# RADIO

The All-Wave Radio Log Authority



JULY - AUGUST, 1940

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## WORLD GLOBE





## RADIO



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## HIGH FREQUENCY GLOBE TROTTING

By Ray La Rocque

#### Report-o-Meter

G. R. Jewell, Jr	100%
M. F. Williams	
Edward Laudansky	35%
Anton Jansen	34%
John D. Long	<b>30%</b>

Familiar to top spot on the meter is the name of G. R. Jewell, Jr., of San Diego, California, so we can hardly acclaim as unusual his accomplishments this month. M. F. Williams is by no means a newcomer to the meter, and both Anton Jansen, and John D. Long held spots in the select five last month. The name of Edward Laudansky is a new one for our meter, but we hope it will appear often in the future.

Honorable mention this month is awarded to a few who came close, namely; J. A. Brooks, Hylton Brown, Jack Stephenson, and Charles Meyers. To these and the others who reported, we say try again and better luck next time.

#### ASK US ANOTHER

Let's start off with an answer. For Ernest R. Forrest of Oklahoma "The City: Chinese station heard on 9630 kcs. is XGOY at Chungking and is on 9650 kcs., exactly. The address is Central Broadcasting System at Chungking, China." This from G. R. Jewell, Jr., P. O. Box 386, San Diego, Calif., who asks a question also. The question is regarding a station on 15190 kcs. heard at 8:20 a.m. giving the call and frequency of another station on which the next transmission would be heard as station NR-1 on 9660 kcs. "Can anyone give me the call and location of the 15190 kcs. station?" is the quere of Radexer Jewell.

Jack Stephenson, (R1470), Okla-

homa City, Okla. would like information on how to get a veri out of TIEP! . . . A mystery station for H. W. Hartley (R1535), is the one heard from 11:30 a.m. to noon on 11950 kcs. . . . The address and call letters of "Radio Continental" on 4795 kcs. in Caracas is desired by Edward Laundansky, 1 Mather St., Dorchester, Mass. And another question from Ed concerns a Uruguayan station heard on 17900 kcs. at 5:30 p.m. "Oall was announced, but all I got was the location—Montevideo," says Radexer Laundansky. (There is a "Radio Continente," YV5RY, in Caracas on 4750 kcs.—RL)

Charles A. Mills (R1667), Box 326, Strathrog, Ontario comes through with the following for Henry Bennett: "WMI verified my report which was mailed to WMI, Lorain County Radio Corp, Lorain, Ohio. The veri was a typed postcard and was received in si days." Then from Henry Bennett, himself we have more questions. One concerns the station on 6300 kcs. announcing as "London," another concerns WNRO at Swainsboro, Georgia on 2800 kcs. Regardthe latter, Radexer Bennett wants to know the address and type of station. Another and his last query is about the call letters of the police station at Norristown, Penna. "Call is listed in various places as WMCN and WMCM. Which right?" Address any replies to Henry Bennett (R1342), 644 Atlantic Ave., Collingswood, N. J.

A station announcing as PKDE has been heard broadcasting pro-Nazi news in English by C. R. Bendes, 239 Cairo St., Pittsburgh, Penna. Still from Radexer Bendes' letter we quote, "This Sunday morning, I heard a station broadcasting church services just below GŠV. They signed at 9:15 a.m. with a chime. Can anyone identify it?" . . . Donald Graydon, 67 Fermanaugh Ave., Tor-

## FIRE DESTROYS OUR PRINTER'S PLANT

The building and equipment of The Kimball Press were totally destroyed by fire just as this issue of RADEX was ready

to go to press.

The loss was entirely covered by insurance and the plant will be rebuilt immediately. To produce this issue, however, it was necessary to rent temporary quarters in Paterson. A smaller press than the cylinder press formerly used, required RADEX to be printed on smaller forms.

It is expected that this issue will be about two weeks late, for which we ask

our readers' kind indulgence.

onto, Ontario replies to Warren Reichardt: "The Australian station on 9640 kcs. is VLQ-5 in Sydney."

Typical of many letters is the question of Niel Wald, 21 E. 87th St., New York, N. Y. He wants to know how to transpose the megacycle readings on his dials to kilocycles. A megacycle is 1000 kilocycles, hence, 19.5 megacycles is written in kilocycles thusly—19500 kcs.

"I would like to know if PSH verifies. A friend and myself have had report out since July 1939 to them. EAQ promised to send one of their new cards when ready. That was back in December, 1939-I have not heard from them since. Has anyone else?" The preceding is from Hylton R. Brown, Jr. (R989), Silver Spring, Md. . . . An oriental station heard on 15190 kcs. in close proximity to DJB is bothering Charles Meyers, 3643 W. Flourncy St., Chicago, Ill., who wants to know if it could be ZBW-4 heard at 6:30 a.m. Still another question from Radexer Meyers, "Can anyone identify a French speakingn station heard at 12:45 a.m. on 11408 kcs."

QUOTE AND UNQUOTE

C. R. Bendes, 239 Cairo St., Pittsburgh, Penna: "My HP5A card was sent my mistake to Jack Fern, who forwarded it to me promptly. I would like to thank Jack publicly for this."

William Mc. Mahon, 6 Central Ave., Glen Cove, N. Y.: "Only for the past six months have I been getting Radio Index regularly and I think it is the best of any magazine, in that it is so strongly devoted to the listener instead of just to the amateur or radio builder. I listen to medium and shortwaves almost exclusively, occasionally trying some DX on the long wave band. I have been a shortwave and DX fan for about six years. My introduction to shortwaves came when my brother bought a new radio with a shortwave band on it."

J. B. Coursey, Cape Fear Railways, Inc., Fort Bragg, N. C: "I would like to know if any of your readers have been able to pick up the transmissions of Radio Club Mozambique on 30.88 meters, and on 19.62 meters. I have been a reader of RADEX for the past year or so, and have enjoyed unusually good reception with verifications from Australia, Japan, Sweden, etc."

Albert C. Smith, Mitchell, South Dakota: "I have bought my first copy of RADEX and I am writing to find out a few things that have puzzled me since I have read it. I have always DX'ed on the bands from 16-50 meters for foreign reception and thought that was called DX. According to a lot of reports that are listed in the magazine, DX also includes the broadcast band. I am a little mixed up now, not knowing whether I was wrongly calling my hobby DXing or not!!! ("DXing covers the entire hobby of the search for distant stations regardless of any band or of any band or of any different approach to the hobby-it is still DXing-RL)

M. F. Williams, 119 S. 8th Street, Newark, N. J.: "In addition to the information given in RADEX last month regarding the American QSL Bureau, I'd like to inform RADEX readers that the we, the XYL and myself, keep an accurate file of all cards received and forwarded as well

as QTH of the sender. Each addressee has a reference number. In order that we migst locate his card quickly and enter all information we request that they place that they place that reference number in the upper left-hand corner of their card. Radex Club members can use their club indicia as a reference number—we can use these as easly as any other reference number and it will enable us to determine how many addressees learned of the bureau through RADEX."

#### NOT SO SHORT WAVES

LS-8, Naval station on 3415 kcs. heard talking to GP-9 and Tank No. 2.

W1OXLG on 4423 kcs., "Horace E. Horton" heard in contact with W9XTD on 4283 kcs.

WNXI on 2174 kcs., the "Silverland" heard from the Pacific coast. (Roman—III.)

#### ULTRA HIGH

YDA, the Netherland Indies Radio, shortwave station, on ten meters was heard here last winter on a twotube outfit, creating some kind of a record. (Wood-Minn.)

W4XA on 26150 kcs. Nashville, Tenn. was heard at 6:30 p.m. with dinner music. The signal was QSA-5, R-8, (Kastner—Texas)

W8XNU on 25950 kcs. in Cincinnati, Ohio was heard at 7:15 p.m. with a QSA-5, R-7 signal. (Kastner—Texas)

W9RPD on 25900 kcs. in St. Louis, Mo. was heard at 5:38 p.m. with an R8 signal. (Kastner—Texas)

Calls of 7-meter police stations heard here are: WPDS, WQLO, WALG, WQJS, WQHO, KQDH, WPDW. Locations are not known. (Kastner—Texas)

#### Green Light For "FM"

Giving "FM" or Frequency Modulation the go-ahead signal and assigning to it many new channels, the FCC aclaimed this new type of broadcasting as "one of the most significant contributions to radio in recent years." The strip from 42000-

50000 kcs., divided into channels of 200 kilocycles in width has been allotted to "FM". This band is then sub-divided, the first few channels from 42100-42900 kcs. are for noncommercial educational stations, and the remainder of the channels are for experimental and regular "FM" broadcast stations. The educational stations now operating in that band with the old style amplitude modulation will not be required to change to "FM", but no new licenses will be granted for amplitude modulation on these channels.

There are a number of "FM" stations now operating and still a larger number of applicants for new stations. The new applications will be dismissed, after which the applicant will be allowed to re-submit his application in accordance with the new rules—which will be forthcoming. The stations presently operating on these bands will be given until January 1, 1941 to terminate activities, Upon termination of their present licenses (experimental), they will be allowed to apply for regular broadcast licenses under the new ruling.

Stations in operation or with construction permits for "FM" are: 42698 kcs.

WIXK Hull, Mass. (1000 w.) WIXSN E. Springfield, Mass. (1000 w.)

W2XWG New York, N. Y. (1000

w.)
W3XMC Washington, D. C. (100

w.)
W8XAD Rochester, N. Y. (1000

w.)
W9XAO Milwaukee, Wis. (1000

w.) 42800 kcs.

W2XMN Alpine, N. J. (40000 w.)
W9XEN Chicago, Ill. (1000 w.)

43000 kcs.
W1XOJ Paxton, Mass. (50000 w.)
W8XVH Columbus, Ohio (250 w.)
W9XYH Superior, Wis. 1000 w.)

**43200 kcs.**W1XSO Avon, Conn. (1000)
W2XDA Schenectady, N. Y. (50

W2XOY Albany, N. Y. (150 w.)
W2XQR New York, N. Y. (1000

W8XFM Cincinnati, Ohio (1000 w.)

43400 kcs.

W1XPM Meriden, Conn. (1000 w.).
W1XTG Holden, Mass. (1000 w.)
W2XOR Newark, N. J. (1000 w.)
W3XO Georgetown, D. C. (1000 w.)

The new "FM" Chanels will not be the same as those shown above. All new "FM" station licenses granted will be not for channels beginning with 43100 kcs., and then to 43000 kcs. and so on every 200 kcs. up to 49900 kcs.

Perhapus a little explanation regarding "FM" itself is in order. The basic difference between amplitude modulation (as used for present Broadcasting and frequency modulation is as follows: Modulation is a process of imparting sound or other signal (intelligence) to transmitted radio wafe. The radio wave while the amplitude remains constant.

Short bits about FM: An "FM channel is 200 kcs. wile. . . Only the strongest signal is heard, thus eliminating the possibility of inter-station interference. . . . Atmospheric and man made static vary in amplitude, hence they are not picked up on an FM receiver. . . An FM signal cannot be received distinctly on a regular high frequency broadcast receiver. . . Most FM receivers will come in combinations and will be capable of receiving both types of emissions. . . . The local coverage of an FM staton is considerably greater than a regular station as there is little background noise or interference. However, the range of the signal is not as great as on the bcb as the high frequency signals do not travel far. The sky-wave may strike back to earth at some points— this is one phase of "FM" which still has to be determined by experiment. . . . The

day and night coverage of a station will be approximately the same . . . It is claimed that "FM" will merely supplement, but not supplant the present type of broadcasting. . . . An "FM" signal on an "FM" receiver renders true high-fidelity tone-something which has never been achieved on radio sets in the past. . . Your questions concerning "FM" and its stations are welcomed. We will do our best to answer them. And, DXers, there is fertile ground for DXing on these bands-so get in on "FM" DX now! Let's have your reports on "FM" stations and by all means let the stations have your re-Tell them you read about "FM" in RADEX.

#### Australia

Complete list of stations:
VLQ Syndey 9615 kcs. 16000 w.
VLQ2 Syndey 11870 kcs. 16000 w.
VLQ5 Sydney 9680 kcs. 16000 w.
VLR Lyndhurst 9580 kcs. 2000 w.
VLR3 Lyndhurst 11850 kcs. 2000 w.
VLW2 Perth 9650 kcs. 2000 w.
VLW3 ePrth 11830 kcs. 2000 w.
VLW4 Perth 9665 kcs. 2000 w.

VLQ on 9615 kcs. at Syndey was heard with terrific signal (Calif.) at 2 a.m, at which time they came on the air in French, Spanish' and English. (Jewell—Calif., Budden-Quebec, and Meyers—Ill., Long-Ga.)

VLQ-2 on 11870 kcs. at Sydney heard from 2:30-3:30 a.m. (Jewell—Calif.)

VLQ-5 on 9680 kcs. at Sydney heard with R9 signals from 7:30 a.m. to sign off at 8 a.m. News in English at 7:30 a.m. followed by classical music until sign off at 8 a.m. (Jewell—Calif.)

VLR-3 on 11850 kcs. at Melbourne is being heard with heard with R6 signals from 1-3 a.m. Music and war news are heard. (Jewell—Calif.)

VLW-4 on 9665 kcs, is heard every morning until 10 a.m. when signal fades. (Jewell-Calif.)

VLW-3 on 11830 kcs. at Perth is being with R6-7 signals relaying BBC war news at 3 a.m. After the



The QSL card from OQ5AB in Elizabethville, in the Belgian Congo. It is printed in dark brown on a light tan card. (Courtesy of Myron Unger, Detroit, Mich.)

news, American dance tunes are played, which provides easy veri data. Several time signals are given during this program. (Jewell—Calif.)

#### Angola '

CR6RB on 10950 kcs., "Radio Club of Benguela is on daily from 2:30-4p .m. and Sundays from Noon to 1:30 p.m. (Butcher—La.)

1:30 p.m. (Butcher—La.) CR6RC on 11740 kcs. "Radio Club Angola," may be addressed Caixa Postal 229, Luanda, Anogla. (Butcher—La.)

#### Argentina

LRA-1 on 9688 kcs. in Buenos Aires is on the air daily from 11 a.m. to 2 p.m., 3:30-4:30 p.m, and 5-10 p.m. (M. F. Williams—N. J., and Jewell—Calif.)

LRX on 9660 kcs. is heard with R8 signals nightly with dance music from 6-11 p.m. (Jewell—Calif.)

LSX on 10350 kcs. heard irregularly in the evening here with good signals. Verification is a white card with large red call letters. Power stated on veri is 20 kw. (Brown—Md.)

#### Bahama Islands

ZNS on 6090 kcs. usually signs off at 10:20 p.m. on Sundays. Veri is a printed letter-folder. (Laudowsky— Mass.)

#### Brazil

PRF-5 on 11885 kcs. in Rio de Janeiro is being heard between 5:55 and 7 p.m. (Williams—N. J.)

PSH on 10220 kcs. heard with strong signals on Monday from 8-8:30 p.m. (Jewell—Calif., Laudansky—Mass.)

#### Canada

CFCX on 6005 kcs. at Montreal heard, but badly QRM'd by HP5K on Sunday at 10 p.m. (Laudansky—Mass.)

CJRX on 11720 kcs. heard at 8 p.m. and again from 1-1:30 a.m. with dance music. (Scholz—Mo., Jewell—Calif., and Boscawen—Calif.)

#### Canary Islands

Letter from EA-1PEP "Comandancia Militar de Las Palmas" says that their regular transmissions have been suspended but on the 1st and 15th of each month they still have a regular transmission. No time is mentioned but it is supposed they are on till 1 p.m. (Jansen—Netherlands)

#### Chile

CB-970 on 9710 kcs. at Valparaiso heard announcing as "Radio Telegraphica." Very strong signals early in evening. (Laudansky—Mass.)

#### China

XGOY on 9650 kcs. at Chungking is one of the best early morning catches. The XGOY station on 9650 kcs. has all English programs. Announcements are made by both man and lady and reports and comments are requested to be sent to the "Voice of China", Chungking, China. XGOY is heard with very good signal from 8:30-9:30 a.m., but sign off time is very irregular. (Jewell—Calif.)

XGOY on 11900 kcs. at Chungking is heard signing on about ten minutes after the 9650 station signs off every morning. (Jewell—Calif., and Meyers—Ill.)

XMHA on 11900 kcs. at Shanghai was heard at 1:30 a.m. with R8 signal. Also heard again from 11-11:15 a.m. with Chinese Dance Music. (Jewell—Calif.)

XPSA on 7010 kcs. at Kweiyang heard at 9 a.m. with news in English and R8 signals from 8:30-9:30 a.m., at which time the signal fades. Native and American music are heard, as well as news. Announcements are by male and female announcers and a series of chimes after station announcement in several languages is used as identification. (Jewell—Calif.)

XTC on 9295 kcs. at Shanghai, was heard with R5 signal on April 25 with program of Chinese music. (Jewell—Calif.)

ZBW-3 on 9525 kcs. at Hong Kong is being heard with R7-8 signals from 8:30 a.m. Female announcers are used. (QRM is very bad shortly after 8:30. (Jewell—Calif.)

#### Colombia

HJCO o n 4945 kcs. in Bogota is heard between 7-8 a.m. Slogan is "Emisora Sud-America." (Williams—N. J.)

HJCX on 6122 kcs. (official freq. 6018 kcs.) in Bogota is now putting in R6 signanl from 6-11 p.m. (Jewell—Calif.)

HJHE on a new frequency of 4775 kcs. now. Station is in Buenaventura. (Williams—N. J.)

#### Costa Rica

TIEM on 10050 kcs. at San Jose was heard with popular recordings on Sunday from 9:45 p.m. (Laudansky—Mass.)

TIPG Gon 9615 kcs. is heard with strong signals from 8-010:30 p.m. nightly. English program, "The Hour of Costa Rica" is heard on Wednesday and Sturdoy'ns--oonsF9nuu amrf day and Saturday from 9:30-10 p.m. (Jewell—Calif., Laudansky—Mass.)

COBZ on 9030 kcs. verifies with

a photographic card showing views of their studios. (Brown—Md.)

COCN on 8437 kcs. in Havana was reported under construction some time ago by R552. It was heard with good signanls April 28 relaying broadcast station CMLB. Address is unknown. Identification

signal was three strokes of a gong. Sign off came at 11 p.m. (Stephenson—Okla.)

COGF on 11800 kcs. and located Matanzas heard with a "Pan American Hour" between 4-5 p.m. with English program. (Williams-N. J.)

COK on 11570 kcs. at Havana started broadcasting as COCSD, but later changed call to COK. are apparently campaigning for Batista for the presidency as they announce "COK-OK Batista." Schedule s from 7:30-11:30 p.m. Address reports to P. O. Box 625. A number of picture views of Cuba are promised to those reporting reception correctly (Jenkins - Ill., Johns - Ill., Jewell—Calif., Stephenson — Okla., Brown-Md., Long-Ga., Williams-N. J., and Boscawen-Calif.)

COX-7 on 6450 kcs. verified with letter signed by Lt. Enrique S. Morales. (Address is COX-7, Ciudad Mi-

litar, Havana, Cuba.

COCH on 9437 kcs. relays COHI on 6450 kcs. COCY on 9230 kcs. relays CMBX on 1180 kcs. and sometimes CMCY on 590 kcs. (Carriazo -Cuba)

#### Dominican Republic

HIT at Trujillo heard signing off at 8:30 p.m. with National Anthem. (Laudansky—Mass.)

HI-1N on 6243 kcs. at Trujillo broadcasts from Noon to 2 p.m. and from 7:30-9:30 p.m. with 750 watts

power. (Laudansky-Mass.)

HI-1S on 6420 kcs. signs off at 8:30 p.m. with "Indian Love Call" and National Anthem. They have a program to North America at 7:30 p.m. at which time reports are read.

#### Ecuador

HCJB on 12460 kcs. at Quito is being heard nightly from 9-10 p.m. except Monday. This program is known as the "Goodwill Hour." Also from 6-7 p.m. nightly is heard "Ecuadorian Echoes". All reports will be verified. Working in parallel with this channel are HCJB's other stations on 970 kcs. and 4107 kcs.

(Woollacott—N. Y., Bendes — Pa., Boscawen—Calif., Brown—Md., Long -Ga., Williams-N. J., Laudansky-Mass., and Jewell-Calif.)

Egypt

The station on approximately 38 meters about which I wrote you in one of my former reports apparently is Cairo. The station is announced as "Hoona Kashira." "Hoona" apparently means "here" in Arabic and "Kashira" is the arabic name for "Cairo." (Jansen—Netherlands)

Fiji Islands

VPD-2 on 9535 kcs. in Suva is being heard between 3-4 a.m. (Williams —N. J.)

France

Latest schedule of broadcast to North and Central America from "Paris Mondial .:

7:45-8:15 a.m. on TPC-5 on 15240

kcs.

11:30 a.m. to 12:30 p.m. on TPB-8 (11845 kcs.) and TPC-5 (15240 kcs.)

8:00 p.m. to midnight on TPA-4 (11720 kcs.), TPB-8 (11845 kcs.) and TPC-13 (9520 kcs.)

For the Pacific Coast of North America: 1-2 a.m. on TPC-14 (9520 kcs.)

A French shortwave station has been heard around 33 or 34 meters relaying the programs of "Radiodifusion Nationale" at various times of

the day. (Jansen-Netherlands)

"Radio Beaux-Arts" is a somewhat mysterious station heard in the 80 meter band on a Saturday at 3 p.m. after musical chimes had been heard. A lady announces "Radio Beaux-Arts without giving any location. Much classical music was heard and the station said the station's aim was to bring relief in these troubled times. A11 languages used French. (Jansen—Netherlands)

"Paris Mondial" is still jumping from one frequency to another with all the gay abandon of the Chinese and Russian sttaions, as well as constantly changing the times of their news in English. Have heard news in English lately at 8 a.m. on 15243

kcs., and at 11:30 a.m. on 15243 and 11843 kcs. (Brooks-Mich.)

"Paris Mondial" on 9520 kcs. has news in English from 8-8:30 p.m. (Bendes—Pa.)

"Paris Mondial" on 9550 kcs. heard at 9 p.m. carrying news and talks, along with music. (Jewell—Calif.)

"Paris oMndial' on 11885 kcs. was heard at 10 p.m. requesting reports. (Laudansky—Mass.)

#### French Indo China

"Radio Saigon" on 11780 kcs. is being heard with R9 signal (Calif.) from 10-11:06 a.m. News in English is heard, being relayed from "Paris Mondial" at 10:46 a.m. for a tenminute period. Address is P. O. Box 413. Reports and comments are requested. "La Marseillaise" is heard at sign off. (Jewell—Calif., Meyers—Ill.)

#### French Somaliland

FZE-8 on 17280 kcs. in Djibouti is heard on the 1st Thursday at the month between 8-8:30 a.m. The first 15 minutes of the transmission are on cw, and the last 15 minutes on phone. (Williams—N. J.)

#### Germany

Three illegal stations against the present regime in Germany have been operating on a more or less regular schedule.

"Deutscher Freiheitsender" on 10100 kcs. has been heard on this and other frequencies with anti-Nazi speeches, etc. It is believed to be portable and operating somewhere within Germany. It is usually heard from 4-5 p.m., though this schedule is not always regular. (Jansen—Netherlands, and Brooks—Mich.)

"Freier Deutchlandsender" operates according to their announcements aidly on 33, 58, and 76 meters at 12:30 a.m., Noon, and 1 p.m. Sometimes their 12:30 a.m. transmission is replaced by one at 10 a.m. (Jansen—Netherlands)

"Geheimsender de Deutschen Revolution" is the third of these "under cover" stations. They announce their frequency as 6505 kcs., and 8442 kcs., They cannot be heard here on 8442 kcs., and on 6505 kcs. they are so badly distorted that it is difficult to follow the speech. They operate for 25-minute periods from the beginning of each hour from 11 a.m. to 5 p.m. Transmissions begin and end with a German Military March (Jansen—Netherlands)

"Prague," still announced as OLR4A, heard some nights with good signal with a bugle or horn being blown slowly as man announces. Heard from 6:15-8:30 p.m. They sign off with a carillon of beautiful chimes. (Long—Ga.)

Tow new transmitters on 7300 kcs. and 7230 kcs. are heard in the late afternoon and evenings. (Schluback—R. I.)

DXJ on 7240 kcs. is a new Berlin transmitter used along with DJB, DXB, and DJD for news to North America at 8:15 p.m. (Jewell—Calif.)

DXB on 9610 kcs. is heard at 2 a.m. with news in English. (Jewell —Calif.)

Another new German station is heard on 10550 kcs, along with DJD carrying English news at 10-10:30 p.m. (Jewell—Calif., and Boscawen, Calif.)

DXS on 15160 kcs. is heard from 7-9 a.m. and DXT on 15230 kcs. is heard from 8-9 a.m. (Williams—N. J.)

DJQ on 15280 kcs. is heard with a fair signal at midnight broadcasting in parallel with another group of stations. (Fisher—Calif.)

English News Schedule from Germany:

6:30 a.m. on DJB or DJL 8:15 a.m. on DJB or DJL

11:15 a.m. on DJB or DJL

1:15 p.m. on DJA (not heard well)

4:00 p.m. on DXB

4:50 p.m. on DJB (sometimes DJD and DXB also)

6:00 p.m. on DJB (sometimes DJD, DXB, or DXJ)

8:35 p.m. on DJB (sometimes DJD, DXB, or DXJ)

10:30 p.m. on DJB (sometimes DJD, DXB, or DXJ)

12:00 midnight on DJB along DJD, DXB or DXJ

(Brooks-Mich.)

Mr. Kempton has not discovered a new interval signal for German stations as mentioned in last RA-DEX. The bell he mentions is rung once for every enemy ship or airplane destroyed during the previous 24-hours. (Brooks—Mich.)

DZB on 10543 kcs, has been heard calling CBS in New York around 6:45 p.m for war news from Berlin. (Budden—Quebec)

#### Great Britain

GSE on 11860 kcs. is being heard in parallel with GSD and GRX, along with GSC, and GSB from 1-2 a.m. with news in English. (Jewell—Calif.)

GGSV on 17810 kcs. comes on at 9 a.m. on Sundays with news in Spanish until 9:20 at which time an English program follows. (Bendes—Pa.)

GSW on 7230 kcs, has been heard at 7 p.m. (Meyers—Ill.)

#### Guatemala

TKWA on 15170 kcs. is on Sundays from 1:45-5:20 p.m., and Daily from 1:45-2:45 p.m. (Jewell—Calif. Bendes—Pa.)

TGWA on 9685 kcs. is on Daily from 10-11:30 p.m. and Saturdays and Sundays from 7 p.m. to 1 a.m. (Jewell—Calif.)

TGWB and TGWC begin transmissions same time as TGWA, but both remain on the air after TGWA signs off. These stations feature beautiful marimba music such as can be heard only in Guatemala. (Jewell—Calif.)

#### Haiti

HH2S on 5960 kcs. is on evenings with R7 signals. (Laudansky—Mass.)

#### Hungary

HAD-3 on 11850 kcs. broadcasts to South America daily from 5 p.m. to 8 p.m.

HAT-5 on 9625 kcs. broadcasts to

North America daily from 6:35-8 p.m. (Long—Ga.)

#### India

Complete list of shortwave stations:

Delhi has VUD-2 on 9590 kcs. and 4960 kcs., and VUD-3 on 15160 kcs., and 9590 kcs.

Bombay has VUB-2 on 9550 kcs., and 4880 kcs.

Calcutta has VUC-2 on 9530 kcs., and 4840 kcs.

Madras has VUM-2 on 8530 kcs. (changed recently from 11870 kcs.) and 4920 kcs. (Jansen—Netherlands)

VUM-2 on 4920 kcs. has been by far the best of the India stations on the 60 meter band, at times it is the only one which can be heard. (Jansen—Netherlands)

VUC-2 on 4840 kcs. was heard with R5 signal at 8:30 a.m., VUB-2 on 4880 kcs. R7, and VUM-2 on 4920 kcs. R5 at the same time. (Jewell—Calif.)

#### Iraq

Bagdad on 7084 kcs. has been received regularly during the afternoon and early evening, signing off at 2:30 or 3 p.m. At noon news is given in two languages, one of them being Arabic. Last part of program consisted of native music. Just as the report is being made, the Bagdad station has ceased to be heard after having heard regularly for some months. (Jansen—Netherlands)

#### Italy

English news broadcasts from Italian radio stations:

1:35 a.m. on 12RO-3 and 12RO-6

6:15 a.m. on 12RO-6 and 12RO-8

10:45 a.m. on 12RO-4 and 12RO-8 1:28 p.m. on 12RO-3

2:25 p.m. on 12RO-4 and 12RO-6

4:15 p.m. on 12RO-3 6:30 p.m. on 12RO-9

10:00 p.m. on 12RO-3, 12RO-4, and 12RO-6

#### (Brooks—Mich.)

IQA on 14795 kcs. was heard with good signal relaying a program to New York. (Brown—Md.)

12RO-3 verified with a card 4x6

inches. E. I. A. R. is at top of card, with 2RD at bottom. (Stephenson—

Okla.)

12RO-8 on 17820 kcs. is now carrying the American hour from 6-10 p.m. in place of 12RO-6 on 15300 kcs. 12RO-3 on 9630 kcs., and 12RO-4 on 11810 kcs. will continue to be used on this transmission. (Jewell — Calif., and Brown—Md.)

12RO-11 on 7220 kcs. has been heard irregularly on the "American Hour". (Brown—Md., and Meyers—III.)

12RO-13 on 11900 kcs. was picked up at 1 a.m. on one occasion. (Jewell—Calif.)

12RO-14 on 15230 kcs. heard in the morning with announcement in Italian and English. (Meyers—III.)

12RO-20 on 17770 kcs. in Rome is scheduled between 9 a.m. and 12:30 p.m. Best heard from 11 a.m. to 12:30 p.m. (Williams—N. J.)

Jamaica

ZQI on 4750 kcs. in Kingston is being heard on Fridays between 5:30 and 6:30 p.m. (Williams—N. J.)

Japan

JLST on 17845 kcs. n Tokyo is a new station being heard simultaneously with JZK at 8 p.m. Signal reaches R7-8. (Long-Ga.)

JLG-3 on 11705 kcs. is heard in parallel with JZJ and continues after the latter has signed at 12:30, until 2:30 a.m. (Jewell-Calif.)

JLT-2 on 9645 kcs. was heard broadcasting in Japanese from 8:30

a.m. (Jewell-Calif.)

JZJ on 11800 kcs. is being heard in English from 12:30-1:30 a.m. with signals reaching R8. They are even stronger on 9:30 a.m. transmission. (Jewell-Calif.) JZJ verified in 2½ months and sent a questonaire on recepton, enclosing an IRC for my reply. (Fisher-Calf.)

JZJ on 15160 kcs. heard from 12:30-1:30 a.m. on May 7 in parallel with JZJ. National anthem and a series of gongs are used at sign off. Morning program at 8:30 is heard R6-7. (Jewell-Calif., and Boscawen-Calif.)

Java

PLP on 11000 kcs. is being heard on this coast well from 9:30-10 a.m. with classical musc. It s n parallel with PMN on 10260 and YDC on 15150 kcs. IRC's are necessary for verification. Address: N. I. R. O. M., Batavia, Java, Netherlands, Indies. (Jewell-Calif.)

Kenya

VQ7LO on 6083 kcs., located at Nairobi, is heard during the early morning hours. Address all reports to P. O. Box 777. (Williams-N.J.)

Manchukuo

MTCY on 11775 kcs. at Hsingking is being heard best here (Calif.) from 1:30-2:20 a.m. with a program directed to Pacific Coast and Hawaii in English. Program is of native music and popular American music. News s in English at 2:00 a.m. with sign off including National Anthem . . . MTCY is also heard in English from 9:30-10:20 a.m. when they ask for reports and comments to be sent Central Broadcasting System, Hsingking, Manchukuo. Verifications are promised for all correct reports. (Jewell-Calif., Meyers-Ill., and Boscawen-Calif.)

Mexico

XEQQ verified my report in 17 days with a typed postal card. The call is typed on the back of card. (Stephenson-Okla.)

XEWW on 9500 kcs. is heard on Sundays from 4:45-5:30 p.m. with popular and Spanish recordings. . . Also heard with strong signals daily from 10 a.m. to 2 p.m. (Laudansky-Mass., Jewell-Calif.)

XEXA on 6174 kcs. heard from 7-8 p.m. with R6 signal. English hour from 11:30 p.m. to midnight. (Jewell-

Calif.)

Mozambique

CR7BG on 15285 kcs. in Lourenzo Marques is heard from 7-8 a.m. (Williams-N.J.)

CR7BE in a letter state that they have changed recently to 30.88 meters and would like reports on this new using CR7BG on 19.62 meters from

7-8 a.m., but have not had any reports from the S.A. on this frequency on this schedule. (Coursey-N.C.)

#### **Netherlands**

PCJ on 9590 kcs. was last heard here on May 7th with their regular Tuesday English program to North America from 9:45-10:15 p.m. No signals from this station have since been heard. (Jewell-Calif.)

#### Newfoundland

VONG on 9580 kcs. now announces as VONH. The veri from VONG is a beauty in white with B.C.N. (Broadcast Corp. of Nfld.) in light yellow. A solid map of Newfoundland in blue is printed over this. (Bennett-N.J., Laudansky-Mass., and Mills, Ontario)

#### Nicaragua

YNOP on 6880 kcs. now—a new

frequency! (Williams-N.J.)

YN2FT on 7193 kcs. in Granada is heard between 8-10 p.m. Slogan is "La Voz de la Sultana". (Williams-N. J.)

#### **Panama**

HP5A on 11700 kcs. is heard with dance music from 9:30-9:50 p.m. and with popular recordings until 10 p.m. on Wednesdays. (Laudansky-Mass.)

HP5G on 11780 kcs. in Panama City was heard on test program on April 20, 2-2:30 a.m. Received verification in one month—signed by Mr. Geo. Williams who wrote that if I had any trouble getting a QSL from ANY Latin American station to let him know and he would personally see that I get the card from the station in question. HP5G's QRA: "Ron Dalley", BoBx 1121, Panama City, Panama. (Jewell-Calif.)

HP5K in Colon sent a very attractive photograph showing their Studio A. (Laudansky-Mass.)

#### Paraguay

ZP-7 on 11705 kcs. in Asuncion is heard between 7-8 p.m. (Williams-N.J.)

ZP-14 on 11721 kcs. verifies with a gray and blue card. (BrBown-Md.)

