 1390 Nampa
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900 ARIZONA	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780 → KFAC 1300 → KFI 640 → KFSG 1120	— KGIW 1420 Colorado Springs   — KVOR 1270   Denver   220   — KFEL 920   — KCA 830   CPOF 880   — KVOD 920   Durango	Mlam	Bolse  Strict St
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780 ≪KFAC 1300 ≪KFI 640 ≪KFSG 1120 ≪KFVD 1000	- KGIW 1420 Colorado Springs - KVOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KVOD 920 Durango - KIUP 1370	Mlam  → WIOD 610 WMBF 610 → WQAM 560 Mlami Beach WKAT 1500 Ocala WTMC 1500 Oriando WDBO 580	Bolse  SERVIDO 1350 Idaho Falls KID 1320 Lewiston KRLC 1390 Nampa
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210	K1EV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KEVA   780   KFAC   1300   KFVD   1000   KFVB   1500   KFVB   1500   KFVB   1500   KFVB   1500   KFVB   1500   KFWB   1500	— KGIW 1420   Colorado Springs	Mlaml  →WIOD 610  WMBF 610  -WQAM 560  Mlaml Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola	Bolse SERIDO 1350 Idaho Falls KID 1320 Lewiston KRLC 1390 Nampa KFXD 1206 Pocatello KSEI 900 Twin Falls
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780 KKFAC 1300 KKFI 640 KKFI 640 KKFVD 1000 KKFWB 950 KGFJ 1200	- KGIW 1420 Colorado Springs - KVOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KVOD 920 Durango - KIUP 1370	WIST   GIO   WMBF   GIO   WMBF   GIO   WMBF   GIO   WMBF   GIO   WMBF   GIO   GIO	Bolse    Idaho Falls     Idaho Falls     IDAHO     IDAHO
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEP 780 KFAC 1300 KKFI 640 KFFS 1120 KKFVD 1000 KKFWB 950 KHJ 900	KGIW 1420	Mlaml  → WIOD 610  WMBF 610  → WQAM 560  Mlaml Beach  WKAT 1500  Ocala  WTMC 1500  Oriando  WDBO 580  Panama City  WDLP 1200  Pensacola  → WCOA 1340  St. Augustine	Bolse  Strict St
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVD 1000 KKFWB 950 KGFJ 1200 KKHJ 900 KKHJ 900 KKHJ 900	— KGIW 1420	Miami  →WIOD 610  WMBF 610  −WQAM 560  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola  →WCOA 1340  St. Augustine  →WFOY 1210	Bolse    Idaho Falls     Idaho Falls     IDAHO     IDAHO
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEVA 780 KKFAC 1300 KKFI 640 KKFVD 1000 KKFWB 950 KGFJ 1200 KKHJ 900 KKHJ 900 KKHJ 900 KKHJ 900	- KGIW 1420 Colorado Springs - KVOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 KPOF 880 - KVOD 920 Durango - KIUP 1370 Grand Junction - KFEX 1200 Greeley - KFKA 880 La Junta - KOKO 1370	Mlaml WIOD 610 WMBF 610	Bolse  Idaho Falls  KID 1320 Lewiston  KRILC 1390 Nampa  KFXD 1200 Pocatello  KSEI 900 Twin Falls  KTFT 1240  Wallace  KWAL 1423
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780 KKFAC 1300 KKFI 640 KKFI 640 KKFVD 1000 KKFWB 950 KKFWB 950 KKFWJ 1200 KKHJ 900 KKHJ 1000 KKHJ 1000 KKHX 1000	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 'KPOF 880 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFEXJ 1200 Greeley - KFKA 880 - KOKO 1370 Lamar	Mlaml  WIOD 610  WMBF 610  WWQAM 560  Mlami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola  WCOA 1340  St. Augustine  WFOY 1210  St. Petersburg  WSUN 620	Bolse  Strict St
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KECA 780	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFIXA 880 - LA Junta - KOKO 1370 Lamar - KIDW 1420	Mlam	Bolse  String 1350 Idaho Falls KID 1320 Lewiston KRLC 1390 Nampa KFXD 120f Pocatello KSEI 900 Twin Falls KTFI 1240 Wallace KWAL 1423
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KEVA   780   KFAC   1300   KFFAC   1300   KFFAC   1000   KFWB   950   KGFJ   1200   KFWB   950   KGFJ   1200   KMJ   900   KMTR   570   KNX   1050   KRKD   1120   Merced   KYOS   1040   Modesto   1040   Modesto   1050   KRKD   1040   Modesto   1050   KRKD   1040   Modesto   1050   KRKD   1040   Modesto   1050   KRKD   1040   Modesto   1050   KKRD   1050   Modesto   1050   Modesto   1050   KKRD   1050   Modesto   1050	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFEJ 1200 Greeley - KFKA 880 La Junta - KOKO 1370 Lamar - KIDW 1420 Pueblo	Miami  → WIOD 610  WMBF 610  ─ WQAM 560  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola  ─ WCOA 1340  St. Augustine  ─ WFOY 1210  St. Petersburg  WSUN 620  ─ WTSP 1370  Sarasota  WSDB 1420	Bolse  Idaho Falls  KID 1320 Lewiston KRILC 1390 Nampa KFXD 120f Pocatello KSEI 900 Twin Falls KTFTI 1240 Wallace KWAL 1423  ILLINOIS
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVD 1000 KKFVB 950 KKFVB 950 KKFJ 1200 KKHJ 900 KKHJ 900 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHZ 1120 KKHZ 1120 Merced KYOS 1040	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW Pueblo - KGIF 1320 - KGIF 1320	Miami  → WIOD 610  WMBF 610  → WQAM 560  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola  → WCOA 1340  St. Augustine  → WFOY 1210  St. Petersburg  WSUN 620  WSUN 620  WSPB 1370  Sarasota  WSPB 1420  Tallahassee	Bolse  Idaho Falls  KID 1320 Lewiston  KRILC 1390 Nampa KITXD 120f Pocatello KSEI 900 Twin Falls  KTFI 1240 Wallace  KWAL 1423  ILLINOIS  Aurora  WMRO 1250
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 —Frescott KYCA 1500 Safford	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVB 1000 KKFVB 950 KKFVB 950 KKFJ 1200 KKFVB 950 KKFJ 1200 KKFVB 1000 KKFVB 1000 KKHJ 900 KKHJ 1200 KKHJ 1200 KKHJ 1050 KRKD 1120 Merced KYOS 1040 Modesto KTRB 740 Montercy	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFEJ 1200 Greeley - KFKA 880 La Junta - KOKO 1370 Lamar - KIDW 1420 Pueblo	Miami	Bolse  KIDO 1350 Idaho Falls KID 1820 Lewiston KRILC 1390 Nampa KFXD 1200 Pocatello KSEI 900 Twin Falls KTFI 1240 Wallace KWAL 1423 ILLINOIS  Aurora Bloomington
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KEVA   780   KFAC   1300   KFFG   1120   KFVD   1000   KFVD   1200   KFVD   1200   KHJ   900   KMTR   570   KNX   1050   KRKD   1120   Merced   KYOS   1040   Modesto   KTRB   740   Monterey   KDON   1210   1250   KTRB   740   Monterey   KDON   1210   1250   KTRB   1200   Monterey   KDON   1210   1250   KTRB   740   Monterey   KDON   1210   KTRD   1210   KTRB   1200   KTRB   1210   KTRB	- KGIW 1420 Colorado Springs - KVOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KVOD 920 Durango - KIUP 1370 Grand Junction - KFXJ 1200 Greeley - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW 1420 Pueblo - KGIIF 1320 Sterling	Miami  Wiod 610  WMBF 610  WWBF 610  WMBF 610  WMMBF 610  WMMBF 610  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WIDLP 1200  Pensacola  WCOA 1340  St. Augustine  WFOY 1210  St. Petersburg  WSUN 620  WTSP 1370  Sarasota  WSUN 620  Tallahassee  WTAL 1310  Tampa	Bolse  Bolse  Idaho Falls  KID 1320  Lewiston  KRILC 1390  Nampa  KFXD 1200  Pocatello  KSEI 900  Twin Falls  KTFI 1240  Wallace  KWAL 1420  ILLINOIS  Aurora  WMRO 1250  Bloomington  WJBC 1200
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVD 1000 KKFWB 950 KGFJ 1200 KKHJ 900 KKHJ 900 KKMTR 570 KNX 1050 KRKD 1120 Merced KYOS 1040 Modesto KTRB 740 Monterey KDON 1210 Oakland	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 - Durango - KIUP 1370 Grand Junction - KFEX 1200 Greeley - KFKA 880 La Junta - KOKO 1370 Lamar - KIDW 1420 - FKGIF 1320 - KGIF 1200	Miami	Bolse  KIDO 1350 Idaho Falls KID 1820 Lewiston KRILC 1390 Nampa KFXD 1200 Pocatello KSEI 900 Twin Falls KTFI 1240 Wallace KWAL 1423 ILLINOIS  Aurora Bloomington
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KCY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFAC 1120 KKFVD 1000 KKFWB 950 KGFJ 1200 KKHJ 900 KKHJ 900 KKHJ 1120 KKHJ 1120 KRHJ 1120 Merced KYOS 1040 Modesto KTRB 740 Monterey KDON 1210 Oakland KLS 1280	- KGIW 1420 Colorado Springs - KVOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KVOD 920 Durango - KIUP 1370 Grand Junction - KFXJ 1200 Greeley - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW 1420 Pueblo - KGIIF 1320 Sterling	Mlam	Bolse  Bolse  Idaho Falls  KID 1320  Lewiston  KRILC 1390  Nampa  KFXD 120f  Pocatello  KSEI 900  Twin Falls  KTFI 1240  Wallace  KWAL 1423  ILLINOIS  Aurora  WMRO 1250  Bloomington  WJRC 1200  Carthage  WVCAZ 1070
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KEVA   780   KFAC   1300   KFFI   640   KFFR   1200   KFVD   1000   KFWB   950   KGFJ   1200   KGFJ   1200   KMTR   570   KMX   1050   KMKD   1120   Merced   KYOS   1040   Modesto   KTRB   740   Monterey   KDON   1210   Oakland   KLS   1280   KLS   880   KLS   880   KLS   880   KLS   880   KEGR   1350   KS   1250   KLS   880   KLS   1350   KS   1250   KLS   880   KLS   1350   KS   1350	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW 1420 - Pueblo - KGIIF 1320 Sterling - KGEK 1200	Mlam  → WIOD 610	Bolse  KIDO 1350 Idaho Falls KID 1820 Lewiston KRILC 1390 Nampa KFXD 1200 Pocatello KSEI 900 Twin Falls KTFI 1240 Wallace KWAL 1423 ILLINOIS  Aurora WMRO 1250 Bloomington WJIBC 1200 Carthage WCAZ 1070 Champaign WDWS 1370
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 Yuma	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVB 1120 KKFVB 950 KGFJ 1200 KKHJ 900 KKHJ 900 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHJ 1200 KKHR 570 KNX 1050 KRKD 1120 Merced KYOS 1040 Modesto KTRB 740 Monterey KDON 1210 Oakland KLS 1280 KKLS 880 KROW 930	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFEJ 1200 Greeley - KFKA 880 - La Junta - KOKO 1370 - Lamar - KIDW 1420 - Pueblo - KGIIF 1320 - KGEK 1200 - KGEK 1200 - KGEK 1200 - KGIIF 1320 - KGIIF 1320 - KGEK 1200 - KGEK 1200 - KGEK 1200 - KGIIF 1320 - KGEK 1200 - KGEK 1200 - KGEK 1200	Mlam	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los Angeles   KEVA   780   KFAC   1300   KFAC   1300   KFFG   1200   KFVD   1000   KFWB   950   KGFJ   1200   KFWB   950   KMJ   900   KMJ   900   KMTR   570   KNX   1050   KRKD   1120   Merced   KYOS   1040   Montercy   KDON   1210   Oakland   KLS   1280   KROW   930   Pasadena   1350   KROW   930   Pasadena   1350   KTROW   930   Pasadena   1350   KTROW   930   Pasadena   1350   KTROW   930   Pasadena   1350   KTROW   1250   KTROW   930   Pasadena   1350   KTROW   930   Pasadena   1350   KTROW   1250   KTROW   930   Pasadena   1350   KTTOW   1350   KTTOW	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW 1420 - Pueblo - KGEK 1200  CONNECTICUT - Bridgeport WICC 600	Mlam	Bolse  Bolse  Idaho Falls  KID 1320  Lewiston  KRILC 1390  Nampa  KFXD 120f  Pocatello  KSEI 900  Twin Falls  KTFI 1240  Wallace  KWAL 1423  ILLINOIS  Aurora  WMRO 1250  Bloomington  WJBC 1200  Carthage  WVAZ 1070  Chempaign  WDWS 1370  Chicago  WAAF 920
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 Yuma	KIEV   850   Long   Beach   KIFOX   1250   KGER   1360   Los Angeles   KEVA   780   KFAC   1300   KFFI   640   KFFAC   1200   KFVD   1000   KFWB   950   KGFJ   2000   KGFJ   2000   KGFJ   2000   KHJ   900   KMTR   570   KMX   1050   KMKD   1120   Merced   KYOS   1040   Modesto   KTRB   740   Monterey   KDON   1210   Oakland   KKIS   1280   KKS   880   KROW   930   Pasadena   KPPC   1210	CGIW 1420   Colorado Springs   Colorado Springs	Miami	Bolse  KIDO 1350  Idaho Falls  KID 1320  Lewiston  KRILC 1390  Nampa  KFXD 1200  Pocatello  KSEI 900  Twin Falls  KTFI 1240  Wallace  KWAL 1423  ILLINOIS  Aurora  WMRO 1250  Bloomington  WJBC 1200  Carthage  WCAZ 1070  Champaign  WDWS 1370  Chicago  WAAF 920  WWAAF 920
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 Yuma	K1EV 850 Long Beach KFOX 1250 KGER 1360 Los Angeles KEYA 780 KKFAC 1300 KKFI 640 KKFVB 1120 KKFVB 950 KGFJ 1200 KKHJ 900 KKHY 1000 KKFWB 950 KGFJ 1200 KKHJ 1200 KKHJ 1200 KKHR 1120 Merced KYOS 1040 Modesto KTRB 740 Monterey KDON 1210 Oakland KLS 1280 KKLS 880 KROW 930 Pasadena KPPC 1210 Redding	KGIW   1420	Miami  WIOD 610  WMBF 610  WMBF 610  WMBF 610  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Oriando  WDBO 580  Panama City  WDLP 1200  Pensacola  WCOA 1340  St. Augustine  WFOY 1210  St. Petersburg  WSUN 620  WTSP 1370  Sarasota  WSPB 1420  Tallahassee  WTAL 1310  Tampa  WDAE 1220  WFLA 620  WestPalmBeach  WJNO 1200  GEORGIA	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260 Yuma KYUM 1210	KIEV   850   Long   Beach   KIFOX   1250   KGER   1360   Los Angeles   KEVA   780   KFAC   1300   KFFI   640   KFFAC   1200   KFVD   1000   KFWB   950   KGFJ   2000   KGFJ   2000   KGFJ   2000   KHJ   900   KMTR   570   KMX   1050   KMKD   1120   Merced   KYOS   1040   Modesto   KTRB   740   Monterey   KDON   1210   Oakland   KKIS   1280   KKS   880   KROW   930   Pasadena   KPPC   1210	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 - Durango - KIUP 1370 Grand Junction - KFKA 880 - La Junta - KOKO 1370 Lamar - KIDW 1420 - Pueblo - KGIIF 1320 - Sterling - KGEK 1200  CONNECTICUT  - Bridgeport - WICC 600 - Hartford - WDRC 1330 - WTIC 1340	Miami	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260 Yuma KYUM 1210	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los Angeles   KEVA   780   KFAC   1300   KFAC   1300   KFAC   1300   KFYD   1000   KFWB   950   KGFJ   1200   KFWB   950   KGFJ   1200   KGMTR   570   KNX   1050   KNX   1050   KNX   1050   KNX   1050   KNX   1050   KNX   1050   KMTRB   740   Monterey   KDON   1210   Oakland   KLS   KROW   930   Pasadena   KPC   Redding   KVCV   1200   KVCV   1200	KGIW   1420	Miami	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KOY 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260 Yuma KYUM 1210  ARKANSAS	KIEV   850   Long Beach   KIFOX   1250   KGER   1360   Los Angeles   KEVA   780   KFAC   1300   KFFI   640   KFFR   1200   KFWB   950   KGFJ   1200   KGFJ   1200   KGFJ   1200   KGFJ   1200   KGFJ   1200   KGFD   1100   Merced   KYOS   1040   Modesto   KTRB   740   Monterey   KDON   1210   Oakland   KLS   1280   KLS   880   KROW   930   Pasadena   KPPC   1210   Redding   KVCV   1200   Sacramento   1250   KGGR   1200   Sacramento	- KGIW 1420 Colorado Springs - KYOR 1270 Denver - KFEL 920 - KLZ 560 - KOA 830 - KYOD 920 Durango - KIUP 1370 Grand Junction - KFEJ 1200 Greeley - KFKA 880 - La Junta - KOKO 1370 - Lamar - KIDW 1420 - Pueblo - KGIIF 1320 Sterling - KGIK 1200  CONNECTICUT  Bridgeport WICC 600 Hartford WDRC 1330 - WTIC 1040 WTHT 1200	Miami  → WIOD 610  WMBF 610  ─ WQAM 560  Miami Beach  WKAT 1500  Ocala  WTMC 1500  Orlando  WDBO 580  Panama City  WDLP 1200  Pensacola  ─ WCOA 1340  St. Augustine  ─ WFOY 1210  St. Petersburg  WSUN 620  ─ WTSP 1370  Sarasota  WSPB 1420  Tallahassee  WTAL 1310  Tampa  WDAE 1220  WSTPLA 620  WestPalmBeach  WJNO 1200  GEORGIA  Alibany  ─ WGPC 1420	Bolse
KFAR 610 Juneau KINY 1430 Ketchikan KGBU 900  ARIZONA  Globe —KWJB 1210 Jerome —KCRJ 1310 Lowell KSUN 1200 Phoenix —KYOX 1390 —KTAR 620 Prescott KYCA 1500 Safford KGLU 1420 Tucson KTUC 1370 —KVOA 1260 Yuma KYUM 1210  ARKANSAS  Biythevilie	KIEV   850   Long   Beach   KFOX   1250   KGER   1360   Los   Angeles   KEVA   780   KFAC   1300   KFAC   1300   KFFI   640   KFVD   1000   KFWB   950   KGFJ   1200   KFWB   950   KGFJ   1200   KGFJ   1200   KMX   1050   KRKD   1120   Merced   KYOS   1040   Monterey   KDON   1210   Oakland   KLS   1280   KROW   930   Pasadena   KPPC   1210   Redding   KVCV   1200   Sacramento   KFBK   1490   KROW   1210   KFBK   1490   KFBK   1490	CGIW   1420	Miami	Bolse