#### Peru

OAX-4R on 15150 kcs. is heard on Saturday afternoons with interesting

program, from 5:15-5:45 p.m. (Brown-Md. OA4R at this time on Saturday is peresnting a program by the Touring and Automative Club of Peru. The broadcast is in English and will have for a purpose, the education of United States public to the affairs, landscape beauty, color, background, folk music, and home life of Peruvian and other South American people. The program is in charge of Senor Victor Llona, who resided fifteen years in the United States, and who is one of the leading newspapermen in Peru. (Official)

OAX-4T on 9562 kcs. from 7:30-8 a.m. and from 11:30 a.m. to 1:30 p.m. (Jewell-Calif., and Williams-

N. J.)

OAX6B on 11708 kcs. in Arequipa is heard during the early evening hours. Slogan is "Radio Sur." (Williams-N. J.)

#### Philippine Islands

Stations in operation are KZRH on 9640 kcs., KZIB on 9500 kcs., KZRF on 6140 kcs., and KZRM on 9570 kcs. (Podall-Vt.)

KZIB on 9490 kcs. (actually) is heard up to 8 a.m. when QRM over-

rides them. (Jewell-Calif.)

KZRH on 9640 kcs. at Manila is heard from 8:30-9:30 a.m. with R9 signal ( Jewell-Calif.)

#### **Portugal**

CSW-5 on 11040 kcs. is being heard irregularly with R5 signals from 3-4:30 p.m. with classical music. (Jewell-Calif.)

CSW-7 on 9740 kcs. announces in English and gives call and frequency and requests reports. They are heard from 3-3:30 p.m. on Wednesday and Saturday. (Jewell-Calif.) CSW-7 heard one evening at 9 p.m. with weather report in Portuguese language. (Bendes-Pa.)

#### Roumania

"Radio Experimental", the Roumanian shortwave station on about 32 meters which relays the Roumonia National Program sent by medium wave "Radio Bucaresti" and longwave station "Radio Romania," is

apparently very seldom on the air. (Jansen-Netherlands)

#### Salvador

YSD on 7890 kcs. in San Salvador is being heard in parallel with YSP on 10400 kcs. at 10 p.m. with Latin American music. (Jewell-Calif.)

#### Spain

FET-1 on 7006 kcs. at Valladolid is heard every morning from 8-8:45 a.m. with R 7-9 signals. XPSA sometimes QRM's FET-1. (Jewell-Calif.)

#### Spanish Morocco

EA9AH on about 43 meters has been heard with a fine signal, mostly with Arabic type programs until 5 p.m. They announce as "Hoona EA9AH" or "Hoona Radio Tetuan." (Jansen-Netherlands)

#### Straits Settlements

ZHP on 9690 kcs. in Singapore is being heard here at 9:30 a.m. with an R8 signal. Popular music and news are featured on the programs.

PZH in Paramaribo has shifted

#### Surinam

frequency from 6790 kcs. to 6530 kcs. (Williams-N. J.)

#### Sweden

SBP on 11705 kcs. in Motala is heard with programs for the United States from 8-9 p.m. nightly. The American Swedish News Exchange of 630 Fifth Ave., New York, N. Y. requests reports on signals from Swedish Broadcasting stations. (Williams-N. J., Long-Ga., and Meyers-Ill.)

SBT on 15155 kcs. in Motala, Sweden is heard almost nightly in parallel with SBP on the program mentioned above. (Long-Ga., and Meyers-Ill.)

#### Switzerland

HBL on 9345 kcs. can often be heard contacting NBC or CBS in New York. (Budden-Quebec)

. HBP on 7797 kcs. was heard with a very fine signal relaying Stockholm to New York. (Brown-Md.)

HBO on 11402 kcs. at Geneva has been heard with fair signals from 8:45 to 10 p.m. on Mondays. Also heard contacting WGC for point-topoint service. (Jewell-Calif.)

Station on 15100 kcs. heard with a talk on industries of Switzerland during an English program from 9-10 p.m. Address was given as Swiss Broadcasting Corp., Berne, Switzerland. (Bendes-Pa.)

#### Tahiti

FO-8AA on 7090 kcs. at Papeete was heard here with R6 signal at 11:30 p.m. (Jewell-Calif.)

#### Union of South Africa

ZRD on 61475 kcs, at Durban (300 w.) operates from 11:45 p.m. to 12:50 p.m., 3:50-7:30 a.m., 9-11:15 a.m., and 11:20 a.m. to 3:45 p.m. on weekdays, and from 5:30-7 a.m., 9-11:15 a.m., and 11:20 a.m. to 3:20 p.m. on Sundays.

ZRG on 9523 kcs. at Pretoria (5000 w.) operates from 5-6:15 a.m. on weekdays and from 3:30-6:15 a.m. on Sundays.

ZRH on 6607 kcs. at Pretoria (5000 w.) operates from 11:45 p.m. to 12:50 a.m., 9:30 a.m. to 12:45 p.m., and 2-3:30 p.m. daily and from 8:30 a.m. to 12:45 p.m., and 2-3:15 p.m. on Sundays.

ZRJ on 6607.5 at Johannesburg (200 w.) operates from 11:45 p.m. to 12:50 a.m., 3:15-7 a.m, and 9-11:30 a.m. on weekdays and from 3:30-4:30 a.m., 5:30-7 a.m. on Sundays.

ZRK on 6097.5 kcs. at Cape Town (5000 w.) operates from Noon to 4 p.m. on weekdays, and from Noon to 3:20 p.m. on Sundays.

ZRL on 9606 kcs. at Cape Town (5000 w.) operates from 11:45 p.m. to 12:50 a.m., 3:20-7:30 a.m., 9-11:45 a.m. weekdays and fgrom 3:30-5 a.m., 5:30-7 a.m., 9-11:45 a.m. on Sundays.

ZDO on 9755 kcs. at Durban (500 w.) operates same schedule as ZRD (above.)

ZTD on 4878 kcs. (500 .), and ZTE on 11800 kcs. (300 w.) both at Durban are listed but have no regular schedule.

(From So. African Broadcasting Corp.)

#### **Uruguay**

CXA-8 on 9640 kcs. in Colonia is heard from 12:30-2:30 p.m. (Williams-N. J.)

CXA-3 on 6075 kcs. at Montevideo "Radio Nacional" is heard at 11:30 p.m. (Williams-N. J.)

Shortwave stations owned by SODRE (Servicio Oficial de Difusion Radio Electrica) are as follows: CXA-4 on 6125 kcs., CXA-6 on 9620 kcs., CXA-10 on 11895 kcs., and CXA-18 on 15300 kcs., all in MONtevideo. Each station evidently has two transmitters, one of 3 kw. power and another of 20 kw. power. (Jansen-Netherlands)

#### U. S. A.

WBOS on 9570 kcs. in Boston relays CBS programs and not those of stations WBZ-WBZA. (Schlubach-R. I., Grant-Mich.)

WCBX official schedule: On 17830 kcs. from 7 a.m. to 2:30 p.m. daily and 7 a.m. to 3:30 p.m. on Sunday.

On 15270 kcs. from 3-5 p.m. daily and 4-5 p.m. on Sunday.

On 11830 kcs. from 5:30-9 p.m. daly and 5:30-9 p.m. Sundays.

On 9650 kcs. from 9:30-10:30 p.m. seven days a week.

On 6120 kcs. (June and August) or 6170 kcs. (July) from 11 p.m. to 1:00 a.m. seven days a week (RX)

WGEA on 15330 kcs. operates from 10:15 a.m. to 5 p.m. (Jones-Pa.)

WGEO on 9530 kcs. operates from 2-10:45 p.m. (Jones-Pa.)

WPIT on 6140 kcs., 9570 kcs., 11870 kcs., 15210 kcs., 17780 kcs., and 21540 kcs. has been granted permission to move transmitter from Saxonburg Penna., to Hull, Mass. (RX)

WRUW in Boston has been granted permission to add 15250 kcs., and 11790 kcs. to its present assignment. (RX)

#### U. S. S. R.

RAN on 9600 kcs. heard from 5:30-5'45 p.m. with English news. (Meyers-Ill.)

RKI on 7520 kcs. is heard in parallel with RAN on the above program lel with RAN on the above program. (Meyers-Ill., and Schulbach-R. I.)

RNE on 12000 kcs. is heard coming on the air at 7 p.m. and with English announcements at 7:15 p.m. (Laudansky-Mass., Draper-Vt.)

RV-15 on 4273 kcs. at Khabarovsk was heard with R7 signal on a program of music and talk. Announcement in English By a female anouncer was heard from 8-8:30 a.m. (Jewell-Calif.)

RV-96 on 15180 kcs. heard from 7 p.m in parallel with RNE. (Draper-Vt., Long-Ga., Meyers-Ill., Brown-Md.)

Announcements from the Moscow stations regarding wavelengths are seldom complete. You may be hearing them on several wavelengths, but annuonce only one. (Jansen-Netherlands)

#### Vatican City

HVJ on 11740 kcs is heard every Thursday and Sunday nights from 8:15 (actual program starts 8:30) 8:30 p.m.) until 8:50 p.m. with program directed to North America. (Long-Ga., Brown-Md.)

#### Venezuela

YV10 on 4780 kcs. is heard with popular recordings from 8:15-8:45 p.m. and signs off at 10 p.m. (Jewell-Calif., Williams-N. J.)

YV1RT on 4770 kcs. at Maracaibo heard with light classical music from 7-9 p.m. daily. (Laudansky-Mass.)

YV3RF on 3480 kcs. at Acarigua was heard with a very weak signal in the evening. (Jeweli-Calif.)

YV3RX on 4990 kcs, has a program of popular records every Monday at 7:1" p.m. (Jewell-Mass.)

YV4RO on 4950 kcs. at Valencia relays YV4RA from 11 a.m. to 2 p.m., and from 5-10 p.m. (Laudansky-Mass.)

YV5RH on 4830 kcs. signs off nightly at 10:30 p.m. (Stephenson-Okla.)

YV5RM on 5010 kcs. verifies with a white card with black type. Calls YV5RB and YV5RM are in red across the top. (Stephenson-Okla.)

YV5RN on 5040 kcs. in Caracas is badly QRM'd in the United States by Airways ground stations. Four strokes of gong is identification on signal. (Stphenson-Okla.)

YV5RV on 3500 kcs. in La Guaira is barely breaking through the code sttaions in the eyening. (Jewell-Calif.)

YV5RW on 3400 kcs. in Caracas is heard with R9 signal early evenings with Spanish music. They announce as "Radio Tropical" Chimes used at intervals. (Jewell-Calf.)

#### Yugoslavia

Complete list of shortwave stations: YUA on 6100 kcs., YUB on 6100 kcs. (used for special transmissions to Europe), YUC on 9505 kcs., YUD on 9505 kcs. (to So. America), YUE on 11735 kcs. (to No. America), YUF on 15240 kcs. (to So. America), and YUG on 15240 kcs. (to No. America). (Jansen-Netherlands)

YUB on 6100 kcs, has replaced YUA and YUC on regular daily transmission. YUB is much stronger than YUA on same frequency (Jansen-Netherlands)

YUK on 15240 kcs, is heard with R9 signals in the evenings between 8 and 9:30 p.m. "Radio Belgrade" is the slogan used and a horn blowing slowly is the identification signal. Verification is plain card with station slogan on it. (Long-Ga., Laudansky-Mass., Jewell-Calif.)

#### Radex Reporters

R9, Mo. 1: Walter V. Scholz, 2nd, Webster Groves, Mo.

R152: Chester Roman Chicago III.
R552: M. F. Williams, Newark, N. J.
R638: Edward H. Draper, West Burke, Vt.

R834: G. R. Jewell, San Diego, Calif.

R924: Harold Tear, Roanoke, Va.

R946: Bertram Podall, Gilman, Vt.

R989: Hylton Brown, Silver Springs, Md.

R1132: C. R. Bendes, Pittsburgh, Penna.

R1186: John Jenkins, Glen Ellyn, Ill.

R1273: John D. Long, Dalton, Ga.

R1298: Melvin Fisher, Berkeley, Calif.

R1342: Henry Bennett, Collingswood, N. J.

R1470: Jack Stephenson, Oklahoma City, Okla.

R1497: Cyril J. Herwig, Muscatine, Iowa

R1535: H. W. Hartley

R1566: Roy Woollacott, Rochester, N. Y

R1568: Niel Wald, New York N. Y.R1576: Geo. Boscawen, San Francisco, Calif.

R1667: Charles A. Mills, Strathrog, Ontario

R1676: Don Johns, Des Plaines, Ill.

J. A. Brooks, Detroit, Mich.

R. H. Budden, Montreal, P. Q.

Eric Butcher, New Orleans, La.

Jose Carriazo, Havana, Cuba J. B. Coursey, Fort Bragg, N. C.

Fred W. Grant, Detroit, Mich.

Donald Graydon, Toronto, Ont.

Anton Jansen, Boskoop, Netherlands Herbert B. Jones, Johnstown, Penna. Edward Laudansky, Dorchester, Mass.

William Mc Mahon, Glen Cove, N. Y. Charles Meyers, Chicago, Ill.

Eric Schlubach, Providence, R. I.

Albert C. Smith, Mitchell, S. D.

G. Wood, Minneasoplis, Minn.

## HAM HOUNDING

The welcome number of responses to the contest idea being very gratifying, the only thing left to do is to list the rules and let everyone get to work. Many of you have made many good suggestions, which have been carefully considered and incorporated in the reguations.

First of all, there will be four major winners; four coveted places for you DXers to attain. For six issues, RADEX will carry the names of the four winners in a box in Ham Hounding column for all to see.

Thus, Mr. X will be designated as the best Ham Hounder in the World in Class A, and Mr. Y. will be second. In Class B, Mr. So-and-So will be the best, with Mr. Whos is a close second. Get the idea? You winners will bask in the sunshine of publicity and you will be known among your fellow men far and wide as the kings of SWL.

Not only that but your pictures will be published and the public will be told what kind of antenna, receivers, etc., you used in winning your title.

So come on, all you dial twirlers. Grab those ear phones so you won't wake up the rest of the family with your late tuning, get that pencil ready and those stamps and reach out for those veris. Here are the rules:

- 1. You may enter one or both of the two parts of this contest. Class A is for the old-timer who may include in his list all verifications he has on hand. In other words, it is a race to determine who has the most verifications from amateur radio stations, no matter how long the contestant has been DXing.
- 2. The other part, Class B, is to discover the most prolific DXer, the one who can tune in and verify the most amateur stations in one year—the length of the contest.

Send your reports for Ham Hounding direct to Owen P. Callin

- 61 W. California Ave., Columbus, Ohio
- 3. Both contests will run a year beginning uly 1, 1940 and ending midnight June 30,1941. Those who enter Class A may get together all their veris and start with that number. To them throughout the year they may add the new ones, Those entering Class B must start from scratch and start listening July 1.
- 4. Only verifications will count. Just hearing a station doesn't mean a thing unless you get the station card. However, the card may not state exactly that you heard the station. Just as long as you get the card or letter—that's what counts.
- 5. Don't send me your veris. Here's how you score yourself. First of all, count teh entire amount of veris you have. Then look through them and note the number of different countries, using the regular system of cataloguing used by Radex and the ARRL. Suppose you have 700 verifications from 20 different countries. Your score would be 700 times 20, or 14000. Those with the highest scores will win.
- 6. Send in your total every month or so and we'll compare your progress. Since the sport of DXing is one in which pleasure is supreme, everyone will be on his honor, since it's no fun to report a veri, you haven't received.

So start writing for those verifications. If there are any questions we'll be glad to answer them if you will write in. We want to know who the best four DXers are, and anyone may enter, whether he lives in Canada, Mexico, Cuba, or Moscow.

#### \* \* \*

Amateurs will do well to take a look at the 160-meter band. The FCC has allotted 1715 to 1800 kilocycles for code operation, but there is seldom more than three CW stations heard there at one time, according to Frank osik (R1724).

Other interests are gazing with avid eyes at that part of that particular amateur band, especially the police. The FCC, it is rumored, has been watching and if more of the amateurs don't start operating there it won't be surprising if there is a curtailment of kilocycles there soon.

A newly-developed camera tube is pointing the way for two-way visual communications between amateurs. Used in the electronic television system, the tube is the newest step in perfecting this off-spring of radio. It is a sort of miniature of the iconoscope of commercial television, bringing the expense of a transmitting layout within the means of amateur operators.

According to James Lamb, ARRL research engineer, the new system made possible by this tube requires but a 400 kilocycle portion of the radio spectrum to operate, compared with the 6000 kilocycles for commercial work under present standards.

So it may not be long before amateurs may not only talk to each other but may also see each other. One thing is certain—it will prevent a ham from reading a magazine or talking to a friend while the other one is operating!

The Virginia chapter of the Radex Club will continue to put out its bulletin throughout the lull of the summer months—only if they have the support of members and SWLs in Virginia.

Since that is a brave thing to do and a fine one, to keep interest alive in a poor time for DX—it is up to the Virginia DXers to help the Virginia club out. New members are always met with open, arms, too, and you're welcome to join. It is The Virginia Chapter of the Radex Club—Harold Tear, President, 1317 Thomas Ave., Roanoke, Virginia.

News from VK's is incorporated in the description of VK5RQ, one of the four hams in our personality parade this month. The other three are familiar to nearly every DXer—although war duties now are occupying all of one's time.

VK5RQ—Australian hams are making a valiant effort to get back on the air, and they are trying to induce the government to allow transmission and radio experimental work on the ultrahigh frequencies—two and a half and five meter bands. They have already petitioned without successes and are nearly ready for a second try.

The argument they use is that long-distance transmissions to points outside of the country are impossible. Of course, the argument against them is that a spy could build a transmitter and easily switch coils to operate on other wave lengths.

Claude Sellick, operator of VK5RQ in pre-war days, now is in the army, he writes in his last letter. Before the war he worked in the largest sheet metal works in South Australia, in Adelaide. He designed new types



Many DXers have this ham's card. By it one may see that he has two loves, radio and airplanes. K4FCG will send this 10 by 5 inch card for a correct report and return postage.

of products and undertook any special job that came along.

One of the VK's who QSL's regularly, Claude explains that he takes pleasure in getting SWL reports—in fact, he has more respect for them than the hams, since the latter often fail to QSL.

His final word is to the W hams: "Good wishes and tell them (the hams) to sit on the commercials and keep the bands open!"

ZL4GY—Eric Brown may be in the Mediterranean now with other Australfan troops, since in his last letter he intimated that "the day was not far off when he might be a few thousand miles from New Zealand." This was when he was stationed at a home naval bas.e

Obtaining his license in Feb., 1934, Eric started with the old Hartley circuit, but soon added an oscillator—and from then on tried many circuits.

He belongs to the Radio Emergency Corps of New Zealand, which has proved its value in times like Before the war ZL was divided into sections, with three ham stations in each. Field days were held regularly, creating fast opera-Two emergency frequencies tors. were allotted by the government. Since there were 12 operators to a section work was carried on every night with much club dope transmitted. Every week all ops had to copy a broadcast from the commanding officer in Wellington.

In fact, the set-up was a good deal like the National Guard radio hookup in many of our states.

For the past six years Eric had been a member of the Royal Naval Volunteer Reserve and now is a leading Telegraphist in the navy.

Home on Christmas leave, Eric became acquainted with the radio ops in Byrd's expedition, who stopped in Dunedin on their way to Little America.

KA1LZ—Luigi Zavaterro has one of the handiest transmitters we have

ever described. Listen to this roundup:

There are two 250TH's in the final, push-pull, with a pair of 35T's driving the final, in turn driven by a pair of 616g's from a 6F6G master oscillator.

Crystal plugs into the panel front. Five coils plug-in to afford quick change from 20 to 10 meters.

AVC incorporated in the audio enables a higher modulation level with less overmodulation. An adjustable equalizer accentuates the most desirable speech frequencies.

The mike is dynamic. Change to CW may be accomplished in 30 seconds! A home-made oscilloscope connected to the receiver checks incoming signals and Luigi's own.

All switching is done by relay, including antenna change-over. Add a four-element rotary and an H-beam with a signal squirter beam for 10 and 20 meters, and there is a nice rig!

Luigi has worked 61 countries since Aug. 27, 1939, his latest, three Spanish stations. He belongs to the Ruede del Oeste and the Philippine Amateur Radio Association (ARRL).

There are five other local Manila stations running a kilowatt besides KA1LZ, Luigi tells us. They are: KA1ME, 1HS, 1FH, 1ZL, and 1BB.

K4FCG—So many of you have written to tell me about Angel N. Franceschi's QSL card (which we already have received) that it seems he deserves consideration for his 100 per cent QSLing for SWL's.

Combining flying with amateur radio, Angel owns a Monocoupe plane equipped with two-way radio. He has a special license to communicate with amateurs, since there are no aeronautical stations in Puerto Rico or the islands.

When he attended the annual air carnival in Miami in 1938 he flew over, keeping in constant touch with his station K4FCG on phone and CW. His plane's transmitter has the

call KHBLM, operating on 6210 kilo-

cycles.

The plane outfit is a Lear 30 watt transmitter with a wind-driven generator to keep the batteries charged. Interference from the motor ignition is preventd by ceomplte shielding. A fixed antenna from the leading edge of the wing to the tail of the ship and a reel antenna are used.

Angel has the distinction of being the first Portorican to fly solo from St. Louis, Mo., to San Juan, Porto Rico.

Widening of the scope of the war has further narrowed the DX field as far as ham radio is concerned by the silencing of more stations and lengthening the time when the shutdown stations will again be on the air.

But here is our newest list:

ALASKA—Some frequencies K7's heard recently: K7GSC, 14.180; 14.230; K7EVM, K7BUB. 28.695; K7HCM, 14.160; K7HAR, 14.240: K7AOC, 14.160. HAR may not verify and AOC rarely OSL's. BUB verifies with salmon-colored card with map of Alaska and green call letters.

ANARCTICA—Many have ported reception of the three KC stations of Byrd's expedition. rather curious whether verifications may be obtained and where to send for them. We'll appreciate any information on the matter. 4USA is on nightly 11 pm-2 am, and has a schedule every Sunday morning 1:30-2:30 with W1FH.

ARGENTINA - More frequencies for your dope book: LU1DA, 14.110 and 28.370; LU7BU, 28.070; LU5HE, 14.060; and LU1QA, 14.080.

CONGO - OQ5AE, BELGIAN OQ5AB, 14.130 Q SL 28.212 and promptly. 5AE heard during ARRL contest on 14.130. Phil Craig wants the QRA of OQ5IM.

BOLIVIA-CP2AC is a new one The QRA is Carlos 14.080. Godoy, Box 268, La Paz. Weston

CANAL ZONE—K5AT was active during the contest on 28.400. K5AP reported heard besides K5AM.

CANTON ISLAND-Many are reporting KF6JEG, "The Voice of the Blue Lagoon" on 14.195. Cliff. Tavener has a card from him on which he marked over his old call K6JEG. He uses a 350-watt transmitter with an 8JK and V-beam antenna. He will answer all reports that are accompanied by a self-addressed stamped envelope. Amateur Radio KF6JEG. Henry K. Lee, Canton Island should reach him OK.

CHILE-Many of the CE stations are being heard lately. CE1AR QSL's with a brown card and green call letters.

CHINA-Eight XU stations have been reported on 20-meter phone: XU1B, 14.262, and XL1A, both in Canton: XUoA $\mathbf{of}$ Chungking; and 8RI in Shanghai: XU8AM XU8RB. 8ZA (14.140) and 8LA (14.178).

CUBA-Cuba now has a CO4 station with the birth of CO4AA. The ORA: Pedro Torres Jespes, Nueva Gerona, Isle de Pines. Hylton Brown, Jr., wants the QRA of COMP.

ECUADOR-HC2CC, 14.251, QSL's promptly with a green card. He runs 100 watts into a three-element beam.

EL SALVADOR-Licenses now are being issued by the government for YS stations. Most active ham is YS1MS, and quite a few SWL's would like to know his QRA. may be heard on 7.060, 7.100, and He said in a QSO 14.000. that YSIOL, YSIRP, and YSIJS were also active on 20-meter phone.

ESTHONIA—ES hams may still operate, untouched by war activities, but with this provision: they have been placed under strict supervision of government and local police authorities. Best ES has been ES1E, 14.100, in Tallinn, the capital. He is heard near 11:30 p.m. The most consistent station is the old faithful Richards (R101) also reports hearing CP9AI.

BRAZIL—PY5AQ runs 200 watts. His QRA: Harold Carvalho, Cons. Barradas 641, Curityba, Parana. His card is light brown with blue print. PY4EJ, 14.100, verified after six months.

ES5D, 14.044, in Rakvere.

FRANCE—Evidently F8GO is the only French ham to be on the air, and even now may be silent, his "cow shed" destroyed by a bomb!

"Andre", the only name he would give, was heard to say that his transmitter was located in a cow in a little village 25 miles from Paris. He is running 320 watts with a rhombic beam antenna. Because "postal employes in France nab interesting postage stamps," he advises W's and SWL's to QSL in a plain envelope.

The nearest authoritative address as far as we can learn is this: Amateur Radio F8GO, Paliseau, Pres Paris, France. On 14.260, he is supposed to have full permission from the French government to operate.

GERMANY—Evidently many D hams are operating with the sanction of their government, but only on CW, with D4BUF the best. According to D4BIU, the following are licensed: 4ACE, 4ACF, 4BIU 4BUF, 4RGF, 4TRV, 4HCF, and 4DKN.

GUAM—KB6OCL and KB6ILT are still both on the air and being heard regularly.

GUANTANAMO BAY — NYAD, 14.216 and 28.300 verifies promptly.

GUATEMALA — TG5JG, perhaps the most powerful ham station in North America with a 1200 watt output, is operated by Juan Guillen and Julius Caballeros, the director general of communications in Guatemala. Frequency is 14.020 and the station is heard frequently at 3 a.m. testing with recordings. TG9RV, 14.090, heard at 10:30 p.m.

HAITI—HH4AS returned an SWL card stamped "confirmed". He has good signal with his 32 watts.

HAWAII—Following K6's have verified: 6QHU, 14.230; 6PIT, 14.216 (operated by Bob Meade of the famous SWL brothers of Kansas City); 6OQM, 28.530; and 6RVG, 28.870.

HUNGARY — The Hungarian phones are coming in nicely, according to the reports. Best of the lot is HA7P, 14.080, using but 20 watts and a two-tube receiver. Also well-heard is HA7C on 40 watts. Others are HA8C, 14.060; HA6T, 14.060; HA3B, 14.100; HA9Q, 14.130.

ITALY—IITAK, 14.080 was heard with IIJKV speaking over the mike. IJKV, 14.010, is heard at odd intervals, and won't give his QRA over the air, since he is unlicensed. He said, however, to QSL via the Italian QSL Bureau or via W2DMJ or W3EOZ.

JAPAN—J2KI is the new station of the month. Heard on 14.080, he advises to QSL via the Japanese Amateu Radio Relay League, Box 377, Tokyo. Others reported are: J2NF, 14.080; J2XA, 14.020; J8CI, and J2NS. 2NF has an fregular schedule with XE1AC on Saturday mornings at 3:45 a.m. J5CW, heard on 14.070, runs 300 watts and verifies promptly. He saves stamps and appreciates any old ones you might send him. J2PU, 14.050, running 20 watts, verifies with a red call on a pink card.

JOHNSTON ISLAND — K6NYD, portable KE6NYD, was heard during the ARRL contest about 14.215, giving his location as Puke Pinnacle in the Johnston group. He said that he was using low power and a 600-ft wire for an antenna.

LITHUANIA—Best heard ham here is LY1J, 14,090. The op said that due to teh war it takes QSL cards two or three months to reach him.

MEXICO—QRA of XE2HD is Marina Bovio, Guanacevi, Durango. He verifies with a light-colored brown card, orange and black print. NETHERLANDS E. INDIES—PK's are being heard well. PK3GD, 3BD, and 2LZ on 14.040; 10G on 14.090; 1VM, 14.110; 2AY, 14.010; and 3KG and 4KS.

PERU—Some more OA's logged with frequencies: OA3B, 14.060; 4AI, 14.030; 4C, 14.010; and 4R, 14.040.

PARAGUAY—If you hear ZP6AB on the air chances are good for a veri, since he belongs to the Ruede del Oeste.

PHILIPPINES—KA1GC, heard by Ken Munn, said that he was only 12 years old! KA1RV, 14.160, supposed to be the newest KA. Others reported: 1HQ, 14.160, operated at Fort Stotsenburg, Manila; 1GC, 14.130 (he's having some cards printed!); and 4LH, 14.140, who verifies with a card depicting his shack in the jungle with a caricature of a crocodile speaking into the mike.

SPANISH MOROCCO — EA9Al, originally on 40 meter phone broadcasting nationalist propaganda during the Spanish war, now is on 14.060. Dr. Angel Mora, the op, verifies with a folder showing photos of the rig and location. QRA is Canalejas No. 1, Melillax, Spanish Morocco.

RUSSIA—Many U stations are being heard on CW, but none is on phone. U3BB is best of the CW gang.

VENEZUELA — YV5ACG sends a brown cards with black letters picuring his two antennas and an Indian.

VIRGIN ISLANDS — KB4FE is being heard occasionally. Phil Bates would like his QRA.

That's all the reports. For their excellent work we want to thank Cliff Tavener, R716; Hylton Brown, Jr., R989; Jack Wells; Philip Craig, R574; H. W. Hartley, R1535; Weston Richards, R101; Philippe Bates, R1231; George Boscawen, R1576; Alan I. Breen; Allen G. Verill; Harry O'Meara, R1638; and N. Wehrli, R1183.

Sterling Fisher has compiled a list of slogans used by hams and based on their calls. Here are a few—recognize them?—W6QOG (Six Quarts of Gin); W6MBD (Man Bites Dog); K4FOW (Funny Old Woman); W9KIP (Kick in the Pants); W5WX (The Weather Stationn); W9RVP (Rest Very Peacefully); W9YXS (Your X-ray Specialist); W5IFM (I'm From Missouri).

Craig and Hylton Brown come up with this list of Non-QSL-CEIAC, CO2GY, CO2HY, CO6OM, CO7VP, CX1BA, CX2BK, VP4TK, VP1WB, VP7NS, VP5PZ, VP9R, ZS5P, G8HN, HA1K, HC1JB, HC2HP, HH5PA, H16Q, H17Q, HI7G, K4FAY, OA3B, PY7AI, TG9BA, TI2LR, K4EZR, K6MVA, LU1QA, SU1MW, PY2AK, CE3BK, CE3DW, ZS6EF, ZS2X, ZS6S. ON4DI, G2AV, VO6J, XE1A, KA1ME, T16HP, LU4BC, HC1PZ, IITKM, CT1ZA, ZK1AA, F8LX, CW5PH, SV1KE, CE1AO, and PK6XX.

Phil would also like to have the following QRAs: HA8B, PK1OG, HA9Q, and ES4G.

CHATTER: Thomas Moss (R1101) is busy stirring interest in Radex Club insignia on letter heads and badges like the other clubs. It may be that soon we will have them. Philippe Bates likes the idea. What do you think, Radexers?

When you drop into San Francisco to take in the Epo look up George Boscawen (R1576), who is operating a rifle gallery at Playland. Although he works at night he has an impressive list of 36 countries verified, using three antennas. George is nearly ready to take the exam for his ham ticket so he can talk to his DX, too! W6PTS is teaching him the tricks of the trade.

Phil Craig has some dope about K4FAY, who he says hasn't been on the air since last September. A navy man, he was transferred to the U. S. S. Hamilton, and the station was dis-

mantled. Many of you will remember Jack Heay and his morning contacts with PK6XX. Jack retires in about three or four years and then K5FAY may once more be on the air. Phil also bought his new Hammar lund HQ-120-X and his interested in corresponding with other owners of this kind of a receiver.

An old-timer comes through with his first report: Walter V. Scholz, R9; thanks, Walt . . . . R. E. Sparkes listed 200 stations heard in a week. . . . . Herbert Bell (R1097) has a mark for 20-meter DXers to shoot at with 17 countries logged in one day. . . . Vic Samardza now has two VACs with cards from J2KN and J8CA. . . . H. W. Hartley (R1535) reports from Hawaii that 160 meters has been no good there lately. . . . To Allen Verrill: yes, a report on what's hot on the ham bands from Massachusetts would be welcome and thanks for the fine one you sent in. ... Jack Wells now has a Hallicrafter SX24 and got a chance to use it in the contest (mine is a Sky Challenger, Jack). . . . Bill Scott (R626) now has 46 sates and 20 countries on five continents verified. . . . Thanks for your first report, Glenn Thormann-let's have more. . . . Also to Lawrence Swanson (R1540) who sends in his first from Detroit: that's the way to do it—list the unusual you hear, especially the DX stations, when heard, kilocycles, etc. . . . Glad Radex satisfies, John Jenkins, Jr. . . . Harry O'Meaa: your idea of two receiver classes for the contest is good, but since it is agreed that antennas, and NOT receivers are what count in DXing, I have an idea that you'll get along all right with your set. . . . XU's heard completed the HAC for Sterling Fisher. . . . George Boscawen said K6NYD did not QSL but the navy lieutenant did for Philippe Bates. . . . Walter Welch has logged 20 LU's and 16 YV's....

That's the dope, fellow dial twirlers. Incidentally, to you who have sent me your SWL cards, thanks. I like to receive them but since I have none as yet the the favor wonn't be returned until mine are printed.

#### **Amateur Calls 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.

#### Ten Meters

CE1AH (s); CE1AO (e); CE2AR (f); CE2BX (eikns); CE3AG (s); CE3BT (n); CE3CZ (e); CO2AM CO2JM (fvk); CO2RO (nv); CO2WM CX2CO (efs); (fkv); HA8BHC1JB (efsv); HC2CC (s); HH4AS (nr); HI2K (s); HI7G (ek); HR5C (es); J2XA (s); KA1ME (s); K4CVV (e); K4ESH (v); K4EZR (esv); K4FDC (v); K4FKC (fktv); K4FOW (efnrsv); K4FSB (s); K4GIG (efns); K4UG (e); K5AT (s); K6LKN (i); K6MVV (efi); K6MXM (i); K6N YD (fi); K6OQM (is); K6OTH (i); K6PAS (i); K6PIR (i); K6PLZ (ik); K6PPR (s); K6PRR (i); K6PTW (fik); K6PUL (i); K6REF (is); K6ROJ (s); K6RVG (is); K6SBX (s); K6SCB (s); K6SHG (is); K7EVM (s); LUIDA (fsv); LU2BG LU3AA (f); LU5AN (fkv); LU5HE (s); LU7BK (s); LU7BU (s); LU8AB (n);.

NY4AD (efkstv); OA4A (e); OA4R (fk); OQ5AB (efv); OQ5AB (efv); OQ5AB (efv); OQ5IM (es); PY2DA (e); PY2LN (e); PY5AQ (efv); TI3AV (iv); TI5NA (s); W2DGM (s); W5HQP (s); W6BOY '(s); W6NWK (s); XE1GE (n); XE1GG (k); XE2AF (efkn); XE2HD (e); YN1IP (e); YS1MS (e); YV4AE (f).

#### Twenty Meters

CE1AA (u); CE1AB (cekgs); CE1AC (einpu); CE1AD (cf); CE1AH (ko); CE1AI (a); CE1AO (fiopv); CE1AR (cehiknsprsv); CE1AS (aceinoprsv); CE1AX (o); CE1AZ (e); CE1BB (e);

CE1BC (i); CE1BD (c); CE1BE (e); CE1AX (c); CE1BT (f); CE1OX (k); CE1S (k); CE2AR (e); CE2BX (ceiknsuv); CE2CK (c); CE2MR (g); CE3AA (cins); CE33AG (aci); CE3AM (e); CE3BE (cikv); CE3BK (cv); CE3BT (e); CE3BU (c); CE3BV (e); CE3BV (e); CE3CG (air); CE3CO (v); CE3CO (v); CE3CZ (acenopy); CE3DW (aru); CE3EE (c); CE4AC (s); CE4AO (c); CE7AA (a); CO2AJ (p); CO2AL (k); CO2AM (acfikov); CO2BA (acfiknoprv); (a); CO2BL (av); CO2CC (an); CO2CX (q); CO2DA (a); CO2DB (kn); CO2DR (afkv) CO2GA CO2GL (aciknrv); CO2GO (a); CO2GY (acfiknoprv); CO2HL (a): CO2HL (av); CO2JH (ov); CO2JJ (if); CO2JM (afikv); CO2JV (v); CO2KC (a); CO2KL (0); CO2KP (a); CO2KY (a); CO2LA (acpv); CO2LL (av); CO2LY (acinprv); CO2MA (kv); CO2MG (acknv); CO2NG (c); CO2RA (f); (v); CO2RH (ckp) CO2RD CO2RL CO2RR (ai); CO2RZ (an); CO2SV (kp) CO2UF (acr); CO2US (ak); CO2VK (av); CO2WL (akv); CO2WM (acfikov); CO2WN (c); CO2XF (a) CO2XY (nv); CO2YW (acfuv); CO4AA (ceiks); CO4XX (k); CO6CC (n); CO6OM (afilnprv); CO6SD (1); CO7AS (acfkv); CO7BA CO7CX (acfknpv); CO7VP (afnprv); (fkv); CO8AS (f); CO8BC (v); CO8JK (acfiknop); CO8MP (an); CO8VC (n); CP1BA (i); CP1XA (es); CP2AC (egi); CP9AI (p); CT1AB (p); CX1AM (a); CX1BA (e); CX1CC (e); CX2BK (fp); CX2CO (eifknogrv); EA7BA (abefinprsv); EA9AI (nr); EK1AF (abcefiklnprsv); EK1AK (o); ES5D (t); ES5E (u).

F8GO (aenqsv); HA1K (e); HA1P (n); HA7P (ef); HA9Q (e) HC1FG (ai); HC1PZ (v); HC1VT (p); HC2CC (efiknspqsv); HC2HC (t); HC2HP (iqrv); HH2B (acefiklnotv); HH2G (alv); HH2HB (acios); HH2HB (acios); HH2TB (a); HH2X (al); HH4AS (aeioprv); HH5PA (aefknopv); H12K (av); H13N (acefiklnprv); H15X (aefiknv); H16Q (aknsv); HJ1K (c); HK1AB (a); HK1AG (i); HK1AW (efiknv); H16K (c)

HK1AB (a); HK1AG (i); KK1AP (n); HK1AT (asv); HK1AW (aefiknv); HK1BA (q); HK1PAA (cfnov); HK3CC (inocv); HK3CI (av); HK3CK (aiv); HK3CO (n); HK4CO (nv); HK4DF (v); HK4DJ (anr); HKDK (a); HK4EH (n); HK4JJ (r); HP1A (aeffiqrv); HR5C (ekpqr).

I1JKV (ev); I1OA (s); I1RE (s); J2IB (s); J2KC (s); J2NF (s); J2NS (su); J5CW (s); J7CT (s); J8CI (su); KA1AF (i); KA1BB (epsv); KA1BC (f); KA1CW (ensv); KA1FG (im); KA1FH (efikntv); KAIGC (ms); (e); KA1HP (c); KA1HQ KA1GG (csu); KA1JH (ckp); KA1LB (efiknsv); KA1LH (k); KA1LZ (e); KA1ME (cefikmnptv); KA1NN (n); KA1OZ (ks); KA1RV (cekn); KA1ZL (ce); KA3KK (s); KA4FH (f); KA4LA (e); KA4LH (efikv); KA4RP (s; KA7FS (s); KB4FE (a); KB4FTU (es); KB6CBN (sv); KB6OCL (p); KC4USA (jnpsuv); KC4USC (emsu); KE6NYD (msu); KF6JEG · (csv); K4BU (fv); K4DDH (nv); K4DSE (efl); K4EGZ (a); K4EJF (alrv); K4EMG (akv); K4END (c); K4ENT (anpv); K4ESH (f); K4EZR (e); K4FAY (c); K4FCG (afioqrv); K4FKC (acefiknotv); K4GSG (a); K4UG (aeov); K5AP (av); K6BNR (ceikv); K6CIB (g); K6DJD K6FNL (i); K6FVL (k); K6GA'S (cikp); K6IAE (i); K6ILW (ikpv); K6IKQN (p); K6KGA (ciknpq); K6KQQK (s); K6KRG (cik); K6KUF (k); K6LCV (koq); K6LEJ K6LKN (cikpv); K6MTA (k); K6MVA (c); K6MVS (u); K6NKQ (p); K6NLD (p); K6NYD (aefikoptv); K6NZQ (ip); K6OJI (ceikpq); K6OQE (c); K6OTH (k); K6PAS (e); K6PCF (ekv); K6PIR (i); K6PIT (i); K6PLV (hk); K6PLZ (aecikopqv); K6PRG (i); K6PRI (k); K6PRI (c); K6PTW (ceikopv); K6QHU (cenp); K6UHV (n); K6QHV (in); K6OUJ (q); K6RVU (i); K6TIT (c); K6WKN (p); K7AOC (c); K7BUB (csv); K7GSC (k); K7HAR (bceks); K7HCX (cekqs); K7HPJ (g). LU1BA (c); LU1CA (a); LU1DA

C1AG (i); HK1AP (n); HK1AT (acefgisv); LU1DA (v); LU1HB (v); (asv); HK1AW (efiknv); HJ1K (c); LU1JC (e); LU1QA (aceins); LU2AW



The KA1LZ QSL card. The printing, the map and the radio tower are shown in black, and the border and call letters in blue.

(e); LU2BG (c); LU2DG (k); LU2VG (g); LU3AF (v); LU3DF (cv); LU3EQ (i); LU5BC (qv); LU4BH (ic); LU4CZ (iv); LU4DJD (n); LU4KA (ei); LU4NB (k); LU4PB (e); LU4QZ (p); LU4VA (k); LU4XA (c); LU5AG (v); LU5AM (i); LU5AN (acenfhkoqsv); LU5BK (o); LU5BT (e); LU5DD (kv); LU55HE (cev); LU6DJ (nv); LU6KE (a); LU7AG (v); LU7BK (cekrv); LU7BU (f); LU7HE (ei); LU9HA (ev); LU9HK (k); LY1J (aefsu); LY1S (env); NY4AB (a); NY4AD (fknqs); OA1AM (g); OA3B (s); OA4AI (kp); OA4AL (np); OA4AW (is); OA4C (efks); OA4R (aceikorsv); OQ5AB PK1AJ (q); PK1JR PK1MF (s); KKIOG (efkmps); PK1SM (s); PK1VM (s)! PK2AY (efs); PK2JK (f); PK2LZ (efs); PK3BD (e); PK3GD (efksv); PK3JK (p); PK3KT (s); PK3ZL (p); PK4BA (s); PK4DA (s); PK4KS (ps); PY1AN (o); PY1BD (r); PY1BE (aefkn); PY1BF (v); PY1DS (e); PY1IF (a); (afknosv); PY1MS (efk); PY2AB (a); PY2AC (acfinp); PY2AK (aefv); PY2BF (o); PY2CK (anv); PY2DA (aefkodv); PY2DH (k); PY2ER (av); PY2ET (ei); PY2FA (o); PY2GA (f); PY2GC (e); PY2HT (efn); PY2HV (v); PY2IG (e); PY2II (r); PY2IM (e); PY2IT (aefkv); PY2KP (k); PY2KT (v); PY2LN (aefiknv); PY2LR (e); PY3DR (ef); PY4EJ (s); PY5AQ (afikv); PY7AI

(anprsv); PY8AB (v); PY8HB (e).

TG5JG (aouv); TG9BA (aefiknoqstuv); TI2AB (eiknqs); TI2AC (inqpqruv); TI2AV (ev); TI2LA (u); TI2LR (ci); TI2RC (afkop); TI5JRX (p); T15ZS (o); T17AS (c); W5ETI (s); W6OMJ (s); XE1A (ap); XE1AC (ac-XE1AG (c); XE1AK (c); XE1AM (c); XE1AT (e); XE1BL (p); XE1BY (v); XE1CA (i); XE1CJ (a); XE1CK (c); XE1CX (f); XE1FF (cp); XE1GE (a); XE1GG (cf); XE1GL (f); XE1IY (c); XE1IZ (k); XE1LK (ev); XE1LL (p); XE1KK (c); XE1MF (p); XE1Q (v); XE2AB (e); XE2AC (ck); XE2AD (c); XE2AF (acefkprv); XEAH (e); XE2AS (e); XE2AY (p); XE2BK (e); XE2F (p); XE2FA (c); XE2FC (crv); XE2FG (p); XE2GO XE2HA (c); XE2HB XE2GS (p); (ecv); XE2HD (aefkv); XE2HV (k); XE2HY (cefkv); XEIA (c); XE2IK (co); XE2JY (v); XE2JC (p); XE2KA (cv); XE2KH (c); XE2O (k); XE3AH (s); XE3BK (aosv); XE3O (e); XE3R (ps); XUoA (ds); XU1B (defks); XU2LA (c); XU6MJ (s); XU8AM (dfps); XU8RJ (g); XU8ZA (cdf); XU8LA (d); XU8RB (d); XU8RJ (d). (aeinopqus); YN1AP YNU1 YN1AZ (aeuv); YN1FF (s); YN1IP YN1SS (i); YS1JS YS1MF (r); YS1MS (eimnpqsv); YSIOL (ps); YS1RP (s); YVAC9 (sv); YV1AE (o); YV1AN (ov); YV1AP (ahinoqrv); YV1AQ (afkpv); YV1AT (j); YV1AV (achinoprsv); YV1AP (ahinoqrv); YV1AQ (afkpv); YV1AT (j); YV1AV (achinoprsv); YV1AVE (1); YV3AG (a); YV3AQ YV4AA (q); YV4AB (v); YVAE (achiknpyrv); YV4AF (f); YV4AN (p); YV4AX (fv); YV5AB (pq); YV5AB (pq); YV5ABAR (v); YV5S YV5ABE (afhknv); YV5ABF (i); YV5ABY (afiv); YV5AC (f); YV5ACA (fov); YV5ACE (nv); YV5ACG (anv); YV5ACH (iv); YV5AE (a); YV5AK (a); YV5AO (q); YV5AV (a); YV8AC (a); ZP5AC (s);.

#### The Reporters

- (a) Philippe Bates, Philadelphia, Pa.
- (b) Charles A. Black, York, Pa.

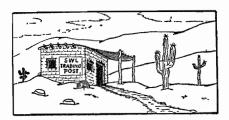
- San Francisco, (c) George Boscawen, Calif.
- (d) Alan I. Breen, Dunedin, New Zea-
- Philip Craig, Waterville, Maine (e)
- (f) Sterling Fisher, North Tarrytown, N. Y.
- H. W. Hartley, Honolulu, Hawaii (g)
- (h) John Jenkins, Jr., Glen Ellyn, Ill.
- Ralph Kastner, New Braunfels, Texas (i)
- (j) Frank J. Kosik, Chicago, Ill.
- (k) Richard Loetz, Sturgis, Mich.
- (1) John D. Long, Dalton, Ga.
- (m) Ken Munn, Albuquerque, N. Mex.
- Harry O'Meara, Manchester, Mass. (n)
- (o) Bertam Podall, Gilman, Vermont
- (q). Weston Richards, Zion, Ill.
- (q) Wm. Scott, Johnson City, Tenn.
- (r) Lawrence Swanson, Detroit, Mich.
- (s) Cliff Tavener, Rosenberg, Texas
- (t) Glenn Thormann, Westbury, N. Y.
- (u) Norman' Wehrli, Kilgore, Texas
- (v) Walter E. Welch, Lynn, Mass.

### Radio Amateur Call Book LATEST EDITION Lists over 40,000 amateurs in every country in the world, and complete lists of all

the high frequency commercial stations. Every listener interested in amateur stations' should have one. 292 pages. We pay the postage.

RADEX Emerson, N. J.





Matthew Leshner tells us that his correspondent, Wilfred Tarbotton of England, has advised him that filledout SWL cards addressed to England . may have unpleasant consequences for their recipients. A British shortwave listener, upon receiving a card on which the symbols "QSA5, R9" were written, had the card intercepted by the Post Office, and his entire stock of SWL cards was confiscated.

It is urgently suggested, therefore, that SWL cards to England, or to any country at war, should not bear any reference to a transmission. will be safe only to sign the cards and confine the remarks to personal greetings written in plain language.

Exchangers for this month are: Edward Laudansky, 1 Mather St.,

Dorchester, Mass. (SWL) cards). Lawrence Blagbrough, 15 Crowtrees Crescent. Rastrick, Brighouse, Dorchester, Mass. (SWL cards).

Walter V. Scholz 2nd, 33 N. Maple Ave., Webster Groves, Mo. (SWL cards).

Harry O'Meara, 38 Sea St., Manchester, Mass. (Correspond with National SW-3 owners).

Matthew E. Leshner, 181 Bailey St., Lawrence, Mass. (SWL cards).

W. Holston Ave., Wm. Scott, 313 Johnson City, Tenn. (Correspond with DXers in eastern Tennessee).

Vernon Lee Gibbs, Jeffersonville, Ky. (SWL cards, correspondence, exchange used and unused postage stamps with DXers outside the U.S.A.).

Conrad J. Klank, 723 N. Division St., Buffalo, N. Y. (SWL cards). Walter L. Shirley, Jr., 3864 N. New

Jersey St., Indianapolis, Ind. (SWL cards)

James Reilly, 33-35—201st St., Bayside, N. Y. (Swap cards and correspondence).

Glenn Thormann, 271 Park Ave., Westbury, N. Y. (SWL cards, cor-

respondence, photos).

Raymond Skidmore, 171 W. 73rd St., New York City. (Wishes to visit with SWL's in Maryland, Pennsylvania, New Jersey and New York). Walter Eggert, 1114 W. Braden.

Chariton, Iowa.

Frank J. Kosik, 1816 Allport St., Chicago, Ill. (Correspond with owners of Hallicrafter Sky Buddy S19-R).

Roy Gunn, 2 Third Ave., Kingsland, Auckland, New Zealand. (Correspond with DXers 17-21 yrs. old, boys or girls).

John Jenkins, Jr., 423 Hill Ave., Glen Ellyn, Ill. (Exchange listening post photos and will correspond).

Anthony Arsenault, VE1FR, has moved to 355 Water St. W., P. O. Box 444, Summerside, P.E.I., Canada. (Exchange cards).

Joseph Becker, Sr., 415 S. 11th St., Hamilton, Ohio, wishes to collect postal card views of different post office buildings, for which he will send Hamilton views in exchange.

#### DU MONT DISCONTINUES SMALL-IMAGE TELEVISION RECEIVERS

CONVINCED, after selling hundreds of its television receivers in the New York metropolitan area, that the public does not care to have "peep-hole" television entertainment, the Allen B. Du Mont Laboratories, Inc., Passaic, N. J., has discontinued all development activities on small picture television receivers. All its resources are now concentrated on the production of Du Mont largescreen direct-vision television receivers, using the 14-inch and the 20inch Du Mont teletrons. The Du Mont slogan is "Large Screen Television."

States Allen B. Du Mont personally: "Television long ago passed through its 'head-phone stage,' just as did sound broadcasting in its earlier days. Today the public is interested in large images that can be comfortably viewed by a group.

"The few dollars that can be saved by using smaller cathode-ray tubes are not worth while. Once the public sees a large-image television set in operation, most interest ceases in 5-inch and 9-inch jobs even if a few dollars might be saved. While we believe our 14inch job is adequate for most purposes the buying interest certainly switches to the 20-inch job when that is also shown.

"Quite obviously then my organization is going ahead with 'Large Screen Television', in the firm belief that the public wants comfortable

television reception."

#### Foreign Language Broadcasts From the B. C. C. (All times are Eastern Standard)

**Afrikaans** 

11:30 am-11:45 am: GSV 1:30 pm- 1:45 pm: GSD and GSI

Arabic

12:45 pm- 1:10 pm: ON GSC and GSP

Bulgarian

2:00 pm-2:15 pm: CRX, GSA and GSW

#### Czech

Midnight-12:15 am: GSA, GSW, and GRX

2:00 pm- 2:15 pm: GSA, GSW and GSE

5:45 pm- 6:00 pm: GSA, GSW and GRX

#### Danish

4:40 pm- 4:45 pm: GRX, GSA, GSB, GSC, GSD, GSF, GSP, GSW

#### Dutch

7:00 am- 7:15 am: G S A, G S E, GSF, GSG, GSH, GSJ, GST and GSW.

Noon -12:15 pm: CRX, GSA, GSW.

5:07 pm- 5:15 pm: CRX, GSA, GSB, GSW.

#### Finnish

1:15 pm- 1:30 pm: CRX, GSA and GSW.

#### French

6:15 am- 6:30 am: GSA, GSE, GSH, GSP, GST and GSW.

12:15 pm-12:30 pm: GSA, GSW and CRX.

2:15 pm- 2:30 pm: GSA, GSW and CRX.

4:00 pm- 4:15 pm: CRX, GSA, GSC, GSD anw GSP.

6:45 pm- 7:00 pm: GRX, GSA, GSC, GSD and GSW.

#### German

7:30 am- 7:45 am: GSA, GSE. GSH, GST, GSV and GSW.

8:30 pm- 3:15 pm: CRX, GSA. GSC, GSD, GSI and GSW.

4:15 pm- 4:40 pm: GRX, GSA, GSC, GSD, GSF GSB, GSW.

5:15 pm- 5:30 pm: GRX, GSA, GSB and GSW.

11:00 pm-11:57 pm: CRX, GSA and GSW.

#### Greek

1:25 pm- 1:45 pm: GSC and GSP.

#### Hindustani

9:20 am- 9:30 am: GSF and GSG.

#### Italian

1:30 am- 1:45 am: GRX, GSA and GSW.

6:30 am- 6:45 am: GSA, GSE and GSW.

1:30 pm- 1:45 pm: GRX, GSA. GSF and GSW.

4:45 pm- 5:00 pm: CRX, GSA, GSB, GSC and GSW.

5:45 pm- 6:00 pm: CRX, GSA, GSB, GSF and GSW.

#### Magyar

3:15 pm- 3:30 pm: CRX, GSA and GSW.

#### Norwegian

12:45 am- 1:00 am: CRX, GSA and GSW.

12:30 pm-12:45 pm: GRX, GSA and GSW.

6:20 pm- 6:30 pm: CRX, GSA and GSW.

#### Polish

2:00 am- 2:15 am: CRX, GSA and GSW.

9:15 am- 9:30 am: GSA, GSE and GSW.

2:30 pm- 2:45 pm: GRX, GSA and GSW.

#### Portuguese

7:15 am- 7:30 am: GSA, GSE, GSH, GST, GSV, CSW.

4:00 pm- 4:45 pm: GSB, GSF and GSW.

7:00 jm- 7:15 pm: CRX, GSA. GSB, GSE, GSF and CSW.

#### Romanian

3:30 pm- 3:45 pm: CRX, GSA and GSW.

#### Serbo-Croat

3:45 pm- 4:00 pm: GRX, GSA and GSW.

#### Spanish

7:45 am- 8:00 am: GSA, GSE. GST, GSV and GSW.

5:30 pm- 5:45 pm: GRX, GSA, GSF and GSW.

9:00 pm- 9:15 pm: GSB, GSE and GSF.

#### Swedish

12:45 pm- 1:00 pm: CRX, GSA and GSW.

#### Turkish

1:10 pm- 1:25 pm: GSC and GSP.

#### The Frequencies

CRX, 9690 kcs., 9.69 megs. GSA, 6050 kcs., 6.05 megs. GSG, 9510 kcs., 9.51 meks. GSC, 9580 kcs., 9.58 megs. GSD, 11750 kcs., 11.75 meks.

GSE, 11860 kcs., 11.86 megs. GSF, 15140 kcs., 15.14 megs.

GSG, 17790 kcs., 17.79 megs.

GSH, 21470 kcs., 21.47 megs. GSI, 15260 kcs., 15.26 megs.

GSJ, 21530 kcs.,21.53 megs.

GSJ, 21530 kcs., 21.53 megs.

GSP, 15310 kcs., 15.31 megs. GST, 21550 kcs., 21.55 megs.

GSV, 17810 kcs., 17.81 megs.

#### IMPORTANT ANNOUNCEMENTS

#### West Coast Editor Foreign Contacts Prohibited

Regretfully we announce that "Tony" Tarr of Seattle, Washington, has resigned as the west coast editor of Radex. Commencing with our next issue, Melvin Fisher of Berkeley, California will conduct the west coast column.

All readers living in the Mountain Standard and Pacific Standard Time Zones are requested to send their DX reports direct to the new editor.

#### Meľvin Fisher, 1401 Bancroft Way Berkeley, Calif.

The Federal Communications Commission has prohibted the amateur radio stations of this country to communicate with any foreign stations. The order was issued without any warning, to take effect immedately. It is believed that the order was due to the European war.

Communcation between amateurs within the United States or its possessions and territories will be permitted, and United States citizens in the Philippines and the Canal Zone will still be able to communicate with amateurs here.

This ruling will have no effect upon the amateur contest announced in this issue of Radex, except of course that the contest will be more difficult since many foreign stations will no longer direct their beam aerials in our direction, and many fortongues whereas formerly they have employed English when talking with us.

The Grand National SWL Club is an organization for SWL card swappers, and only those who will agree to exchange card for card will be admitted to membership. Particulars may be obtained from The Grand National SWL Club, Box 141, Station V, Cincinnati, Ohio.



The QSL card of ZL4GY, printed in black, and the map in red.

## Federal Communciations Commission Makes 40 Wide-band Channels A v a i l a b l e to New Broadcast System; Sees Business Benefits in its Development

Hailing frequency modulation as "one of the most significant" contributions to radio in recent years and declaring that FM broadcasting on a commercial basis is desirable in the public interest, the Federal Communications Commission has announced the availability of the frequency band of 42,000 to 50,000 kilocycles for that purpose. This will provide 40 FM channels, each 200 kilocycles wide—35 to regular high-frequency broadcast stations and 5 to non-commercial educational broadcast stations.

"Frequency modulation is highly developed," declares the Commission in unanamious report. "It is ready to move forward on a broad scale and on a full commercial basis. On this point there is complete agreement among the engineers of both the manufacturing and the broadcasting industries. A substantial demand for FM transmitting stations for full operation exists today. A comparable public demand for receiving sets is predicted. It can be expected, therefore, that this advancement in the broadcast art will create employment for thousands of persons in the

**RADEX** 

manufacturing, installation and maintenance of transmitting and receiving equipment and the programming of such stations."

At the same time the Commission points out that there was agreement among witnesses at its recent hearing that this new service will not supplant the service of standard broadcast stations generally and that, therefore, FM will not make obsolete the receivers now in use. Standard broadcasting is on an entirely . different frequency band from that to be occupied by frequency modulation. FM will not interfere with it. Present standard broadcasting will continue, and certainly for a number of years will render full service. The extent to which in future years the listeners will be attracted away from the standard band cannot be predicated. Testimony at the hearing indicated that manufacturers will provide receiving sets capable of receiving both services.

The chief claims for FM are that it gives more fidelity and less interference than standard broadcasts. The principles of frequency modulation has long been known but its practical use was not demonstrated until recently.

There was unanimous agreement at the March hearing that FM is superior to amplitude modulation for broadcasting on frequencies above 25,000 kilocycles. The use of a wide band of frequencies makes possible a reduction of noise to a greater extent than attained with narrow-band standard broadcast. There was testimony that a band width of less than 200 kilocycles can be used for FM. but this lessens the noise-discriminating quality which has been established by experimental operation with the wide channel. Testimony advocating the narrower band width was not supported by experience use of facsimile transmission on the same The Commission believes channel. that regular program service should begin on a 200-kilocycle band basis which can be conveniently reduced if developments warrant. By adopting the wide-band FM channels at this time, it will be possible for the public to continue the use of receivers designed for wide-band reception even though narrower channels may later by authorized.

The opening of a new band for commercial broadcast will help to correct numerous defects and inequalities now existing in the standard broadcast system. These inequalities result from the scarcity of frequencies, their technical characteristics, and the early growth of broadcasting without technical regulation. There is today a lack of stations in some communities, and other communities do not have sufficient choice of program service. The establishment of the new broadcast band in the higher frequencies will enable many communities to have their own broadcast stations.

Experimental operations show that FM stations can operate on the same channel without objectionable interference with much less mileage than is possible with standard broadcast stations. FM has the ability to exclude all except the strongest signal. Also, FM stations require much less mileage separation than do standard broadcast stations. The service range of FM stations, though limited, will in many cases be greater than obtained from the primary service of comparable standard broadcast stations.

The licensing of classes of standard broadcast stations in the same area with different frequencies and different power has resulted in a wide disparity in the extent of service to the public. The system of classification now employed for standard broadcast stations will not be used for FM stations. The rules and regulations and engineering standards to be issued for FM in the near future will enable applications to be made for facilities to serve a specified area. FM stations will be rated on the basis of

coverage rather than power. Competitive stations in the same center of population will be licensed to serve the same area.

The present situation of certain standard broadcast stations having large daytime coverage and restricted nighttime coverage on duplicated channels will be avoided. The coverage of FM stations will be substantially the same both day and night. However, FM stations do not have the long-distance coverage of the present high - powered clear - channel standard broadcast stations. The latter may be required indefinitely, for widespread rural coverage. But for covering centers of population and trade areas, the new class of station offers a distinct improvement.

The Commission deems it in the public interest to allocate a contiguous band of frequencies to accomodate both commercial and educational FM stations. The band between 42,000 and 50,000 kilocycles is particularly suited for this service. Under the new allocation, the same number of frequencies heretofore assigned to non-commercial educational stations has been retained, the only change being that the position of such stations has been moved 1000 kilocycles higher in the spectrum. arrangement permits the same receiver to be used for the two services. The three educational institutions now authorized to use amplitude modulation in the non-commercial band can continue to do so, but the Commission hopes that subsequent applicants for non-commercial educational broadcast facilities will find it economic and otherwise preferable to ultilize FM.

Applications for FM broadcast stations will be considered by the Commission when revised rules and regulations are promulgated, and new application forms made available. Meanwhile, pending applications for high-frequency broadcast stations on an experimental basis, filed under the old rules and regulations, will be dis-

missed without prejudice and the way opened to file new applications for either experimental or regular FM broadcast stations, which may include the simultaneous transmission of facsimile programs, when the new regulations are announced. Likewise, authorization of existing high-frequency experimental stations are terminated by January 1 next, also without prejudice, for the filing of new applications for either type of service.

#### How Frequencies Were Reallocated

Readjustment of the ultra-high radio frequencies to provide the 40 FM channels between 40,000 and 50,000 kilocycles, as well as seven channels below 108,000 kilocycles for television service, is pursuant to allocations contained in Commission Order No. 67.

The solution to finding space in the crowded radio spectrum for the needs of these two services was achieved with the cooperation of the Inter-department Radio Advisory Committee in shifting Government frequencies. This committee, representing 13 Federal agencies, advises the President in allocating radio channels for Government use.

The arrangement gives private servies priority rights between 60,000 and 66,000 kilocycles and between 118,000 and 119,000 kilocycles in exchange for relinquishment to the Government of the bands 41,000 to 42,000 kilocycles and 132,000 to 140,000 kilocycles.

In addition the Commission discontinued television service in the present television channels Nos. 1 and 8 (44,000-50,000 kilocycles and 156,000-162,000 kilocycles respectively). Accordingly, old television vision channel No. 2 will be assigned from 60,000 to 66,000 kilocycles. Former television channel No. 8 (156,000-162,000 kilocycles), together with frequencies between 116,000 and 119,000 kilocycles, will be used to replace the assignments in the band

132,000 to 140,000 kilocycles. There is no change in the other eleven channels comprising the 162,000 to 300,000 television band.

The new allocations become effective immediately on a limited basis. After January 1, unlimited operation may be authorized. Regular commercial service employing wide-band FM, which may include the multiplexing of facsimile transmission simultaneously with aural broadcasting, will use the 43,000 to 50,000 kilocycle band, and non-commercial educational broadcasting stations are given the new frequencies 42,100, 42,300, 42,500, 42,700 and 42,900 kilocycles. This provides a continuous band for FM thus assuring a degree of uniformity in the quality of the different frequency modulation channels and tending toward simplicity and economy of FM receiving sets.

The rearrangement permits the Commission to maintain seven television channels below 108,000 kilocycles and at the same time provide an adequate number of channels for frequency modulation. It expects these and other services to benefit by the changes.

It points out that sky wave interference on frequencies immediately below 50,000 kilocycles is greater than on the higher frequencies. While it likewise recognizes that shadows and fading become more pronounced as the frequency increases, it nevertheless believes that such factors are not substantially different on frequencies in the vicinity of 60,000 kilocycles. Furthermore, it is now most acute on frequencies immediately below 50,000 kilocycles. Thus, by allocating 60,000 to 66,000 kilocycles instead of 44,000 to 50,000 kilocycles to the television service, a good balance has been achieved between the effects of sky waves and diathermy interference on the lower frequencies and the effects of shadows and fading on the higher bands.

The miscellaneous radio services now assigned frequencies between



Henry Bennett of Collingswood, N. J., submits this card from XERA as proof of the fact that this Mexican station does verify. It is printed in 'red and black.

132,000 and 140,000 kilocycles will benefit by the changes in that 9,000 kilocycles are now allocated where formerly only 8,000 kilocycles were available. This can provide 70 channels as compared with 57 channels in the past. The change has the further advantage of providing two large blocks of frequencies for experimentation with different propagation characteristics.

"In considering these changes," explains the Commission, "it was necessary to weigh the particular needs and problems of the various non-Federal services as well as the Government's requirements, and to determine the permissibility of the allocation under our international undertakings; also to have regard for the furture of radio operation in the services involved, from an international standpoint, so far as could be foreseen. The changes should result in improved service for all stations which are affected by the Commission's order and will fully meet the varied situations presented of a national and international character."

The channels made available by Order 67 to FM broadcast stations, including the multiplexing of facsimile transmission simultaneously with

## Radexing with the Radexers

Interest continues to run very high in the Supremacy listings. The past few months have found the Old Timers Supremacy receiving more than its share of entries; in fact so many changes have occurred that we are omitting the Countries Verified listing in favor of the Old Timers this month. A few DXers are apparently harboring a misconception of our Supremacy rulings. The Supremacy listings are for verifications received for reception on the standard broadcast band only!

SUPREME SUPREMACY: For the total number of stations verified —not heard;

Becker	1036
Forestieri (R133)	1028
Horton (R1305)	981
Walker (R1643)	<b>8</b> 90
Botzum (D42)	825

BEGINNER'S SUPREMACY: Total number of stations verified by DXers who have been DXing two years or less.

France (R701) 20 mo. 475 Richards (R101) 12 mo. 286 F. Lee (R695) 14 mo. 223 T. Lee (R1631) 5 mo. 127 Grannes (R1630) 9 mo, 116

OLD TIMER'S SUPREMACY: For the oldest dated verification.

Podall (R946)	Nov. 1916
Barnhart (R1620)	Feb. 1923
Causse (R1117)	Mar. 1925
Balt (R964)	Sept. 1927
Diedrich	Nov. 1927

T. P. SUPREMACY: For the most Trans-Pacific stations verified:

Reichardt (R1633)	84
Tarr (RT)	50
Botzum (R42)	25
Lippincott (R168)	15
Burnham (R1632)	15
· · · · · · · · · · · · · · · · · · ·	

T. A. SUPREMACY: For the most Trans-Atlantic stations verified.
Reichardt (R1633) 158
Botzum (R42) 33

Readers living in the Eastern and Central Standard Time ones may send their reports direct to

Ray LaRocque 4 Wachusett St., Worcester, Mass:

Forestieri (R133)	23
Lippincott (R168)	18
Burnham (R1632)	13

S. A. SUPREMACY: For the most South American stations verified.

The second secon	10111104
Reichardt (R1633)	35
Botzum (R42)	32
Forestieri (R133)	19
Burnham (R1632)	15
Daneker (R1122)	7

And there, friend readers, are the standings to date! Listings omitted are COUNTRIES VERIFIED, NORTH AMERICA, and U. S. SUPREMACY. Most interesting of all entries were those in the OLD TIMER'S SUPREMACY. It will be noticed that there is an entirely new set of names appearing in this department this month—the new entries having been so numerous and good enough to entirely surpass the complete roster shown last month.

The entries also brought about the discovery of a veri dated November 20, 1916 from the Columbia Graphophone Corp. Bertram Podall of Gilman, Vermont entered this one. John C. Barnhart recalled some old time thrills as he entered a set of verifications heard in 1923 on a crystal set. No doubt there are more old veries in the possession of our readers which can squeeze themselves into these listings. We'll be interested to see what the next two months will bring in the way of old verifications.

#### THIS 'N' DATA

Three Texas stations bit the dust as the commission ruled KTBC, KNET, and KRBA off the air. The ruling is the result of the commission's finding that the construction permits of the stations were obtained under misleading representation regarding ownership... The following readers want to go on record as being in favor of Tom Moss' suggestion regarding stationery, seals and buttons: Jack Stephenson, Oklahoma City, Okla.; James O. Weaver, Elkhart, Ind.; Charles A. Mills, Strathrong, Ontario; and Melvin Fisher, Berkeley, Calif.