→WGES 136		Covington	-WBZ 990	MINNESOTA
→ WGN 72		-WCKY 1490	WCOP , 1120 WEEI 590	
-wjjd 113 -wls 87		Lexington WLAP 1420	WEEI 590 WHDH 830	Albert Lea
	. 11172 020	WLAP 1420	WMEX 1500	KATE 1420
₩MAQ 67	Donne	-WAVE 940	WNAC 1230	Duluth
WSBC 121	1010	-WHAS 820	WORL 920	KDAL 1500
Cicero	Ceual napius	WINN 1210	Fall River	WEBC 1290
VHFC 142		Owensboro	WSAR 1450	Fergus Falis
Danville	Davenport - WOC 1370	-WOMI 1500	Greenfield	KGDE 1200
WDAN 150	Decorah	Paducah	WHAI 1210	Hiþbing
Decatur	KGCA 1970	WPAD 1420	Hyannis	-WMFG 1210
→ WJBL 120	V —KWLC 1270	"	WOCB 1210	Mankate
East Dubuqu	6 Des Moines		Lawrence	KYSM 1500
WKBB 150	KRNT 1329	LOUISIANA	WLAW 680	Minneapolls
East St. Loui			WLLH 1370	-WCCO 810
-WTMV 150		Alexandria	J_owell	-WDGY 1189
Galesburg	Dubuque	-KALB 1210	WLLH 1370	-WLB 760
-WGIL 150	1040	Baton Rouge	New Bedford	WTCN 1250
Parrisburg WEBQ 121	Fort Dodge	<b>—</b> WJBO 1120	WNLH 1310 Pittsfield	Moorhead KVOX 1310
Herrin	- KVFD 1370	Lafayette	WBRK 1310	Northfield
WJPF 131	lowa City	-KVOL 1310	Salem	WCAL 769
Joliet	WSUI 880	Lake Charles	WEST 1200	Rochester
WCLS 131	Marshalltown —KFJB 1200	-KPLC 1500	Springfield	KROC 1310
Peoria	Mason City	Monroe	-WBZA 990	St. Cloud
∞∞WMBD 144	0 -KGLO 1210	-KMLB 1200	WMAS 1420	-KFAM 1420
Quincy	01	New Orleans	WSPR 1140	St. Paul
WTAD 90	KFNF 890	-WDSU 1250	Worcester	-KSTP 1460
Rockford	77344	-WJBW 1200	WORC 1280	WMIN 1370-
WROK 141 Rock Island	Sioux City	-WNOE 1420 -WSMB 1320	WTAG 580	Virginia
WHBF 124		-WSMB 1320 -WWL 850		-WIILB 1370
Springfield	-KTRI 1420		MICHIGAN	Winona
-WCBS 142	0	Shreveport		-KWNO 1200
-WTAX 121	0 KANSAS	KTBS 1450	Battie Creek	
Tuscola		-KWKH 1100	-WELL 1420	MISSISSIPPI
WDZ 102	0 Abilene	- 121112	Bay City	
Urbana	** KFRI 1050		WBCM 1410	0
WILL 58	0 Atchison	MAINE	Calumet	Greenville WJPR 1319
	- KVAK 1420		-WHDF 1370	Grenada
INDIANA	Coffeyville	Augusta	Detroit SWJBK 1500	WGRM 1210
	-KGGF 1010	WRDO 1370	→WJBK 1500 →WJR 750	Gulfport
Anderson	Dodge City	Bangor WARI -1200	WMBC 1420	WGCM 1210
WHBU 121		********	920	Hattlesburg
Eikhart	Emporia	WLBZ 620 Lewiston	-WXYZ 1240	WFOR 1370
-WTRC 131		WCOU 1210	East Lansing	Jackson —WJDX 1270
Evansville	Garden City	Portland	WKAR 850	-WJDX 1270 -WSLI 1420
-WEOA 137		WCSH 940	Flint	Laurel
≈WGBF 65 Fort Wayne		WGAN 640	-WFDF 1310	-WAML 1310
⇒WGL 137		Presque Isle	Grand Rapids	McComb
wowo 116		WAGM 1420	WASH 1270	-WSKB 1200
Gary	Kansas City		WOOD 1270	Meridian
www.WIND 56	0 -KCKN 1310	MARYLAND	WJMS 1420	-WCOC 880
Hammond	Lawrence		WJMS 1420 Jackson	Vicksburg
WHIP 148	0 -KFKU 1220	Baltimore	-WIBM 1370	WQBC 1360
WWAE 120	0 -WREN 1220	WBAL 760	Kalamazoo	
Indianapolls	Manhattan	WBAL 1060	WKZO 590	MISSOURI
WFBM 128	0 KSAC 580	WCAO 600	Lansing	
WIBC 108		-WCBM 1370	WJIM 1210	
WIRE 140	- IZOZDI 100	WFBR 1270	Lapser	Cape Girardeau
Muncle	Salina	Cumberland	-WMPC 1200	KFVS 1210
WLBC 131		WTBO 800	Marquette	Columbia KFRU 630
New Albany	Topeka	Frederick	-WBEO 1810	Jefferson City
WGRC 137	WIBW 580	-WFMD 900		
Richmond	Wichita	Hagerstown	Muskegon WKBZ 1500	-KWOS 1310
WKBV 150	KANS 1210	WJEJ 1210		→ WMBH 1420
	KFH 1300	Salisbury WSAL 1200	Pontiac 1100	Kansas City
South Bend -WFAM 120		WSAL 1200	1.0222	-KCMO 1450
	IL LITTOURS		Port Huron	-KITE 1530
WSBT 136		MASSACHU-	-WHLS 1370	-KMBC 950
Terre Haute	Ashland	SETTS	Royal Oak	-WDAF 610
WBOW 131	0 -WCMI 1310	· · · · · · · · · · · · · · · · · · ·	-WEXL 1310	→WHB 860
West Lafayer		Boston	SaultSte. Marie	Poplar Bluff
WBAA 89		WAAB 1410	WSOO 1200	-KWOC 1310