Henry Bennett, R1342, 644 Atlantic Ave., Collingwood, N. J., is anxious to know the status of WSAL in Salisbury, Md. . . . For Ralph Bates-Joseph Janato, R843, Astoria, N. Y. has received a cream colored veri from XERA with call in large red letters. . . . A mystery to be solved! Howard Perkins (R838), Cleveland, Ohio would like to know the call and location of station which tested on April 19 on 1370 kcs. The station was tuned at 2:25 a.m. Music was played with no announcements. If you have the answer, write Howie at 1256 East 111th St.

Sam Cade (R1708), Franklin, Indiana is puzzled by the strange Cuban interfering with WOWO... "I received replies from Eugene Francis and Bob Brown in response to my query about the 640 kcs. Cuban. The Correct call is CMKN in Santiago"— James O. Weaver.

In order to remedy the many problems of stations in St. Louis and vicinity the FCC has made some very drastic shifts, resulting in improved service by all stations. KSD gets full time on 550 kcs. as KFUO leaves that channel for a spot on the 830 kcs. channel where it will be limited to WGBF and KFRU daytime hours. will both vacate 630 kcs. to room for KXOK which will there from 1250 kcs. The Evansville sttion will take over the 1250 kcs. channel ,while KFRU will go to 1370 kcs. with 250 watts full time. KWK will remain on 1350 kcs., but will increase power to 5 kw. . . Included in the log of H. W. Hartley (R1535) are such catches as 2YH, JOHK, KZRM, and JOAK-2.

Another query! This one from Hal Robie (R1691), Springfield, Mass. The station in question was on April 7 from 2:15-2:58 a.m. Language was Spanish and it was believed that Guatemala was mentioned on the broadcast. The station was in the vicinity of 1140 or 1150 kcs. and signed with a march which might have been a national anthem. This column will appreciate your letter if you can help Hal.

#### P. O. BOX R9

DECORAH, IOWA—Merlin Steen, Route 6: "I would like information about the following stations; that is, when they were established, and when they have a test program, if any: WORC, WTAG, WCOP, WGAN, WCSH, WDAE, WDRC, WTBO, WORK, WGAL, WCLS, WCRW, WABI, and WEEI."

OKLAHOMA CITY, OKLA.— Jack Stephenson: "For C. R. Bendes: XENT does verify. It is a white card, printed in black and has a picture of the station on it. I want to welcome my city colleague, Ernest R. Forrester into the inner circle of DXERS."

BROOKLYN, N. Y.—Ed Medric, 1302 Troy Ave.: "Having just purchased my first copy of RADEX. I find it very interesting and helpful. I was a nightly listener of XERA and XEAW. I noticed the shift of XERA, but did not find out about XEAW until I read about it in RADEX. Before reading RADEX, I thought my receiver was faulty! My receiver is an RCA AC-DC table model using five tubes with loop antenna."

EDMONTON, ALBERTA—Harold Shortridge, 11341 94th St.: "I now have a small library of fifteen issues of RADEX and they sure are an encyclopedia of information for the DXER. I have had to turn to the back numbers many times for information. In the latter part of February and the beginning of March, the TA's and TP's were plentiful here. I sent letters to 2YA, 1YA, 4QN, MTCY, JOBK-2, 5CK, and the Home Service station on 767 kcs., as well as Rennes. When I found out that it was possible to log these stations on the broadcast band, you couldn't make me go to bed."

VALLEY STREAM, N. Y.—Edgar Newman, 214 Munro Blvd.: "In two weeks I have heard 42 stations with veri requests out to 28 of them. I have received 21 replies from 14 states. WOAI replies with an illustrated folder, and WCKY also sends an illustrated brochure showing employees of the station, studios, stars, and executives."

SCHOFIELD BARRACKS. HAWAII-M. L. Gibson, Division Signl Office: "Among the sttions heard here are WJR, WJZ, WBAP, WCCO, WBRC, KFAR and many west coast stations. I am using an inverted "L" antenna with a rebuilt 1939 Howard 638 receiver. The antenna is about 100 feet long, and is directional to the states. I find that reception of mainland stations is much better here during the winter months, but the short wave stations seem to be consistant. I started DXing last November and need only sixteen states to have heard every state in the union."

JOHNSON CITY, TENN.—Bill Scott (R626): "I would like to get in touch with DXers in this #mmediate vicinity."

WILDWOOD, N. J.—Frnk B. Lee (R695), 222 E. Maple Ave: "Reception here was marred this season by atmospheric conditions which ruined real DX reception 75% of the time. The past month (March) was terrible. Static and weak signals predominated throughout the whole month. This past season cannot compare with the previous season (1938-39). The boys who did not get in last year missed a golden opportunity.

Here's hoping the coming year holds in store for us another season like 1938-39."

HAMILTON, OHIO—Joseph J. Becker, Sr., 415 S. 11th Street: "In the U. S. A. I need KTUC, WTMC, KWAL, WTRY, KBPS, KBND, KBKR, KUIN, KVNU, KOVO, WFVA, KVOS—12 active stations yet to be logged. Not active yet, but with call letters assigned, I need 45 stations!"

ORLANDO, FLORIDA - T. E. Smith, Jr., 19 Neola Drives "On April 15, 1940 I heard a station broadcasting war news on about 1500 kcs. The announcer had a decided British accent and kept talking of here in This station was heard London'. from 11:14 p.m. to 11:29 p.m. when it faded out. Can anyone tell me what station I heard?" (We'd say that the time heard would lead one to believe that it was some domestic rebroadcasting the BBC news-which U. S. stations are now permitted to do according to a new FCC ruling-RL)

KANSAS CITY, MO.—Laurence O'Connor (R760): "I do most of my DXing on the broadcast band and to date I have heard 200 American stations including 5 Canadian and 6 Mexican stations. I have verified 61 of these and letters are out to four other stations."



XEMO, broadcast band station in Tijuana, Lower California, verifies with the card shown above. It is printed in green. (Courtesy of Weston Richards, Zion, Ill.)

BALTIMORE, MARYLAND-Henry Wilkinson, Jr., Birch Ave., Arbutus: "I DX'ed when there was so much criticism over the fact that two DXers in Eastern Pennsylvania tuned in two or three TP's on their small home built set of 3 tubes. I haven't many foreigners in my log but have several good catches among my North American stations. Log includes, 4RK, 3AR, 4QG, HIX. HHK, ZNS, YV1RC, LS-2, LR-8, LR-5, CP-4, CX-26, LR-1, LR-8. I-1TO, VE9EK, I-ITR. I-1MI. 10-BQ, 10-BQ, 10-BP, 10-AB, KFPM, WKAQ, WNEL, WPRA, TGW. Heilsburg, Radio Normandie, and Poste Parisien. This log was compiled in about two and a half seasons Next fall will find me back in the 'ranks' again, if I can get suitable bearings."

PITTSBURGH, PENNA.—C. R. Bendes (R1132): "After DXing for three months, I got my first copy of RADEX in January, 1939. Since then I have raised my broadcast band log from 35 to 321! I like the idea of Tom Moss regarding RADEX Club stationery."

BERKELEY, CALIF.—"I began DXing last fall, buying my first copy of RADEX at the same time as I purchased my new 7-tube Philcosince then traded for a 12-tube Zenith. I have not missed a single copy of RADEX since that time. It is the only radio magazine I have ever seen that gives both information and interesting reading matter at the same time-the ideal combination for the radio listener who usually knows very little of the technical side of radio. . . On the BCB, my first season has far exceeded my expectations— 330 stations have been logged, with 84 verified, including 4QS, WKAQ, CBL. Heard, but not logged were JOAK-1, JOBK-1 JOHK, JOIK. JOAK-2, 2YA, 1YA, 3YA, 4YA, 2YC."

LESTER, PENNSYLVANIA-Roger Causse (R1117): "I used to do my DXing in the old days mentioned by Frank S. Macolly of Philadelphia and I have verifications from most of the old-timers he mentions, such as AT-9, KOP, WEAM, WOAX, PWX, CICM, 6KW, WOO, WQJ, CNRV, WABZ, KTNT, KFNF, KNRC, etc. I heard G5SW in 1924, but did not verify him till years later. I also verified AGC-Berlin, RUS-Salvador, HRB-Honduras, NBA-Canal Zone, all before 1930. I wonder if anyone else has a veri from NBA on the broadcast band? I logged KUJ in Longview, Wash. when it was using but 10 watts and KFPW in Arkansas when it had but 71/2 watts!"

TROY GROVE, ILLINOIS—Ray H. orn: "I left off DXing five years ago, but lately I've taken to reading RADEX again. I find the short waves fascinating and full of surprises, but I'm not going in for verifications. I have about 230 old veries from 1931-36—mostly broadcast band stations, including some good ones like 10-AB, XFX, 1YA, YV-12RM, KGU and two diplomas from CX-26. I have Radio Service Bulletin for 1934, '35, '37 complete to trade for a travel book or detective novels."

## COVERING THE CONTINENTS Domestic Dialings

Komments from the K District: KWYO verifies with a photo of its tower... KFAB on 770 kcs. uses 10 kc. It belongs to the Central States Broadcast System which also owns KOIL and KFOR... KMA has a 488 ft. self-supporting tower. No postage is necessary for verification. (Le Roy Swanson, R1152, Chariton, lowa)

KGCA in Decorath, Iowa on 1270 kcs. is absolutely deleted . . . KCRC in Enid, Okla. have a DX program the third Wednesday of February, April, June, August October, and December from 1:00-5:00 a.m. Send re-

ports to Herman Kramm, Engineer ... KSAL at Salina, Kansas was testing their new 1000 watt transmitter on their new frequency of 1120 kcs. on March 19 . . . KPOF in Denver have a test program from 2:45-3:15 a.m. on the second Friday of each month. They have no printed verification, but verify by postal in handwriting . . . KID on 1320 kcs. at Idaho Falls, Idaho have a test program on the second Sunday of every month from 3-3:30 a.m. They also have a very nice veri card! (Merlin Steen, R814, Decorah, Iowa)

KOAM on 790 kcs. verified in less than a week with a postal type card, printed in black. It is signed by R. L. Jones, engineering staff. They use the slogan, "The Four State Station" ... KWTO signifies "Keep Watching The Ozarks" (Jack Stephenson, R1470, Oklahoma City, Okla.)

KGIR on 1340 kcs., KRBM 1420 kcs., and KPFA on 1200 kcs. heard with good signal strength through WEDC-all carrying the Montana Boosters Program after 3 a.m. . . KFI's audio frequency test was received on my small table model and it picked up as high as transmitted . . . KOCY on 1310 kcs. and KICA on 1370 kcs. heard on May 14 at 5:32 a.m. after it had become daylight. (James O. Weaver, R1397, Elkhart, Indiana)

KGFL on 1370 kcs. at Roswell, N. Mex. has not verified a Newark News Radio Club report (or any other, so far as known) since 1938! . . . (Eugene Francis, Bronx, New York)

KFUO put on a DX show on December 9 and another DXer in Pontiac, R. I. and myself were the only reporters from Rhode Island. received a copper ash tray for souvenir. (Phillip Potten, R1547, Washington, R. I.)

W's In The East: WBOW in Terre Haute is on 1200 kcs., not 1310 kcs. They changed frequency at the same time as WJBL changed WSOY on 1310 kcs. . . WDLP on

1200 kcs. at Panama City, Florida had its initial test on March 18-veri card is nice . . . WFIG in Sumter, S. C. on 1310 kcs. was heard on equipment (Merlin test March 5, 6 and 7th. Steen, R814, Decorah, Iowa)

WNYC is now on daily until 8:30 p.m. . . WISE on 1370 kcs. is on every Sunday morning from 2-4 a.m. instead of Tuesday from 1-3 a.m. They offer woven material for a suit of clothes to most distant listener. . . WHLD on 1220 kcs. was heard on equipment test on March 24 . . . WSLB had their equipment test on March 23. (Theo. J. Neider, R796, Sea Cliff, N. Y.)

WSAL was heard on February 28 from 1:25-1:36 at the conclusion of a test program. They verified with a card in four days . . . WBBS verified with a postcard of a statue of the Pioneer Woman which was unveiled by Will Rogers in 1930! The letters are penned on the front of the card. (Charles A. Mills, R1667, Ontario)

WBRU was the call first assigned to the Brunswick, Georgia station. In two weeks they (the call letters) were changed to WMOG. This to correct an item by a reader. (William Cun-

ningham, Hollywood, Calif.)

WJHL comes on at 6:38 a.m. week days and off at 11:15 p.m. On Sundays they sign on at 7:00 a.m. and go off at at 10:30 p.m. They will verify all correct reports for return postage. (Bill Scott, R626, Johnson City, Tenn.)

WISE verification just received. It's a colorful postal with a view of Mount Pisgah and "The Rat" as seen from the grounds of the Asheville School in Western North Carolina. Call letters are in black in the left hand corner along with a wise old owl. (Hal Robie, R1691, Springfield, Mass.)

WEEU in Reading, Pa. was verified at 3:30 in the afternoon with no interference from WHDH! The only time I can hear WHDH is at night! (Phillip Patten, Washington, R. I.)

WLAC is a member of the Colum-

bia Broadcasting System. It is not listed as such in RADEX. (Gerald Harris, R739, Kansas City, Kans.)

WHIS on 1410 kcs is the voice of the great Pocahontas coalfields, which usually ships to the world's markets 30,000,000 tons of the finest bituminous coal. The station is 2612 feet above sea level. (Le Roy Swanson, R1152, Chariton Iowa)

WBNX has announced that they are using 5000 watts now...WHOM on 1450 kcs. will increase to 500 watts. WQXR will jump to 5000 watts on August 1...WOV has begun broadcasting from its new 350 ft. toploading antenna system on May 1. (Joseph Janata, Astoria, N. Y.)

WSLB on 1370 kcs. in Ogdenburg, N. Y. has tested a short time each morning for the past ten days. . . . WOLF is now conducting tests. They are located in Syracuse, N. Y. (Eugene Francis, Bronx, New York)

WBOW has changed to 1200 kcs. (Sam Cade, Franklin, Indiana—R1708) program director Ben Bezoff. The station uses 1260 kcs. and is now operating commercially. (Conrad J. Klauk, Buffalo, N. Y.)

WBHP's veri is signed by Victor C. Bankowsk. (H. H. Whittier, Mansfield, Mass.)

WTMV in East St. Louis is on daily from 7-1 a.m. . . WIL is on from 8 a.m. till 3 a.m. the following day. . . WEW schedules can be written in sevens, Daily 7 a.m. to 7 p.m. 7 days a week. (Walter V. Scholz, 2nd, R9, Mo. 1, Webster Groves, Mo.)

Bahama Islands: ZNS operating on 790 kcs. was heard on a Saturday night with R7 signal. They were heard at 7:30 with a relay of London. After the program, the announcer spoke, "This is Nassau calling," then a weather report was heard. (John D. Long, R1273, Ga. 5, Dalton, Ga.)

Canada: CKCD and CKFC are deleted. CJOR and CKWX have construction permits for 1 kw. with CKWX moving to 950 kcs. This might be changed if KFIO's application for 950 is granted. (William Cunningham, Hollywood, Calif.)

CFRC in Kingston, a 100 watter was heard with powerful signal and verified. (Harry M. Bracken, R1429, Yonkers, N. Y.)

CFCF sent a veri from CFCX in response to my request! (Theo. J. Neider, R796, Sea Cliff, N. Y.)

CKCD, CKMO, and CKFC have been ordered to cease broadcasting. CKCD has already done so. (James Dagg, R1539, British Columbia)

Newfoundland: VONF uses 10000 watts and VOWR is on 680 kcs! You might as well list VOMA, Battle Harbour, Labrador, as after all it is a station, no matter how small! (William Cunningham, Hollywood, Calif.)

Argentina: LRA on 750 kcs. tests often after 3 a.m. Power is 30 kw! (Harold Tear, R924, Roanoke, Va.)

Colombia: HJCR on 1200 kcs. heard at 4 a.m. when 1200 kcs. was clear. They use 5 kw. (Harold Tear, Roanoke, Va.)

HJBJ on 1140 kcs. in Santa Marta was heard from 2:35-2:56 a.m. This was a special test program and the average signal was R7-8. (James O. Weaver, Elkhart, Ind.)

HJAN is the call of the 1190 kcs. Colombian! (Norman L. Maquis, R636, Bethlehem, Pa.)

Thanks for a complete list of Columbian broadcast stations to Arthur Parfitt, Cleveland, Ohio.

Cuba: CMBY is on 1410 kcs. and never uses 1180 kcs. CMBX and CMBG are on 1180 kcs. . . CMKG is on 1150 kcs. and there is not any permission from the Cuban government to broadcast on 990 kcs. . . CMCH never has been on kcs., but

1050 kcs. Perhaps the reader has heard CMBH on 1580 kcs. off frequency. (Jose Carriazo, Jr., Havana, Cuba)

CMBZ and CMCU increase to 5 kw., and CMBG to 11/2 kw. . . CMJL is call assigned to Nuevitas station. while CMKB goes to the new one at Puerto Padre. . . Nine new Cubans owned by the Cadena Radio Habana: CMAN, Pinar del Rio (570), CMKV, Holguin (570), CMJN, Camaguey (610), CMKN Santiago de Cuba (640), and CMGN Jovellanos (740) are on the air. CMKU at Victoria Tunas (730), and CMKJ at Guantanamo (760) are still undner construction. CMHN at Santa Clara (730), and CMJM Ciego de Avila (870) are testing. . . . CMQ's new chain station are at Santa Clara and Santiago de Cuba. No call letters assigned as yet. . . CMAC at iPnar del Rio on 1030 kcs. with 100 watts is a new station. . . CMKE at Manzanillo is another new one to use 1310 kcs. with 200 watts. (William Cunningham, Los Angeles, Calif.)

Mexico: XEON on 920 kcs. with 2000 watts is a new one being heard. They sign off at 1 a.m. and give mailing address as Box 101, San Diego, Calif., or Box 115, Tiajuana, Mexico. . XEY on 1450 kcs. at San Luis, Mexico gives their mailing address as Yuma, Arizona. . XEAU on 1400 kcs. at Tiajuana is another new one. (Jim Wilson, R1639, Maywood, Calif.)

XERA, now on 960 kcs., and XEAW, now on 1020 kcs. are asking for reports. (Vernon Lee Gibbs, Jeffersonville, Ky.)

XENT's veri states that they are licensed for 150000 watts, but are using 75-100 kw. XENT's veri card shows pictures of studios and antenna towers. (Sam Cade, Franklin, Ind.)

XENT is heard on 900 instead of 910 kcs., XERA on 920 instead of 840 kcs., and XEAW on 1010 instead of 960 kcs. Is this the new reallocation already? (Mexican high power

border stations as not allowed under the new allocation, so this is evidently not part of the new frequency allocation plan—RL) (Don C. Johns, 1342 Campbell Ave., Desplaines, Ill.)

XEAZ in Reynost with 250 watts on 1490 kcs. is a new station. . . XEKF at Merida on 1450 with 100 watts is another new one. . . XEK and XEAF have increased to 1000 watts. . . XEDF moves to 1240 kcs. . . . XEAM and XEI change to 250 watts soon. . . XEBC, XEPN, and XEXD are deleted. . . XEH is using only 100 watts. Other stations using less power than authorized are XES—100 watts, XEBW—50 watts, XELO—10 kw., XENT—50 kw., XERA—180 kw. (Willfam Cunningham, Los Angeles, Calif.)

XENT veri card shows exterior view of XENT. (Joseph Janata, R843, Astoria, N. Y.)

XEAW reprots should be sent to XEAW, 912 Commerce St., Dallas, Texas. (Merlin Steen, R814, Decorah, Iowa)

XEL on 1150 kcs. heard many times in the early mornings with definite announcement. (James O. Weaver, R1397, Elkhart, Ind.)

XEIS on 1240 kcs. with 100 watts at Cananea is another new Mexican. The new XEON in Tiajuana on 920 kcs. is on the air as is XEAU... A broadcast band station of 1000 watts is being erected at Morelia by the owner of shortwave XEKW. The new station will work in parallel with XEKW. . . Although the State of Veracruz stations are "temporarily suspended", every indication is that they will be back with us again. They are still in the official list of Mexican Broadcast Stations. (William Cunningham, Hollwood, Calif.—2nd report)

### Tuning The TA's

All of the notes on European broadcast band radio are furnished

by two letters from Anton Jansen, Boskoop, Netherlands. Both letters, mailed before the invasion of the Netherlands did not reach here until after the papers carried the news of the plight of the little lowland country. No information has been forthcoming from RADEXER Jansen since that time, and it is ours as well as the hope of all DXers over here that he has suffered no harm or personal loss.

Bulgaria: "Radio Sofia" on 850 kcs. (100 kw.) usually transmits daily until 4:30 p.m. signing off with two Bulgarian national anthems. . Stara Zagora on 1402 kcs. with 2 kw. has same schedule. Station announcements are made in Bulgarian, French, and German. Announce in Bulgarian as "Radio Sofia, Stara Zagora, i Varna" . . . Varna on 1276 kcs. with 2 kw. also operates in parallel.

Czechoslavkia: Last month I mentioned that Troppau is apparently former Czechoslovak station Moravska Ostrava. Since then I have heard the Prague announce as "Praha, Moravska Ostrava." Apparenttly both stations are working in parallel —so there must still be a Moravska-Ostrava. . . It might be possible that the Banska Bystrica station on 392 kcs. is now called Moravska Ostrava and that the former Moravska Ostrava station is now called Troppau, and used as a relay transmitter for Breslau. As will be noted on a map. Troppau and Moravska Ostrava are very close to each other Geographically.

Denmark: Kalundborg on 240 kcs. is still operating normally as are all other Danish stations.

Finland: The frequency of Finnish broadcast stations have been shifted, but do not affect the stations in the rest of Europe as they merely interchanged wavelengths among them selves. Helsinki is on 1420 kcs., Turku is on 895 kcs., Vassa on 527 kcs., Pori is still on 749 kcs., Tampere is on 1528 kcs., Kuopio is on

527 kcs., and Pietersaari is on 1492 kcs. This leaves Jonsuu and Lahti for longwave stations on 967, and

1807 meters respectively.

Germany: Saarbrucken is apparenttly still operating and not out of service as mentioned in my last re-On announcement heard through Cologne, the stations as Stuttgart, Frankfort, Saarbrucken, Cologne and shortwave DXH-2 were mentioned as carrying the same program. . . . The Haupt lender Lodz I on the wavelength of he destroyed longwave station at Warsaw on 224 kcs. is 'no longer heard, and "Bremen II' is being heard on this frequency. It is more 'han probable that the transmitter was never at Lodz, but merely announced as such.

Norway: It has been announced in the radio publications that the evacuated Norwegian Government had installed a radio station on 519 kcs. with no power or location indicated. . . . Longwave station "Oslo" on 260 kcs. is again operating on normal schedule. . . At the moment of writing mot of the Norwegian stations are under German control except some of the smaller ones, such as Bodo. Tromso, etc.

France: Several of the French broadcast stations now broadcast only the programs of the French State Broadcasting system and no longer have programs of their own.

Iceland: A medium wave transmitter at Eidar should now be in operation on 615 kcs. with 1000 watts. Programs of the longwave station at Reykavik are picked up at Eidar on a high quality receiver and are then sent by cable to the transmitter which re-transmits them.

### TP Topics

British India: Stations operating here on the broadcast band are: VUP, Peshawar on 1500 kcs., VUL, Lahore on 1086 kcs., VUD-1, Delhi on 886 kcs.; VUB-1, Bombay on 1231 kcs.; VUW, Lucknow on 1022

(Please turn to Page 94)

# Way Paved For More Television Stations

Full commercialization of television was today promised by the Federal Communications Commission as soon as the engineering opinion of the industry is prepared to approve any one of the present competing television systems. Accordingly, the Commission will promptly license applicants to provide further experiments on the different systems on a comparative basis. Additional cities under consideration by the Commision for television facilities include San Francisco, Los Anegles, Chicago, Washington, Albany, Cincinnati, and Boston.

"There is no room for squatters" in the public domain occupied by television, says the Commission in announcing that these experimental stations will be apportioned among various parts of the country with the view of forestalling any concentration of facilities in particular centers of population to the exclusion of the rest of the country. To further prevent monoply and promote free competition, there will be strict limitation on the number of stations authorized to any one licensee.

The Commission expects the industry to insist upon such standards as will give definite assurance of satisfactory performance and continuity of service for the public comparable to the continuity of service displayed in the past history of the radio industry.

"Contrary to the experience of other industries which have found that technical improvements were stimulated by large public use, in the television field a major portion of the industry takes the view that successful promotional activities at this time can act only as an anchor on experimental efforts to go forward." Premature crystallization of standards, it adds, will "remove the incentive for technical research toward higher levels of efficiency"

Widespread public distribution of sets of a system operating on present levels, the Commission holds, will undermine incentive for further advance in television broadcasting and make frozen television standards an accomplished fact. Under present. conditions television transmission will satisfactorily serve only sets designed to receive the number of lines and frames and the type of synchronizing pulse transmitted. Due to this "lock-and-key" relationship of . the television transmitter and receiver, substantial changes cannot be brought about once widespread distribution of receivers operating on a particular combination of these factors has locked the system to that level. The Commission explains:

"It is this consideration that distinguishes the development of television from that of sound radio. At the time of the initial distribution of sound radio receiving sets to the public, these sets were capable of receiving all types of radio transmission then being considered. General public use and improvement in radio transmission and reception could,



George Cryder of Delaware, Ohio, an all-wave DXer for a little over two years. He has logged about 600 stations from 16 different countries; heard all states. On the shortwaves he has heard 76 different countries, verified all continents on shortwave broadcast, and verified five continents on the ham bands.

therefore, go forward together without any substantial risk that the distribution of receiving sets would result in freezing transmission standards to the then levels. However, since television receiving equipment adequate to receive transmission on one system would often be incapable or inadequate to receive transmissions by another system, the widespread distribution of such receiving equipment would tend to cause the particular system of transmission to which it is geared to become a firmly rooted and immobile standard."

In May of last year the Commission's Television Committee reported that television had not progressed to a point where it would be in the public interest to adopt standards, and, further that acceptance of any fixed standards would tend to check or retard further progress. Last November this same committee, while noting some progress in television, felt that the industry had not advanced beyond the experimental stage and cautioned that "no interests should be permitted to raise public hopes falsely, nor to encourage public investments where the state of scientific or economic development leaves any doubt that such hopes and expenditures are justified for the use of the public property in the radio spectrum."

A January hearing, which ran for eight days, "revealed a serious conflict of engineering opinion upon the question of standards among the representatives of various responsible elements in the industry engaged in important research and experimental work in the television field." Dissatisfaction with standards which had been proposed by the Radio Manufacturing Association was voiced by Zenith Radio Corporation, Allen B. DuMont Laboratories, and Philco Radio and Television Corporation, which were engaged in research on alternative proposals for which marked advantages were claimed. Defense of the RMA standards was assumed by the Radio Corporation of America and the Farnsworth Television and Radio Corporation, which claimed superiorities for the RMA system over other known alternatives.

Argument at the January hearing mainly concerned frame frequencies and numbers of lines required in making television pictures, and the type of synchronizing pulse used to transmit such pictures. The RMA proposal of a frequency of a fixed system of 30 frames per second and 441 lines per frame was challenged on the grounds that it does not permit a sufficient picture detail, and that it precludes development of larger pictures. Alternate suggestions involved (1) a flexible frame frequency range of from 15 to 30 frames and a range of between 441 lines and 800 lines per frame, and (2) a frequency of 24 frames per second with 500 lines or more per frame. There was also testimony that further research was under way to develop retentive screens intended to eliminate objectionable flicked and smear in the pictures.

"Although a divergence of engineering opinion existed with respect to the merits and demerits of the systems in question. members of the industry appearing before the Commission were in substantial unanimity of the need for the possibilities of improvement in these basic aspects of the television art." As a result, the Commission on February 29 issued a report based on the points raised, formally adopted rules without fixing standards, and opened television to restricted sponsored program service to begin September 1.

# 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.

3	uptract	I nour for Central, & nours	tor MC	ountain a	and 5 hours for Pacific.
4820	YV9RN	Barquisimeto, Venezuela. 11:30 am-1:30 pm; 5:30-9:30	5460	YNOP	Managua, Nicaragua. 8:30-
4005	TTTDD	pm.	5725	HC1PM	Managua, Nicaragua. 8:30- 9:30 pm; Sun. 2-3 pm. QQuito, Ecuador. Mon, Tues, Thurs, 8-10 pm.
	HJED	Cali, Colombia. 7 am1 pm; 7-10:30 pm.	5820	TIGPH	San Jose, Costa Rice. Noon-
	HJAE	Cartagena, Colombia. 7 am- 6 pm; 7-11 pm.	5830	TIGPH	San Jose, Costa Rice. Noon- 2pm; 7-11 pm. San Jose, Costa Rice. 7-10
4840	YV4RX VUC2	Cartagena, Colombia. 7 am- 6 pm; 7-11 pm. Maracay, Venez. 7-10 pm. Calcutta, India. 6:30 am-12 noon; Snuday, 7:30 am.		TIX	om. San Jose, Costa Rice. 10
4845	HJCD YV1RZ	Bogota, Colombia. 6-11 pm. Valera, Venez. 11:30 am-1	5875	HRN	pm-midnight. Tegucigalpa, Honduras. 6-11 pm.
	HJCF	pm; 5:45-8:45 pm. Bogota, Colombia. Weekdays,	5885	TGXI	Guatemala City, Guat. 8- 11:30 pm.
		7 pm-midnight.		H19B	Santiago, Dominican Rep. 6- 11 pm.
	YVIRL	Maracaibo, Venez. 11 am-1 pm; 4:30-10:30 pm.	5900	ZNB	Mafeking, British Bechuana-
	HJFK	Pereira, Colombia. 6-10:30 pm.	<b>59</b> 36	PJC1	land. 6-7 am; 1-2:30 pm. Curação, N. W. I. Sun. 10:36 am-12:36 pm; week-
4875	HJFH	Armenia, Colombia. 8-11 am; 6-10 pm.	5040	04.724	days 6:36-8:36 pm.
4880	YVIRM VUB2	Maracaibo, Venez. 7-9:30 pm. Bombay, India. 6:30 am- noon.		OAX2A HI1J	Trujillo, Peru. Tues, Thur, Sat, Sun, 7-10 pm. San Pedro de Macoris, Domi-
	YV6RU	Bolivar, Venez. Weekdays 6:30-9:30 pm.			nican Rep. 11:40 am1:40 pm; 6-8:30 pm.
4885	HJDP	Medellin, Colombia. 8 am-2 pm; 6-11 pm.	5968 5975	HVJ VONG .	Vatican City. St. John's Newfoundland. 4:30-9:30 pm.
4890	HJGD	Bucaramanga, Colombia. 5:30-6:30 am; 11:30 am-1		OAX4P CS2WD	Huancayo, Peru. 9-11 pm. Lisbon, Portugal. 3:30-6 pm.
	YV1RX	pm; 6-11 pm. Maracaibo, Venez. 10:30 am-		HH2S	Port-au-Prince, Haiti. 6:30- 9 pm.
4895	нјсн	Maracaibo, Venez. 10:30 am- 1:30 pm; 4:30-10:30 pm. Bogota, Colombia. 11:30 am-	•	ZEA	Salisbury, Southern Rhodesia. Sunday 3:30-5 am.
4900	YDA YV6RT	2 pm; 6-11 pm. Batavia, Java. 5:30 am. Bolivar, Venez. 5:30-9:30	6000	HP5K	Colon Panama. 7-9 am; 11:30 am-1 pm; 6-11 pm. Moscow, U. S. S. R. 3:30-
4905	HJAB	Barranuilla, Colombia. 11 am-11 pm; Sun. 11 am-8 pm.	6005	XEBT	4 pm. Mexico City, D. F. 10 am-
4910	YVIRY	Coro, Venez. 6:30-10 pm		VE9DN	1:45 am. Montreal P. Q.
	VUM2	weekdays. Madras, India. 5:30 am- noon.	6007	XYZ	Rangoon, Burma. Sat. 9:30- 11:30 pm; Weekdays 6:30-10 am; 9-11 pm.
	YV5RO HJCO	Caracas, Venez. 7-10 pm. Barranquilla, Colombia. 7:30- 10 pm.		ZRH	ca. 10:45 am-3 pm.
4950	YV4RD	Valcencia, Venez. Noon-1 pm; 6-9:30 pm.	6010	CFCX	Montreal, P. Q. 7:45 am-1 am; Sunday 9 am-11:15 pm.
<b>4955</b>	YV5RH	Caracas, Venez. 6:30-7:30 am; 10:30 am pm; 3:30-10		CJCX	4-8:30 pm.
4960	VUD2 YV5RS	pm. Delhi, India. 6:30 am-noon. Caracas, Venez. 4:30-9:30 pm.	6017	OLR2A PRA8 HI3U	Prague, Bohemia. Recife Brazil. 49 pm. Santiago, Dom. Rep. Sun. 12:30-2 pm; 5-6 pm; Week- days 7:10-8:55 am; 11:40
	YV1RJ YV3RX	Coro, Venez. 5:30-10:30 pm. Barquisimeto, Venz. 10 am- 9:30 pm.		нјсх	days 7:10-8:55 am; 11:40 am-1:40 pm; 4:40-6:40 pm. Bogota Colombia. 9-11:30
5010	YV5RM		6020	DJC	pm. Berlin, Germany. 11:30 am-
5020	YV4RQ	pm; Sunday 8 am-10:30 pm. Puerto Cabello, Venez. 7-8:30		XEUW	4:25 pm. Vera Cruz, Ver. C. 10 pm-
5035	YV5RN	pm. Caracas, Venez. 4-11:30 pm; Sunday 8-11:30 am; 3:30-			1 am.
5145	PMY	Sunday 8-11:30 am; 3:30- 10:30 pm. Bandoeng, Java, N. E. I.		CFVJ RV96	Calgary, Alta. 10 am-2 pm. Moscow, U. S. S. R. 1-7 pm; 8:30-9 pm.
		5:30 am-noon. F Prague, Bohemia.	6033	HP5B	Panama City Panama. 10:30 am-2 pm; 6-10 pm.