St. Joseph				
	Atlantic City	New York	Salisbury	Ardmore
-KFEQ 680	WBAB 1200	-WABC 860	₩STP 1500	-KVSO 1210
St. Louis	WPG 1100 Bridgeton	WBIL 1100 WBNX 1350	Wilmington WMFD 1370	Elk City
-KMOX 1090	WSNJ 1210	WBOQ 860	WMFD 1370 Wilson	-KASA 1210 Enid
-KSD 550	Camden	-WEAF 660	-WGTM 1310	-KCRC 1360
KWK 1350	WCAM 1280	WEVD 1300	Winston-Salem	Muskogee
KXOK 1250	Jersey City	WHN 1910	→ WAIR 1250	-KB1X 1500
-WEW 760	WAAT 940	WINS 1180	-WSJS 1310	Norman
-WIL 1200 Sedalla	WHOM 1450	-WJZ 760	NORTH	-WNAD 1010
KDRO 1500	Newark	WLTH 1400 WMCA 570	DAKOTA	Oktahoma City
Springfield	WHBI 1250	-WNEW 1250		- KOMA 1489
-KGBX 1230	Red Bank	WNYC 810	Blsmarck	— КТОК 1370
KWTO 560	WBRB 1210	WOV 1130	-KFYR 550	WKY 900
MONTANA	Trenton	-WQXR 1550	Devils Lake	Okmulgee
MONTANA	WTNJ 1280	Niagara Falls WHLD 1260	Fargo	-KHBG 1210
Billings	Zarephath	Olean	- WDAY 940	Ponca City WBRZ 1200
KGIIL 780	WAWZ 1350	-WHDL 1400	Grand Forks	Shawnee
Bozeman KRBM 1420		Plattsburgh	→ KFJM 1410	-KGFF 1420
Butte	NEW MEXICO	WMFF 1310 Rochester	Jamestown KRMC 1370	Tulsa
-KGIR 1340		-WILAM 1150	Mandan	KOME 1310
Great Falls	Albuquerque	-WHEC 1430	- KGCU 1240	жж КТUL 1400
KFBB 1280	KGGM 1230	WSAY 1210	Minot	KVOO 1140
Helena	∞∞ K∪B 1180	Saranao Lake	-KLPM 1360	
-KPFA 1210 Kalispell	Carisbad	WNBZ 1290	Valley City	OREGON
KGEZ 1310	- KLAH 1210 Ciovis	Schenectady WGY 790	-KOVC .1500	
Missoula	- KICA 1370	Syracuse	OH10	Astorla
KGVO 1260	Gattup	- WFBL 1360	Almon	KAST 1200
Wolf Point	-KAWM 1500	-WSYR 570	Akron WADC 1320	Baker
KGCX 1450	Hobbs	WSYU - 570	WATR 1530	KBKR 1500 Bend
NEBRASKA	-KWEW 1500	Troy WHAZ 1300	WJW 1210	KBND 1310
Grand Island	Roswell KGFL 1370	WTRY 950	Ashtabula	Corvailis
KMMJ · 740	Santa Fe	Utica	-WICA 940 Canton	KOAC 550
Hastings	~ KVSF 1310	WIBX 1200	-WHRC 1200	Eugene
KHAS 1200		White Plains	Cincinnati	KORE 1420
				Wiamath Falls
Kearney KGFW 1310		-WFAS 1210	₩CPO 1200	Klamath Falls
KGFW 1310	NEW YORK	Woodside	₩CPO 1200 ****WKRC 550	Klamath Falls KFJI 1210 La Grande
KGFW 1310 Lincoln -KFAB 770	NEW YORK		₩CPO 1200 ₩KRC 550 ₩LW 700	KFJI 1210
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210	Albany	Woodside	- WCPO 1200 - WKRC 550 - WLW 700 - WSAI 1330	KFJI 1210 La Grande KLBM 1420 Marshfield
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk	Albany	Woodside WWRL 1500	- WCPO 1200 - WKRC 550 - WLW 700 - WSAI 1370 WSXO 700 Cleveland	KFJI 1210 La Grande KLBM 1420 Marshfield KOOS 1200
KGFW 1310 Lincoln 770 —KFAB 770 —KFUR 1210 Norfolk 1060	Albany WABY 1370 WOKO 1430	Woodside WWRL 1500 NORTH		KFJI 1210 La Grande KLBM 1420 Marshfield KOOS 1200 Medford
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk	Albany	WOODSIDE WWRL 1500 NORTH CAROLINA Asheville	WCPO 1200	KFJI 1210 La Grande KLBM 1420 Marshfleld KOOS 1200 Medford CMED 1410
KGFW 1310 Lincoln -KFAB 770 -KFOR 1210 Norfolk -WJAG 1060 North Platte -KGNF 1430 Omaha	Albany	WWRL 1500  NORTH CAROLINA  Asheville WISE 1370		KFJI 1210 La Grande KLBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOIL 1260	Albany	WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570	WCPO 1200 WKRC 550 WLW 700 WSAI 1370 WSXO 700 Cleveland WCLE 610 WGAR 1450 WHK 1390 WTAM 1070	KFJI 1210 La Grande KLBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1060 North Platte —KGNF 1430 Omaha —KOIL 1260 —KOVH 660	Albany	WOODSIDE WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1060 North Platte —KGNF 1430 Omaha —KOIL 1260 —KOVH 660 —WOW 590	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBT 1080	WCPO 1200 WKRC 550 WLW 700 WSAI 1330 WSXO 700 Cleveland WCLE 610 WGAR 1450 WHK 1390 WTAM 1070 Columbus WBNS 1450	KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KGW 620
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff	Albany	WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBT 1080  WSOC 1210		KFJI 1210 La Grande KLIBM 1420 Marshnetd KOOS 1200 Medford KMED 1410 Portland KALE 1300 KBPS 1420 —KEX 1180 — KGW 620 — KOIN 940
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1060 North Platte —KGNF 1430 Omaha —KOIL 1260 —KOVH 660 —WOW 590	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBT 1080		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1060 North Platte —KGNF 1420 Omaha —KOIL 1260 —KOVH 650 —WOW 590 Scottsbluff —KGKY 1500	Albany	Woodside		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KEX 1180 — KGW 620 — KOIN 040 KWJJ 1040 KXL 1420
KGFW 1310 Lincoln —KFAB 770 —KFOR 1210 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte  WBT 1080  WSOC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040
KGFW 1310 Lincoln -KFAB 770 -KFOR 1220 Norfolk -WJAG 1060 North Platte -KGNF 1430 Omaha -KOVH 660 -WOW 590 Scottsbluff -KGKY 1500	Albany	Woodside		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KCX 1180 KGW 620 KWJJ 1040 KWJJ 1040 KXL 1420 ROSeburg KRNR 1500
KGFW 1310	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBT 1080 Durham  WDNC 1210 Durham  WDNC 1370 Elizabeth City WCNC 1370 Fayetteville WFNC 1340		KFJI 1210 La Grande KLIBM 1420 Marshnetd KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040 KXL 1420 ROSSeburg
KGFW 1310 Lincoln —KFAB 770 —KFOR 1220 Norfolk —WJAG 1060 North Platte — KGNF 1430 Omaha —KOWH 660 —WOW 590 Scottsbluff —KGKY 1500	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 RBPS 1420 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040 KXL 1420 ROSEBURG KNS 1500 Salem — KSLM 1360
KGFW 1310 Lincoln —KFAB 770 —KFOR 1220 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff —KGKY 1500  NEVADA  Reno KOH 1380	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBOC 1210 Durham WDNC 1500 Elizabeth City WCNC 1370 Fayotteville WFNC 1340 Gastonia  WGNC 1420		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040 KXL 1420 Roseburg KRNR 1500 Salem
KGFW 1310	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte  WBT 1080  WSOC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro		KFJI 1210 La Grande KLIBM 1420 Marshnetd KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KXL 1420 ROSeburg KRNR 1500 Salem KSLM 1360
KGFW 1310 Lincoln —KFAB 770 —KFOR 1220 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOWH 660 —WOW 590 Scottsbluff —KGKY 1500  NEVADA  Reno KOH 1380	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBOC 1210 Durham WDNC 1500 Elizabeth City WCNC 1370 Fayotteville WFNC 1340 Gastonia  WGNC 1420		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KEX 1180 KKUJ 1420 KWJJ 1040 KXL 1420 KNJ 1500 Salem KSLM 1360  PENNSYLVANIA Allentown
KGFW 1310 Lincoln -KFAB 770 -KFOR 1210 Norfolk -WJAG 1060 North Platte -KGNF 1430 Omaha -KOWH 660 -WOW 590 Scottsbluff -KGKY 1500  NEVADA	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte  WBT 1080  WBOC 1210  Durham  WDNC 1500  Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro  WGBR 1370 Greensboro  WBIG 1440		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KWJJ 1040 KWJL 1420 Roseburg KRNR 1500 Salem KSLM 1360  ENNSYLVANIA  Allentown WCRA 1440
KGFW	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte WBT 1080  WWSOC 1210 Durham WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsbore WGRR 1570 Greensbore  WBIG 1440 Greenville		KFJI 1210 La Grande KLIBM 1420 Marshneid KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KXL 1420 Roseburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCRA 1440 WSAN 1440
KGFW	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte  -WBT 1080 -WSOC 1210 Durham -WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia -WGNC 1420 Goldsboro -WGBR 1570 Greensboro -WBIG Greenville WCTC 1500	■ WCPO 1200 ■ WKRC 550 ■ WLW 700 ■ WSAI 1370 ■ WSAI 1370 ■ WSAI 1370 ■ WCLE 610 ■ WGAR 1450 ■ WHK 1390 ■ WTAM 1070 Columbus ■ WBNS 1450 ■ WCOL 1210 ■ WHCC 640 ■ WOSU 570 ■ Dayton ■ WIIIO 1280 ■ WING 1380 Lima ■ WLOK 1210  Mansfield  W MAN 1370 ■ Portsmouth ■ WSPD 1240 ■ WTOL 1200	KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KXL 1420 ROSEBURG KRNR 1500 Salem KSLM 1360  PENNSYLVANIA Allentown WCBA 1440 Altoona
KGFW 1310 Lincoln —KFAB 770 —KFAB 170 —KFAB 1210 Norfolk —WJAG 1000 North Platte —KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff —KGKY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WLNII 1310 Manchester —WFEA 1340	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte WBT 1080  WSOC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro  WGBR 1370 Greensville WCTC 1500 High Point		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KWJJ 1040 KWJL 1420 Roseburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCRA 1440 WSAN 1440 Altoona WFRG 1310
KGFW 1310 Lincoln -KFAB 770 -KFOR 1220 Norfolk -WJAG 1060 North Platte -KGNF 1430 Omaha -KKOWH 660 -WOW 590 Scottsbluff -KGKY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconla WLN11 1310 Manchester -WFEA 1340 Portsmouth	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotte WBT 1080  WSOC 1210 Durham WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonla  WGNC 1420 Goldsboro WGRR 1370 Greensboro  WBIG 1440 Greenville WCTC 1500 High Point  WMFR 1200		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KWL 1429 ROSeburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona WFRG 1310 Easton
KGFW 1310 Lincoln —KFAB 770 —KFAB 170 —KFAB 1210 Norfolk —WJAG 1000 North Platte —KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff —KGKY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WLNII 1310 Manchester —WFEA 1340	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte WBT 1080  WSOC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro  WGBR 1370 Greensville WCTC 1500 High Point		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KXL 1420 ROSEBURG KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 Altoona WFRG 1310 Easton WEST 1200
KGFW 1310 Lincoln —KFAB 770 —KFAB 170 —KFAB 1210 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOVH 660 —WOW 590 Scottsbluff —KGKY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WLNII 1310 Manchester —WFEA 1340 Portsmouth WHEB 740	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte  WBT 1080  WWOC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1420 Goldsboro  WGBR 1370 Greensboro  WGBR 1570 Greensboro  WBIG Greenville WCTC 1500 High Point  WMFR 1200 Kinston  WFTC 1200 Raleigh		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KWL 1429 ROSeburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona WFRG 1310 Easton
KGFW 1310 Lincoln —KFAB 770 —KFAB 1210 Norfolk —WJAG 1000 North Platte — KGNF 1430 Omaha —KOWH 660 —WOW 590 Scottsbluff —KGKY 1600  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WJ.Nii 1310 Manchester —WFEA 1340 Portsmouth	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotts  WWNC 1210 Durham WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsbore WGRR 1370 Greensboro WBIG 1440 Greenville WCTC 1500 High Point  WMFR 1200 Kinston  WFTC 1200 Raleigh WUTF 680		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGW 620 KOIN 940 KWJJ 1040 KWJJ 1040 KWJL 1420 Roseburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona WFRG 1310 Easton WEST 1200 Genside
KGFW 1310 Lincoln — KFAB 770 — KFAB 770 — KFOR 1220 — Norfolk — WJAG 1000 — North Platte — KGNF 1430 — MAN 660 — WOW 590 — Scottsbluff — KGWY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WLN11 1310 Manchester — WFEA 1340 Portsmouth WHEB 740	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotts  WWNC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro WGRR 1370 Greensboro  WBIG 1440 Greenville WCTC 1500 High Point  WMFR 1200 Kinston  WMFR 1200 Raleigh  WPTC 1200 Raleigh  WPTC 1200 Raleigh		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGWJ 1040 KWJJ 1040 KWL 1420 Roseburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona WERG 1310 Easton WEST 1200 Glenslde WIRG 970
KGFW	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Chariotte	■ WCPO 1200 ■ WKRC 550 ■ WLW 700 ■ WSAI 1330 ■ WSAI 1330 ■ WSAI 1330 ■ WCLE 610 ■ WGAR 1450 ■ WHK 1390 ■ WTAM 1070 ■ Columbus ■ WBNS 1450 ■ WCOL 1210 ■ WHCC 640 ■ WONU 570 ■ Dayton ■ WII10 1260 ■ WIING 1380 ■ Lima ■ WLOK 1210 ■ Mansfield ■ WMAN 1370 ■ Portsmouth ■ WPAY 1370 ■ Toledo ■ WSPD 1240 ■ WFMJ 1420 ■ WKEN 570 ■ Zanesville ■ WALR 1210 ■ KLAHOMA ■ Ada	KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 — KEX 1180 — KGW 620 — KOIN 940 KWJJ 1040 KWJJ 1040 KXL 1420 Roseburg KRNR 1500 Salem — KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona — WFRG 1310 Easton WEST 1200 Glenslde WIRG 970 Greensburg 970
KGFW 1310 Lincoln — KFAB 770 — KFAB 770 — KFOR 1220 — Norfolk — WJAG 1000 — North Platte — KGNF 1430 — MAN 660 — WOW 590 — Scottsbluff — KGWY 1500  NEVADA  Reno KOH 1380  NEW HAMPSHIRE  Laconia WLN11 1310 Manchester — WFEA 1340 Portsmouth WHEB 740	Albany	Woodside WWRL 1500  NORTH CAROLINA  Asheville WISE 1370 WWNC 570 Charlotts  WWNC 1210 Durham  WDNC 1500 Elizabeth City WCNC 1370 Fayetteville WFNC 1340 Gastonia  WGNC 1420 Goldsboro WGRR 1370 Greensboro  WBIG 1440 Greenville WCTC 1500 High Point  WMFR 1200 Kinston  WMFR 1200 Raleigh  WPTC 1200 Raleigh  WPTC 1200 Raleigh		KFJI 1210 La Grande KLIBM 1420 Marshfield KOOS 1200 Medford CMED 1410 Portland KALE 1300 KBPS 1420 KEX 1180 KGWJ 1040 KWJJ 1040 KWL 1420 Roseburg KRNR 1500 Salem KSLM 1360 PENNSYLVANIA Allentown WCBA 1440 WSAN 1440 Altoona WERG 1310 Easton WEST 1200 Glenslde WIRG 970