42					RADEX
6040 KZ	IB Manila 6 pm. pm-1 an	Beach, Fla. Sun. 4 Weekdays 1-3 pm;	l- 6148 9	3 ZTD	Durban, Union of S. Africa. Sun. 11:55 pm-3 am; Other days 11:45 pm-3:15 am.
W	RIII. Boston	Macc Sun 20 pm	;	HJDE	
6045 XE 6050 GS	TW Tampico A London,	ys 5:30-8:30 pm. o, Tams. 7 pm-1 am Gt. Britain. 12:25 5:40-11:30 am; 11:4.	ı <b>.</b> .	YSW	Medellin, Colombia. 9:30 am- 1 pm; 5-11:30 pm. San Salvador, E. S. 7-9:15
	5 am; am-6 pn	5:40-11:30 am; 11:4. n; 6:30-8 pm.	5 6150	HI5N	pm.
· HF 6055 HJ		n; 6:30-8 pm. Panama. 7-9 pm. Colombia. 9 am			Moca, Dominican Rep. 6:40- 9:10 pm.
VK	9MI S. S. "I	:30-10 pm. Kanimbla." Sun, Wed	6160	CJRO HJCD	Winnipeg, Man. 3:30 pm-1:30 Nueva Granada, Colombia.
6060 W	Thurs, 7 CAB Philadel	7-7:30 am. phia, Pa. Sun, Tues	. 6170	wcbx	11:30 pm. New York N. Y. Midnight to 2 am.
WI	8:30 pm 8:30 pm WO Cincinna	Colombia. 9 am :30-10 pm. Kanimbla." Sun, Wed :7-7:30 am. phia, Pa. Sun, Tues :0-11 pm; Wed. 6:30	6175	XEXA	Mexico City, D. F. 8-11 am; 2:30-4 pm; 7:30 pm-12:45
YD	6:30 pm	ati, Ohio. Sun. 8 am 1; Weekdays 5:45 am ng, Java, N. E. I	-	LRA2	am.
6070 CF	5:30 am	ı <b>.</b>	•		Buenos Aires, Argentina. Sat, Sun, 7-9 pm. Other days 6-9 pm.
6080 OA	am; Su	<b>n. 10 am</b> -11 pm.	6185	TIRCC	San Jose, Costa Rica. Tues, Thur, Sat, 6-7 pm; Sun. 8-
6090 CR	CX Toronto,	eru. 7 pm-midnight , Ont. Sun. 9:30 am om; Other days 6:45	6100	HI1A	10 pm.
KZ	am-4 pm	1			Santiago, Dom. Rep. 10:40 am-1:40 pm; 6:40-9:40 pm.
X E ZB	BF Jalapa, W2 Hong K	Philippines. 4-11 am. Ver. C. 8-9:30 pm. ong.	•	HVJ	Vatican City. Sun. 8:30-9 pm;9-9:30 pm; Sun, Wed,
ŽN	S2 Nassau, 3-4 pm;	Bahamas. 8-9 am; 7-9 pm.		KGEI	9:30-10 pm. San Francisco, Calif. Mid- night-3 am.
6095 JZH 6097 ZR		Japan. sburg, Union of S.	6193	TG2	Guatemala City, Guat. 7:30-
6100 WN	Africa.	3-7 am. Brook, N. J. 8:45	6195	H12D	10 am; 6-11:30 pm. Trujillo, Dom. Rep. 5:10-
' YU	om-1 am	1.	6200	CP5	7:10 pm. La Paz, Bolivia. 6:30-11 pm.
6105 HJ	2 pm; 2 FR Manizale	:20-4:20 pm.	6215	HI8Q	7:10 pm. La Paz, Bolivia. 6:30-11 pm. Trujillo, Dom. Rep. Saigon, French Indo-China. 7:30-9:45 am; 11:45 pm-1 am.
0100 11,1	5:30-11 pm: Oth	pm; Sun. 2:30-5 pm; her days 5:30-10 pm. City, D. F. 11 pm-1		****	
6110 XE	am.	1		HRD	La Ceiba, Honduras, 8-11 pm.; Sat. 8 pm1 am; Sun.
6112 HI6	H Trujillo, pm.	Dom. Rep. 5-8:30	6245	HIIN	4-6 pm. Ciudad Trujillo, D. R., 5:10-
6116	Saigon, 12:15-12:	French Indo-China. :45 am; 6-10:15 am.	6255	CPI2	Ciudad Trujillo, D. R., 5:10- 9:40 or 10:10 pm. La Paz, Bolivia. 7-9 pm. Trujillo City, D. R., 6:40- 8:40 am., 11:40 am2:10
6117 XE	OZ MEXICO	City, D. r. 9 am-1	0200	HIIG	8:40 am., 11:40 am2:10
6120 WC	BX New You	m-2 am. ork, N. Y. Midnight am.	6300	OAX4G	pm., 3:40-9:40 pm.
6122 HP	10:30 pm	City, Panama. 6-	6310	HIIZ	
6125 MT	9:30 am.	g, Manchukuo. 8:30-	6330	cocw	pm., 5:10-7:40 pm. Havana, Cuba, 7:55 am 12:15 am.; un. 9:55 am.12:15
0130 C11	11:30 t	N. S. Sat. 8 am- om; Sun. Noon-11 her days 6:45 am-	6335	OAXIA	Dm.
HS4	11:15 pm	1.		HIIX	Ica, Peru. 8-11 pm. Ciudad Trujillo, D. R., Sun. 7:40-9:40 am., daily 8:10-
TIE	M San Jose	Thailand. 8-10 am. c, Costa Rica. Sun. pm; Weekdays 11	6345	HH3W	10:10 pm. Port-Au-Prince Haiti -2 7-
VLV	am-11 pn V Perth. A	n. Justralia.		HRPI	9 pm. Sun. 5-8 pm. San Pedro Sula, Hondruas,
6132 COC	D Havana, pm. We	Cuba. Sun. 5:30-8 eekdays 9 am-10:30			6-7:30 am., 2-4 pm. Havana Cub. 6:50 am.1 am.
6135 FK8	pm. AA Noumea,	New Caledonia.		COCO TIWS	7:40-9:40 am., daily 8:10-10:10 pm. Port-Au-Prince, Haiti, -2, 7-9 pm. Sun. 5-8 pm.! San Pedro Sula, Hondruas. 6-7:30 am., 2-4 pm. Havana Cub. 6:50 am.1 am. Puntarenas, C. R., 5-7, 7:30-10 pm.; Sun. 5-6 pm. Basseterre, St. Kitts, 4-4:45
6137 CR7	2:30-3:30	am.	6384		pm., Wed. 7-7:30 pm.
1	que. Sur 1:15 pm	Marques, Mozambi- n. 5-7 am; 10 am- n; Weekdays Mid-	-	HI9B	Santiago, D. R., 7:40-8:40
6140 OQ2	night to AA Leopoldy	n; Weekdays Mid- 1 am; 4:30-6:30 am. ille, Belgian Congo. :30-7 am.	6396	COX7	pm. Havana, Cuba. 2-3, 6-10:30 pm.
KZR	.r manna,	:30-7 am. Philippines. 4:30-11		mac :	Fri. 8-11 pm. Sat. 8 pm1 am.; Sun. 7:30 am3 pm.
WPI		h, Pa. 9-10 pm; 11	6400 6430	TGOA HIIS	Fri. 8-11 pm. Sat. 8 pm1 am.; Sun. 7:30 am3 pm. Quezaltenango, Guat. Mon Santiago, D. R., 5:40 9:10 pm. Ex. Sun.
	pm-1 am.			1	om. Ex. Sun.

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RADEX			43
H14V	San Francisco De Macoris, D. R., 11:40 am1:40 pm., 5:10-9:40 pm.	7250 YDA	Tandjonkpriok, Java, N. E. I. Sat. :30 pm-2 am; other days 10:30 pm-2 am.
6455 COHI	Santa Clara, Cuba. 6:42 am 12:15 am.	7258 JVW 7260 CSW8	Tokyo, Japan. 2-4 pm.
6457 TGWB	Guatemala City, Guat. Daily		Thurs Set 5 6 pm
	7:45-9 am. 12:45-3:45 pm., 7:30 pm. 12:15 am. Sun. 10:30 am5:15 pm., 7 pm12 pm.	GSU 7270 DXM 7280 TPB25	London, Gt. Britain. Berlin, Germany. Paris, France. 1-4 am; 10:15 am-4:15 pm. Managua, Nicaragua. Sun.
6500 HIIL	Santiago De Los Caballeros, D. R., 5:30-9:30 pm. ex. Sun.	7284 YN1IP	10-11 am.
6540 YNIGG	Managua, Nicaragua, 1-2:30,	7290 DJI 7295 JIE 7310 VIG	Berlin, Germany. 5-5:15 am. Tawan. 9-10:30 am. Port Moresby, Papua. Sat.
TIRCC	Managua, Nicaragua, 1-2:30, 8-10 pm. Except Sun. San Jose Costa Rica. Sun.	7310 VIG	Port Moresby, Papua. Sat. 3-5 am.
	San Jose Costa Rica. Sun. 11 am2 pm., 6-7, 8-9 pm. Daily 12 uoon-2 pm., 6-7 pm., Thurs. 6-11 pm.	7380 XECR 7410 HCJB4	Mexico City, D. F. Sun. 6-7 pm. Quito, Ecuador. 7-9:30 pm.
6550 XBC	Vera Crutz, Ver. C. 8:15-9	7440 FG8AH	Pointe-a-Pitre, Guadelonpe. Sun. 9:30-11 am; Daily 6-7
6558 HI4D	Ciudad Trujillo, D. R., 12:30- 2, 6-8 or 9 pm. Except Sun.		pm.
6565 HI5P	Puerto Plata, D. R., 5:40-7:40, 9:40-11:40 pm.	7450 TI2RS 7490 EAJ43	San Jose, Cost Rica. 7-11 pm. Tenerife, Canary Islands. 7-8 pm.
6610 YNLG		7520 KKH	Kahuku, Hawaii. Sat. Sun.
6625 PRAGO	Managua, Nicaragua. 1:30- 2:30, 6:10:15 pm. Rio Bamba, Ecuador, Thur.	7614 CR6AA	8:30-9 pm. Lobito, Port. West Africa. Mon. Wed. Sat. 2:30-4:30
6630 HIT	9-11:45 pm. Ciudad Trujillo, D. R., Daily exc. Sun. 12:40-1:40 pm., 4:40-8:40 pm; also Sat. 10:40	TACO NAIDO	pm., Leon. Nicaragua. Weekdays
	4:40-8:40 pm; also Sat. 10:40 pm12:40 am.	7660 YNDG	8:30-9:30 pm.
6635 HC2RL	pm. 12:40 am. Guayaquil, Ecuador. Sun. 5:45-7:45 pm., Tues. 9-15- 11:15 pm. Geneva, Switzerland. Sun. 1:45-2:45 pm.	7797 HBP 7854 HC2JSB	2 pm; 4-11 pm.
6675 HBQ	11:15 pm. Geneva. Switzerland. Sun.	7870 HC1RB	Quito, Ecuador. 3:30-11:30 pm.
6695 TIEP	1:45-2:45 pm. San Jose, Costa Rica, 7-	7894 YSD	pm. San Salvador, El Salvador. 7-10:30 pm.
6720 PMH	Midnight.	7968 HSP6	San Salvador, El Salvador. 7-10:30 pm. Banngkok, Thailand. 7-11 am.
0,20 11111	Bandoeng, Java, N. E. I. 4:30-11 or 11:30 am. Also Sat. 8:30 pm1:30 am.	8200 PSK	Rio de Janeiro, Brazil. 5:45-
6730 TI3C	La Romana, Dom. Rep., 4:55-8 pm.	8580 YPR ·	7 pm. Maagua, Nicaragua. 12:45- 2:15 pm; 6:45-10:15 pm.
6760 YNRF	Managua, Nicaragua, 6:40-	8665 W2XGB	Hicksville, N. Y. 9 am and 5 pm.
6760 HI7P	10:40 pm. Ciudad Trujillo, Dom. Rep., 7:10-8:40 pm. Sun. 9:40-	8700 COCO	Havana, Cuba. 7:50 am-12:50 am.
6800 PZH	10:40 pm. Paramaribo, Surinam. Sun.	HKV	Fri. 7-7:20 pm.
	8:40-10:40 am. Tues. & Fri. 5:40-8:40 pm. 1st & 3rd	8830 COCQ	Havana, Cuba. 7:30 am-mid-night.
6810 HIH	Thurs. monthly 6:40-8:40 pm. San Pedro De Macoris, Dom.	8960 TPZ2	Algiers, Algeria. Tues. 12:30-1:30 pm.
	Rep., 7-9:40 pm. Sun. 5:20-6:40 pm.	8960 COKG 9030 COBZ	Havana, Cuba. 7:45 am.12
6847 YNOP	Managua, Nicaragua, 8-9:30 pm.; Sun. 2-3 pm. Hankow, China 6-8:35 am. Trujillo City, D. R., 7:40-	9125 HAT4	Santiago, Cuba. 5-9:50 pm. Havana, Cuba. 7:45 am.12 mid. Sun. 7:45 am.1 am. Buadpest, Hungary, Daily 7- 8:30 pm. Sat. 6-7:30 pm.
6850 XOJD 6900 H16H	Hankow, China 6-8:35 am. Truiillo City. D. R., 7:40-	9130 HC2W	
6960 2ZB		9175 HCIGO	Ouito, Ecuador. Mon. Wed.
6977 XBA	Wellington, N. Z., Mid7 am. Tacubaya, D. F., 9:30 am 1 pm., 7-8:30 pm.	9190 HC2ET	
7010 XPSA	Kweiyang, China. 5:30, or 6-11 am. 5-6 pm. Papeete, Tahiti. Tues. and	9200 COCX	Guayaquil, Écuador. 8-10 pm. Sun. 8:30-10:30 pm. Havana, Cuba. 8 am.12 mid. Sunday Island. 1:45-2:15 am.
7100 FO8AA	Papeete, Tahiti. Tues. and	9200 ZMEF	Sunday Island. 1:45-2:15 am. Irreg.
7177 GR6AA	Fri. 11 pm-12 mid. Lobito, Portuguese West Africa. Mon. Wed. Sat. 2:45-	9205 PYA2	Rio De Janeiro, Brazil. 5-6
#010 CT C	4:30 pm.	9225 COCY	Hayana, Cuba. 8 am 12 mid. Sun. 8 am10 pm.
7210 2RO 7220 EAJ9	Rome, Italy. 6-7:55 pm. Malaga, Spain. 4-6 pm.	9230 COCY	Havana, Cuba. 12 noon-12 midnite.
HAD	Bodapest, Hungary, 9 pm-	9234	Bucharest, Roumania. 12:02-
YDX	midnight. Medan, Sumatra, N. E. I. Sat. 7:30 pm-1:30 am; Other	9295 HI2G	7 pm. Cuidad Trujillo, D. R. 6:40-
	days 10:30 pm-2 am; 6-10:30 am.	3	8:40 am., 11:40 am.2:10 pm., :40-4:40 pm.

44				RADEX
9340	OAX4J	Lima, Peru. 12 noon-3 pm.,	9570 VUM2 M	ladras, India. 9-10:30 pm., 2:30-4 am.
9345	$_{ m HBL}$	5 pm. 12 midnight. Geneva, Switzerland. Mon., Wed., 8:45-10:15 pm. Havana, Cuba. 7 am. to 12	9580 VLR	Melbourne, Australia. 2:30-
9375	COBC	Havana, Cuba. 7 am. to 12	9590 VK2ME	9, 9-9:30 am. Sydney, Australia. Sundays
9440 9440 9445	OAX5C COCH HCODA	Hayana, Cuba. 7 am. to 12 mid. Sun 7 am10:30 pm. Ica, Peru. 7-11:30 pm. Hayana, Cuba. 6:40 amGuayadquil, Ecuador. 8:15-10:15 pm., exc. Sun. Ankara, Turkey. Daily 10:30 am4:30 pm. St. Johns. Newfoundland.	9590 WCAB	Sydney, Australia. Sundays only, m2 am., 5-8:30 am. Philadelphia, Pa. Mon., Thurs. & Sat. 6:30 pm.2 am., Wed. 9 pm2 am. Delhi, India. 6:30 am12:05 pm. 5pm.12 m., Mon., Tues., 1-4:10 am. Wed. 2-4 am. Thur., Fri., Sat. 1-3:30 am. Sat. 5 pm3:30 am. Sat. 5 pm3:30 am. 12:30.4:30.
9465	TAP	Ankara, Turkey. Daily 10:30	9690 VUD2	pm. 5pm.12 m., Mon., Tues.,
9475	VONG	am4:30 pm. St. Johns, Newfoundland. 8:30 am.1:30 pm. 4:30-9:30		1-4:10 am. Wed. 2-4 am. Thur., Fri., Sat. 1-3:30 am. Sat. 5 pm 3:30 am.
9492	KZIB	pm.	9595	5.6 pm
9501	PRF5	and 6-11 pm. Rio De Janeiro, Brazil.	9600 CB960 9600 RAN	Santiago, Chile. 8-11:30 pm. Moscow, U. S. S. R. 3-7, 7-3:30 pm. 8:30-9 pm.
9503	XEWW	4:45-5:55 pm. Mexico City. 7:45 am12:30	9607 HP5J	Panama City, Panama. 7-8
9505	YUD	am. Belgrade, Yugoslavia. 11:20		Panama City, Panama. 7-8 am., 12 noon to 1:30 pm., 6:30-10:30 pm.
9510	••••	Am. 4:20 pm., 8-9 pm. Hanoi, French Indo-China.	9610 DXB	7 pm1 am.
9510	нѕ8нЈ	am.4:20 pm., 8-9 pm. Hanoi, French Indo-China. 12 m2 am., 6-10 am. Bangkok, Thailand. Daily Ex. Mon. 7-10 am.	9615 ZRL	Klipheuvel, South Africa. Daily, exc. Sat. 11:45 pm. 2:50 am. Daily exc. Sun. 3:20-7:20, 9-11:45 am., Sun. 3:30-4:30 or 4-5, 5:30-7, 9-
9510	GSB	Daventry, Gt. Britain. 12:57-3:15 am., 3:50-6; 6.24-9:15, 9:37 pm12:30 am.		
9517	XEDQ	Guadalajara, Tal. No-4:30	9620 TIPG	San Jose, Costa Rica. 7-9:30 am., 12-2, 6-11:30 pm.
9520	RV96	4:30 pm., 1pmmidnight. Moscow, U. S. S. R. 1-6	9625 HAD 9625 CXA6	San Jose, Costa Rica. 7-9:30 am., 12-2, 6-11:30 pm. Budapest, Hungary. 6-9 pm. Montevideo, Uruguay. 10:30 am12:30, 3:30-9:30 pm.
<b>9</b> 520		pm. Paris, France, 4:30-7:45 pm. 8 pm1:45 am.	9630 HICT	am12:30, 3:30-9:30 pm. Bogota, Colombia, 6-11 pm.
9523	ZRG	Roberts Heights, S. Africa. Daily 5:15-9, 11 amnoon. Sun. 6-9, 10:40 am-1:30 pm. Hongkong. 5-10 am., 11:30 pm.1:15 am. Sun 5-9:30 am.	9630 HJCT 9630 JFO 9630 I2RO3	Bogota, Colombia. 6-11 pm. Taihoku, Taiwan. 4-10:30 am. Rome, Italy. 1-2 am. 12:07- 2:35, 4:15-4:45 pm., 6-9 pm.
9525	ZBW3	Hongkong. 5-10 am., 11:30 pm.1:15 am. Sun 5-9:30 am.	9635 KZRH 640 CXA8	Manila, Philippines. 4-11 am. Colonia, Uruguay. 5 am
·9528	VUC2	Calcutta, India. 10-11 pm., 12 m1 am., 2-4 am. Sat. 10 pm2 am.	9645 VLW2 9645 XGOY	10:45 pm. Sat. to 1 am. Perth, W. Aust (6-11 am. Szechwan, China. 1-3, 8-9:30
9530	WGEO	Schenectady, N. V. 3-6 pm.	9645 XGOY	Szechwan, China. 1-3, 8-9:30 am.
9535 9535	JZI SCU	6-11:45 pm. Tokyo, Japan. 7-9:30 am. Motala, Sweden. 4:35-5:05 pm. 8-9 pm.	650 CR7BE 9650 DJV	Lourenco Marques, Mozambique. 7-8 am. 2-4 pm. Berlin, Germany. Irreg. 4:50
9538	VPD2	Suva, riji. 5:50-7 am., exc.		pm1 am
9540	DJN	Sun. Berlin, Germany. 12:05-2:30,	9650 I2AA	Addis Abea, Ethiopia. 3:30-5:30 am. Sun. 2:30-5:30 am. 8 am2:30 pm.
9550	YDB	Berlin, Germany. 12:05-2:30, 9:30-11 am., 4:55-10:50 pm. Soerabaja, Java, N. E. I. Daily exc. Sat. 6-9 pm., 10:30 pm2 am4:30-10:30 am. Sat. 7 pm. 2 am. Vera Cruz, Ver C. 7:30 pmMidnight	9650 WCBX	8 am2:30 pm. New York City. 10:30-11:30 pm.
		pm2 am4:30-10:30 am. Sat. 7 pm. 2 am.	9600 HVJ	Vatican City. Sun. 5-5:30
9556	XEFT	Vera Cruz, Ver C. 7:30 pm- Midnight.	9660 LRX	8:30-9:45 pm. Buenos Aires, Arg. 5:30-
9550	OLR3A	Midnight. Prague, Bohemia. Irreg. 4:40-5:10 pm.	9665	6:45 am., 10:15 am11 pm. Rome, Italy. 1-6:30, 7:30-9
9550	WGEA	om.	9760 WRCA	pm. Bound Brook, N. J. 4 pm
9550I	Ι <b>V</b> J	pm. Vatican City. Sun. 5-5:30 am., 8:30-9:45 pm. Wed. 2:30-3 pm. Thur. 8:30-9:45	9675 DJX	l am. Vienna, Germany. 10:40 am 4:25 pm.
9550	TPBII	pm. Paris. France. 11:15 am7	9675	Saigon, Indo-China. 7:30- 9:45 am.
,	OAX4T	pm., 9:30 pmmid. Lima, Peru. 7-8, 11:30 am	9680 VLQ	Sydney, Australia. 2-4, 6:30-7, 7-8, 8:15-8:45, 10:30-11:30
		1:30 pm.	9680 TPC23	am.
9560 9570	XEFA XGAP WBOS	Monterrey, 10 am. Midnite. Peiping, China. 4 -9 am. Boston, Mass. 6-9 am. 3 pm1 am.	9680 XEQQ 9680 GSC	Paris, France. 6-7:45 pm. 8 pm12:30 am. Mexico, D. F. 5 pm1 am. Daventry Ct. Britain 12:57
9570	KZRM	Manila, P. I. Weekdays 4:30- 6 pm. Sat. 5-10 am., Sun. 4-	9000 GSC	Mexico, D. F. 5 pm1 am. Daventry, Gt. Britain. 12:57- 1:45, 11:52 am3:30; 3:50-6 pm., 6:25-9:15, 9:37 pm 12:30 am.
9570	CXA2	10 am. Montevideo, Uruguay. 11 am4, 4:30-9:30 pm.	9685 TGWA	Guatemala City, Guat. Near 12:30 am.

KADI					כד
<b>9</b> 690	LRA1	Buenos Aires, Arg. 10:30 am- 1 pm; 2:30-3:30 pm; 4-9 pm.	11718	CR7BH	Laurenco Marques, Portuguese E. Africa. Daily 12:05-1, 4:30-6:30, 9:30-11 am., 12:05-
9692	TI4NHR	Heredia, Costa Rica. Tues. Thurs. Sat. 9-10 pm; Sun. 7-8 am.			4 pm., Sun. 4-/ am., 10 am
9690	CRX	London, Gt. Britain, 12:25- 5 am; 11:50 am-8 pm.	11718 11710		Paris, France. 1-5:15 pm. 6:-7:45, 8 pm12m. San Salvador, El Salvador.
9695 9703	JIE3	Tyureki, Taiwan. 9-10:20 am. Fort de France. Martinique.	11710		1-2. 7-9:30 Dm.
	HJCF	6-8:10 pm. Bogota, Colombia. 7-11 pm.		CBII70	Saigon French Indo-China. 7:30-9:45 am. Santiago Chile. 10 am2 pm.,
9730	CB970	Valparaiso, Chile. 7 am- 11:30 pm.	11700	HP5A	3:30-Midnight. aPnama City, Panama. 7- 10:40 am. 5-10:45 pm. Sun.
9740	HJFK CSW7	Pereira, Colombia. 7-9 am. L is b o n, Portugal. Tues.	11700	IQY	6-10:45. Rome, Italy. 5:20-5:40 am. 1:50-2:30 pm. Canton, China 7-9 am.
		Lisbon, Portugal. Tues. Thurs. Sat. 3:40-4 pm. Daily 4-5:30 pm; 5:45-9 pm.	11650	XGOK	Canton, China 7-9 am. Wed. 6:45-8:15 pm. Tues.
9750	HJ6FAH	Armenia, Colombia. 8-10:30 am; 510:30 pm.	11402	нво	Geneva, Switzerland. Mon., 12:45-2:15 pm. Sat. to 2 pm. Winnipeg, Canada. 4 to 8:30
9780	HH3W	Port-au-Prince, Haiti. Sun. 1-2 pm; 5-8 pm; Other days 1-2 pm; 7-9 pm.			pm.
9815	IRF	Rome, Italy. 5:20-5:40 am; Noon - 12:25 pm; 1:50-2:30	11040		Lisbon, Portugal. 12-3:30 pm. Sun. 10 am3:30 pm.
		pm; 6-7:25 pm.	11000	FLF	Bandoeng, Java. 6-9 pm. 10:30 pm2 am., 4:30-10:30 or 11 am. Sat. until 11:30
	COCM	Havana, Cuba. 8 am-mid- night.	10950	FIQA	
	XGSE	Somewhere in China. At 7	10660 10660	JVN	45, 10-11 am., 2:30-4 am. Nazaki, Japan. 1:50-7:40 am.
9892	EAQ CP1	Madrid, Spain. 5-7:30 pm; 7:45-8:50 pm; 8:50-11:30 pm. Sucre, Bolivia. 11 am to	10660	Z1K2	Tananrive, Madagascar. 12:30-45, 10-11 am., 2:30-4 am. Nazaki, Japan. 1:50-7:40 am. Belize, Br. Honduras. Tues., Thurs., Sat. 1:30-2, :30-9
	JDY COBC	Sucre, Bolivia. 11 am to noon; 7-9 pm. Dairen, Manchukuo. 7-8 am.	11900	XEWI	pm. Mexico City, Mexico Mon., Wed., Fri. 3-4 pm., 9 pm 12 m. Sat. 9 pm12 m., Sun.
		Havana, Cuba. 6 am-mid- night. e			12 m. Sat. 9 pm12 m., Sun. 12:30-2 pm.
	TIEM	San Jose, Costa Rice. 4:30- 8 pm.	11895		7 am., 4-6 pm.
10070	••••	Deutsche Freiheitssender. Somewhere in Germany (?).	11885 11880		
10220	PSH	4-5 pm. Rio de Janeiro, Brazil Mon. 8-8:30 pm; Fri 7-7:30 pm; Other days 6-7 pm. Berlin, Germany. 3-3:10 pm;		WPIT	Paris, France. 4:45-7:45 pm. 8 pm-12 m.
10290	DZC	Other days 6-7 pm. Berlin, Germany. 3-3:10 pm; 6:30-9 pm.	1170 \		Pittsburgh, Pa. 3-9, 10-11 pm.
10350	LSX EAJ43	Buenos Aires, Arg. Tenerife, Canary Islands, 3-		VLQ2	Madras, India. 8:45 am. Syndey, Australia. 2:30-3:30
10000	2213 10	Buenos Aires, Arg. Tenerife, Canary Islands. 3- 4:30 pm; 5-7 pm; 7:45-8:45 pm; 9-10 pm. San Salvador E E 6:30-11	11860	GSE	am. Daventry, England. 5:40- 11:30 am. 6:25-9:15 pm.
10400		Dali Dalvadol, 15. 15. 0.00-11	11855	хмна	Shanghai, China, Wkdvs. 11
	2RO15	Rome, Ialy. 11:40 am2:40 pm., 3-3:30, 5:30-6 pm.	11855	DID	pm1 am., 5-11 am. Sat. 10 pmSun. 11 am.
	TGWA OLR4B	pm. Rome, Ialy. 11:40 am2:40 pm., 3-3:30, 5:30-6 pm. Guatemala City, Guat. 10-11:30 pm. Sun. 6-11:30 pm. Prague, Bohemia. Daily exc. Sun. 8:25-10:05 am.		VLR3	Berlin, Germany. 12:05-2 am., 4:50-10:50 pm. Melhourne Australia 3:30
11750	GSD	Sun. 8:25-10:05 am. Daventry, England, 12:57-5.	11850	HAD	Melbourne, Australia. 3:30 pm2:15 am. Also 6:35-7 am. Budapest, Hungary, 3-6 pm.
,==,00		Daventry, England. 12:57-5, 9-1-1:30 am. 11:52 am.3:30, to N A. 3:50-6, 6:24-9:15 9:15 pm., 9:37 pm12:30 am. Vatican City. 2-5:55 m.,		CBII85	Budapest, Hungary. 3-6 pm. Santiago, Chile. Sat. 6-11 pm.
11740	HVJ	9:15 pm., 9:37 pm12:30 am. Vatican City. 2-5:55 m.,	11845		Paris, France. 10:30 am5
11740	CBII74	Weds9:30 pm. Santiago, Chile. 6-11 pm. Sun. 6-10:30 pm.	11840	OLR4A CSW	Prague, Bohemia. 6:55-10:15 pm. Lisbon Port. 11:30 am1:30
11740	CR6RC	Loanda, Angola. 6:30-7:45 am. Tues., Wed., Sat, 3:30-	11830	VLW3	Perth W. Australia. 1-5 am.
11735	YUE	Loanda, Angola. 6:30-7:45 am. Tues., Wed., Sat, 3:30- pm., Sun. :30 am1 pm. Belgrade, Yugoslavia. 7-9:05		WCBX XEBR	6:30-10 pm.
11730	WRUW- WRUL	Boston, Mass. Sun. 2-8 pm.;		CXA14	Hermosilia, Son. 10 am4 4 pm., 8-10:30 pm. Colonia, Uruguay. 3:30-9:20
11725 11720	JVW3 ZPI4	Tokqo, Japan. 1-7 am. Villarica, Paraguay. Mon. to		ZRO4	pm.
		Tokqo, Japan. 1-7 am. Villarica, Paraguay. Mon. to Fri. 4-8 pm.; SatSun. 11 am6 pm.	•		Rome, Italy. 4:30-9, 10 am2:30 pm., 6-7:25, 7:30-9 pm. to N. A.

46			10 10 11
11801 DJZ	Berlin, Germany. 4:50-10:50	11945 CBII80	Santiago, Chile. 7-8 am., 4:50-11 pm.
11880 JZJ	pm. Tokyo, Japan. 12-1:30 am.	11940 TI2XD	San Jose, Costa. 7:30 am
11880COGF	Tokyo, Japan. 12-1:30 am. 7-9:30 am., 2-4 pm. Matanzas, Cuba. 9 am11:30 pm.	11910 CDI190	noon, 4-10 pm. Valdivia, Chile. 10 am1 pm., 5-10:30 pm
11800 XGOK 11790 WRUL	Canton, China. 6-8:35 am. Boston, Mass. 2-5 pm. Sat.	11900 XGOY S	Szechwan, China. 5:30-7:35, 7:40-9, 9:40-11, 11:10-11:50 am. 2-4:20, 4:30-6:20 pm.
11780	am.	17310 W2XGB	Hicksville, L. I., N. Y. Tests 9:30-11:30 am. except Sat.
11780 HP5G	Panama City, Panama. Noon- 1 pm., 6-10 pm.	17280 FZE8	and Sun.
11775 MTCY	Hsinking, Manchukuo. 1:30-2:20 to N. A. Also 9:50-10:55 am., 4-4:50 pm.	17289 FZE8 15410 RV96	Djibouti, French Somaliland. Thurs. 8-8:30 am. Moscow, U. S. S. R. 5-7:30 am., 8-55-10:30 pm.
11770 ZTE	Durban, So Africa. 3:30- 11:45 am. exc. Suns. Sun. 3:55-11:45 am. Also, 11:45	15370 HAS3	am., 8-55-10:30 pm. Budapest, Hungary. Sun. 9- 10:30 am.
	pm2 am.	15430 DJR	Berlin, Germany, 12:05-11
11770 DJD	Berlin, Germany. 10:45 am 4:25 pm., 4:50 pm1 am.	15330 KGEI	am., 4:55-10:50 pm. San Francisco, Calif. 6:30- 11:15 pm.
15170 TKWA	Guatemala City, Guat. 12:45- 1:45 pm.; Sun. 1:45.5:15 pm.	15330 WGE.	Schenectady, N. Y. 8 am6 6 pm.
15160 JZK	Tokyo, Japan. 4:30-5:30, 8-9	15325 JLT3 15310 GSP	Tokya, Japan. 9-10:30 pm. Daventry, England. 2-5 am., 11:52 am1:25 pm. 1:30-
15160 XEWW	Mexico City, Mexico. 12 n		3:30, 3:50-6 pm.
15155 SBT 16150 YPC	Mexico City, Mexico. 12 n 12 m., irregular. Motala, Sweden 1-4:30 pm. Bandoeng, Jaya. 6-9 pm.	15310 PDB	3:30, 3:50-6 pm. Soerabaja, Java, N. E. I. 10:30 pm.2 am., Sat. 7:30 pm2 am.
	Randoeng, Jaya. 6-9 pm. ex. Sat. 10:30 pm2 am., Sat. 7:30 pm2 am., daily 4:30-10:30 am. Dayentry, England 2:18-5, 5-40 8-45 9-11:30 am. 3:50-	15300 2RO6	Rome, Italy. 4:10-4:55 am.; 10 am12:06 pm; 1-2:15, 5- 9:25 am., 11 am6 pm. 8:15- 10:10 pm.
15140 GSF	3.40-6.43, J-11.00 ami, 0.00	15295 TPB4	Faris, France. 3-3.30, 7.30-
15135 JLU3 15130 TPB	6 pm. Tokyo, Japan. 8-9:30 am. Paris, France. 11:30 am	15290 VUD3	8 am. Delhi, India. 8-10:30 am, 11:30 am2:30 pm., 9:20 pm.12 m; Mon. 1-4 am.;
	12:30 pm. Boston, Mass. 2-5, 8:45- 10:30 pm.; Sat. 3-5 pm., Sun. 10 amnoon.		pm.12 m; Mon. 1-4 am.; Tnes. Thurs., Fri., Sat., 1-3:30 am.; Wed. 2-4 am.; Sat. 9:30 am3:30 am.
15120 CSW4 15120 HVJ	10 amnoon. Lisbon, Portugal. 7-9 am. Vatican City. Tues. 8:30-9, 10-10:30 am., Suns. 1-1:30 pm. Wed. 8:30-9 pm. Berlin, Germany. 12:05-2 am., 10:40 am. 4:25 pm.	15290 LRU 15280 DJQ	Buenos Ares, Arg. 8-10 am. Berlin, Germany. 12:05-11:10
15110 DJL	pm. Wed. 8:30-9 pm. Berlin, Germany. 12:05-2	15270 WCBX	New York City. Daily exc. Sat. and Sun. 1-3:30 pm.,
15100 2RO12	7.30-9 nm.	15270 HI3X	Sun 1-2:30 pm.
15040 RKI	Moscow, U. S. S. R. 7-8:30 pm. 8:30-9 pm.		7:40-9:40 am. Tues. and Fri.
14940 PSE	Rio De Janeiro, Brazil. 0-7	15270 WCAB 15260 GSI	7:40-9:40 am. Tues. and Fri. Phila., Pa. 12 n.6 pm. Daventry, England 12:57-5 am., 11:52 am3:30 pm.
14920 KQH	pm., Thurs. 3-3:30 pm. Kahuku, Hawaii. Sats. 8:30- 9 pm. Sun. 9-9:30 pm. Rome, Italy. 4:30-5 am. Nazaki. Japan. 4-8 am.	15250 WRUL	am., 11:52 am3:30 pm. Boston, Mass. Daily exc. Sat. and Sun. 10 am11 am.
14795 IQA	Rome, Italy 4:30-5 am.	15245 TPA2	Sat. and Sun. 10 am11 am. Paris, France. 5-10 am.
14600 JVH	Geneva Switzerland, Wed.	15240 YUF	Belgrade, Yugoslavia. 7-8
14460 DZH 14420 HCIJB	6:45-8:15; 8:40-10:15 pm.  Berlin Germany. 7-10:50 pm.  Ouite Fauld or 7-8:15	15240 CR7BD	pm. Lourenco Marques, Mozambique, 4:30-6:30, 9:30-11
	10:15 pm. Exc. Mon.	15210 WPIT 15200 DJB	am., noon-4 pm. Pittsburgh, Pa 8 am3 pm. Berlin, Germany. 12:05-6-6:30-9, 9:15-9:30 am.; 11:10-
12862 W9XDH	Elgin, Ill. Press Wireless,	15100VCOV	11:40 am., 4:50-1045 pm.
13486 HIIN	Tests 2-5 pm.	15190XGOX 15180 RV96	Szechwan, China. 830-9:30, 10-11:05 pm. Moscow, U. S. S. R. 3-3:45
12450 HCJB	Trujillo City, Dom Rep. 6:40-10:40 am., 5:10-9:40 pm. Quito, Ecuador. 7-8:15, 11:30 am2:30, 5-10:30 pm. St. Johns, Newfoundland 5:30-7:30 pm. Moscow, U. S. S. R. 7-9 pm.	21540 WPIT	am. Pittsburgh, Pa. 6:30-8 am.
12310 VOFB	St. Johns, Newfoundland	21530 GSJ	Daventry, England. 5:40-8:45 am.
12000RNE	Moscow, U. S. S. R. 7-9 pm. 9-11 am	21520 WCAB	Phila, Pa. 12 n. to 3:45 pm. exc. Sat. & Sun. Sun. 12 n.
11970 HI2X	9-11 am Ciudad Trujillo, D. R. Tues. and Fri. 8-10-10:10 pm. Sun. 7:40-9:40 am.	21510 2ROI6 21500 WGEA	2:30 pm. Rome, Italy. 9-9:55 am. Schenectady, N. Y. 8-11 am.