Grove City	WIS 560	Brownsville	KVIC 1310	Centralia
WSAJ 1310	Florence	-KGFI 1500	Waco	KELA 1440
Harrisburg	WOLS 1200	College Station	- WACO 1420	Everett
WHP 1430 /	Greenville	-WTAW 1120 Corpus Christi	Weslaco	KRKO 1370
WKBO 1200	WFBC 1300		KRGV 1260	Longview
Hazelton	Spartanburg	KRIS 1330	Wichita Falls	KWLK , 780
WAZL 1420	WSPA 920	Corsicana KAND 1310		Olympia
Johnstown	Sumter WF1G 1310			KGY 1210
≈ W.J.\ 1370	WF1G 1310	Dallas		Pullman
Lancaster * WGAL 1500		121122	UTAH	KWSC 1220
WGAL 1500 New Castle	SOUTH	WFAA 800 WBR 1280		Seattle
	DAKOTA		Cedar City	KEEN 1370
		Denton KDNT 1420	KSUB 1310	-KIRO 710
Philadelphia 1000			Logan	- KJR 970
-KYW 1020	Aberdeen	Dublin	KVNU 1200	KOL 1270
-WCAU 1170	- KABR 1390	- KFPL 1310	Ogden	КОМО 920
- WDAS 1370	Brookings	El Paso	KLO 1400	- KRSC 1120
WFIL 560	KFDY 780	KROD 1500	Price	KTW 1220
WHAT 1310	Pierre	- KTSM 1310	- KEUB 1420	*** KXA 760
-WIP 610	KGFX 630	WDAH 1310	Provo	Spokane
WPEN 920	Rapid City	Fort Worth	KOVO 1210	KFIO 1120
WTEL 1310	-KOBH 1370	→ KFJZ 1240	Salt Lake City	<b>─</b> KFPY 890
Pittsburgh	WCAT 1200	-KGKO 570	KDYL 1290	→ KGA 1470
→ KDKA 980	Sioux Falls		-KSL 1130	- KHQ 590
─ KQV 1380	KELO 1200	Galveston	-KUTA 1500	Tacoma
WCAE 1220	- KSOO 1110	-KLUF 1370		KMO 1330
WJAS 1290	Vermillion	Houston		KVI 570
WWSW 1500	KUSD 890		VERMONT	Vancouver
Reading	Yankton	KPRC 920 KTRH 1290		KVAN 880
WEEU 830	→ WNAX 570	- KXYZ 1440	Burlington	Walla Walla
WRAW 1310	With		WCAX 1200	KUJ 1370
Scranton		Huntsville KSAM 1500	Rutland	Wenatchee
WGB1 880	TENNESSEE		WSYB 1500	
WQAN 880		Kilgore SCOCA 1210	St. Albans	Yakima
Sharon				K1T 1250
- WPIC 780	Bristol	Laredo		
Sunbury	₩99iWOPI 1500	KPAB 1500	Springfield	
	Chattanooga	Longview	WNBX 1260	WEST
	WAPO 1420	-KFRO 1370	Waterbury	VIRGINIA
Uniontown - WMBS 1420	₩DOD 1280	Lubbock	WDEV 550	
Wilkes-Barre	Cookeville	-KFYO 1310		Beckley
WIKES-Baire WRAX 1210	WITTB 1370 Jackson	Lufkin 	VIRGINIA	W.JLS 1210
	-WTIS 1310			Bluefield
	Johnson City	Midland	Charlottesville	wwWIIIS 1410
Williamsport ← WRAK 1370	- WJHL 1200	KRLII 1420	WCIIV 1420	Charleston
	Knoxville	Palestine	Danville	WCHS 580
York		→ KNEI 1420	-WBTM 1370	WGKV 1500
WORK 1320		Pampa	Fredericksburg	Clarksburg
PUERTO RICO	-WROL 1310	KPDN 1310		WBLK 1370
PUERTO RICO	Memphis	Paris	Harrisonburg	Fairmont
Mayaguar	-WIIBQ 1370	- KPLT 1500	WSVA 550	-WMMN 890
Mayaguez 	WMC 780	Pecos	Lynchburg	Huntington
Ponce	WMPS 1430	- KIUN 1370	WLVA 1200	WSAZ 1190
- WPRP 1420	WREC 600	Plainview	Newport News	Parkersburg
San Juan	Nashville WLAC 1470	KMBD 1500	-WGII 1310	WPAR 1420
₩KAQ 1240		Port Arthur	Norfolk	Wheeling
WNEL 1290	WSIX 1210	-KPAC 1260	WTAR 780	WWVA 1160
	WSM 650	San Angelo	Petersburg	Williamson
		- KGKL 1370	WPIV 1210	-WBTH 1370
RHODE ISLAND	TEXAS	San Antonio	Richmond	-WBIH 1015
1110000 10001111	1 270.10	- KABC 1420	-WBBL 1210	
		-KMAC 1370	-WMBG 1350	WISCONSIN
Providence	Abilene	KONO 1370	WRNL 880	[
-WEAN 780	- KRBC 1420	KTSA 550	-WRTD 1500	
WJAR 890	Amarillo	<b>→</b> WOAI I190	-WRVA 1110	Eau Claire
→WPRO 630	-KFDA 1500	Sherman	Roanoke	WEAU 1050
	KGNC 1410	- KRRV 1310	WDBJ 930	Fond du Lac
SOUTH	Austin	Sweetwater	Suffolk	- KFIZ 1420
CAROLINA	-KNOW 1500	KXOX 1210	WLPM 1420	Green Bay
	-KTBC 1120	Temple	1420	-WUBY 1200
Anderson	Beaumont	- KTEM 1370	WASHINGTON	WTAQ 1330
- WAIM 1200	-KFDM 560	Texarkana	WASHINGTON	Janesville
Charleston	-KRIC 1410	- KCMC 1420	<del></del>	WCLO 1200
∞ WCSC 1360	Big Spring	Tyler	Aberdeen	LaCrosse
WTMA 1210		-KGKB 1500	KXRO 1310	WKBII 1380
Columbia				
	. Brady	Vernon	Bellingham	Madison
WCOS 1370	Brady KNEL 1500	Vernon KVWC 1500	Bellingham KVOS 1200	Madison WHA 940