21470 GSH 5:40-Daventry, England, 8:45 am. 21460 WRUL 21450 DJS Boston, Mass. 10 am.-ncon Berlin, Germany. 12:05-7:55 19020 HS6PJ Bangkok, Thai. Mondays 8-18480 HBF Geneva, Switzerland. 8:45-10:15 am Kahuku, Hawaii Sats. Suns. 17970 KHE 8:30-9 pm. 17845 DJH Berlin, Germany. 12:05-7:50, 8-11 am. Vatican City, 12 n. on Wed-17840 HVI nesday. 17830 LRA5 Buenos Aires, Arg. Fri., 5-5:30 pm. New Yor 12:30 pm 17830 WCBX York City. 8 am.-Rome, Italy. 4:30-7:15 am., 9:30-10:55am., 6-7:55 pm.
Daventry, England 7-8:45, Daventry. England 5:40-17820 2RO8 17810 GSV 17970 GSG Daventry, Engla 8:45; 9:10:15 am. England. 5:40-17780 WNBI Bound Brook, N. J. 9 am.-4:15 pm. 4-8:15 pm. Paris France. 5-10 am. 17765 TPB3 17760 DJE 12:05-11 Berlin, Germany. 26550 W2XQO New York City. Noon-9 pm. 26500 WXTA Harrisburg, III 1-4 pm. 26400 W9XAZ Milwaukee, Wis. 1 pm. to ınidnite. 26150 W4XA Nashville, Tenn. Noon-1. 6:30-10 pm. 26150 W9XUP St. Paul, Minn. 8 am 1 am. 26125 W5XAU Oklahoma City, Okla. 7 am.-11 pm. 26100 W9XJL 26050 W9XTC Superior Wis. 11 am-3 pm. Minneapolis, Minn 10 am. 8 pm. South Bend, Ind. 2:30-6:30 pm., exc. Sat. and Sun. and 26050 W9XH Thurs. 26000 W8XUJ 26000 W9XA Cincinnati Ohio 2-4 pm. Kansas City. Mo. 12 noonpm. 25900 W9XPD St. Louis Mo. 10 am.-1, 4-8 pm. Denver, Colo 10 am.-12 mid. Dalas, Texas. 12:30-2:30 pm. New York, N. Y. 11:30 am.-3:45, 5-6 pm. New York City. 4-6 pm Bound Brook, N. J. Noon-25400 W9XLA 25300 W5XD 25300W2XJI 25250 W2XUP 21630 WRCA 3:30 pm. New York City. 21570 WCBX New am.-12:30 pm. Daventry, England 5:40 8:45, 9-9:15, 9:20-11:30 am. 21550 GST

# Addresses

Ankara—Radio Ankara." Ann: Turkish, Eng, Fr, Ger. Sign off, National anthem. Turkish Brdcstg. System, Correspondence

Berlin—These transmitters are located at Zeesen, near Berlin. Interval signal is the tune, repeated several times, "Ever Be True and Honest," and sign off theme, two national anthems, "Horst Wessel Lied" and "Deutschlandlied". Address is Reichs-Rundfunk G. m. b. H., Haus des Rundfunk, Masurenallee, Berlin-Charlottenberg 9.

Hilversum—Transmitters at Hufzen. PCJ is "The Happy Station." Announcements in Dutch, German, French, English, Spanish, Portuguese. Sign off with National Anthem. N. V. Philips' Radio, Eindhoven.

Johannesburg—All programs originate in J/B. Announce "Johannesburg Calling." English and Afrikaans. Open with bugle call. South African Broadcasting Corp.,

Box 4559, Johannesburg.

London—Transmitters are at Daventry. Interval signals are Bow Bells; Greenwich time signal on even hours; and, irregularly, Big Ben, preceded by Westminster Chimes, strikes the hours. Sign off with "God Save The King." British Broadcasting Corp., London Wt.

Oslo-Norsk Rikskringkasting, Shortingsgaten 28, Oslo, Norway.

Paris—Transmitters at Essarts-le-Roi. Announce as "ParisMondial," (Paris Embracing The World), and sign off with "La Marseillaise." Minister of Posts, Telegraphs and Telephones, 98 bis Blvd. Hauss-

Rome—"Radio Roma-Napoli." Transmitter at Prato-Smeraldo. Interval signal, chirping of bird. Announcements usually by a lady. Sign off with 2 anthems, "Giovinezza" and "Marcia Reale." Ente Italiano per le Audizioni Radiofoniche, Via Montello 5.

Tokyo—Transmitters are at Nazaki. Sign off with national anthem, "Kimagayo." Nippon Hoso Kyokai, 2-Chome, Uchisaiwaicho, Kojimachi-ku.

HVJ—Announcements in Dutch, Italian, Polish, English, German, French, Spanish, Russian. A clock or metronome ticks seconds during 5 minutes preceding broadcasts. Bells of St. Peters strike hour. Open and close with Laudetur Jesus Christus." Pontifica Accademia Della Scienze, Roms-Castina Pio IV
KGE1—Transmitter at Treaseur Island, General Elec. Co., 235 Montgomery St., San Francisco, Calif.
TGWA—Radiodiffusore. Nat.

TGWA-Radiodifusora National, "La Voz de Guatemala." Relay TGW. Return postage is not necessary for verifications.

VLR—Transmitter at Lyndhurst. Australian Broadcasting Commission Victorian Divi-son), P. O. Box 1686, GPO, Melbourne, Vic., Australia.

WCAI—Trans. at New Town Square. Relays CBS-WCAU. WCAU Brdcstg. Co., 1622 Chestnut St., Philadelphia, Pa.

WCBX—Transmitter at Wayne Twp., N. J. Relays CBS-WABC. Sign off, "Star Span-gled Banner." Columbia Broadcasting Sys., 485 Madison Ave., New York City.

WGEA—Transmitter at South Schenectady. Relays NBC-WGY. Programs commence with discharge of mn-mad lightening. General Elec. Co., 1 River Road.

WLWO—Transmitter at Mason. Relays NBC-WLW. Crosley Corp., 1320 Arlingn-ton St., Cincinnati, Ohio.

WNBI—Transmitter at Bound Brook, N. J. Relays NBC-WJZ. Sign off with "Star Spagnled Banner." NBC, Inc., 30 Rock-efeller Plaza, New York, N. Y.

WPIT—Transmitter at Saxonburg. Relation NBC-KDKA. Westinghouse Electric Relays Mfg. Co, Grant Bldg., Pittsburgh, Pa.

# The WORLD'S Radio Stations

(Continued From May-June Issue)

### A complete listing of the radio stations of

the world, from 500 kcs to 500,000 kcs.

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

15280	DJQ	В	50000	Berlin, Germany
	HI3X LRU	В	900 5000	Trujillo, Dom. Rep. Buenos Aires, Argentina
15295	TPB4	B B B B B	25000	Paris, France
15300	I2RO6	В	100000	Rome, Italy
	LYZ4	В	05000	Kaunas, Lithuania
15305 15310	GSP	B	25000	Bern, Switzerland
15320	OLR5B	В	35000	London, Gt. Britain Prague, Bohemia Nazaki, Japan. Nippon Hoso Kyokai, Koji-
15325	JLP2	$\mathbf{T}$	••••	Nazaki, Japan. Nippon Hoso Kyokai, Koji-
45000	TZCTET	ъ	20000	macni-ku, lokyo
15330	KGEI WGEA	B B	25000	San Francisco, Čalif. Scenectady, N. Y.
15340	DIR	B B T		Berlin, Germany
15355	KWU	T	15000	Dixon, Calif. Transpacific Communications, 140 New Montgomery, San Francisco
3 F2 CO	<b>7</b> C	ъ		140 New Montgomery, Sar. Francisco
15360 15370	ZG HAS3	B B C B T B C	20000	Berlin, Germany Budapest, Hungary
15400	HRM3	Ċ	400	Tela, Honduras. Tela Railroad Co.
15410		В	50000	Bucresti, Romania
15415	KWO	T	20000 50	Dixon, Calif. Mazatlan, Sin., Mexico
15440 15505	XEBM CMA5	č	1000	Hayana, Cuba. Cuba Transatlantic Radio Corp.,
15500	0111110			Obispo y Aguiar
15520	HRA3	ç	400	Puerto Castilla, Honduras, Tela Railroad Co
15800	HRE4	C	400	Tegucigalpa, Honduras. Tropical Radio & Tele- graph Co.
	XOT	C T	••••	Shangai, China
15810	LSL3	T	••••	Buenos Aires, Arg. Cia. Internacional de Radio.
4 7000	WDC.	C	40000	S. A.
15880 15905	WBC TD1	C	40000	Hicksville, N. Y. Press Wireless, Inc.
13903	121			Sinkio, Manchukuo. Man. Telegrap & Teleph.
16030	KKP	COTACTC	50	Kahuku, Hawaii. RCA Communications, Inc.
16140	GBX CIA	Ť	• • • •	Rugby, Gt. Britain Barricheld, Ont. Dept. of Nat'l. Defense
16350 16560	KHCIY	Â	100	Barricheld, Ont. Dept. of Nat'l. Defense NC-18997. American Export Airlines
16790	KCK	C	••••	Clearwayer, Calif. Mackay Radio & Teleo. Co.
	KOK	CŢ	••••	Clearwater, Calif. Same as KCK. Amagansett, N. Y. Mackay Radio & Teleg. Co. Arlington, Va. Time signals at 9:55 am EST.
16800	WSL	Time	• • • •	Amagansett, N. Y. Mackay Radio & Teleg. Co.
16820 17080	NAA GBC	C	5000	Rughy, Gt. Britain
17120	woo	C	20000	Ocean Gate, N. J. A. T. & T., Long Lines
				Rugby, Gt. Britain Ocean Gate, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave, NYC. S. S. "Rex."
17225	ICEJ	S C	1000	S. S. "Rex."
17260	CMA5		1000	Havana Cuba. Cuba Transatlantic Radio Corp., Obispo y Aguiar
17280	CPX7	C B	• • • •	Viacha, Bolivia
	FE8		100	Viacha, Bolivia Djibouti, French Somaliland NC-1994. Howard R. Hughes, NYC.
17210	KHRH	$_{ m RB}$	100	
	KSFM K4XAO	E	••••	New York City. NBC, Inc. San Juan, Puerto Rico. University of P. R.
	WCBN	$\mathbf{R}\mathbf{B}$		New York City. CBS, Inc.
	W2XGB	GE	10000	Hicksville, N. Y. Press Wireless, Inc.
	K6XAK	GE	50 <b>0</b>	Kaena Point, T. H. Globe Wireless, Inc.
	WNBM W3XAB	$\mathop{\bf RB}_{\bf E}$	••••	New York City. NBC, Inc. San Juan, Puerto Rico. University of P. R. New York City. CBS, Inc. Hicksville, N. Y. Press Wireless, Inc. Kaena Point, T. H. Globe Wireless, Inc. New York City. NBC Inc. Camden, N. J. RCA Mig. Co. W. Palm Beaclt, Fla. Gray Radio Co.
	W4XID	$\mathbf{E}_{1}$	50	W. Palm Beach, Fla. Gray Radio Co.
	W4XIT	FA	1000	Coral Gables, Fla. Pan-American Airways, Inc. Palo Alto, Calif. Stanford University Portable. Press Wireless, Ltd.
	W6XQW W6XXT	GE GE	1000 <b>5000</b>	Portable, Press Wireless Ltd
	W7XRA	E	15	
	W7XBA W7XEY	E1	60	Seartle, Wash. Radio Labs., Inc.
	W7XE	E1	60	Seartle, Wash. Radio Labs., Inc. Seattle, Wash. Kadio Labs., Inc. Portable. W. Va. Univ., Dept. of Physics
	W8XUK	$\mathbf{GE}$	10	Tottable. W. Va. Ully., Dept. of Physics

1160 kcs.	(258.5 m.)	· ·	
CMHJ	_200	Clenfuegos, Cuba Portland, Oreg.	Richardo Ugalde H. C. Singleton, Ch. Eng.
WOWO B1	10000	rort wayne, ind.	••••
WWVA CI XEAS XED	100	Saltillo, Coah.	E A. Hadden, Eng. Manuel R. Rodriguez
XEFM	-	z Leon, Gto.	••••
(EP		Juarez. Chih.	Estaban Perra
1170 kcs.		Hayana, Cuba	Enrigue Artalejo
CMBS WCAU C XEXX	50000	Philadelphia, Pa. Mexico City, D. F.	J. G. Leitch
1180 kcs.		MEXICO City, D. P.	••••
KOB N	10000	Albuquerque, N. Mex.	T. M. Pepperday, Mgr. Dr. Geo. W. Young
WDGY LM WINS L	1000 (5) 1000	Albuquerque, N. Mex. Minneapolis, Minn. New York, N. Y.	Dr. Geo. W. Young
WMAZ CL		Macon, Ga.	••••
1190 kcs.	(252 m.)		
CMKX		z Banes, Cuba San Antonio, Texas	Oscar Vidal Benitez
WSAZ L		San Antonio, Texas Huntington, W. Va.	Glenn E. Chase, Ch. Eng.
1200 kcs.	(249.9 m.)		
CHAB F CHGB F		Moose Jaw, Sask. St. Anne de la Pocatierre. P. Q.	A. E. Jacobson, Ch. Eng. G. Thomas Desjardins
CKNX	100	Wingham, Ont.	B. Howard Bedford, Asst. Mgr. Z. E. T. Sandell
CKTB F	100	Wingham, Ont. St. Catharines, Ont. Val d'Or, P. Q.	
CMCO KADA EMX	100	L MAVANA LIBNA '	Enrique Lasanta Warren Moore, Prog. Dir.
KAST	250	Astoria, Ore.	Enrique Lasanta Warren Moore, Prog. Dir. Lawrence King, Ch. Eng. Jay P. Beard, Mgr.
RELO N	250 a	Sioux Falls, S. Dak.	
KFXD KFXJ	<b>250</b> 250	i Marshalltown, Iowa	Homer Griffith, Mgr. Edward Hurt, Mgr. Rex Howell, Mgr. At E. Wakz, Ch. Eng. Elmer G. Beehler Thelma Kirchner, Prog. Dir. B. G. Terrill Mgr.
KFXJ	250		Rex Howell, Mgr.
KGEK	100	Sterling Colo.	Elmer G. Beehler
KGHI	100 250	Little Rock, Ark.	R. G. Terrill, Mgr.
KHAS P KHBC CM KMLB		z Hastings, Nebr. a Hilo, Hawali	
KMLB	250	Monroe La	Webley Ewards, Mgr. J. C. Liner, Jr., Mgr. Roger L. Spaugh, Ch. Eng.
KPHO P	100 (.25)	Phoenix, Ariz.	
KVCV M	250	u Lowell, Ariz. s Redding, Calif. s San Luis Obispo, Calif.	Carleton W. Morris, Mgr. Harold Smithson, Mgr. Earl Travis, Ch. Eng.
KVEC M	250	San Luis Obispo, Calif.	Earl Travis, Ch. Eng. J. M. Reeder, Ch. Eng.
KVOS M KWBD DP	250 100	Bellingham, Wash.	W. B. Dennis
KWG BE	100	Logan, Utah  Logan, Utah  Bellingham, Wash.  Plainview, Texas  Stockton, Calif.  Winona, Minn.	George Ross, Mgr.
KWNO E	250 500 250	winona, Minn. San Jose, C. Rica	A F MICKEL MARK
WAIM C	250 100	San Jose, C. Rica Bangor, Maine	Ralph Wallace, Mgr.
WAYX	250	Waycross, Ga.	Carlos Borge Ralph Wallace, Mgr. Ennis Bray, Mgr. Jack Williams
WBAB P	250	Ponca City, N. J.	Don Mitchell, Ch. Eng.
WBOW N		Huntsville, Ala. Terre Haute, Ind.	••••
WCAT D WCAX C	100	Rapid City, S. Dak.	C. M. Rowe, Prog. Dir.
WCAX C WCBT P WCLO	250 250	r Roanoka Danide NI C	James Tierney, Ch. Eng.
	250 250 250 250 250 250 100 (.25)	n Janesville, Wis. Cincinnati, Ohio	Charles Brannen, Ch. Eng. Glen A. Davis, Ch. Eng.
WCPO WDLP P WDSM M	100 (.25) 100	Panama City, Fla.	Fred A. Baxter
WENY M	250	Elmira, N. Y.	
WEST	250 4 100 2	Editori, Pa,	J. E. Mathiot, Ch. Eng.

1080 CMBX CMKM WBT WCBD WMBI XEBA XEBK XEDP	kcs.	(277.6 m.)  200 200 50000 50000 5000 20 100 5000	8 8 9 2 2 8	Havana, Cuba Manzanillo, Cuba Charlotte, N. C. Chicago, III. Chicago, III. Guzman, Jal. Nuevo Laredo, Tam. Mexico City, D. F.	Alberto Alvarez Jesus Armesto A. P. Frye, Ch. Eng Javier Velasco J. M. Cortes
1090 CMHA HIN KMOX XERB	kcs.   	(275.1 m.) 200 100 50000 50000	z z a	Sagua la Grande, Cuba Trujillo, D. R. St. Louis, Mo. Tijuana, B. Cfa.	Abelardo Menocal J. M. Bonetti G. L. Tevis, Ch. Eng.
CBR CMHP KGDM KWKH WCAR WOV	Kcs. F DM CH DP P	(272.6 m.)  5000 200 1000 1000 1000 5000		Vancouver, B. C. Placetas, Cuba Stockton, Calif. Shreveport, La. Pontiac, Mich. New York, N. Y.	A. H. Green, Mgr. John McCormack, Mgr
1110 CMCJ KSOO WRVA XECL	CM CM	(270.1 m.) 200 5000 50000 1000	8 8 8 Z	Havana, Cuba Sioux Falls, S. Dak. Richmond, Va. Mexicali, B. Cfa.	Rafael Rodriguez Les Frake Alfonso A. Lacarra
CBJ CHLP CHSJ CKOC CKAGF KFIO KFSG KRKD KSAL KRSC KTBC WCOP WISN WJSN WJSN WJSN	KCS.  FFFFF. Daa :X22DRCX2	(267.7 m.)  100 100 500(1) 1000 200 1000 1000(.5) 1000(.5) 500(1) 250 1000 500 250(1) 250(1) 500	88888888888888	Spokane, Wash. Los Angeles, Calif. Los Angeles, Calif.	Bernabe de la Torre Arthur L. Smith, Mgr. Ruth Pritchard Dr. Giles N. Knight, Mgr.
1130 CMJI KSL WJJD XEJP	kcs.  L	(265.3 m.)  200 50000 100  (263 m.)  25000 5000 5000	8 a a z z a a a	Ciego de Avila, Cuba Salt Lake City, Utah Chicago, Ill. Mexico City, D. F. Havana, Cuba Tulsa, Okla. Birmingham, Ala. Springfield, Mass.	Gilberto Gesse Lopez E. G. Pack; Earl J. Glade J. L. Allabough Salvador Monterrubio R.  John J. Stowers Wm. B. Way, Mgr. N. McFarland Hillis W. Holt
NHAM XEBP XEC XEDW XEL XEXH	kcs. N	(260.7 m.)  50000 250 100 300 250 400 1000	a z a z z z	Rochester, N. Y. Durango, Dgo. Tijuana, B. Cfa. Minatitlan, Ver. C. Mexico City, D. F. Oaxaca, Oax. Holguin, Cubs	John J. Long, Ch. Eng Manuel Cano M. Luis F. Encisco Hector Silva Canto

XEAF XEK XES	∵х ∵ <sub>р</sub> ́	750 100 250 1000	a a a z	Nogales, Son. Mexico City, D. F. Tampico, Tam. Pinar del Río, Cuba	Fernando Sada Arturo Martinez
1000	kcs.	(299.8 m.)			
CMKG KFVD	<u>.</u>	10000 1000 250	z a	Santiago de Cuba Los Angeles, Calif.	Frank Burke, Mgr.
KFVD TIFA WHO	KR	50000	z a	Los Angeles, Calif. San Jose, C. Rica Des Moines, Iowa	Francisco Ariel Paul A. Loyat, Ch. Eng. Pedro C. Rivas
XEBI	•••	250	a	Aguascalientes, Ags.	Pedro C. Rivas
1010		(296.9 m.)			
CKCK	F	100 1000	a	Hamilton, Ont. Regina, Sask.	Dr. G. H. Geldert
CKCO	F • ± :	100 <b>50</b>	a	Ottawa, Ont. Wolfville, N. S.	or. G. H. Geldert
CKWX	F1 M2	50 100 200 1000	a a <b>a</b>	Vancouver, B. C. Havana, Cuba	Jorge Garcia Serra Hugh J. Powell
K <b>GGF</b> KQW WHN	M	1000 (5) 1000 (5)	a	Valicative, B. C., Havana, Cuba Coffeyville, Kans. San Jose, Calif. New York, N. Y. Norman, Okla.	C. S. Harper, Mgr.
WNAD	 2 C	1000	a	Norman, Okla. Knoxville, Tenn.	T. M. Beaird, Prog. Dir. Pedro L. Diaz
XEFQ	:::	1000 (5) 50 <b>500</b>	a	Knoxville, Tenn. Cananea, Son. Veracruz, Ver. C.	Fernando Pazos S.
1020	_	(293.9 m.)			
смно	•••	200	z a	Sagua la Grande, Cuba Camaguey, Cuba	••••
CMJK KYW WDZ	Ř	10000	b	Philadelphia, Pa.	Leslie W. Joy, Mgr. Mark C. Spies, Ch. Eng. Pedro Meneses, Jr.
XEJ		1000	8	Tuscola, III. Juarez, Chih.	Pedro Meneses, Jr.
1030	kcs.	(291.1 m.)			
CFCN CJBR	F	10000 1000	ā	Calgary, Alta. Rimouski, P. Q.	E. Marshall J. A. Brillant
CKLW	FM	5000 1000	a z	Windsor, Ont. Santiago de Cuba	Claudio Alvarez Soriano
TIHO XEB	··· ···	1000 500 20000	a	Calgary, Alta. Rimouski, P. Q. Windsor, Ont. Santiago de Cuba San Jose, C. Rica Mexico City, D. F. Santiago de Cuba	Guillermo Zuniga R.
••••		1000	z	Santiago de Cuba	••••
1040 KRLD	kcs.	(288.3 m.)	a	Dallas, Texas	John W. Runyon
KĀOS KĀOS	HĽ	50000 500 250	a	Portland, Ore. Merced, Calif.	Art Morey, Ann'cr. John W. Crews, Mgr.
VOCM	HŔ	100	z a	St. John's, Niid. Hartford, Conn.	T. C. McCray
	P	50000 1000	z	Matanzas, Cuba	••••
1050	kcs.	(285.5 m.)			
CBA CMCH		50000	Z	Sackville, N. B. Havana, Cuba	A I Disk and a
HIT KFBI		50 5000	2 8	Trujiilo, D. R. Abilene, Kans.	A. L. Pichardo Donald Thornburgh, Mgr.
KNX WEAU	LY2 C L2	5000 50000 1000 (5)	a	Trujiilo, D. R. Abilene, Kans. Los Angeles, Calif. Eau Claire, Wis.	••••
WIBC	D	1000	8	Indianapolis, Ind.	••••
1060		(282.8 m.)	a	Hot Springs, Ark.	Mary F. Loyd, Sec'y.
KTHS VOAC	HN 1065	40 10000	z	St. John's, Nfld. Baltimore, Md.	Gerald Cooke, Ch. Eng.
WBAL WJAG	BM	1000	8	Norfolk, Nebr.	Art Thomas, Mgr.
1070	kcs.	(280.2 m.)		Company Cata	M. Caymarae Cilva
KIBS	<u>Ľ</u>	200 500 5000	a	Camaguey, Cuba San Francisco, Calif.	M. Caymares Silva Miriom Ford, Traffic Dept. Oscar Martinez N.
TINBC	P	100 50000	z a a	San Jose, C. Rica Carthage, III. Cleveland, Ohlo	May Draxell
WTAM	R	30000	45	Cigverario, Offic	

## **RADEX**

CMKD 1000 XENT Q 50000	a Santiago de Cuba a Nuevo Laredo, Tam.	Francisco Meneau T. Yount, Mgr.
920 kcs. (325.9 m.)		
CMHT 200 CMZ 5000 KFEL M 1000 KOMO R 1000(5) KPRC ER 1000(5) TIRS 925 200 WAAF D 1000 WORL D 500 WPEN 1000 WSPA D 1000 WWJ R 1000 WWJ R 1000	z Trinidad, Cuba z Havana, Cuba a Denver, Colo. a Seattle, Wash. Houston, Texas San Jose, C. Rica c Chicago, III. a Boston, Mass. Philadelphia, Pa. Spartanburg, S. C. Detroit, Mich.	F. E. Soto del Valle Gene O'Fallon, Mgr. Lee Barnes, Aud. Mail Dept. Kery Tips, Mgr. Rogelio Sotela B. Wm. E. Hutchinson, Mgr. E. S. Long, Ch. Eng. Ty Tyson
XEON 2000	z Tijuana, B. Cfa.	7?
930 kcs. (322.4 m.) CFAC F 1000	a Calana Alta	
CFAC F 1000 CFLC 100 CHNS F 1000 CKPC 200 CMJF 200 KMA B 1000(5) KROW 1000 WBRC R 1000(5) WDBJ C 1000(5) WELI 250(.5) XEBH 500	a Calgary, Alta. a North Bay, Ont. a Prescott, Ont. a Halifax. N. S. a Brantford, Ont. c Camaguey, Cuba a Shenandoah, Iowa oakland, Calif. a Birmingham, Ala. a Roanoke, Va. a New Haven, Conn. a Hermosillo, Son.	R. H. Thomson  Vincente Salgado J. Rapp, Mgr. H. P. Drey, Mgr.  James T. Milne, Mgr. Carlos Balderrama
940 kcs. (319 m.)		•
CMBZ 200 KOIN CX 1000(5) TIOS 500 WAAT D 500 WAVE N 1000 WCSH R 1000(2.5) WDAY N 1000(5) WHA D 5000 WICA DX 250 XEFO 5000	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.	Manuel Salas B. J. Parrish, Mgr. Guillermo Castro S. Paul H. LaStayo, Mgr. G. Fred Crandon, Ch. Eng. Julius Hetland, Ch. Eng. C. A. Rowley
950 kcs. (315.6 m.)		
CBV F 1000 CJRM F 1000 CMKL 200 KFWB E 5000 KMBC CX 1000(5) VOAR 25 WHAL DP 500 WRC RX 1000(5) WTRY DP 1000	a Quebec, P. Q. a Regina, Sask. z Bayamo, Cuba a Los Angeles, Calif. a Kansas City, Mo. z St. John's, Nfid. z Saginaw, Mich. a Washington, D. C. z Troy, N. Y.	Alberto Alvarez Ferrera Harry Maizlish, Mgr. Arthur B. Church, Mgr.  Audience Mail Dept.
960 kcs. (312.3 m.)		•
CBM FR 5000 CFRN F 100 CMKY 5000 XEAW 100000	a Montreal, P. Q. a Edmonton, Alta. z Santiago de Cuba a Reynosa, Tam.	H. D. Munal
970 kcs. (309.1 m.)		
CMCK 5000 KJR B 5000 WCFL N 5000 WIBG D 100	z Havana, Cuba a Seattle, Wash. a Chicago, III. a Glenside, Pa.	Luis Casas R. Audience Mail Dept. Maynard Marquardt, Ch. Eng
980 kcs. (306 m.)	. Division D	A. F. Malaan Man
KDKA B 50000 XEAC 5000 XEFE 250	b Pittsburgh, Pa. a Tijuana, B. Cfa. z Nuevo Laredo, Tam.	A. E. Nelson Mgr. Jorge I. Revera Rafael T. Carranza
990 kcs. (302.8 m.)		
WBZ BS 50000 ₩BZA BS 1000	a Boston, Mass. a Springfield, Mass.	Dwight Myer, Ch. Eng. H. E. Randol, Mgr.

840 kcs. (356.9 m.) CBL F 50000 VOGY 400 XERA 250000	a Toronto, Ont. a St. John's, Nfld. villa Acuna, Coah.	W. C. Little, Ch. Eng.
850 kcs. (352.7 m.)  CMCM 200  KIEV D 250  WESG CD 1000  WKAR DX 1000  WWL C 50000	a Havana, Cuba a Glendale, Calif. a Elmira, N. Y. a E. Lansing, Mich. a New Orleans, La.	V. Montes David H. Cannon True McLean, Ch. Eng. Norris Grover, Ch. Eng. J. D. Bloom, Ch. Eng.
860 kcs. (348.6 m.)  CMJA 200  TIEMC 250  WABC Ca 50000  WBB DM 1000  XEMO 5000	a Camayuey, Cuba z San Jose, C. Rica a New York, N. Y. a New York, N. Y. a Kansas City, Mo. a Tijuana, B. Cfa.	Rafael Valdes Rafael Hine Ch.  M. H. Straight, Mgr. Fernando Federico Ferreira
870 kcs. (344.6 m.)  WENR Ba 50000  WLS Ba 50000  XEFB 200  P 1000	b Chicago, III. a Chicago, III. a Monterrey, N. L. z Ciego de Avila, Cuba	T. L. Rowe, Ch. Eng. Jesus Quintanilla
880 kcs. (340.7 m.)  CBO F 1000 CFJC F 1000 CMX 15000 KFKA M2 500(1) KLX 1000 KVAN D 250 TILS 500 WCOC C 1000 WGB1 CI 500(1) WANL DX 500 WSUI X 500(1)	a Ottawa, Ont. a Kamloops, B. C. a Havana, Cuba a Greeley, Colo a Oakland, Callif. Denver, Colo. ½ Vancouver, Wash. b San Jose, C. Rica Meridan, Miss. f Scranton, Pa. a Scranton, Pa. a Richmond, Va. lowa City, Iowa	Lillian E. de Olloqui L. Irwine, Ch. Eng. Raoul Karman, Dir. H. E. Green, Mgr. P. D. Allen, Mgr. Wesley O. Lomlin, Annc'r. Paul W. Spargo, Ch. Eng. Luis Saenz Mata John B. Rogers, Ch. Eng. K. R. Cooke, Ch. Eng Walter R. Selden, Ch. Eng. Sylvanus Ebert, Ch. Eng.
890 kcs. (336.9 m.)  KARK N 1000  KFNF X2 5000(1)  KFPC C 5000  KUSD 2 5000  WBAA 500(1)  WGST C 1000(5)  WJAR R 1000(5)  WMMN C 1000(5)  XEW 100000	a Little Rock, Ark. s Shenandoah, Iowa a Spokane, Wash. f Visalia, Calif. a Vermillion, S. Dak. w. Lafayette, Ind. a Atlanta, Ga. a Providence, R. I. a Fairmont, W. Va. a Mexico City, D. F.	Jack Lewis, Prog. Dir. Wm. MacDonald, Com. Mgr. T. W. Symons, Mgr. Chas. P. Scott, Mgr. B. B. Brockett, Mgr. Ralph R. Townsley, Ch. Eng. Ben Akerman, Ch, Eng. Thomas Prior, Ch. Eng. J. R. Heck, Ch. Eng.
900 kcs. (333.1 m.)  HIG 250  KGBU X 500  KHJ M 1000(5)  KSEI N 250(1)  TIAFB 600  WBEN R 1000(5)  WFMD D 500  WJAX N 1000(5)  WKY N 1000(5)  WLBL D 5000  WTAD D 1000	z Trujillo, D. R. a Ketchikan, Alaska a Los Angeles, Calif. a Pocatello, Idaho z San Jose, C. Rica a Buffalo, N. Y. a Frederick, Md. a Jacksonville, Fla. Oklahoma City, Okla. a Stevens Point, Wis. a Quincy, Ill.	Andres Cordero Puello James A. Britton, Mgr. Lewis Allen Weiss, Mgr. R. A. Fletcher, Prog. Dir. Mayid Borzuna Ralph Kingsley, Ch. Eng. John A. Fels, Ch. Eng. Harry Cole, Mgr. Earl C. Hull, Ch. Eng. F. R. Calvert, Mgr. Paul E. Miller, Ch. Eng.
910 kcs. (329.6 m.)  CBF FN 50000  CJAT F 1000  CKY F 15000  CMBO 5000	a Montreal, P. Q. a Trail, B. C. a Winnipeg, Man. a Havana, Cuba	:::: ::::

750 kcs. (399.8 m.)		
CMBL 5000 KGU LN 2500	a Havana, Cuba a Honolulu, Hawaii	Laureano Suarez Marion A. Mulrony, Mgr.
TING 375 WJR C 50000 XEAA 200	a Honolulu, Hawail z San Jose, Costa Rica a Detroit, Mich. a Mexicall. B. Cfa.	Narcisco Garcia Geraldine Elliott, Prog. Dir. Alberto Gonzalez Manuel L. Salinas
XEAA 200 XEAM 25	a Mexicall, B. Cfa. z Matamoros, Tam.	Manuel L. Salinas
760 kcs. (394.5 m.)		
KXA X 250 (.5) WBAL BHMS 2500 WCAL D2 5000	a Seattle, Wash. a Baltimore, Md.	Florecen Wallace, Mgr. Gerald Cooke, Ch. Eng. Milford Jensen, Ch. Eng. Geo. Rueppel, Ch. Eng. Audience Mail Dept. Waldemar Klima, Ch. Eng.
WEW D 1000 WJZ BS 50000	a Northfield, Minn. a St. Louis, Mo. a New York, N. Y.	Geo. Rueppel, Ch. Eng. Audience Mail Dept
WLB D2 5000	a Minneapolis, Minn.	Waldemar Klima, Ch. Eng.
770 kcs. (389.4 m.)		
KFÅB CSXZ 10000 TILJ 775 450 WBBM CS 50000	a Lincoln, Nebr. z San Jose, C. Rica a Chicago, III.	Mark W. Bullock, Tech. Dir. Lola Monje Peralta
WBBM CS 50000	a Chicago, III.	A. Boyes
780 kcs. (384.4 m.)	f Chilliwack, B. C.	lack Billing Ch. Eng
CKSO F 1000	a Sudbury, Ont.	Jack Pilling, Ch. Eng. W. E. Mason Miquel Gabriel, Adm.
KECA 1000(5) KFDY D 1000	a Los Angeles, Calif. a Brookings, S. Dak.	Jack Gross, Mgr. S. W. Jones, Mgr. R. E. McDonald, Mgr.
KFQD 250 KGHL N 1000(5)	h Anchorege Aleeks	Ed Yocum, Mar.
WEAN BM 1000(5) WMC JR 5000 WPIC D 250	a Billings, Mont. a Providence, R. I. a Memphis, Tenn. a Sharon, Pa.	Rose M. Powers J. C. Eggleston, Mgr. John MacDonald, Eng.
WTAR N 1000 (5) XEN 1000	g Norfolk, Va. a Mexico City, D. F.	Lee Chadwick, DX Correspondent
		Guillermine de del Conde
790 kcs. (379.5 m.)		
KGO B 7500 KOAM DN 1000 WGY R 50000	<ul> <li>a San Francisco, Calif.</li> <li>a Pittsburg, Kans.</li> <li>a Schenectady, N. Y.</li> </ul>	Lloyd E. Yoder, Mgr. R. L. Jones, Eng. W. J. Purcell, Ch. Eng. K. P. Brown, Sec'y.
ZNS 1000	a Schenectady, N. Y. d Nassau, Bahamas	K. P. Brown, Sec'y.
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 a Dallas, Texas	J. R. Saladin Andrea Venegas
WBAP ENa 50000 WFAA ENa 50000 WTBO D 250	a Fort Worth, Texas a Dallas, Texas a Cumberland, Md.	Andrea Venegas Ellen Flake, Sec'y. Irvin Gross, Mgr. Geo. R. Lenhert, Ch. Eng.
810 kcs. (370.2 m.)	a Cumberland, Md.	Geo. R. Leiliert, Ch. Eng.
C110F F000	a Havana, Cuba	Oscar Gutierrez
WNYC D 1000	a Minneanolis Minn	Oscar Gutierrez Hugh McCartney, Ch. Eng. Issac Brimberg, Ch. Eng.
XEBZ 100 XEDF 100	a New York, N. Y. a Mexico City, D. F. a Nuevo Laredo, Tam.	Ruperto Villarreal
820 kcs. (365.6 m.)		
WHAS C 50000 XEBG 1000	a Louisville, Ky. z Tijuana, B. Cfa.	Credo Fitch Harris, Dir. Angel B. Fernandez
		<b>.</b>
830 kcs. (361.2 m.)	a Santa Clara, Cuba	••••
KOA R 50000	Denver Colo	T. E. Stepp Eduardo Pinto H.
WEEU DR 1000 WHDH L 1000	a Reading, Pa. a Boston, Mass.	M. Bresnahan
WRUF L 5000 XERC 500	a Gainesville, Fla. z Mexico City, D. F.	Joseph Weil, Ch. Eng. Carlos Dragome Narro

650 kcs. (461.3 m.) TIGPH P WSM KN 50000	z San Jose, C. R. a Nashville, Tenn.	Gonzalo Pinto H. Harry Stone, Gen. Mgr.
660 kcs. (454.3 m.)  CMJX 200  CMOA 200  KOWH BD 500  WEAF R 50000  XEAO 250	z Camaguey, Cuba z Havana, Cuba a Omaha, Nebr. a New York, N. Y. a Mexicali, B. Cfa.	Rodolfo Gonzales S. Juan Fernandez D. W. F. Myers, Mgr. Audience Mail Dept.
670 kcs. (447.5 m.)  WMAQ R 50000  XELO 50000  P 1000	b Chicago, III. a Tijuana, B. Cfa. z Jovellanos, Cuba	Audience Mail Dept.
680 kcs. (440.9 m.)  CMHW 200  KFEQ 500(2.5)  KPQ R 50000  VAS 685 2000  WLAW D 1000  WPTF JN 5000	f Santa Clara, Cuba a St. Joseph, Mo. a San Francisco, Calif. f Glace Bay, N. S. a Lawrence, Mass. a Raleigh, N. C.	Guillermo Domenech G. J. Wesley Koch, Ch. Eng. Audience Mail Supervisor  Geo. R. Leckley, Ch. Eng. Graham Poyner, Prog. Dir.
690 kcs. (434.5 m.)  CFRB C 10000  CJCJ F 100  CMBC 5000  TIGH 1000  XET 5000	a Toronto, Ont. a Calgary, Alta. Havana, Cuba b San Jose, Costa Rica a Monterrey, N. L.	H. Sedgwick, Man. Dir. R. H. Henderson, Ch. Eng. O. Fernandez Gonzalo Garcia
700 kcs. (428.3 m.) VOWR 500 WLW KN 50000 W8XO Exp 500000	b St. John's, Nfld. a Cincinnati, Ohio a Cincinnati, Ohio	wilfred Guenther, Mgr. Wilfred Guenther, Mgr.
710 kcs. (422.3 m.)  CMGH 200  CMKS 200  KIRO C 1000  KMPC C 1000(5)  WOR KM 50000  P 1000	a Matanzas, Cuba a Guantanamo, Cuba a Seattle, Wash. Beverly Hills, Calif. a Newark, N. J. z Camaguey, Cuba	H. J. Quilliam, Mgr. L. A. Schambin, Mgr. J. R. Poppele, Ch. Eng.
720 kcs. (416.4 m.)  CMK TI4NRH 725 750 WGN KM 50000 XEWE 20	a Havana, Cuba f Heredia, Costa Rica b Chicago, III. z Silao, Gto.	Fausto Mentiel Amando Cespedes Marin Quinn A. Ryan, Gen. Mgr.
730 kcs. (410.7 m.)  CFPL F 100  CJCA F 1000  CKAC C 5000  XEQ 50000 P 1000	a London, Ont. a Edmonton, Alta. a Montreal, P. Q. a Mexico City, D. F. z Victoria Tunas, Cuba	L. J. Yorke, Ch. Eng. W. T. Cranston, Mgr. Leonard Spencer, Ch. Eng. J. M. Marroqui II
740 kcs. (405.2 m.)  KMMJ L 1000  KTRB D 250  WHEB D 250  WSB R 50000  XEH 250  XEPN AQ 50000  P 1000	a Grand Island, Nebr. a Modesto, Calif. a Portsmouth, N. H. a Atlanta, Ga. Monterrey, N. L. Piedras Negras, Coah. z Guantanamo, Cuba	Randall Ryan, Mgr. Don R. Stevens T. R. McTammany, Mgr. C. F. Daugherty, Ch. Eng. Constantino de Ternava

CKUA KMJ KSAC WCHS WDBO WIBW WILL WTAG XEMU	FN EKN 2 C C C C D R	500 1000 500(1) 500(5) 1000(5) 1000(5) 5000 1000 250 08.2 m.)	baaaaaaa z	Edmonton, Alta. Fresno, Calif. Manhattan, Kans. Charleston, W. Va. Orlando, Fla. Topeka, Kans. Urbana, III. Worcester, Mass. Piedras Negras, Coah.	I. E. Dickinson, Ch. Eng. L. L. Longsdorf Prog Dir. Odes Robinsori, Ch. Eng. James E. Yarbrough Ch. Eng. Ben Ludy, Gen. Mgr. A. James Ebel, Ch. Eng. Lillian Murphy, Prog Dir.		
CMCY KHQ WEEI WKZO WOW	ER C BDX R	15000 5000 5000 1000 5000	a a a a	Havana, Cuba Spokane, Wash. Boston, Mass. Kafamazoo, Mich. Omaha, Nebr.	A. Valdes, Gen. Mgr. Harvey Wixson, Mgr. Margaret Grady John Fetzer, Gen. Mgr. Wm. Kotera, Ch. Eng.		
600 I	ccs. (4	99.7 m.)					
CFCF CFQC CJOR FQN KFSD TIGPH WCAO WICC WMT WREC	BF F 609 B 605 C BM BM C	500 1000 500 250 1000 1000 500(1) 500(1) 1000(5)	a a a a a a a a a a a a a a a	Bridgeport, Conn.	Kenneth Paul, Ch. Eng. A. A. Murphy, Gen. Mgr. D. E. Laws, Mgr. G. Salomon Leah McMahon, Prog. Dir. Gonzalo Pinto H. M. W. Lewis aGro Ray, Ch. Eng. C. F. Quentin, Ch. Eng. S. D. Wooten Jr., Ch. Eng.		
610. I		91.5 m.)					
CHNC KFAR KFRC WCLE WDAF WIOD WIP WMBF	X	1000 1000 1000(5) 500 5000 1000 1000	a	New Carlisle, P. Q. Fairbanks, Alaska San Francisco, Calif. Cleveland, Ohio Kansas City, Mo. Miami, Fla. Philadelphia, Pa. Miami, Fla.	Dr. Charles Houde, owner A. E. Lathrop, owner Ward Ingrim, Mgr. E. L. Gove, Tech. Sup. J. A. Flaherty, Ch. Eng. Ruth/Richardson James Allen Prog. Dir.		
		83.6 m.)					
KGW KTAR KWFT TIPG WFLA WHJB WLBZ WSUN WTMJ	R NC 625 Na D MN Na N	1000 (5) 1000 250 (1) 5000 1000 (5) 250 500 (1) 1000 (5)	a	Portland, Ore. Phoenix, Ariz. Phoenix, Ariz. Wichita Falls, Tex. San Jose Costa Rica Tampa, Fla. Greensburg, Pa. Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis.	H. C. Singleton, Ch. Eng. Richard Lewis, Mgr. D. A. Kahn, Mgr. Claudia Hartinos W. Walter Tison, Mgr. Walter McCoy, Ch. Eng. Lucille Weeks Louis Link, Ch. Eng. Don Abert, Mgr.		
630 I	kcs. (4	75.9 m.)					
CFCO CFCY CJRC CKOV CMCD KFRU KGFX KVOD WGBF WMAL WPRO XEZ	D B NI BX	100 1000 1000 1000 15000 500(1) 200 1000 500(1) 250(.5) 1000(5) 2000	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		John Beardall John Q. Adams, Ch. Eng. G. A. Titus, Mgr. James Browne, Ch. Eng. J. Benitez, Mgr. Robert Haigh, Ch. Eng. Robt. Dye, Ch. Eng. T. C. Ekrem, Mgr. Pat Roper, Prog Dir. A. E. Johnson, Ch. Eng. Margaret O'Rourke Jorge Palomeque		
	640 kcs. (468.5 m.)						
HOK KFI VONF WGAN WHKC WOI XEBX YSS	R CL LM D	50000 12500 500 500 500 250 500	a a a z	Colon, Panama Los Angeles, Calif. St. John's, Nfld. Portland, Maine Columbus, Ohio Ames, Iowa Sabinas, Cosh. San Salvador, E. S.	C. E. Gatchell J. E. Anderson, Ch. Eng W. E. Stewart, Ch. Eng. Benito Garzo O.		

# NORTH AMERICAN BROADCASTING STATIONS BY FREQUENCIES WITH VERTIFICATION SIGNERS

# **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: (.25) indicates 250 watts Exact frequencies, when not multiples of ten are shown in the

Second Column Symbols A—Status in doubt. B—National "Blue" Network. C—Columbia Network. D—Daytime only. E—Minor Network. F—Canadian Network. G—Specified Hours. 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.	a-b-cSmall letters show sta-	1-2-3—Figures denote stations sharing time. ?—Reported but not officially confirmed—No information. a—verifies for return postage. b—Verifies for government postal card. e—Verifies for 10 cents. g—Card for postage; veri
540 kcs. (552.2 m.)		
	Watrous, Sask.	••••
550 kcs. (545.1 m.)		
KFUO 2 500(1) KFYR N 1000(5) KOAC 1000 KSD C 1000 KSD 2R 1000(5) KTSA C 1000(5) WDEV D 1000 WGR CM 1000(5) WKRC 1000(5)	Fredericton, N. B. Havana, Cuba St. Louis, Mo. Bismarck, N. Dak. Corvallis, Ore. Phoenix, Ariz. St. Louis, Mo. San Antonio, Texas Waterbury, Vt. Buffalo, N. Y. Cincinnati, Ohio Harrisonburg, Va.	Herman Hohenstein Mgr. W. R. Griffin, DX Ann'cr. Luke L. Roberts, Mgr. Geo. Burbach, Mgr. G. W. Johnson, Mgr. Melvin Stickles, Ch. Eng. I. R. Lounsberry, Gen. Mgr. Vera Tyson Wendell Siler Prog. Dir.
560 kcs. (535.4 m.)		
KFDM N 1000 KLZ CX 1000(5) KSF0 C 1000(5) K KWTO D 5000 WFIL BM 1000 WIND C 1000(5) WIS N 1000(5)	Beaumont, Texas Denver, Colo, San Francisco, Calif. Springfield, Mo. Philadelphia, Pa. Gary, Ind. Columbia, S. C. Miami, Fla.	Bernice Anderson, Sec'y, G. W. Meyer, Mgr. Phillip G. Lasky, Mgr. Rlaph D. Foster, Mgr. Roger W. Clipp, Gen. Mgr. Kenneth Shirk, Ch. Eng. Floyd Rodgers, Prog. Dir. Norman MacKay, Prog. Dir.
570 kcs. (526 m.)		
KMTR 1000 KVI C 1000(5) TISCV 575 100 WKBN C1 500(1) WMCA 1000 WMCA 1000 WNAX C 1000(5) WOSU G1 1000 WSYR Ba 1000 WSYR Ba 1000 WSYR Ba 1000 WSYU Qa 1000 WWNC C 1000	a Fort Worth, Tex. Los Angeles, Calif. Tacoma, Wash. Alajeula, Costa Rica Youngstown, Ohio Marinette, Wis. New York, N. Y. Ayankton, S. Dak. Columbus, Ohio Syracuse, N. Y. Asheville, N. C. Santa Clara, Cuba	Harold V. Hough, Mgr. Kenneth Tinkham, Mgr. J. W. Wallace, Ch. Eng. Carlos Vidache' A. C. L. Lindberg F. Hapton Clifton Todd, Ch. Eng A. Hammerschmidt, Ch. Eng. Armand G. Belle Isle Chi. Eng. Armand G. Belle Isle Chi. Eng. Ch. Hoskins Ch. Eng.
580 kcs. (516.9 m.)		
CHRC 100 CKCL F 100	Prince Rupert, B. C. Quebec, P. Q. Toronto, Ont. Fort William, Ont.	Felix E. Batt

San Juan, P. R., United Theaters, Inc., 580 kcs. 1 kw. unltd. Santa Monica, Calif., A. E. Austin, 1160 kes. 100(.25).
Shelby, N. C., Jos. A. Lattimore, 1370 kcs.
100(.25) unltd.
Springfield, Ohio, Radio Voice of Springfield,
1310 kcs. 100 unltd.
Springfield, Ohio, S. Radio Corp., 1310 kcs. 100 unltd. Springfield, Ohio, S. Radio Service, 780 kcs. 250 days. Steubenville, Ohio, Valley Brdcstg. Co., 930 kcs., 1 kw D.
Tacoma, Wash., Tacoma Brdcstg. Co., 1420 Tacoma, Wash., Tacoma Brdcstg. Co., 1420
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. kcs. 250 unltd.
Watertown, N. Y., Black River Valley Brdcstg. Corp.
Watertown, N. Y., Watertown Brdcstg. Corp.
Watertown, S. Dak., Midland Brdcstg. Corp.
1210 kcs., 100(.25).
kcs. 250 days.
Wisconsin Rapids, Wis., Wm. F. Huffman,
1310 kcs., 100(.25).
Worcester, Mass., Winfield A. Schuster, 1200
kcs. 100 unltd.
Worcester. Mass., C. T. Sherer Co., Inc., Worcester, Mass., C 1200 kcs. 100(.25). C. T. Sherer Co., Inc.,

### Stations Using Special Frequencies

Using 1060 Assigned City Assign 1040 Hot Springs ..... 1060 KTHS WTIC ..... 1060 1040 Hartford

Portsmouth,

Seattle, to 1000

610

630

740

760

770

WIP

 $\widetilde{\mathbf{W}}\mathbf{H}\mathbf{A}\mathbf{L}$ 

WHEB KXA KFAB

WKAR WRNL

Philadelphia, to 5000

Washington, to 5000

Lincoln, to 50,000 E. Lansing, to 5000

Richmond to 1000

to 1000

## The Mon'th Changes in Station Data

### New

1200 FOHO Phoenix Ariz

1200	KPHO	Phoenix, Ariz.				
1200	WCBT	Roanoke Rapids, N. C.				
1200	WLOF	Orlando, Fla.				
1200	WLOG	Orlando, Fla. Logan, W. Va.				
1300	WLOL	Minneaoplis, Minn.				
1310	WINX	Minneaoplis, Minn. Washington, D. C.				
1370	WARM	Scranton, Pa.				
1370	WJHO	Opelika, Ala.				
1370	WKPT	Kingsport, Tenn.				
13/0	VV IXI I	, ,				
		Frequency				
550	KOY	Phoenix, Ariz., from 1390				
740	XEPN	iPedras Negras, Coan., from				
1310	CFGP	Grande Prairie, Alta., from				
1370	CTOC	Lethbridge, Alta., from 1210				
1370	KWLK	onngview, Wash., from 780				
1400	XEAU	l'ijuana, B. Cfa., from 1310				
1400	ALAU					
		Location				
550	KFUO	Clayton, Mo., from St. Louis.				
	6.	Power				
F00	773.67	France Colif 5000 from 1000				
580	KMJ	Fresno, Calif., 5000 from 1000 Mexico City, D. F., 200 from				
990	XEK	Mexico City, D. F., 200 from				
	******	100				
1010	XEFQ	Cananea, Son., 500 from 50				
<b>1</b> 100	KWKH	Shreveport, La., 50000 from 1000				
1200	KADA	Ada, Okla., 250 from 100				
1210	CBKI	Prince Albert, Sask., 250 from				
1210	WJE <b>J</b>	Hagerstown, Md., 250 from 100				
1240	XEDL					
1240	XEME	Navajoa, Son., 500 from 250 Merida, Yuc., 400 from 50				
1310	XEBO	Irapuato, Gto., 500 from 25				
1320	WSMB	New Orleans, La., 5000 from				
	•	1000(5)				
1350	WMBG	Richmond, Va., 1000(5) from 500				
	Delete					
1010	CKCD	Vancouver, B. C.				
1100	WRIT.	New York City				

880	WRNL	Richmond to 1000
880	WSUI	Iowa City, to 1000(5)
890	KFNF	Shenandoah, to 1000(5)
900	KGBU	Ketchikan, to 1000
940	KOIN	Portland, to 5000
950	кмвс	Kansas City, to 5000
950	WRC	Washington, to 5000
990	XEK	Mexico City, to 500
1200	WSKB	Mexico City, to 500 McComb, to 250
1120	KRSC	Seattle, to 1000
1200	KADA	Ada, to 250
1200	WJBW	New Orleans, to 250
1210	WFPW	Fort Smith, to 250
1210	WCOL	Columbus, to 250
1210	WHIZ	Zanesville, to 250
1210	WJEJ	Hagerstown, to 250
1220	WCAE	Pittsburgh, to 5000 Tampa, to 5000
1220	WDAE	Tampa, to 5000
1300	WFBC	Greenvill, to 5000
1310	KRRV	Sherman, to 1000
1310	KTSM	El Paso ,to 500
1310	WNBH	New Bredford to 250
1420	KGMB	Honolulu, to 5000 Akron to 5000
1320	WADC	Akron to 5000
1320	WSMB	New Orleans, to 5000
1330	KSCI	Sioux City, to 5000
1330	KGB	San Diego, to 5000
1330	WDRC	Hartford, to 5000
1330	WSAI	Cincinnati, to 5000
1330	WTAQ	Gren Bay, to 5000
1340	WSPD	Toledo, to 5000
1350	KWK	St. Louis, to 5000
1350	WMBG	Richmond, to 1000(5)
1370	KERN	Bakersfield, to 1000
1370	KFRO	Longview, to 1000
1370	WMSL	Decatur, to 250
1370	WPRA	Mayaguez, to 1000(2.5)
20.0	Permi	to Change Location
1050	KFBI	t to Change Location Abilene, to Wichita
1210	WGRM	Grenada, Miss., to Greenwood
1260	WNBX	
1200	VV IV DIL	16. H.
	Donmit	to Change Frequency
770	KFAB	Lincoln, to 1080
770	Krab	Fort Smith to 1370
1210	KFPW	Fort Smith, to 1370 Columbus, to 1200
1210	WCOL	Done Ambum to 1220
1260	KPAC	Port Arthur, to 1220 Sherman, to 880
1310	KTSM	El Dece to 12250
1310		El Paso, to 13350

נינטו	CKCD	vancouver, B. C.
1100	$\mathbf{WBIL}$	New York City
1100	WPG	Atlantic City, N. J.
1130	wov	New York City
1410	CKFC	Vancouver, B. C.

### Permit to Change Power

JJU WJV.	a mairisonourg to 1000
560 KLZ	Denver to 5000
590 WKZ	O Kalamazoo to 250(1)
610 KFR(	San Francisco, to 5000

Honolulu, to 590 Bakersfield, to 1380 1320 1370 KERN KFRO Longview, to 1340 1370

1

### Applications to the FCC

CP-Construction permit. mod.-modification. lic.—license.
ltd.—limited time.
unltd.—unlimited time.
S. H.—specified hours.

KDON, Monterey, CP 500(1), 1440 kcs. KEEN, Seattle, CP 1370 kcs. to 1420 kcs. KFBB, Great Falls, mod. of lic. for 900 kcs., 5 kw.

KFIO, Spokane, CP 950 kcs., 1 kw. unltd KFNF, Shenandoah, mod. of CP to move to Council Bluffs.

to Council Bluns.
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.
KMAC. San Antonio, CP 930 kcs., 1000 w.

unltd.

KOVC, Valley City, CP 1340 kcs., 500(1).
KOY, Phoenix, mod. of lic. for 550 kcs.
KRBC, Abilene. CP 940 from 1420; 1 kw.
KRMC, Jamestown, CP 900 kcs., 1 kw.
KRRV, Sherman, CP 880 kcs., 1 kw. unitd.
KSD, St. Louis, CP 630 kcs.
KSEI, Pocatello, CP 600 kcs., 1 kw. unitd.

Shreveport, CP 620 kcs., 1000(5) KTBS.

unltd.

KWK, St. Louis, CP 630 kcs. KXL, Portland, CP 730 kcs., 10 kw. unltd. KXOK, St. Louis, CP 630 kcs., 1000(5). KXYZ, Houston, CP 710 kcs; 10 kw.

KYOS, Merced, CP 1390 from 1040; 500(1)

unltd. WAPI, Birmingham, CP 1050 kcs., kw. WCAD. Canton, CP Watertown, N. Y. WCOL, Columbus, to 1200 kcs., 250 w. unltd. WAPI,

WGBF, Evansville, CP 1250 kcs., 1000(5) unltd.

WGRC, New Albany, CP 880 kcs., 250 w. unltd.

Madison, CP 670 kcs. 50 kw. unltd. (facilities of WMAQ).

WIBC, Indianapolis, mod. lic. 1130 from 1050; 1 kw.

WJJD, Chicago, 10000(25) unitd. 1040 from CP 1130:

WKAQ, San Juan, CP 620 kcs. 5 kw. WLAP, Lexington, CP 1270 kcs. 1 kw. unltd. WMBC, Detroit, CP 600 kcs. WREN, Lawrence, CP Kansas City.

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, CP 1240 from 1140: 500

w unltd.

WTJS, Jackson, CP 1380 from 1310; 1 kw.; mod. licfl 250 unitd. WWVA, Wheeling, CP 1140 from 1160; 50 kw.

### Applications for New Stations

Albemarle, N. C., Albemarle tion, 1370 kcs. 100 w. days. Albemarle Brdcstg. Sta-

Arlington, Va., Arlington Brdcstg. Corp., 1420 kcs 250 unltd.

Asheville, N. C., Publix-Bamford Theaters, Inc., 1430 kcs. 1 kw. unitd. 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).
Bainbridge, Ga., Post Search Light Co., 1500

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., Mayflower Brdcsig. Corp., 1410 kcs. 500(1). Bridgeport, Conn., Chas. Greenblatt, 1190 kcs. 250 w. ltd.

Bridgeport, Conn., Harold Thomas, 1420 kcs. 250 unltd.

Brownwood, Tex., Brown Co., 990 kcs. 1 kw. days. Brown County Brdcstg.

Burlington, Iowa, Burlington Brdestg. Co.
Burlington, N. C., Burlington Brdestg. Co.,
1420 kcs., 100 D.
Burlington, N. C., Central Carolina Brdestg.
Co., 1420 kcs., 250 unltd.
kcs. 100 w. unltd.

kcs. 100 w. unltd.
Cedar Rapids, Iowa, The Gazette Co., 1420
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.

100(.25) unltd. Ely, Nev. Easter

Eastern Nev. Brdcstg. Co., 1500 kcs. 100 days.

Everett, Wash., Cascade Brdcstg. Co., 1420
kcs. 100(.25) unltd.

M yers, Fla., Palm Radio Co., 1210 kcs.,

250 unltd. reenville, Tex., Hunt Brdcstg. Assn., 940 Greenville, Tex. kcs., 1 kw D.

kcs., 1 kw D.

Hannibal, Mo., Courier Post Pub. Co.

High Point, N. C., High Point Brdestg. Co.,

1120 kcs., 250 unltd.

Jacksonville, Ill., Stephenson, Edge & Korsmeyer, 1370 kcs., 250 unltd.

Rosciusko, Miss., P. K. Ewing, 1500 kcs.,

100(.25). unltd.

Las Vegas, Nev., Las Vegas Brdestg. Co.,

1420 kcs. 100(.25).

Las Vegas, Nev., Nev. Brdcstg. Co., 1370 kcs. 100(.25) unltd. Lookout Mt., Ga., Lookout Mt. Corp., of Ga., 1370 kcs., 100(.25). Louisville, Ky., Gateway Brdcstg. Co., 880 kcs. 500 unltd. Miles City, Mont., E. E. Krebsbach 1310 kcs., 100(.25). Miles City, Mont. Stor. British Res. British Res. Stor. British Res. Stor. British Res. British Res.

Miles City, Mont., Star Printing Co., 1310 kcs., 250 unltd.
Norfolk, Va., Colonial Brdestg. Corp., 1370 kcs. 100(.26).

North Sacramento, Calif., Grant Union High School District, 1530 kcs., I kw.
Pawtucket, R. I., Pawtucket Brdestg. Co., 1390 kcs. I kw. unltd.

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

Riverside, Calif., Brdcstg. Corp. of America, 1390 kcs. 1 kw.
Riverside, Calif., Richard T. Sampson, 1390 kcs. 250 days.
Rochester, N. Y., Edward J. Doyle, 1270 kcs. 500 days.
Salina, N. Y., Sentinel Brdcstg. Corp., 620 kcs. 1 kw. unltd.
Sandusky, Mich., Thumb Brdcstg. Co., 880 kcs. 1 kw. days.
San Diego, Calif., Jack Hazard, 1430 kcs., 500 w. unltd.
San Juan, P. R., Enrique Abarca Sanfeliz, 580 kcs. 1 kw. unltd.

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Lexington, Ky. (8 units - 10 w).
Cohasset, Mass. (3 units - 10 w).
Holyoke, Mass. (5 units - 10 w).
Dearborn, Mich.
Dearborn, Mich.
Bourne, Mass. (2 units - 10 w).
Barnstable, Mass. (2 units - 10 w).
Barnstable Co., Mass. (4 units - 10 w).
Union Twp., N. J., (3 units - 10 w).
Bronxville, N. Y. (2 units - 12 w).
Verona, N. J. (2 units - 12 w).
Verona, N. J. (2 units - 50 w).
Lakewood, N. J.
Norwood, Pa.
Des Plaines, Ill. (units - 15 w).
Concord, N. H. (1 unit - 15 w).
Genolden, Pa. (1 unit - 15 w).
Yeadon, Pa.
Milwaukee, Wis. The Journal Co.
Fargo, N. Dak. WDAY, Inc.
Aurora, Ill. Martin R. O'Brien
Fairhaven, Mass. E. Anthony & Sons.
New York, N. Y.
New York City.
Los Angeles, Calif. CBS, Inc.
New York City. NBC, Inc.
Portable. Bell Telephone Labs., Inc. W10XJT
and XJU are FM stations for conducting tests
with W10XJV and W, communicating beween
arcraft and autos within 100 miles of NYC.
Same as above.
                             WPET
                                                                                   MP
                            WPGU
WOIF
WONC
WOND
WRAG
                                                                                                                ....
                                                                                    MP
                                                                                                                • • • •
                                                                                   MP
                                                                                    MP
                                                                                   MY
                                                                                                                      15
                                                                                   MP
                                                                                                                • • • •
                            WRAQ
                                                                                   MP
                                                                                                                • • • •
                             WRAR
                                                                                   MP
                           WOJB
WOOY
WOYH
WRBT
                                                                                                               20
                                                                                   MP
                                                                                  MP
                                                                                                                50
50
                                                                                  MY
                                                                                  MP
                           WRHY
WRIJ
WRJV
WRJX
                                                                                  MP
                                                                                                                      15
                                                                                                                      20
                                                                               . MP
                                                                                  MP
                                                                                                                • • • •
                                                                                  MP
                                                                                                               ··i5
                            WRLO
                                                                                  MP
37980
                           W9XAI
W9XBF
                                                                                                                     25
25
                                                                                   RB
                                                                                   RB
                          W9XEG
W1XEQ
W2XDG
                                                                                   RB
                                                                                                                         6
38600
                                                                                         В
                                                                                                                  100
                                                                                                                  150
50
                                                                                         В
                          W2XDV
W6XDA
W2XDG
                                                                                         В
                                                                                         В
                                                                                                                  100
38650
                                                                                         \bar{\mathbf{B}}
                                                                                                               20
38800
                           W10XJT
                                                                                     \overline{E1}
                                                                                                                                                   with with vally and values of NYC.

Same as above.

Portable. Bell Telephone Labs., Inc. W10XJV and W are amplitude modulated stations, for comparative tests with the above FM stations.

Same as W10XJV.

Paducah, Ky. P. Brdestg. Co.

Portable. United Press Ass'n.

Elizabeth, N. J. (1 unit - 15 w).

Larchmont, N. Y.

Garfield, N. J. (4 units - 10 w).

Denver, Colo. NBC, Inc.

San Francisco, Calif. NBC, Inc.

New York City. NBC, Inc.

Chicago, Ill. NBC, Inc.

Chicago, Ill. NBC, Inc.

Cleveland, Ohio. NBC, Inc.

Washington, D. C. NBC, Inc.

Portland, Ore. Oregonian Pub Co.

Paducah, Ky. P. Brdestg. Co.