***WIBA 1280				
	I CKFC 1410	Sault Ste. Marie	COSTA RICA	1 CMCO 1200
Manitowoc	CKMO 1410	CJ1C 1500		CMCP 1050
-WOMT 1210				
	CKWX 1010	Stratford	Alajuela	, CMCQ 1410
Marinette	Victoria	CJCS 1210		CMCU 1010
WMAM 570		Sudbury	T15CV 575	CMCR 1320
	-CFCT 1450		San Jose	CMCR 1320 CMCW 1380
Milwaukee		CKSO 780		
→WEMP 1310	l	Timmins		CMCX 1470
11 2222	MANITOBA		T' E'VIC 860	
WISN 1120		CKGB 1440	TIEP 830	CMCY 570
WTMJ 620		Toronto	T1FA 1000	CMK 720
	D d			
Poynette	Brandon	usp CBL 840	TIGH 690	
WIBU 1210	CKX 1120	CBY 1420	TIGPH 600	CMOX · 1500
Racine	Flin Flon		TIGPII2 1225	CMQ 780
	CFAR 1370	CFRB. 690	TI10 1030	
WRJN 1370		CKCL 580		CMW 550
Rice Lake	Winnipeg		TILJ 775	CMX 880
	-CIRC 630	Waterloo	ELLS 880	
WJMC 1210		CKCR 1510		Holguin
Sheboygan	-CKY 910	Windsor	TINBC 1070	CMKF 1460
	ı		TING 750	
		CKLW 1030	TIOS 940	CMKO 1280
Stevens Point	NEW	Wingham	TIPG A2B	Manzanillo
01010111			1110	
	BRUNSWICK	CKNX 1200	TIRCC 1200	CMKE 1310
Superior	1		Tr113< 9.0	CMKM 1080
			000	CMIKM 1080
	Fredericton	PRINCE ED-	TIXD 800	Matanzas
Wausau	CFNB 550	WARD ISLAND		
-WSAU 1370	0	WAND ISLAND		CMGF 1120
-WSAU 1000	Moncton		CUBA	CMGH 790
	CKCW 1370	Charlottetown	1	
				Moron
WYOMING	Sackville	Cl.c.A 330		CMJP 1420
	CBA 1050	CHCK 1310	Bayamo	
				Palma Soriano
Casper	St. John	Summerside	Charter	CMKZ 1430
	CHSJ 1120	CHGS 1450	Calbarien	
KDFN 1440	01100	CHG8 1450		Pinar del Rio
Rock Springs				CMAB 1240
	NOVA SCOTIA	0115050	Camaguey	CMAD 1240
	NOVA SCOTTA	QUEBEC	CMJA 860	Placetas
Sheridan	1	1	CMIA	
- KWYO 1370			CMJC 1390	
- KWIO 1510	l	Chicoutimi	CMJE 1230	Sagua la Grande
	Glace Bay		CHIEF	
	VAS 685		CWIL 550	
BAHAMAS	Halifax	Hull	CMJK 1290	CMHO 870
	Hailiax	CKCH 1210	Chinic	
	CHNS 930			Sancti Spiritus
Nassau		Montreal	CMJX 740	CMHB 1240
	' Sydney	-CBF 910	Cardenas	
ZNS 790	CJCB 1240	CBM 960	Cardenas	Santa Clara
	Wolfville		CMGE 1370	
		CFCF 600	Ciaro do Avila	
	CKIC 1010		Ciego de Avila	
CANADA	CKIC 1010	CIILP 1120	Ciego de Avila	CMIIM 680
	CKIC 1010 Yarmouth	CHLP 1120 — CKAC 730	Ciego de Avila	CMIIM 680
CANADA ALBERTA	CKIC 1010	CHLP 1120 — CKAC 730	Ciego de Avila CMIII 1360 CMIII 1130	CMIIW 680" Santiago
	CKIC 1010 Yarmouth	CHLP 1120 -CKAC 730 New Carlisle	Ciego de Avila	CMITW 680 Santiago CMIC 1250
	CKIC 1010 Yarmouth	CHLP 1120 — CKAC 730	Ciego de Avila CMJII 1360 CMJI 1130 CMJO 1250 Cienfuenos	CMITW 680  Santiago CMIC 1250 CMKD 910
ALBERTA	CKIC 1010 Yarmouth CJLS 1310	CIILP 1120 —CKAC 730 New Carlisle CUINC 610	Ciego de Avila CMJII 1360 CMJI 1130 CMJO 1290 Cienfuegos	CMIIW 680" Santiago CMKC 1250 CMKD 910
Calgary	CKIC 1010 Yarmouth	CULLP 1120 —CKAC 730 New Carlisle CUNC 610 Quebec	Ciego de Avita CALILI 1360 CALILI 1130 CALILO 1250 Cienfuegos CALILI 1140	CMITW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150
Calgary CFAC 930	CKIC 1010 Yarmouth CJLS 1310	CTILP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 590	Ciego de Avita CMIII 1360 CMIII 1130 CMIIO 1290 Cienfuegos CMIII 1160 CMIIM 1450	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490
Calgary CFAC 930	CKIC 1010 Yarmouth CJLS 1310 ONTARIO	CTILP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 590	Ciego de Avita CM.III 1360 CM.III 1130 CM.IO 1230 Cienfuegos CMIII 1160 CMIII 1450	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490
Calgary CFAC 930 CFCN 1030	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford	CHLP 1120 — CKAC 730 New Carlisle CHNC 610 Quebec CHRC 580 CKCV 1310	Ciego de Avita CMJII 1360 CMJI 1130 CMJO 1290 Clenfuegos CMIIJ 1160 CMIIM 1450 CMIIX 1480	CMITW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400
Calgary CFAC 930	CKIC 1010 Yarmouth CJLS 1310 ONTARIO Brantford	CIILP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950	Ciego de Avita CMJII 1360 CMJI 1130 CMJO 1290 Clenfuegos CMIIJ 1160 CMIIM 1450 CMIIX 1480	CMITW 680  Santiago CMIKC 1250 CMIKD 910 CMIKG 1150 CMIKQ 1490 CMIKR 1400 CMIKW 750
Calgary CFAC 930 CIFCN 1030 CJCJ 690	CKIC 1010 Yarmouth CJLS 1310 ONTARIO Brantford CKPC 930	CIILP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950	Ciego de Avita CM.II 1360 CM.II 1130 CM.IO 1290 Clenfuegos CMILI 1160 CMIIM 1450 CMILX 1480 Cruces	CMITW 680  Santiago CMIKC 1250 CMIKD 910 CMIKG 1150 CMIKQ 1490 CMIKR 1400 CMIKW 750
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham	CILLP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950 Rimouski	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIIO 1290 Clenfuegos CMIII 1140 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210	CMITW 680"  Santiago  CMIKC 1250  CMIKD 910  CMIKG 1150  CMIKQ 1490  CMIKR 1400  CMIKR 1400  CMIKR 1400  CMIKR 1400
Calgary CFAC 930 CIFCN 1030 CJCJ 690	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham	CIILP 1120 -CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIIO 1290 Clenfuegos CMIII 1140 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210	CMITW 680"  Santiago  CMIKC 1250  CMIKD 910  CMIKG 1150  CMIKQ 1490  CMIKR 1400  CMIKR 1400  CMIKR 1400  CMIKR 1400
Calgary CFAC 930 CFCN 1030 —C3CJ 690 Edmonton CFIN 960	CKIC 1010 Yarmouth CJLS 1310 ONTARIO  Brantford CKPC 930 Chatham CFCO 630	CIILP 1120 —CKAC 730 New Carlisle CIINC 610 Quebee CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030	Ciego de Avita CM.III 1360 CM.II 1360 CM.II 1130 CM.II 1290 Clenfuegos CMIII 1140 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400 CMKR 1400 CMKX 1130 Trinidad
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt	CILLP 1120 -CKAC 730 -New Carlisle CJINC 610 -Quebec CHRC 580 -CKCV 1310 -CBV 950 -Rimouski CJBR 1030 -Rouyn	Ciego de Avita CMIII 1360 CMIII 1130 CMIIO 1290 Clenfuegos CMIIIJ 1160 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710	CMITW 680"  Santiago  CMIKC 1250  CMIKD 910  CMIKG 1150  CMIKQ 1490  CMIKR 1400  CMIKR 1400  CMIKR 1400  CMIKR 1400
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt	CILLP 1120 —CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCY 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370	Ciego de Avita CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1140 CMIIIX 1480 Cruces CMIIIK 1210 Guantanamo CMKS 710 Guines	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400 CMKR 1400 CMKX 1130 Trinidad
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattham CFCO 630 Cobatt CKMC 1210	CILLP 1120 -CKAC 730 -New Carlisle CJINC 610 -Quebec CHRC 580 -CKCV 1310 -CBV 950 -Rimouski CJBR 1030 -Rouyn	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1230 Clienfuegos CMIII 1140 CMIIIM 1450 CMIIIX 1480 Cruces CMIIIK 1210 Guantanamo CMIKS 710 Guines	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMHT 920
Calgary CFAC 930 CIFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la	Ciego de Avita CM.III 1360 CM.II 1130 CM.II 1130 CM.II 1290 Cienfuegos CMIII 1140 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CMIST 1580	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400 CMKR 1400 CMKX 1130 Trinidad
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCDA 730 CJCDA 750 Grande Prairie CFGP 1200	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattham CFCO 630 Cobatt CKMC 1210	CILLP 1120 CCKAC 730 New Carlisle CJINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere	Ciego de Avita CMJII 1360 CMJO 1290 Clenfuegos CMIIM 1180 CMIIM 1450 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CMSIT 1580 Havana	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400 CMKR 1400 CMKW 1750 CMKW 1130 Trinidad CMHT 920 DOMINICAN
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la	Ciego de Avita CMJII 1360 CMJO 1290 Clenfuegos CMIIM 1450 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CMIPT 1580 Havana	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMHT 920
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCY 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de ta Pocatiere CIIGB 1200	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1450 CMIIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CM9ITT 1580 Havana	CMHW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1400 CMKR 1400 CMKW 1750 CMKW 1130 Trinidad CMHT 920 DOMINICAN
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCDA 730 CJCDA 750 Grande Prairie CFGP 1200	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebee CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIKN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke	Ciego de Avita CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1290 Cienfuegos CMIIII 1140 CMIIM 1450 CMIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CMIPT 1580 Havana CMIBD 1260	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKG 1150 CMKQ 1490 CMKR 1400 CMKW 750 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010	CILLP 1120 CCKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210	Ciego de Avita CM.III 1360 CM.III 1130 CM.III 1130 CM.III 1290 Cienfuegos CMIIII 1140 CMIIII 1450 CMIIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CMISU 1580 Havana CMIBC 690 CMIBD 1260	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKG 1150 CMKQ 1490 CMKR 1400 CMKW 750 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730 CJCA 780 Grande Prairie CFGP 1200 Lethbridge CJOC 1210	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120	CILLP 1120 CCKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210	Ciego de Avita CMIII 1360 CMIII 1360 CMII 1130 CMII 1290 Clenfuegos CMIII 1180 CMIIM 1450 CMIIM 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CM91UT 1580 Havana CMBC 690 CMBD 1260 CMBF 1560	CMHW 680"   Santiago   CMKC   1250   CMKC   910   CMKG   1150   CMKQ   1490   CMKR   1490   CMKW 750   CMKX   1190   Trinidad   CMHT   920   DOMINICAN   REPUBLIC   Ciudad Trujilio
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHHT 1210 Three Rivers	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1140 CMIIII 1480 Cruces CMIIIK 1210 Guantanamo CMIS 710 Guines CMIPT 1580 Havana CMIBC 690 CMIBC 1260 CMIBG 1140	CMHW 680"   Santiago   CMKC   1250   CMKC   910   CMKG   1150   CMKG   1490   CMKR   1490   CMKW   1750   CMKX   1130   Trinidad   CMHT   920   DOMINICAN   REPUBLIC   Ciudad Trujillo   CHIG 900   CMG
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattham CFCO 630 Cobatt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora	CILLP 1120 CCKAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210	Ciego de Avita CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1140 CMIIIX 1480 Cruces CMIIIX 1480 Cruces CMIIIK 1210 Guantanamo CMKS 710 Guines CMIRT 1580 Havana CMIBC 690 CMIBD 1200 CMIBT 1560 CMIBG 1140	CMIIW 680* Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMHT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (TIG 900 HIN 1090
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730 CJCA 780 Grande Prairie CFGP 1200 Lethbridge CJOC 1210	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHHT 1210 Three Rivers	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1290 Clenfuegos CMIII 1140 CMIII 1450 CMIIIX 1480 Cruces CMIIIX 1210 Guantanamo CMIKS 710 Guines CM91UT 1580 Havana CMIBC 690 CMIBD 1260 CMIBT 1560 CMIBT 1560 CMIBH 1600	CMIIW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 759 CMKX 1190 Trinidad CMIIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (113 900 HIN 1091
Calgary CFAC 930 CFCN 1030 CICJ 690 Edmonton CFRN 960 CICA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHHT 1210 Three Rivers	Ciego de Avita CALHI 1360 CMLI 1360 CMLI 1130 CMLI 1230 CMLI 1290 Cienfuegos CMIIM 1450 CMIIM 1450 CMIIM 1450 CHIES 1480 Cruces CMIIK 1210 Guantanamo CMIRS 710 Guines CMIST 1580 Havana CMIBC 690 CMIBD 1260 CMIBG 1140 CMIBG 1140 CMIBL 750	CMHW 680"   Santiago   CMKC   1250   CMKC   1250   CMKG   1150   CMKG   1490   CMKR   1490   CMKX   1190   Trinidad   CMHT   920     DOMINICAN   REPUBLIC     Ciudad Trujillo   TiG   900   HIN   1090   HIN   1090   HIN   1090   CMK   1090   HIN   1090   HIN   1090   CMKC   1250
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210 BRITISH COLUMBIA	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIG 1200 Sherbrooke CHIT 1210 Three Rivers CHLN 1420	Ciego de Avita CMHI 1360 CMHI 1130 CMHI 1130 CMHI 1290 Cienfuegos CMHIM 1450 CMHIM 1450 CMHIM 1480 Cruees CMHIK 1210 Guantanamo CMKS 710 Guines CMHIT 1580 Havana	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 759 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujille (TIG 1090 HIN 1090 HIX 800 HIT 1050
Calgary CFAC 930 CFCN 1030 CICON 690 Edmonton CFRN 960 -CICA 730 CICUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattham CFCO 630 Cobalt KMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIG 1200 Sherbrooke CHIT 1210 Three Rivers CHLN 1420	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1450 CMIIIX 1480 Cruces CMIIK 1210 Guantanamo CMKS 710 Guines CM91T 1580 Havana CMBC 690 CMBC 1140 CMBG 1140 CMBH 1600 CMBH 1600 CMBH 750 CMBQ 910	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 759 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujille (TIG 1090 HIN 1090 HIX 800 HIT 1050
Calgary CFAC 930 CFCN 1030 CICON 690 Edmonton CFRN 960 -CICA 730 CICUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHHT 1210 Three Rivers	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1380 CMIII 1380 CMIII 1290 Clenfuegos CMIIII 1180 CMIII 1480 Cruces CMIIIK 1210 Guantanamo CMKS 710 Guines CM91TT 1580 Havana CMBC 690 CMBD 1260 CMBF 1560 CMBG 1140 CMBH 1600 CMBH 1600 CMBL 750 CMBC 910 CMBS 1170	CMHW 680"   Santiago   CMKC   1250   CMKC   910   CMKG   1150   CMKG   1490   CMKR   1490   CMKW 750   CMKX   1190   Trinidad   CMHT   920     DOMINICAN   REPUBLIC     Ciudad Trujillo   HIN   1090   HIX   800   HIT   1050
Calgary CFAC 930 CFCN 1030 CCJCJ 690 Edmonton CFRN 960 CCICA 730 CRUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIG 1200 Sherbrooke CHIT 1210 Three Rivers CHLN 1420	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1380 CMIII 1380 CMIII 1290 Clenfuegos CMIIII 1180 CMIII 1480 Cruces CMIIIK 1210 Guantanamo CMKS 710 Guines CM91TT 1580 Havana CMBC 690 CMBD 1260 CMBF 1560 CMBG 1140 CMBH 1600 CMBH 1600 CMBL 750 CMBC 910 CMBS 1170	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 759 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujille (TIG 1090 HIN 1090 HIX 800 HIT 1050
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA Chilliwack CHWK 780 Kamloops	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattnam CFCO 630 Cobatt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310	CITLP 1120 CINAC 730 New Carlisle CIINC 610 Quebec CIIRC 580 CKCV 1310 CBV 950 Rimouski CIBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN	Ciego de Avita CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1130 CMIII 1130 CMIII 1140 CMIIIM 1450 CMIIIX 1480 Cruees CMIIIK 1210 Guantanamo CMIS 710 Guines CMIST 1580 Havana —CMIBC 690 CMIBC 1140 CMIBG 1140 CMIBG 1140 CMIBG 1140 CMIBG 1150 CMIBG 1160 CMIBG 1170 CMIBC 910 CMIBC 1170	CMHW 680"   Santiago   CMKC   1250   CMKC   910   CMKG   1150   CMKG   1490   CMKR   1490   CMKW 750   CMKX   1190   Trinidad   CMHT   920     DOMINICAN   REPUBLIC     Ciudad Trujillo   HIN   1090   HIX   800   HIT   1050
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA Chilliwack CHWK 780 Kamloops	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake	CHLP 1120 CKAC 730 New Carlisle CHNC 610 Quebec CHRC 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN Moose Jew	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1290 Clenfuegos CMIII 1140 CMIII 1450 CMIII 1480 Cruces CMIII 1210 Guantanamo CMIKS 710 Guines CMISIT 1580 Havana CMIBC 690 CMIBD 1260 CMIBT 1560 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1750 CMIB 1170 CMIBS 1170 CMIBS 1170 CMIBS 1170 CMIBY 1440	CMIIW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMIIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (11G 900) HIN 1090 HIT 1050 HIT 21370 HIZ 1370
Calgary CFAC 930 CFCN 1030 CICON 1030 CICON 960 CACA 730 CICUA 730 CICUA 730 CICUA 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310	CILLP 1120 CINAC 730 New Carlisle CIINC 610 Quebec CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CIIGB 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1140 CMIII 1140 CMIII 1450 CMIIIX 1480 Cruces CMIIIX 1480 Grantanamo CMIKS 710 Guines CMIPIT 1580 Havana CMIBC 690 CMIBD 1260 CMIBG 1140 CMIBH 1600 CMIBH 1600 CMIBL 750 CMIBC 910 CMIBC 1170 CMIBC 1170 CMIBS 1170 CMIBS 1170 CMIBS 1170 CMIBS 1170 CMIBS 1170 CMIBY 1440	CMHW 680"   Santiago   CMKC   1250   CMKC   910   CMKG   1150   CMKG   1490   CMKR   1490   CMKW 750   CMKX   1190   Trinidad   CMHT   920     DOMINICAN   REPUBLIC     Ciudad Trujillo   HIN   1090   HIX   800   HIT   1050
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210 BRITISH COLUMBIA Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730	CILLP 1120 CINAC 730 New Carlisle CIINC 610 Quebec CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CIIGB 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200	Ciego de Avita CMHI 1360 CMHI 11360 CMHI 11360 CMHI 1130 CMHI 1290 Cienfuegos CMHIM 1450 CMHIM 1450 CMHIM 1450 CMHIM 1210 Guantanamo CMKS Guines CMHIT 1580 Havana CMBC 690 CMBD 1200 CMBF 1560 CMBG 1140 CMBG 1140 CMBL 750 CMBC 1170 CMBS 1170 CMBS 1170 CMBS 1170 CMBS 1170 CMBS 1170 CMBS 1440 CMBS 940	CMIIW 680" Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMIIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (11G 900) HIN 1090 HIT 1050
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Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay	CILLP 1120 CINAC 730 New Carlisle CIINC 610 Quebec CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CIIGB 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200	Ciego de Avita CMIII 1360 CMIII 11360 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1140 CMIIII 1450 CMIIIX 1480 Cruees CMIIIX 1210 Guantanamo CMKS 710 Guines CMIRT 1580 Havana —CMBC 690 CMBD 1260 CMBD 1260 CMBG 1140 CMBH 1600 —CMBG 1140 CMBH 1500 —CMBU 750 CMBQ 910 CMBS 1170 CMBX 1080 CMBY 1440 CMBY	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKR 1490 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo HIN 1090 HIN 1090 HIT 1050 HIZ 1370 HISQ 1470 EL SALVADOR
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nelson	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIG 1200 Sherbrooke CHI-T 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CHAB 1200 Prince Albert CKBI 1210 CKBI 1210	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1140 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1210 Guantanamo CMKS 710 Guines CMIST 1580 Havana CMBC 690 CMBD 1260 CMBF 1560 CMBG 1140 CMBH 1600 CMBL 750 CMBQ 910 CMBS 1170 CMBS 1170 CMBZ 1940 CMBZ 940 CMB 1530	CMIIW 680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1150   CMIKC   1150   CMIKC   1490   CMIKW 759   CMIKX   1130   Trinidad   CMIIT   920   DOMINICAN   REPUBLIC   Cludad Trujillo   TIG   1090   TIX   800   HIT   1050   111Z   1270   TIRQ   1476   EL SALVADOR   San Salvador
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CKUN 1420	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chattnam CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL, 730 North Bay CFCH 930 Ottawa	CILLP 1120 CINAC 730 New Carlisle CIINC 610 Quebec CIIRC 550 CKCV 1310 CBV 950 Rimouski CIBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200 Prince Albert CKRI 1210 Regina	Ciego de Avita CM.HI 1360 CM.HI 11360 CM.HI 11360 CM.HI 1130 CM.HI 1130 CM.HI 1290 Cienfuegos CMIH 1450 CMIH 1450 CMIH 1450 CMIH 1450 CMIH 1210 Guantanamo CMIRS 710 Guines CMIHT 1580 Havana CMIBC 690 CMIBD 1260 CMIBD 1260 CMIBG 1140 CMIBG 1140 CMIBH 1600 CMIBH 1600 CMIBH 1750 CMIBQ 910 CMIBA 1170 CMIBX 1080 CMIBZ 1440 CMIBZ 940 CMIBZ 940 CMIC 1530 CMIC 1530 CMIC 1530 CMIC 1530	CMIIW 680" Santiago CMKC 1250 CMKC 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKR 1490 CMKX 1190 Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo HIN 1090 HIN 1090 HIT 1050 HIZ 1370 HISQ 1470 EL SALVADOR
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nelson	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKRI 1210 Regina CCHM 950	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1290 Clenfuegos CMIII 1480 CMIII 1480 Cruces CMIIIX 1480 Cruces CMIIX 1210 Guantanamo CMISS 710 Guinos CMIST 1580 Havana CMIBC 690 CMIBT 1200 CMIBT 1560 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBS 1170 CMIBX 1080 CMIBX 1440 CMIBZ 940 CMIBZ 940 CMIC 1530 CMIC 1530 CMIC 1530 CMIC 1530 CMIC 1530 CMIC 630	CMIIW 680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1150   CMIKC   1150   CMIKC   1490   CMIKW 759   CMIKX   1130   Trinidad   CMIIT   920   DOMINICAN   REPUBLIC   Cludad Trujillo   TIG   1090   TIX   800   HIT   1050   111Z   1270   TIRQ   1476   EL SALVADOR   San Salvador
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFIRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nelson CKIN 1420 Prince Rupert	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKRI 1210 Regina CCHM 950	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1290 Clenfuegos CMIII 1160 CMIII 1450 CMIII 1480 Cruces CMIIIX 1480 Cruces CMIIIX 1580 Guantanamo CMIKS 710 Guines CMIPIT 1580 Havana  ■CMIBC 690 CMIBT 1560 CMIBT 1560 CMIBT 1560 CMIBH 1600 ■CMIBH 1600 ■CMIBH 1600 ■CMIBL 750 CMIBQ 910 CMIBS 1170 CMIBY 1440 CMIBZ 940 CMIBZ 940 CMIC 1530 ■CMIC 1530 CMIC 1530	CMIIW 680  Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKW 750 CMKX 1130  Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo fiig 900 HIN 1090 HIX 800 HIT 1050 HIZ 1370 HISQ 1470  EL SALVADOR  San Salvador YSS 640
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOY 630 Nelson CKUN 1420 Prince Rupert CFPR 580	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 CKOC 1120 Kenora CKCA 1420 Kinyston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebee CIIRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200 Prince Albert CKBi 1210 Regina —CJIKM 950 —CKCK 1010	Ciego de Avita CMHI 1360 CMHI 11360 CMHI 11360 CMHI 11360 CMHI 11360 CMHI 1290 Clenfuegos CMHI 1480 CMHI 1480 Cruces CMHIK 1210 Guantanamo CMKS 710 Guines CMPIT 1580 Havana CMBC 690 CMBD 1260 CMBB 1160 CMBB 1160 CMBB 1170 CMBB 1170 CMBS 1170 CMBS 1170 CMBS 1440 CMBZ 940 CMBZ 940 CMBZ 940 CMBZ 940 CMBZ 940 CMC 1530 CMCB 1230 CMCB 1350 CMCB 1230 CMCB 630 CMCF 810	CMIIW 680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1150   CMIKC   1150   CMIKC   1490   CMIKW 759   CMIKX   1130   Trinidad   CMIIT   920   DOMINICAN   REPUBLIC   Cludad Trujillo   TIG   1090   TIX   800   HIT   1050   111Z   1270   TIRQ   1476   EL SALVADOR   San Salvador
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFIRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nelson CKIN 1420 Prince Rupert	CKIC 1010 Yarmouth CJLS 1310  ONTARIO  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CHAB 1200 Prince Albert CKRi 1210 Regina —CJILM 950 —CKCK 1010 Sasskatoon	Ciego de Avita CMIII 1360 CMIII 11360 CMIII 11360 CMIII 1130 CMIII 1130 CMIII 1290 Clenfuegos CMIIII 1450 CMIIIX 1480 Cruees CMIIIX 1480 Cruees CMIIIX 1210 Guantanamo CMKS 710 Guines CMIRT 1580 Havana —CMBC 690 CMBD 1200 CMB 1150 CMBD 1200 CMB 1150 CMBG 1140 CMBH 1600 —CMBL 750 CMBQ 910 CMB 1170 CMBX 1080 CMBY 1440 CMBC 1530 —CMIC 1530 —CMIC 1530 CMIC 1530	CMIIW 680  Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKW 750 CMKX 1130  Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo fii 900 HIN 1090 HIX 800 HIT 1050 HIZ 1370 HISQ 1470  EL SALVADOR  San Salvador YSS 640
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730 CJCA 730 CJCA 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CJCIN 1420 Prince Rupert CFPR 580	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKBI 1210 Regina —CJRM 950 —CKCK 1010 Saskatoon	Ciego de Avita CMIII 1360 CMIII 11360 CMIII 11360 CMIII 1130 CMIII 1130 CMIII 1140 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1580 CMIBC 690 CMIBC 690 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBC 11580 CMIBL 750 CMIBL 15080 CMIBL 1530 CMIBZ 940 CMIC 1530 CMICD 630 CMICD 630 CMICD 630 CMICD 830 CMICC 1290	CMIIW 680  Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKW 750 CMKX 1130  Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo fii 900 HIN 1090 HIX 800 HIT 1050 HIZ 1370 HISQ 1470  EL SALVADOR  San Salvador YSS 640
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Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CJCA 730 CJCA 730 CJCA 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CJCIN 1420 Prince Rupert CFPR 580	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CPCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010  CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKBI 1210 Regina —CJRM 950 —CKCK 1010 Saskatoon	Ciego de Avita CMIII 1360 CMIII 11360 CMIII 11360 CMIII 1130 CMIII 1130 CMIII 1140 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1450 CMIIM 1580 CMIBC 690 CMIBC 690 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBC 11580 CMIBL 750 CMIBL 15080 CMIBL 1530 CMIBL 1530 CMICC 1530 CMICC 1530 CMICC 1530 CMICC 1290	CMIIW 680  Santiago CMKC 1250 CMKD 910 CMKG 1150 CMKG 1490 CMKR 1490 CMKW 750 CMKX 1130  Trinidad CMIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo fii 900 HIN 1090 HIX 800 HIT 1050 HIZ 1370 HISQ 1470  EL SALVADOR  San Salvador YSS 640
Calgary CFAC 930 CIFCN 1030 CIFCN 1030 CICCJ 690 Edmonton CFRN 960 CJCA 730 CICUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nelson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS Prescott	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CIINC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGB 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200 Prince Albert CKRÎ 1210 Regina —CIKCK 1010 Saskatoon —CFQC 600 Watrous	Ciego de Avita CALII 1360 CALII 1360 CMLI 1380 CMLI 1290 CIENTUEGOS CMIII 1140 CMIII 1480 CMIIX 1480 CRUES CMIIIX 1480 CRUES CMIIX 1210 GUANTANANO CMISS CMIIK 1210 GUANTANANO CMISS CMITT 1580 HAVANA CMIBC 690 CMIBC 1290 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBL 750 CMIBC 1140 CMIBL 750 CMIBC 1140 CMIBL 1580 CMIBC 1140 CMIBL 1580 CMIBC 1490 CMIBL 1580 CMIBC 1580 CMIBC 1580 CMIBC 1580 CMICD 1290 CMICD 1290 CMICG 1290 CMICG 1290 CMICG 1290 CMICG 1290 CMICG 11110	CMIIW   680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1490   CMICC   Ciudad Trujillo (11G   900   HIN   1090   HIN   1090   HIN   1090   HIT   1050   HIT   10
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFIRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910 Vancouver CBR 1100	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS 1370 Prescott CFIC 930	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKRI 1210 Regina CJIKM 950 CKCK 1010 Saskatoon CFQC 600 Watrous  New Carliste CHAB 1200 CKCK 1010 Saskatoon CFQC 600 Watrous CBK 540	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1290 Clenfuegos CMIII 1450 CMIII 1450 CMIII 1480 Cruces CMIII 1210 Guantanamo CMIS 710 Guines CMIST 1580 Havana CMIBC 690 CMIBT 1200 CMIBT 1560 CMIBT 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIB 1750 CMIB 1750 CMIB 1950 CMIB 1950 CMIB 1950 CMIB 1950 CMIB 1230 CMIC 1530 CMIC 630 CMIC 630 CMIC 1500 CM	CMIIW 680  Santiago CMKC 1250 CMKC 910 CMKC 1150 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMIIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (114) 900 HIX 800 HIX 1090 HIX 1090 HIX 1270 HIZ 1370 HIZ 1370 HIZ 1470  CALCENTRALA  Guatemala City TGW 1520
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFIRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910 Vancouver CBR 1100	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS 1370 Prescott CFIC 930	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CIINC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKIRN 1370 St. Anne de la Pocatiere CIIGB 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CIIAB 1200 Prince Albert CKRÎ 1210 Regina —CIKCK 1010 Saskatoon —CFQC 600 Watrous	Ciego de Avita CALII 1360 CALII 1360 CMLI 1380 CMLI 1290 CIENTUEGOS CMIII 1140 CMIII 1480 CMIIX 1480 CRUES CMIIIX 1480 CRUES CMIIX 1210 GUANTANANO CMISS CMIIK 1210 GUANTANANO CMISS CMITT 1580 HAVANA CMIBC 690 CMIBC 1290 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBC 1140 CMIBL 750 CMIBC 1140 CMIBL 750 CMIBC 1140 CMIBL 1580 CMIBC 1140 CMIBL 1580 CMIBC 1490 CMIBL 1580 CMIBC 1580 CMIBC 1580 CMIBC 1580 CMICD 1290 CMICD 1290 CMICG 1290 CMICG 1290 CMICG 1290 CMICG 1290 CMICG 11110	CMIIW   680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1490   CMICC   Ciudad Trujillo (11G   900   HIN   1090   HIN   1090   HIN   1090   HIT   1050   HIT   10
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kamloops CFJC 880 Kelowna CKOV 630 Nelson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910 Vancouver —CBR 1100 CJOR 600	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS 1370 Prescott CFIC 930 St. Catharines	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIGT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CHAB 1200 Prince Albert CKRi 1210 Regina CCHKM 950 CKCK 1010 Saskatoon CCFQC 600 Watrous CCIK 540 Vorkton	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1140 CMIII 1140 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1210 Guantanamo CMKS 710 Guines CMIIIT 1580 Havana CMBC 690 CMBD 1260 CMBD 1260 CMBB 1150 CMBB 1150 CMBB 1150 CMBB 1150 CMBB 1170 CMBS 1170 CMBS 1170 CMBZ 940 CMBZ 940 CMBZ 940 CMCB 1530 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1290 CMCB 1290 CMCB 1290 CMCB 1290 CMCB 1110 CMCB 970 CMCB 1110 CMCB 970 CMCB 1730	CMIIW 680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1150   CMIKC   1150   CMIKC   1150   CMIKC   1150   CMIKC   1250   CMICC   125
Calgary CFAC 930 CFCN 1030 CJCJ 690 Edmonton CFIRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kelowna CKOV 630 Nolson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910 Vancouver CBR 1100	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 —CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS 1370 Prescott CFIC 930	CHLP 1120 CKAC 730 New Carlisle CHAC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHGR 1200 Sherbrooke CHLT 1210 Three Rivers CHLN 1420  Moose Jew CHAB 1200 Prince Albert CKRI 1210 Regina CJIKM 950 CKCK 1010 Saskatoon CFQC 600 Watrous  New Carliste CHAB 1200 CKCK 1010 Saskatoon CFQC 600 Watrous CBK 540	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1360 CMIII 1290 Clenfuegos CMIII 1450 CMIII 1450 CMIII 1480 Cruces CMIII 1210 Guantanamo CMIS 710 Guines CMIST 1580 Havana CMIBC 690 CMIBT 1200 CMIBT 1560 CMIBT 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIBH 1600 CMIB 1750 CMIB 1750 CMIB 1950 CMIB 1950 CMIB 1950 CMIB 1950 CMIB 1230 CMIC 1530 CMIC 630 CMIC 630 CMIC 1500 CM	CMIIW 680  Santiago CMKC 1250 CMKC 910 CMKC 1150 CMKG 1150 CMKQ 1490 CMKR 1490 CMKW 750 CMKX 1190 Trinidad CMIIT 920  DOMINICAN REPUBLIC  Ciudad Trujillo (114) 900 HIX 800 HIX 1090 HIX 1090 HIX 1270 HIZ 1370 HIZ 1370 HIZ 1470  CALCENTRALA  Guatemala City TGW 1520
Calgary CFAC 930 CFCN 1030 CFCN 1030 CJCJ 690 Edmonton CFRN 960 CJCA 730 CKUA 580 Grande Prairie CFGP 1200 Lethbridge CJOC 1210  BRITISH COLUMBIA  Chilliwack CHWK 780 Kamloops CFJC 880 Kamloops CFJC 880 Kelowna CKOV 630 Nelson CKLN 1420 Prince Rupert CFPR 580 Trail CJAT 910 Vancouver —CBR 1100 CJOR 600	CKIC 1010 Yarmouth CJLS 1310  Brantford CKPC 930 Chatham CFCO 630 Cobalt CKMC 1210 Fort William CKPR 580 Hamilton CHML 1010 CKOC 1120 Kenora CKCA 1420 Kingston CFRC 1510 Kirkland Lake CJKL 1310 London CFPL 730 North Bay CFCH 930 Ottawa CBO 880 CKCO 1010 Owen Sound CFOS 1370 Prescott CFIC 930 St. Catharines	CILLP 1120 CKAC 730 New Carlisle CIINC 610 Quebec CHRC 550 CKCV 1310 CBV 950 Rimouski CJBR 1030 Rouyn CKRN 1370 St. Anne de la Pocatiere CHIGT 1210 Three Rivers CHLN 1420  ASKATCHEWAN  Moose Jew CHAB 1200 Prince Albert CKRi 1210 Regina CCHKM 950 CKCK 1010 Saskatoon CCFQC 600 Watrous CCIK 540 Vorkton	Ciego de Avita CMIII 1360 CMIII 1360 CMIII 1130 CMIII 1130 CMIII 1140 CMIII 1140 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1450 CMIIIM 1210 Guantanamo CMKS 710 Guines CMIIIT 1580 Havana CMBC 690 CMBD 1260 CMBD 1260 CMBB 1150 CMBB 1150 CMBB 1150 CMBB 1150 CMBB 1170 CMBS 1170 CMBS 1170 CMBZ 940 CMBZ 940 CMBZ 940 CMCB 1530 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1230 CMCB 1290 CMCB 1290 CMCB 1290 CMCB 1290 CMCB 1110 CMCB 970 CMCB 1110 CMCB 970 CMCB 1730	CMIIW 680   Santiago   CMIKC   1250   CMIKC   1250   CMIKC   1150   CMIKC   1150   CMIKC   1150   CMIKC   1150   CMIKC   1250   CMICC   125

Quezaltenango TGQ 1450	COAHUILA	DURANGO	SAN LUIS POTOSI	VERACRUZ
104 1100	Diadasa Namas	Durango		Cordoba
HONDURAS	Piedras Negras XEMD 580	XEBP 1150	San Luis Potosi	XEAG 1310
HUNDURAS	***************************************	XEE 1210	XECZ 1370	XECW 1240
<del></del> <del>-</del>	XEPN 730	-	SINALOA	Jalapa
Tegucigalpa	Sabinas	GUANAJUATO		XEXB 1270
HRF 1450	XEBX 640	Irapuato	Mazatlan XEBL 1220	Minatitian
MEX1CO	Saltillo	XEBO 1310	XEBL 1220	XEDW 1150
MEXICO		Leon		Veracruz
BAIA	XEAS 1160	XEKL 1240	SONORA	XETF 1220
	Torreon			XEU 1010
CALIFORNIA	XETB 1310	JALISCO	Cananea	
			XEFQ 1010	!
Aguascallentes XEBI 1000	Villa Acuna	Guadalalara	Guaymas	YUCATAN
Mexicall	-XEDH 1340	XED 1160	XEDR 1490	
	XERA 840	Guzman	Hermosillo	Merida
		XEBA 1080	XEBH 930	XEFC 1340
XEAO 60	DISTRITO	1111111	Nogales	XEME 1240
XECL 1100	FEDERAL	MEXICO	XEAF 990	XEZ 630
Rosarito Beach				
XERB 1090	Gral. Anaya	Texcoco	Obregon	MIQUELON
Tijuana	XEDA 1220	XEXE 1270	XEAP 1340	
—XEA( 980	Mexico City	Toluca		
XEBG 820	XEAI 1250	XECH 1490	TAMAULIPAS	St. Plerre
XEC: 1150	XEB 1030	MICHOACAN	TAMAULIFAS	I*QN 609
-XELO 730 -XEMO 860	XEBS 1340	MICHOACAN		
XEMO 860	XEBZ 810	Morella	Matamoros	NEWFOUND-
CHÍHUAHUA	XEDP 1080	XEI 1370	XEAM 750	LAND
CHIROANUA	XEFO 940	1	Nuevo Larado	
Chihuanua	XEJP 1130	NUEVO LEON	XEBK 1080	St. John's
XEBÛ 1240	XEK 990	Monterrey	XEDF 819	VOAC 1065
XEBW 1340	-XEL 1150	XEFB 870	XEFE 980	VOAR 950
XEFI 1440	XELZ 1370	XEG 1230	-XENT 910	VOCM 1040
XEM 1380	XEN 780	XEH 720	Reynosa	VOGY 840
Juarez	-XEQ 730	-XET 690	-XEAW 960	VONF 640
XEF 1450	XEQK 1500	XEX 1310	Tampico	VOWR 700
XEFV 1210	XERC 830	ABA 1010	XECA 1230	
-XEJ 1020	XERH 1430	PUEBLA	XEFW 1310	PANAMA
-XEP 1160	XESM 1270	l ———	XES 930	''
Parrat	-XEW 890	Puebla	Victoria	Colon
XEAT 1210	XEXX 1170	XETH 1210	XEBJ 1340	· HOK 640
	•	•		
				-HJIABN 1190



Ken Munn, 419 W. Granite, Albuquerque, N. Mev. Exc. SWL cards, photos and correspon ence).

Vert Mandelstamm, 738 S. Park St., Saginaw, Mich. (SWL cards).

Ralph Simpson, 142 Vassall St., Wollaston, Mass. (SWL cards and correspondence).

Forrest E. Campbell, Jr., 405 E. 4th St., Berwick, Pa. (SWL cards).

John Roscoe, Route 1, Box 174-A, New Baltimore, Mich. (SWL cards).

Ronald Wellstood, 288 Egan Ave., Verdun, P. Q., Canada. (Correspondence about stamps and books with South America, Europe and Asia readers).

Edward Lang, 3508 S. 83rd St., Philadelphia, Pa. (SWL cards).

Jack E. Roomy, 429 Stratton St., Logan, W. Va. (SWL cards).

John C. Long, Jr., 9406 Georgia Ave., Silver Springs, Md. SWL cards).

Jack Varner, 1114 Rugby Blvd., Roanoke, Va. (Correspond with Apex owners). Bob Johnson, Box 146, Logan, W. Va. (SWL cards).

Walter Bishop, 1722 Sixth St., Rensselaer, N. Y. (Correspond and swap cards and

photos).

Luis Diez A., formerly of Guatemala, has moved to Spain and wishes to exchange SWL cards and photos. New address, Luis Diez Alonso, Daoiz y Velarde 19, Santandar,

Spain.
Oddgeir Barneson, 3060 Rosswell St., Los Angeles, Calif. (SWL cards).

Nicholas Woytan, 309 S. Wilbur Ave., Syracuse, N. Y. (SWL cards from Miss. and Nevada).

## NORTH AMERICAN B. C. STATIONS BY CALL LETTERS

tor power and network affiliations, see the list of stations by frequencies.

The space under the call letters may be used for logging or checking.

CBA	1050	CHGB	1200	CKCL	580	CMBQ	910	CWHJ	1160	смкw	770
CBF	910	CHGS	1450	сксо	1010	CMBS	1170	смнк	1210	СМКХ	1190
CBJ	1120	CHLN	1420	CKCR	1510	СМВХ	1080	СМНМ	1450	CMKZ	1430
СВК	540	CHLP	1120	сксу	1310	CMBY	1440	СМНО	870	CMOA	660
CBL	840	CHLT	1210	сксж	1370	CMBZ	940	СМНР	1100	смох	1500
CBM	960	CHML	1010	CKFC	1410	CMC	1530	СМНТ	920	CMQ	780
СВО	880	CHNC	610	CKGB	1440	CMCA	1350	смнф	680	CMW	550
CBR .	1100	CHNS	930	СКІС	1010	СМСВ	1230	смнх	1480	CMX	889
CBV	950	CHRC	580	CKLN	1420	CMCD	630	CMJA	860	CM9RT	1580
СВY	1420	CHSJ	1129	CKLW	1030	CMCF	810	CWIC	1390	FQN	609
CFAC	930	снжк	780	СКМС	1210	CMCG	1290	CMJE	1230	HIG	900
CFAR	1370	CJAT	910	скмо	1410	CWCJ	1110	CMJF	930	HIN	1090
CFCF	600	CJBR	1030	CKNX	1200	СМСН	1050	СМЈН	1360	HIT	1050
CFCH	930	CJCA	730	скос	1120	CMCK	970	CWJI	1430	HIX	800
CFCN	1030	CJCB	1240	CKOV	630	CMCL	730	CMJK	1290	HIZ	1370
CFCO	630	CICI	690	СКРС	930	SMCM	850	.CW10	1260	ніво	1470
CFCT	1450	CJCS	1210	CKPR	580	CMCO	1200	CMJP	1420	нок	640
CFCY	630	CJGX	1430	CKRN	1370	CMCP	1050	CWJW	1070	HRN	1450
CFGP	1200	CJIC	1500	скѕо	780	CMCQ	1410	CWIX	740	KABC	1420
CFJC	880	CJKL	1310	жтв	1200	CMCR	1320	CMK	720	KABR	1390
CFLC	930	CJLS	1310	CKUA	580	CMCU	1010	CMKC	1250	KADA '	1200
CFNB	550	CJOC	1210	CKWX	1010	CMCW	1380	CMKD	919	KALB	1210
CFOS	1370	CJOR	600	скх	1120	CMCX	1470	CMKE	13:0	KALE	1300
CFPL	730	CJRC	630	СКҮ	910	CMCY	590	CMKF	1469	KAND	1310
CFPR	580	CJRM	950	CMAB	1240	CMGE	1379	CMKG	1150	KANS	1210
CFQC	600	CKAC	730	CMBC	690	CMGF	1120	CMKL	950	KARK	890
CFRB	690	СКВІ	1210	CMBD	1260	CMGH	790	СМКМ	1080	KARM	1310
CFRC	1510	CKCA	1420	CMBF	1560	СМНА	1090	смко	1280	KASA	1210
CFRN,	960	CKCD	1010	CMBG	1140	СМНВ	1240	CMKQ	1490	KAST	1200
CHAB	1200	СКСН	1210	СМВН	1600	CMHD	1273	CMKR_	1400	KATE	1420
CHCK	1310	скск	1010	CMBL	750	СМНІ	830	CMKS	710	KAWM	1500
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квіх	1500	KFBI	1050	KFWB	950	KGLO	1210	KLBM	1420	коко	1370
KBKR	1500	KFBK	1490	KFXJ	1200	KGLU	1420	KLCN	1290	KOL	1270
KBND	1310	KFDA	1500	KFXM	1210	KGMB	1320	KLO	1400	КОМА	1480
KBPS	1420	KFDM	560	KFYO	1310	KGNC	1410	KLPM	1360	KOME	1310
KBST .	1500	KFDY	780	KFYR	550	KGNF.	1430	KLRA	1390	комо	920
КВТМ	1200	KFEL	920	KGA	1470	KGNO	1340	KLS	1283	коно	1370
KCKN	1310	KFEQ	680	KGB	1330	KGO	, <del>7</del> 90	KLUF	1370	KOOS	1200
KCMC	1420	KFGQ	1370	KGBU	900	KGU	750	KLX	880	KORE	1420
ксмо	1450	KFH	1300	KGBX	1230	KGVO	1260	KLZ	560	KOTN	1500
KCRC	1360	KFI	640	KGCA	1270	KGW	620	KMA	930	KOVC	1500
KCRJ	1310	KFIO	1120	KGCU	1249	KGY	1210	KMAC	1370	KOVO	1210
KDAL	1500	KFIZ	1420	KGCX	1450	KHAS	1200	KMBC	950	KOWH	660
KDB	1500	KFJB	1200	KGDE	1200	кнвс	1400	KMED	1410	KOY	1390
KDFN	1440	KFJI	1210	KGDM	1100	КНВG	1210	KWJ	580	KPAB	1500
KDKA	980	KFJM	1410	KGEK	1200	KHJ	900	KMLB	1200	KPAC	1260
KDLR	1210	KFJZ	1240	KGER	1360	кно	590	KMMJ	740	KPDN	1310
KDNT	1420	KFKA	880	KGEZ	0181	KHSL	1260	кмо	1330	KPFA	1210
KDON	1210	KFKU	1220	KGFF	1420	KHUB	1310	кмох	1090	KPFT	1210
KDRO	1500	KFNF	890	KGFI	1500	KICA	1370	КМРС	<b>7</b> 10	KPLC	1500
KDTH	1340	KFOR	1210	KGFJ	1200	KID	1320	KMTR	570	KPLT	1500
KDYL	1290	KFOX	1250	KGFL	1370	KIDO	1350	KNEL	1500	КРМС	1550
KECA	780	KFPL	1310	KGFW	1310	KIDW	1420	KNET	1420	КРО	680
KEEN	1370	KFPW	1210	KGFX	630	KIEM	1450	KNOW	1500	KPOF	880
KELA	1440	KFPY	890	KGGF	1010	KIEV	850	KNX	1050	KPPC	1210
KELD	1370	KFQD	780	KGGM	1230	KINY	1430	KOA	830	KPQ	1509
KELO	1200	KFXD	1200	KGHF	1320	KIRO	710	KOAC	550	KPRC	920
KERN	1370	KFRC	610	кдні	1200	KIT	1250	KOAM	790	KQV	1380
KEUB	1420	KFRO	1370	KGHL	780	KITE	1530	КОВ	1180	KQW	1010
KEX	1180	<b>CFRU</b>	630	KGIR	1340	KIÜL	1210	ковн	1370	KRBA	1310
KFAB	770	KFSD	600	KGIW	1420	KIUN	1370	KOCA	1210	KRBC	1420
KFAC	1300	KFSG	1120	KGKB	1500	KIUP	1370	косч	1310	KRBM	1420
KFAM	1420	KFUO	550	KGKL	1370	KJBS	1079	кон	1380	KRE	1370
KFAR	610	KFVD	1000	кско	570	KJR	970	KOIL	1260	KRGV	1260
KFBB	1280	KFVS	1210	KGKY	1500	KLAH	1210	KOIN	940	KRIC	1420
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KRIS	1330	KTBS	1450	KVOO	1140	KYA	1230	VOAR	950	WBAX	1210
KRKD	1120	KTEM	1370	KVOR	1270	KYCA	1500	VÖWR	700	WBBC	1409
KRKO	1370	KTFI	1240	KVOS	1200	KYOS	1040	WAAB	1410	WBBL	1213
KRLC	1390	KTHS	1060	KVOX	1310	KYSM	1500	WAAF	920	WBBM	770
KRLD	1040	KTKC	1190	KVRS	1370	KYUM	1210	WAAT	940	WBBR .	1300
KRLH	1420	KTMS	1220	KVSF	1310	KYW	1020	WABC	860	WBBZ	1200
KRMC	1370	ктон	1500	KVSO	1210	TGQ	1450	WABI	1200	WBCM	1410
KRMD	- 1310	кток	1370	KVWC	1500	TGW	1520	WABY	1370	WBEN	900
KRNR	1500	KTRB	740	KWAL	1420	TGX	1400	WACO	1420	WBEO	1310
KRNT	1320	KTRH	1290	KWBD	1200	TG1	1310	WADC	1320	WBHP	1200
KROC	1310	KTRI	1420	KWBG	1420	TIAFB	900	WAGA	1450	WBIG	1440
KROD	1500	KTSA	550	KWEW	1500	TIEMC	860	WAGF	1370	WBIL	1100
KROW	930	KTSM	1310	KWFC	1310	TIEP	830	WAGM	1420	WBLK	1370
KROY	1213	KTSW	1370	KWFT	620	TIFA	1000	WAIM	1290	WBNS	1430
KRRV	1310	KTUC	1370	KWG	1200	TIGH	69 <b>0</b>	WAIR	1250	WBNX	1350
KRSC	1120	KTUL	1400	KWJB	1210	TIGPH	605	WAKR	1530	WBNY	1370
KSAC	580	KTW	1220	KMJJ	1040	TIGPH2	1225	WALA	1380	WBOQ	860
KSAL	1500	KUJ	1370	KWK	1350	TIHO	1030	WALR	1210	WBOW	1310
KSAM	1500	KUOA	1260	KWKH	1130	TILJ	775	WAML	1310	WBRB	1210
KSAN	1420	KUSD	890	KWLC	1270	TILS	880	WAPI	1140	WBRC	930
KSCJ	1339	KUTA	1500	KWLK	780	TINBC	1070	WAPO	1427	WBRE	1310
KSD	550	KVAK	1420	KWNO	1200	TING	<b>75</b> 0	WARD	1400	WBRK	1310
KSEI	900	KVAN	880	KWOC	1310	TIOS	940	WASH	1270	WBRY	1530
KSFO	560	KVCV	1200	KWOS	1310	TIPG	625	WATL	1370	WBT	1080
KSL	1130	KVEC	1200	KWSC	1220	TIRCC	1200	WATR	1290	WBTH	1370
KSLM	1360	KVFD	1370	KWTO	560	TIRS	920	WAVE	940	WBTM	1370
KSO	1430	KVGB	1370	KWYO	1370	TIXD	800	WAWZ	1350	WBZ	990
KSOO	1110	KVI	570	KXA	760	TI4NRH	725	WAYX	1200	WBZA	990
KSRO	1310	KVIC	1310	KXL	1420	TISCV	575	WAZL	1420	WCAD	1220
KSTP	1460	KVNU	1200	кхо	1500	VAS .	685	WBAA	893	WCAE	1220
KSUB	1310	KVOA	1260	кхок	1250	VOCM	1040	WBAB	1209	WCAL	<b>760</b>
KSUN	1200	KVOD	920	кхох	1210	VONF	640	WBAL	760	WCAM	1280
KTAR	620	KVOE	1500	KXRO	1310	VOGY	840	WBAL	1060	WCA0	600
КТВС	1120	KVOL	1310	KXYZ	1440	VOAC	1065	WBAP	800	WCAP_	128Ō
		I									

WCAR	1100	WDAN	1500	WESX	1500	WGES	1360	WHEB	740	WIOD	610
WCAT	1200	WDAS	1370	WEVD	1310	WGH	1310	WHEC	1430	WIP	610
WCAU,	1179	WDAY	940	WEW	760	WGIL	1500	WHFC	1420	WIRE	1400
WCAX	. 1200	WDBJ	930	WEXL	1310	WGL	1370	WHIO	1260	WIS	560
WCAZ	1079	WDBO	580	WFAA	800	WGKV	1500	WHIP	1480	WISE	1370
WCBA	1440	WDEL	1120	WFAM	1200	WGN	729	WHIS	1419	WISN	1120
WCBD	1080	WDEV	550	WFAS	1219	₩GNC	1420	WHJB	620	WJAC	1370
WCBM	1370	WDGY	1180	WFBC	1300	WGNY	1220	WHK	1390	WJAG	1060
WCBS	1420	WDLP	1200	WFBG	1310	WGPC	1420	WHKC	640	WJAR	890
wcco	810	WDNC	1500	WFBL	1360	₩GR	550	WHLB	1370	WJAS	1290
WCFL	970	WDOD	1280	WFBM	1230	₩ GRC	1370	WHLD ~	1250	WJAX	900
WCHS	580	₩DRC	1330	WFBR	1270	WGRM	1210	WHLS	1373	WJBC	1200
WCHV	1420	WDSM	1200	WFDF	1310	WGST	890	WHMA	1420	WJBK	1500
WCKY	1490	WDSU	1250	WFEA	1340	WGTC	1500	WHN	1010	WJBL	1200
WCLE	610	WDWS	1370	WFIG	1310	WGTM	1310	wHo	_ 10 <b>0</b> 0	WJBO	1120
WCLO	1200	WDZ	1020	WFIL	560	WGY	790	WHOM	1450	WJBY	1210
WCLS	1310	WEAF	660	WFLA	6 <u>2</u> 9	WHA	940	WHP	1430	WJBW	1200
WCMI	1310	WEAN	<b>7</b> 80	WFMD	900	WHAI	1210	WHUB	1370	WJDX	1270
WCNC	 13 <b>7</b> 0	WEAU	1050	WFMJ	1420	WHAM	1150	WIBA	1280	WJEJ	1210
WCNW	1500	WEBC	1290	WFNC	1340	WHAS	829	WIBC	1050	WJHL	1200
WCOA	1340	WEBQ	1210	WFOR	1370	WHAT	1310	WIBG -	970	WJHP	1290
wcoc	880	WEBR	1310	WFOY	1210	WHAZ	1300	WIBM	_ 1370	WILW	1210
WCOL	1210	WEDC	1210	WFTC	1200	WHB	860	WIBU	1210	MIJD	1130
WCOP	1120	WEED	1420	WFTL	1370	WHBB	1500	WIBW	580	WJLS	1210
wcos	1370	WEEL	590	WFVA	1260	WHBC	1200	WIBX	1200	MJWC	1210
WCOU	1210	WEEÙ	830	WGAL	1500	WHBF	1240	WICA	940	WJMS	1420
wcov	1210	WELI	900	WGAN	640	WHBI	1250	WICC	600	WJNO	1200
WCPO	1200	WELL	1420	WGAR	1450	WHBL	1300	WIL	1200	WJPF	1310
WCRW	1210	WEMP	1310	WGAU	1310	WHBQ	1370	WILL	580	WJPR	1310
wcsc	1360	WENR	870	WGBB	1210	WHBU	1210	WILM	1420	WJR	750
WCSH	940	WENY	1200	WGBF	630	WHBY	1200	WIND	560	WJRD	1200
WDAE	1220	WEOA	1370	WGBI	880	WHDF	1370	WING	1380	WJSV	1460
WDAF	610.	WESG	850	WGBR	1370	WHDH	830	WINN	1210	WJTN	1210
WDAH	1310	WEST	1200	WGCM	1213	WHDL	1400	WINS	1180		1210
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,	WJZ	760	WLTH	1400	WMRO	1250	wow	590	WRTD	1500	wsvs	1370
•	WKAQ	1240	WLYA	1200	WMSD	1420	wowo	1160	WRUF	830	WSYB	1500
Ĩ	WKAR	850	WLW	700	WMT	600	WPAD	1420	WRYA	1110	WSYR	570
i	WKAT	1500	MWWF	630	WNAC	1230	WPAR	1420	WSAI	1330	WSYU	570
Ī	WKBB	1500	WMAM	510	WNAD	1010	WPAX	1210	WSAJ	1310	WTAD	900
i	WKBH	1380	WMAN	1370	WNAX	570	WPAY	1370	WSAL	1200	WTAG	580
Ì	WKBN	570	WMAQ	670	WNBC	1380	WPEN	920	WSAN	1440	WTAL	1310
•	WKBO	1200	WMAS	1420	WNBF	1500	WPG	1100	WSAR	1450	MATW	1070
•	WKBV	1500	WMAZ	1180	WNBH	1310	WPIC	180	WSAU	1370	WTAQ	1330
١	WKBW	1480	WMBC	1420	WNBX	1260	WPIV	1210	WSAV	1310	WTAR	780
ī	WKBZ	1500	WMBD	1449	WNBZ	1290	WPRA	1370	WSAY	1210	WTAW	1120
-	WKEU	1500	WMBF	610	WNEL	1290	WPRO	630	WSAZ	1190	WTAX	1210
,	WKNY	1500	WMBG	1350	WNEW	1250	WPRP	1420	WSB	7 10	WТВО	800
,	WKOK	1210	WMBH	1420	WNLC	1500	WPTF	689	WSBC	1210	WTCN	1250
į	WKRC	550	WMBI	1080	WNOE	1420	WQAM	560	WSBT	1360	WTEL	1310
į	WKST	1250	WMBO	1310	WNOX	1010	WQAN	880	WSFA	1410	WTHT	1200
,	WKY	900	WMBR	1370	WNYC	810	WQBC	1360	WSGN	1310	WTIC	1040
i	WKZO	590	WMBS	1420	WOAI	1190	WQDM	1390	WSIX	1210	WTJS	1310
•	WLAC	1470	WMC	780	woc	1370	WQXR	1550	MS12	1310	WTMA	1210
,	WLAK	1310	WMCA	570	WOCD	1210	WRAK	1370	WSKB	1200	WTMC	1500
,	WLAP	1420	WMEX	1500	woi	540	WRAL	1219	WSLI	1420	WTMJ	620
7	WLAW	680	WMFD	1370	wоко	1430	WRAW	1310	MSW	650	WTMV	1500
	WLB	760	WMFF	1310	WOL	1230	WRBL	1200	WSMB	1529	WTNJ	1280
;	WLBC	1310	WMFG	1210	WOLS	1200	WRC	950	WSWJ	1210	WTOC	1260
7	WLBJ	1310	WMFJ	1420	WOMI	1500	WRDO	1370	MZOC	1210	WTOL	1200
,	WLBL	900	WMFO	1370	WOMT	1210	WRDW	1500	wsoo	1200	WTRC	1310
;	WLBZ	620	WMFR	1200	WOCB	1210	WREC	600	WSPA	920	WTRY	950
,	WLEU	1420	WMGA	1370	WOPI	1500	WREN	1220	WSPB	1420	WTSP	1370
	WLLH	1370	WMIN	1370	WOR	710	WRGA	1500	WSPD	1340	WVFW	1400
,	WLLH	1370	WMMN	890	WORC	1280	WRJN	1370	WSPR	1140	WWAE	1200
,	WLNH	1310	WMOB	1200	WORK	1320	WRNL	880	WSTP	1500	MM1 ,	920
,	WLOK	1210	WMOG	1500	WORL	920	WROK	1410	WSUI	880	WWL	850
,	WLPM	1420	WMPC	1200	wosu	570	WROL	1310	WSUN	620	WWNC	570
Ť	WLS	870	WMPS	1430	wov	1130	WRR	1280	WSVA	550	WWRL	1500
							ι		<u> </u>			

wwsw	1500	XEBA	1080	XECH	1490	XEFI	1440	XEME	1240	XET	699
WWVA	1160	XEBG	820	XECL	1100	XEFO	940	XEMO	860	XETB	1310
WXYZ	1240	XEBH	930	XECW	1240	XEFQ	1010	XEMU	580	XETH	1210
W8X0	700	XEBI	1000	XECZ	1370	XEFV	1210	XEMX	1280	XEU	1010
XEAA	750	XEBJ	1340	XED	1160	XEFW	1310	KEN	780	XEW	890
XEAC	980	XEBK	1080	XEDA	1220	XEG	1230	XENT	910	XEX	1310
XEAF	990	XEBL	1220	XEDF	810	XEH	720	XEP	1160	XEXB	1270
XEAG	1310	XEBO	1310	XEDH	1340	XEI	1370	XEPN	730	XEXE	1270
XEA1	1250	XEBP	1150	XEDP	1080	XEI	1020	XEQ	730	XEXX	1170
XEAM	750	XEBS	1340	XEDR	1490	XEJP	1130	XEQK	1500	XEZ	630
XEAO	660	XEBU	1240	XEDW	1150	XEK	990	XERA	840	YSS	640
XEAP	1340	XEBW	1340	XEE	1210	XEKL	1240	XERB	1090	ZNS	790
XEAS	1160	XEBX	640	XEF	1450	XEL	1150	XERC	830		
XEAT	1210	XEBZ	810	XEFB	870	XELO	730	XERH	1430		
XEAW	960	XEC	1150	XEFC	1340	XELZ	1370	XES	990		
XEB	1030	XECA	1230	XEFE	989	XEM	1380	XESM	1270		
		<u> </u>									

(Continued from Page 62)

Opelika, Ala., Opelika-Auburn Brdcstg. Co., 1370 kcs. 100(.25). Orlando, Fla., Hazlewood Co., 1390 kcs. 1

kw. unltd.
Pawtucket, R. I., Pawtucket Brdestg. Co., 1390 kcs. 1 kw. unltd.
Phoenix, Ariz. M. C. Reese, 1200 kcs.

Ponce, P. R., Portorican American Brdestg.
Co., 1340 kcs. 1 kw.

Pontiac, Mich., King-Trendle Brdcstg. Corp., 1440 kcs. 250 unltd. Riverside, Calif., Brdcstg. Corp. of America,

Riverside, Calif., Richard T. Sampson, 1390 kcs. 250 days.
Rochester, N. Y., Edward J. Doyle, 1270 kcs. 500 days.

Saginaw. Mich., Saginaw Brdcstg. Co. Salina, N. Y., Sentinel Brdcstg. Corp., 620 kcs. 1 kw. unltd.

Sandusky, Mich., Thumb Brdestg. Co., 880 kcs. 1 kw. days.

San Juan, P. R., Enrique Abarca Sanfeliz, 580 kcs. 1 kw. un!td.
San Juan, P. R., United Theaters, Inc., 580 kcs. 1 kw. un!td.

Santa Monica, Calif., A. E. Austin, 1160

kcs. 100(.25). Scranton, Pa., Lac 1370 kcs. 100(.25). Lackawanna Brdcstg. Co., Scranton, Pa., Union Brdcstg. Co., 1370 kcs.

100(.25) unltd.
Shelby, N. C., Jos. A. Lattimore, 1370 kcs.
100(.25) unltd.

Spartanburg, S. C., S. Advertising Co., 1370 kcs. 100(.25) unltd.

Springfield, Ohio, Radio Voice of Springfield, 1310 kcs. 100 unltd.

Springfield, Ohio, S. Radio Corp., 1310 kcs. 100 unitd

Springfield, Ohio, S. Radio Service, 780 kcs. 250 days

Syracuse, N. Y., Civic Brdcstg. Corp., 1500 kcs. 100 unltd. Tacoma Brdcstg. Co., 1420

Tacoma, Wash., kcs. 100(25). Tacoma, Wash., Michael J. Mingo, 1400 kcs. 250 unltd.

Traverse City, Mich., Northern Brdcstg. Co., 570 kcs. 500 days.

Valdosta, Ga., John F. Arrington, Jr., 1230 kcs. 250 unltd.

Vincennes. Ind., kcs. 100 unitd. Samuel M. Emison, 1420

Vincennes, Ind., Vin. Newspapers, 1420 kcs. 100 unltd.

Washington, D. C., Lawrence J. Heller, 1310 kcs. 100(.25).

Watertown, N. Y., Black River Valley Brdcstg. Co.

Watertown, N. Y., Watertown Brdcstg. Corp. Willman, Lakeland Brdcstg. Co., 680 kcs. 250 days.

Wisconsin Rapids, Wis., Wm. F. Huffman, 580 kcs. 250 unitd.

Worcester, Mass., Winfield A. Schuster, 1200 kcs. 100 unltd.

Worcester, Mass., C. T. Sherer Co., Inc., 1200 kcs. 100(.25).

Yuma, Ariz., Silver Crest Theaters, 1420 kcs. 100 S. H.

## Selected Back Numbers

The Oceania Broadcasting Stations. Sept. '38.

Tuning South Pacific Stations, Tuning South Americans, and a list of South American Broadcasting Stations, Oct. '38.

Dialing the Europeans, Nov. '38. Dialing the Asiatics, Dec. '38.

This Hobby Called DXing, the International Prefixes, the QSA and R Codes, Jan. '39.

Stations of France and Norway, March '39.

Stations of New Zealand, April '39. Television is Here, list of Television Stations, the stations of Colombia, China and Venezuela, Midsummer '39.

Stations of Costa Rica and Venezuela, Sept. '39.

The World's Broadcasting Stations, Sept. '39.

These past issues are still available at the regular price of 25c each or five for a dollar.

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Trimm "Professional." 4000 ohms	4.00
Trimm "Dependable." 2000 ohms	3.25

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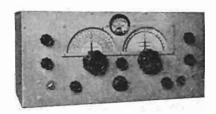
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## THE RME 69

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- RESONATOR CONTROL. Permits peaking of circuits at any time, providing an instantaneous method of alignment of the RF circuits.
- BAND SPREAD. Two dials with single control tuning, electrical band spread. Spread may be had anywhere within the receiver's tuning range. Ten, 20 and 40 meter bands spread out to 100 degrees.
- RME-69 Single Signal Super housed in steel cabinet with choice of gray or black crinkle finish, 465 kes. crystal, complete set of 9 tubes, 8 inch Dynamic speaker housed in gray or black crinkle finish baffle.

#### The RME7O is Also Available on Time Payments

RME-70, complete with tubes, crystal and speaker in cabinet, Cash Price \$138.60.

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# Learn at Home to Make \$30, \$40, \$50 a Week

Radio is a young, growing field with a future. It offers you many good pay spare time and full time job opportunities. And you don't have to give up your present job, go away from home, or spend a lot of money to become a Radio Technician. I train you right at home in your spare time.

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Radio broadcasting stations employ engineers, operatora, technicians and pay well for trained men. Radio manufacturers employ testers, inspectors, foremen, servicemen in goodpay jobs with opportunities for advancement. Radio jobbers and dealers employ installation and servicemen. Many Radio Technicians open their own Radio sales and repair businesses and make \$30, \$40, \$50 a week. Others hold their regular job and make \$5 to \$10 a week fixing Radios in spare time. Automobile, police, aviation, commercial Radio; loudspeaker systems, electronic devices, are newer fields offering good opportunities to qualified men. Television promises to open many good jobs soom.

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#### J. E. SMITH, President National Radio Institute Dept. 9MO Washington, D. C.

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