Huntington Woods, Mich. (1 unit - 12 w).
                                                                                                                                                             aircraft and autos within 100 miles of NYC.
                          W10XJU
W10XJV
                                                                                     E1
E1
                                                                                                                      20
15
                           W10XJW
W9XEA
                                                                                     E1
                                                                                                                      15
38900
                                                                                  RB
                                                                                                                      40
                         WBQA
WRAD
WRIO
WROE
KEJC
KEJH
WEJJ
                                                                                   PR
39020
                                                                                                                      10
                                                                                 ЙP
39100
                                                                                                                  100
                                                                                  MР
                                                                                                                         5
                                                                                 MP
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2
2
2
39260
                                                                                  RB
                                                                                   RB
                                                                                  RB
                          WEJK
WEJO
                                                                                  RB
                                                                                                                         2 2
                                                                                   RB
                          WEJS
W7XCY
                                                                                  RB
                                                                                                                  4½
40
                                                                                  RB
                          W9XEA
39300
                                                                                  RB
                                                                             SEM
39340
                          WRJC
39360
                                                                                  MP
                                                                                                              ....
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### Explanation of the Third Column Symbols:

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EM—Emergency.
      –Aircraft.
                                                                                       SEM- Special emergency.
MF- Marine fire.
    —Broadcast.
      -Commercial Telegraph.
                                                                                       MR-Marine Relay.
    -Forestry.
                                                                                       PR—Press relay.
RB—Relay broadcast.
FAC—Facsimile.
TV—Television video.
    —Government.
P-Police.
    -Ship.
T-Radio Telephone.
FA-Aeronautical (ground).
                                                                                       TA-Television audio.
                                                                                       NCE—Non-commercial educational.
CC—Coastal Telegraph.
CH—Coastal harbor.
FMB - Frequency modulated broadcasting
   station.
station.
GEO—Geophysical.
RC—Circular radiobeacon.
RD—Directional radiobeacon.
RG—Direction finding station.
LH—Lighthouse.
RR—Radio range station.
MP—Municipal police.
SP—State police.
ZP—Zone police.
                                                                                       CHC-Coastal harbor telegraph.
MT-Coastal harbor telephone.
                                                                                       Έ
                                                                                       E1
                                                                                                             Experimental.
                                                                                       E2
                                                                                       E3
                                                                                      GE—General Experimental.
SE—Special Exeprimental.
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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 MP 250 Louisville, Ky. (2 units-12 w).

```
Pueblo, Colo.
Petaluma, Calif. (2 units - 5 w).
San Mateo, Calif. (2 units - 5 w).
eMrced, Calif. (3 units - 5 w).
Nashville, Tenn. (3 units - 5 w).
Garden City, N. Y. (7 units - 10 w).
White Plains, N. Y.
Ventnor, N. J. (3 units - 10 w).
Longport, N. J.
Long Branch, N. J. (17 units - 10 w).
Ossining, N. Y. (1 unit - 10 w; 1 unit - 15 w).
                           KOCX
KÕCY
KÕDA
KÕDP
                                                                                  MP
                                                                                                                      25
                                                                                   MP
                                                                                                                      10
                                                                                   MP
                                                                                                                      5
15
                                                                                  MP
                           KODP
KOLZ
KOLZ
WOKO
WOKS
WKOX
WONF
WONF
                                                                                  MΡ
                                                                                                               • • • •
                                                                                   МP
                                                                                                               . . . .
                                                                                   MΡ
                                                                                                               • • • •
                                                                                   MΡ
                                                                                   MP
                                                                                                                      50
                                                                                                               • • • •
                                                                                                                                                    w).

Belmar, N. J.
Fayette Co., Ky.
Cheltenham, Pa. (1 unit - 5 w).
Beaver, Pa. (1 unit - 10 w).
Quincy, Mass.
Madison Co., Ill.
Princeton, N. J.
Hingham, Mass.
Kingsport, Tenn.
Kingston, N. Y.
Hull, Mass
Hull, Mass
Hull, Mass
Hammond, Ind.
                                                                                                                                                             w).
                           WONT
WOOB
WOOB
WORP
WORY
WOTI
WOTI
WOXP
WOYP
WOYE
WOYE
WOYE
                                                                                  MP
                                                                                                                         8
                                                                                  MP
                                                                                                                      25
                                                                                   MP
                                                                                                               ··;
                                                                                   MP
                                                                                   MP
                                                                                                                  100
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                                                                                                                      30
50
                                                                                  MP
                                                                                  MP
                                                                                                                      13
50
50
                                                                                   MΡ
                                                                                   MP
                                                                                   \overline{\mathbf{MP}}
                                                                                                                   100
                                                                                                                                                      Hammond, Ind.
                                                                                   MP
                                                                                                                                                  Hammond, Ind.
Gary, Ind.
New Britain, Conn.
Hornell, N. Y.
Wellsville, Ohio. (2 units - 12 w).
Hickory, N. C.
Meadville, Pa. (2 units - 12 w).
Holidays Cove, W. Va. (12 unts - 10 w; 2 units - 5 w).
Nutley, N. J. (3 units - 5 w).
Daytona Beach, Fla. (2 units - 15 w).
Stauton, Va.
Beaumont, Tex. (1 unit - 15 w; 1 unit - 10 w).
Fresno, Calif. (25 units - 25 w).
Port Arthur, Tex. (1 unit - 10 w).
Piedmont, Calif. (8 units - 10 w).
Lima, Ohio. (3 units - 15 w).
Du Page Co., Ill. (9 units - 15 w).
Du Page Co., Ill. (9 units - 15 w).
Downers Grove, Ill. (2 units - 15 w).
Chicago, Ill. WGN, Inc.
Chicago, Ill. WGN, Inc.
Portable in Mass. Commonwealth of Mass, Dept.
of Pub. Safety, Div. of State Police.
Portable. United Press Asn'n.
Harrisburg, Pa. Commonwealth of Pa.
Portable. State of N. Y.
Shiloh, Md. Md. State Dept of Forestry
Portable. State of N. Y.
Harrisburg, Pa. Commonwleath of Pa.
Woodbridge, N. J. (units - 10 w).
Portable in Mass. Metropolitan Dist. Commission of Commonwealth of Mass.
Portable in Mass. Same as WQRF
Portable in Mass. Same as WQRF
Boston, Mass. (2 units - 15 w; 1 unit - 6 w).
Same as WQRF
Downers Grove, Ill.
Naperville, Ill. (1 unit - 12 w).
Camden, N. J. RCA Mfg. Co.
Los Angeles, Calif. John H. Hidy
Portable. Wallace and Tiernan Products.
Lawrence, Mass. Hildreth & Rogers Co.
Reading, Pa. Reading Brdcstg Co.
Baltimore, Md. Monumental Radio Co.
Baltimore, Md. Monumental Radio Co.
                                                                                                                                                     Gary, Ind.
New Britain, Conn.
                                                                                                                     75
15
                           WRAB
WRAF
                                                                                  MΡ
                                                                                   MP
                                                                                                                      15
                           WRAP
                                                                                   MP
                           WRGB
                                                                                   MΡ
                                                                                                                      25
25
15
15
                           WRGY
                                                                                   MP
                            WRGZ
                            WRHF
                                                                                   MP
                                                                                                                         5
                           WRHG
                                                                                  MP
                           WRHO
WRID
                                                                                                                      50
                                                                                  MP
                                                                                   MΡ
                                                                                                                         5
                           KGPJ
WGZA
37220
                                                                                  MP
                                                                                                               . . . .
                                                                                  MP
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                           KPAT
                                                                                   MP
                                                                                                               . . . .
                           KODV
WAFU
WPDW
                                                                                   MΡ
                                                                                                               . . . .
                                                                                  \widetilde{\mathbf{M}}\widetilde{\mathbf{P}}
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                                                                                  MP
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                           WOJW
WRIW
WAIF
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                                                                                  MP
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37340
                                                                                   \mathbf{R}\mathbf{B}
                            WAIG
                                                                                  RB
SP
                                                                                                                        1
37380
                           WOZX
                           WBQA
WJAB
                                                                                   PR
F
37420
37460
                                                                                                                         2
                           WRAI
WRLF
                                                                                         \mathbf{F}
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15
                          WRWK
WRWL
W3XPT
WOJE
WQRF
                                                                                                                     20
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                                                                                         \mathbf{F}
37500
                                                                                  MP
                                                                                                                     50
                                                                                  MP
                                                                                                                         5
                          WORG
WORH
WORT
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                           WRIW
WROA
W3XAB
W6XDS
W7XBA
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37540
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                          WYADA
W9XAR
W1XPZ
W3XIW
W3XPI
W3XPI
                                                                                    E1
                                                                                                              10
37600
                                                                                                                                                     Lawrence, Mass. Hildreth & Rogers Co.
Reading, Pa. Reading Brdcstg Co.
Baltimore, Md. Monumental Radio Co.
Baltimore, Md. Same as W3XPI
San Francisco, Calif. Associated Broadcasters,
                                                                                   RB
                                                                                                                     102
                                                                                   RB
                                                                                   RB
                                                                                   RB
                                                                                                                         2
37620
                          KEHA
                                                                                   RB
                                                                                                                                                             Inc.
                                                                                                                                                     Milwaukee, Wis. The Journal Co.
Leavenworth, Kans.
Faribault, Minn. (2 units - 15 w).
Berkeley, Calif.
                           WEIN
                                                                                   RB
                                                                                                                      25
37780
                           KNFF
                                                                                  MP
                                                                                                                  71/2
                           KOED
KSW
                                                                                  MP
                                                                                  МP
                                                                                                                                                     Berkeley, Calif
Everett, Mass.
                           WAKF
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ADEX				. 29
	WOWB WOWC WOWE WOWF WOXF	F	15	Hollofield, Md. Md. Dept. of Forestry Hillmeade, Md. Same as WQWB Laurel, Md. Same as WQWB Pasadena, Md. Same as WQWB Burtonville, Md. Same as WQW Portable. Same as WQWB Goetzville, Mich. Same as WIVA. Newberry, Mich. Same as WIVA. lon Mountain, Mich. Same as WIVA Hulbert, Mich. Same as WIVA Mobile in Mich. Same as WIVA Sterling, Conn. tSate of Conn, Park & Forest Comm., Forestry Dept. Stors, Conn. Same as WROY Harrisburg, Pa. Same as WJAB Kellogg Mt. Fire Tower, Bradford Co., Pa. Same as WJAB
	WQWC	F	15	Hillmeade, Md. Same as WQWB
	WOWD	सम्बन्धस्य	50 25	Pasadena Md Same as WOWB
	WOWE	r F	20	Burtonville, Md. Same as WOW
	WŎXĤ	F	10	Portable. Same as WQWB
	WKLK	F	3	Goetzville, Mich. Same as WIVA.
	WRLT	$\mathbf{F}$	3	Newberry, Mich. Same as WIVA.
	WRMH WRMI	1. Tr	3 3	Hulbert Mich Same as WIVA
	WRMK	F	15	Mobile in Mich. Same as WIVA
	WROY	Ē	50	Sterling, Conn. tSate of Conn, Park & Forest
				Comm., Forestry Dept.
	WROZ	F	50	Stors, Conn. Same as WROY
	W3XPT W8XVE		100 100	Harrisburg, Pa. Same as WJAB
	WOAVE	T.	100	Same as WIAB
	W8XVF	$\mathbf{F}$	100	Rattlesnake Fire Tower, Clearneid Co., Pa.
				Same as WJAB
<b>357</b> 80	WQZB	to WQZO,	10	Mobile in Mass. Commonwealth of Mass, Dept of Pub. Safety, Div. of State Police. Portable in Mass. Same as WOZB Milwaukee, Wis. The Journal Co. Fargo, N. Dak. WDAY, Inc. Aurora, Ill. Martin R. O'Brien San Marino. Calif.
		SP	10	Mobile in Mass, Commonwealth of Mass, Dept
	WQZX	$\mathbf{SP}$	1	Portable in Mass. Same as WOZB
35820	WŶXAI	$\widetilde{\mathbf{R}}\widetilde{\mathbf{B}}$	25	Milwaukee. Wis. The Journal Co.
	W9XAI W9XBF	$\mathbf{R}\mathbf{B}$	25	Fargo, N. Dak. WDAY, Inc.
• ***	W9XEG	RB	6	Aurora, Ill. Martin R. O'Brien
35900	KODW	M P M P	50 15	San Marino, Calil.
	WKPD	MP	35	Wellesley Mass
	WQJG WRAC	MP	35 15	San Marino, Calif. San Marino, Calif. Kenilworth, Ill. Wellesley, Mass. Concord, Mass. (2 units - 15 w). Haddon Heights, N. J. (1 unit - 12 w).
	WRAN	MP	15	Haddon Heights, N. J. (1 unit - 12 w).
	WRCW	MP	15	Burington, Vermont
	WRLJ	MP	15	Latrobe, Pa. (1 unit - 12 w).
350940	WJAB	Ę	2	Harrisburg, Pa. Commonwealth of Pa. Portable. Same as WJAB Portable. Same as WJAB
	WOSA	r F	2	Portable. Same as WIAB
	WÖSD-E	**************************************	-	All same as WIAB above.
	WQXH	F	10	Portable. Md. Dept. of Forestry.
	WQYA	F	15	Portable, Md. Dept. of Forestry, Harwich, Mass. Dept. of Conservation Five units in Mass. Same as WOYA Five units in Mass. Same as WOYA
	WOYL	<b>1</b>	10 10	Five units in Mass. Same as WOYA
	WOYD	F	25.	Middlehorough Mass. Same as WOYA
	WŎŶŔ	F	25	Carver, Mass. Same as WOYA
	WQYS	$ar{ extbf{F}}$	25, 25 25	Middleborough, Mass. Same as WQYA Carver, Mass. Same as WQYA Hingham, Mass. Same as WQYA Kingston, Mass. Same as WQYA
	WQYT	F	10	Kingston, Mass. Same as WQYA
	WRGE WRGF	F F	25 10	Plymouth, Mass. Same as WOYA
		through WRV		all Portable in Wis, all I watt, owned by State
	WEVD	timough Witt	, _,	Plymouth, Mass. Same as WQYA Plymouth, Mass. Same as WQYA Plymouth, Mass. Same as WQYA all Portable in Wis., all I watt, owned by State of Wis., Conservation Commission Harrisburg, Pa. Same as WJAB Vallog, Mt. Fire Tower, Same as WIAB
	W3XPT		100	Harrisburg, Pa. Same as WJAB
	W8XVE		100 <b>10</b> 0	Keilogg Mt. Fire Tower. Same as WJAB Rattlesnake Fire Tower. Same as WJAB
	W8XVF	F	10	Mobile in Md. Md. State Dept. of Forestry
35960	WROA	PR	10	Portable United Press Ass'r
36785	WBQA		000	Warsaw, Poland (Germany).
37020	KĖJC	RB	2	Denver, Colo. NBC, Inc.
	KEJD	RB	2	Denver, Colo. NBC, Inc.
	KEJH KEJI	$\mathbf{R}\mathbf{B}$	2	San Francisco, Calif. NBC, Inc.
	KEJI	RB	2	San Francisco, Calii. NBC, Inc.
	WĔJ <b>J</b> WEJK	RB RB	2	Chicago III NRC Inc.
	WETO	RB	2 2 2 2	Cleveland, Ohio, NBC, Inc.
	WEIR	$\mathbf{R}\mathbf{B}$	2 2	New York City. NBC, Inc.
	WEJS	$\mathbf{R}\mathbf{B}$	2	Washington, D. C. NBC, Inc.
	WEIT	RB	2	Washington, D. C. NBC, Inc.
	WEJU W2XF	RB RB .	25	New York City, NBC, Inc.
	W2XF W2XK		• • •	New York City, NBC, Inc.
	W3XEK	TO TO	•••	Washington, D. C. NBC, Inc.
	W3XPO	RB .	•••	Washington, D. C. NBC, Inc.
	W3XPP	RB .	•••	Washington, D. C. NBC, Inc.
	W6XDE	RB .	• • •	Mobile in Md. Md. State Dept. of Forestry Portable. United Press Ass'n. Warsaw, Poland (Germany). Denver, Colo. NBC, Inc. Denver, Colo. NBC, Inc. San Francisco, Calif. NBC, Inc. San Francisco, Calif. NBC, Inc. New York City. NBC, Inc. Cleveland, Ohio. NBC, Inc. Cleveland, Ohio. NBC, Inc. New York City. NBC, Inc. Washington, D. C. NBC, Inc. Washington, D. C. NBC, Inc. New York City. NBC, Inc. San Francisco, Calif. NBC, Inc. Washington, D. C. NBC, Inc. San Francisco, Calif. NBC, Inc. San Francisco, Calif. NBC, Inc. Portland, Ore. Oregonian Pub. Co. Beverly Hills, Calif. (units - 4½ w).
	W7XCY	3.533	41/2	Portiand, Ore. Oregonian Pub. Co.
37100	KOOI	MP .	•••	Portland, Ore. Oregonian Pub. Co.  Beverly Hills, Calif. (units - 4½ w).  Rochester, Minn. (2 units - 5 w).  Palm Springs, Calif. (1 unit - 20 w).  Martinez, Calif. Ogden, Utah Stockton, Calif.
	KOAM	MP MP	25 50	Rochester, Minn. (2 units - 5 W).
	KÕCE	MP	150	Martinez. Calif.
	KÕAM KÕAS KÕCE KÕCH	MP	25	Ogden, Utah
	KÕCR	MP	15	Stockton, Calif.

•					hile - 1 unit 10 wate 1 unit 15 wate)
		WNYG	MF	50	World's Fair—New York City.
	35600	WNYG W1XEQ W1XKA	В	100	bile - 1 unit 10 wats, 1 unit 15 wats). World's Fair—New York City. Fairhaven, Mass. E. Anthony & Sons.
		W1XKĀ	В	50	Boston, Mass. (WBZ).
		W1XKB	<b>B</b> B	500	E. Springfield, Mass. (WBZA). Boston, Mass. (SBS, Inc.) New York City. NBC, Inc. New York City.
		W1XOE W2XDG	В	150	New York City, NBC, Inc.
		W2XDV	B	50	New York City.
		$W_2XEY$	$\mathbf{GE}$	1.5	Portable General Elec. Co.
		W2XHG W2XNA	B	150	Portable General Elec. Co. Bound Brook, N. J. Fireboat "James Duane." City of NYC, Fire
		W2XNA W2XNB	MF MF	••••	Department.
			MF		Firehoat "Thomas Willett"
		W2XNC W3XND	MF		Fireboat "Thomas Willett" Fireboat "William Strong"
		W2XNE	$\mathbf{MF}$		Fireboat "George McClellan"
		W2XNF	$\mathbf{MF}$	• • • •	Fireboat "William Gaynor" Fireboat "John P. Mitchell"
		W2XNG	MF	• • • •	Fireboat "John P. Mitchell" Fireboat "Abram Hewitt"
		W2XNH	MF MF		Fireboat "Cornelius Lawrence"
		W2XNI W2XNJ W2XRZ	МF		Fireboat "Cornelius Lawrence" Tender "Captain Connell" Portable. General Elec. Co.
		W2XRŽ	$\mathbf{GE}$	50	Portable. General Elec. Co.
		W3XES	В	300	Baltimore, Md. Monumental Radio Co. Norfolk, Va. WTAR Radio Corp. Baltimore, Md. Baltimore Radio Show Philadelphia, Pa. Postable Corp. Philadelphia, Pa. Postable Corp. Postable Corp. Programs Paginages
		W3XEX W3XEY	B Be	50 100	Raltimore Md Raltimore Radio Show
		W3XIR	В	100	Philadelphia, Pa. WCAU
		W3XIR W3XKA	В	50	Philadelphia, Pa.
		W3XPG	GΕ	50	Fortable, General Engineers.
		W4XBW W4XCA	В	100	Chattanooga, Tenn. (WDOD Brdcstg Corp.
		W4XCA.	В <b>В</b>	250 <b>10</b> 0	Memphis, Tenn. Oklahoma City, Okla. WKY Radiophone Co.
		W5XAU W5XD	B	100	Dallas, Texas.
		W5XGB	$G\bar{\mathbf{E}}$	50	Pasadena Tex. Houston Lighting & Power Co.
		W5XGC W6XAS	GE	50	Dallas, Texas. Pasadena Tex. Houston Lighting & Power Co. Humble, Tex. Same as W5XGB San Francisco, Calif. Julius Brunton & Sons
		W6XAS	$_{\mathbf{B}}^{\mathbf{B}}$	10 100	San Francisco, Calif. Julius Brunton & Sons Los Angeles, Calif. CBS, Inc.
		W6XDA W6XXT	GΕ	5000	Los Angeles, Calif. CBS, Inc. Portable. Press Wireless, Ltd
		*** 021211	<b></b>	••••	Portable. Press Wireless, Ltd Tacoma, Wash. State of Wash. Dept. of High-
		W7XGA	GE	10	ways
		MION AT	В	100	Rochester, N. Y. Stromberg-Carlson Telephone Mfg. Co.
		W8XAI W8XH	В	100	Buffalo, N. Y.
		WAXKA	B	50	Pittsburgh, Pa. Westinghouse Elec. & Mfg. Co.
		W8XNT	$\mathbf{R}\mathbf{B}$	50	Pittsburgh, Pa. Westinghouse Elec. & Mfg. Co. Cleveland, Ohio. United Brdcstg Co.
		W8XNT W8XOY W8XTY	TE A C	150	Cleveland, Ohio. United Brdcstg. Co. Akron, Ohio. Detroit, Mich. Detroit News Portable. W. Va. Univ. Dept. of Physics. Portable. Same as above. Detroit, Mich. Detroit News.
		W8XUK	FAC GE	10	Portable, W. Va. Univ. Dept. of Physics.
		W8XUL	ĞĒ	10	Portable. Same as above.
		W8XWT	В	• • • • •	Portable. Same as aboye. Detroit, Mich. Detroit News. Milwaukee, Wis. Journal Co.
		W9XAŽ W9XBS	$_{ m B}^{ m B}$	<b>5</b> 00	Milwaukee, Wis. Journal Co. Chicago, Ill. Kansas City, Mo Midland Brdcstg. Co. Minneaoplis, Minn. Northwestern Brdcstg. Denver, Colo. KLZ Brdcstg. Co. St. Louis, Mo. Star-Chronicle Pub. Co. St. Louis, Mo. Pulitzer Pub. Co. Portable. Western Union Teleg. Co. Portable. Same as above. Denver, Colo. NBC, Inc.
		W9XER	В	50 50	Kansas City. Mo Midland Brdcstg. Co.
		W9XHW	В	50	Minneaoplis, Minn. Northwestern Brdcstg.
		W9XLA	$\mathbf{B}$	100	Denver, Colo. KLZ Brdcstg. Co.
		W9XOK W9XPD	В	100	St. Louis, Mo. Star-Unfonicle Pub. Co.
		W10XIA	$_{\mathbf{GE}}^{\mathbf{B}}$	100 15	Portable. Western Union Teleg. Co
		WIOXIB	ĞĔ	15	Portable. Western Union Teleg. Co Portable. Same as above. Denver, Colo. NBC, Inc. Denver, Colo. NBC, Inc. San Francisco, Calif. NBC, Inc. San Francisco, Calif. NBC, Inc. New York City. NBC, Inc. Chicago, Ill. NBC, Inc. Cleveland, Ohio. NBC, Inc. New York City. NBC, Inc. New York City. NBC, Inc. Washington, D. C. NBC, Inc. Washington, D. C. NBC, Inc. New York City. NBC, Inc. Portland, Ore. Oregonian Pub. Co. New York City. NBC, Inc.
	35620	KEJC	$\mathbf{R}\mathbf{B}$	2 2 2	Denver, Colo. NBC, Inc.
		KEJD	RB	2	Denver, Colo. NBC, Inc.
		KEJH KEJI WEJJ	RB RB	2	San Francisco, Calif. NBC, Inc.
		WEII	RB	\ \\ \frac{2}{2}	New York City. NBC, Inc.
		WEJK	RB	$\bar{2}$	Chicago, Ill. NBC, Inc.
		WEJO	$\mathbf{R}\mathbf{B}$	2 2 2 <b>2</b>	Cleveland, Ohio. NBC, Inc.
		WEJR	RB	2	New York City, NBC, Inc.
		WEJS WEJT	RB RB	2	Washington D. C. NBC, Inc.
		WEIU	RB	25	New York City, NBC, Inc.
		WEJU W7XCY	$\mathbf{R}\mathbf{B}$	4½ 25	Portland, Ore. Oregonian Pub. Co.
		W10XGC	RB	25	New York City. NBC, Inc.
	35740	WIVA	$\mathbf{F}$	50	Roscommon, Mich. State of Mich. Dept. of Con- servation
		WIVB and	so on	53	53 stations with consecutive call letters. Through-
				••	53 stations with consecutive call letters. Through- out the state of Michigan, in fire towers.
		SIZTAD	73	•	Each, 3 watts.
		WJAB WQIR	F F	2 3	Harrisburg, Pa. Commonwealth of Pa. Hebron Forest Fire Tower, near Cheyboygan,
			-		Mich, Same as WIVA,
		WQLA KQLB	, <b>F</b>	3	Mio, Mich. Same as WIVA. Mio, Mich. Same as WIVA.
		KÕTR	F	. 3	M10, M1ch. Same as WIVA.

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WSAB
                                                                     PR
T
                                                                                                                           Portable. Associated Press
Manawahua, Hawaii. Mutual Telephone Co.
                                                                                              150
                                                                                                                        Manawahua, Hawaii, Mutual Telephone Co.
Lawrence, Mass. Hildreth & Rogers Co.
Reading, Pa. Reading Brdestg. Co.
Baltimore, Md. Monumental Radio Co.
Portable Same as W3XPI
Bristol, Tenn: (WOPI).
St. Petersburg, Fla. Chamber of Commerce
Portable. Loyola University
Phoenix, Ariz. Salt River Valley Co.
Hollywood, Calif. KMTR, Inc.
Nampa, Idaho. Frank E. Hurt.
Walla Walla, Wash. KUJ.
Lansing, Mich. WJIM
Erie, Pa. WLEU
Tuscola, Ill. WDZ Brdestg. Co.
Fargo, N. Dak. WDAY
Chicago, Ill. NBC, Inc.
Aurora, Ill. Martin O'Brien
Grand Canyon Nat'l Park, Ariz. Nat'l Park
Serv., U. S. Dept. of Interior.
Blcak Canyon of the Gunnison, Nat'l. Mon.,
Colo Nat'l Park Service.
San Francisco, Calif. Associated Broadcastters,
Inc.
Milwaukee, Wis Journal Co.
34100
                      K6XCG
                      W1XPZ
W3XIW
W3XPI
34600
                                                                     RB
                                                                                                 10
                                                                     RB
                                                                                                 10
                                                                    RB
                                                                                                   2
                      W3XPJ
W4XHW
W4XHY
                                                                    RB
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                                                                    RB
                                                                                                   2
                      W4XHY
W5XNB
W6XAC
W6XDR
W6XDZ
W7XDA
W8XEO
W8XLT
W9SGO
                                                                    RB
                                                                    RB
                                                                                                   222
                                                                     \mathbf{R}\mathbf{B}
                                                                     RB
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15
2
2
                                                                     RB
                                                                    RB
                                                                    RB
                                                                     RB
                      W9XAE
W9XAP
W9XEG
                                                                     RB
                                                                                                 10
                                                                    RB
                                                                                                 50
                                                                    RB
                                                                                                   6
34780
                      KNJC
                                                                         G
34820
                     KNJV
                                                                         G
                                                                                           ....
35020
                     KEHA
                                                                    RB
                                                                                                   2
                                                                                                                          Inc.
Milwaukee, Wis. Journal Co.
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Los Angeles, Calif. John H. Hidy
Portable. Northern Radio Co.
Portable. Kellogg Switchboard & Supply Co.,
Chicago Ill.
                        WEIN
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                      WEIN
W3XAB
W3XAM
W3XEZ
W6XDS
W7XBA
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GNKW
35100
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                                                                                                                           El Centro, Calif.
Brownwood, Tex
                                                                   MP
                                                                                                 10
                                                                                                                          Napa, Calif.
Kansas City, Kans. (8 units - 12 w).
San Anselmo, Calif. (2 units - 15 w).
Waterbury, Conn. (3 units).
Chicago, Ill. (22 units - 15 w).
Akron, Ohio. (6 units - w).
Nassau, N. Y. (3 units - 15 w).
Chicago, Ill. (22 units - 15 w).
Plymouth, Mass. (4 units - 10 w).
Milton, Mass.
Portable. Puget Sound Power & Light Co.
Portable. Same as KAOR
Portable. Same as KAOR
Portable. United Press Ass'n.
Portable. United Press
                                                                                                                           Napa, Calif.
                     KOBH
KÕBP
WMPW
WPDC
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                       WPDO
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                      WPGS
WOJF
WQYJ
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                     WRBA
KAOR
KAOS
KAOT
GAOU
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35140
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15
1
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 35180
                       WBQA
                                                                     PR
                                                                                                                          Fortable. United Press Ass'n.
Portable. Associated Press
Portable. Associated Press
Portable. Associated Press
Maikiki, Hawii. Mutal Telephone Co.
Kensington, Calif. (3 units - 10 w).
Sacramento, Calif.
Alameda, Calif. (1 unit - 25 w).
Pittsburg, Calif.
Indianapolis, Ind. (2 units - 11½ w; 33 units - 15 w)
                                                                                              1½
1½
150
                        WSÃA
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                        WSAB
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                      K6XCC
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                      KNGF
KPDA
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                                                                                                                                 15 w).
                      WPDC
WQJF
WAIF
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Chicago, Ill. (22 units - 15 w).
Chicago, Ill. WGN, Inc.
Chicago, Ill. WGN, Inc.
Lake Washington, Wash. (2 un
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 35260
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RB
                        WAIG
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 35460
                      KBRE
                                                                                                 10
                                                                                                                    Lake Washington, Wash. (2 units - 10 w; units - 2 w).

Geneva, Ill. (1 unit - 15 w).

Merion, Pa. (4 units - 5 w).

Boston, Mass.

Spring Lake, N. J. (2 units - 10 w).

Paterson, N. J. (12 units - 10 w).

Ambridge, Pa. (2 units - 15 w).

Birmingham, Mich. (1 unit - 12 w).

Berkeley, Mich. (1 unit - 12 w).

Clawson, Mich.

Ferndale, Mich. (2 units).

Huntington Woods, Mich. (1 unit - 12 w).

Pleasant Ridge, Mich.

Portable. Gulf Research & Deveelopment Co.

New York City (Installed in Mayor's automo-
                                                                                                                                                                                                                (2 units - 10 w; 3
                      WDAA
WONX
WRAS
 35500
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                       WRAZ
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                       WRGO
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                        WRHZ
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                        WRIY
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                        WRIZ
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                        WRJA
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                        WRJB
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                      WRJC
WRJD
KAWN
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                                                                   MP
35540
35580
                       WNYF
                                                                   Fire
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San Antonio, Tex . (17 units - 10 w).
Shreveport, La. (2 units - 10 w).
San Bernardino, Calif.
                        KGZE
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                       KNGP
KOAC
KOAD
KSBC
                                                                       MP
                                                                                                10
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                                                                                                                             Riverside, Calif.
San Bernardino Co., Calif. (9 units).
Glendale, Calif.
Nichols Hills, Okla.
Redlands, Calif. (5 units - 10 w).
Texarkana, Ark. (6 units - 10 w).
Shawnee, Okla.
Kalamazoo, Mich. (8 units - 10 w).
Lansing, Mich. (7 units - 10 w).
Pittsburgh, Pa. (Units - 10 w).
Muncie, Ind. (4 units - 12 w).
Fitchburg, Mass.
Jackson, Mich. (9 units - 15 w).
Lake County, Ill. (2 units, 15 w, 25 w).
Greenwich, Conn.
Montclair, N. J.
Rockport, Mass. (1 unit - 10 w).
Wayne Co, Ind. (2 units - 15 w).
Spartanburg, S. C. (1 unit - 15 w).
Spartanburg, S. C. (1 unit - 15 w).
Portable. United Press Ass'n.
Portable. Associated Press.
Portable. Associated Press.
Portable. Associated Press.
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Carden, N. J. RCA Mfg. Co.
Seattle, Wash. Radio Labs., Inc.
San Francisco, Calif. Associated Brdcasters, Inc.
Milwaukee, Mis. The Journal Co.
Ogden, Utah
Red Wing, Minn.
Santa Monica, Calif. (1 unit - 25 w).
Faribault, Minn.
Reedly, Calif. (2 units - 10 w).
Cleveland, Ohio
Bethlehen, Pa. (4 units - 10 w).
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                                                                                                                                San Bernardino Co., Calif. (9 units).
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KODI
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KTAP
KWCM
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WPDU
WPGP
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WSAB
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W3XEZ
W7XBA
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                       KEHA
WEIN
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KODB
KODF
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MP
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                                                                                                                                Cleveland, Ohio
Bethlehem, Pa. (4 units - 10 w).
Brookline, Mass. (12 units - 8 w).
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                         WENB
                       WQJJ
WQKK
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                                                                                                    80
                                                                                                                             Betnienem, Pa. (4 units - 10 w).
Brookline, Mass. (12 units - 8 w).
Sheboygan, Wis.
Sheboygan, Wis.
Sheboygan, Wis. (5 units - 15 w).
Froy, Ohio. (2 units - 15 w).
Bayonne, N. J. (12 units - 10 w).
Boston, Mass.
Pensacola, Fla.
Aliquippa, Pa. (2 units - 12 w).
Peoria, Ill.
Burlington, N. C.
Batavia, N. Y. (2 units - 12 w).
Fayetteville, N. C. (3 units - 10 w).
Fayetteville, N. C. (3 units - 10 w).
Fortable. Gulf Research & Development Co.
Portable. United Press Ass'n.
Milwaukee, Wis. The Journal Co.
Fargo, N. Dak. WDAY, Inc.
Aurora, Ill. Martin O'Brien
Oceanside, Calif.
Brea, Calif.
Denver, Colo. (13 units - 19 w; 1 unit - 8
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WOMW
WOMW
WOTX
WOXN
WRAS
WRGP
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WRJS
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WBQA
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W9XBF
W9XEG
KADI
KADQ
KGPX
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KQEN
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25
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33780
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                                                                                                                               Denver, Colo. (13 units - 19 w; 1 unit - 8 w).
Huntington Beach, Calif. (3 units - 10 w).
Laguna Beach, Calif. (2 units - 10 w).
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                       WČK
WPDX
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                                                                                                                                Detroit, Mich.
Detroit, Mich.
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Wellesley, Mass. (2 units - 10 w).
New York City. (2 units - 18 w).
Hicksyille, N. Y.
Glendale, Calif.
St. Paul, Minn. (23 units - 15 w).
Millville, N. J. (1 unit - 8 w).
New York, N. Y. (2 units - 18 w).
Jefferson Co., Ky., (10 units - 12 w).
New York City.
Millville, W. J. (1 unit - 8 w).
New York City.
E. Chicago, Ind
Portable, Associated Press
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WOJG
WRJY
W2XVX
KOCI
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                       WRJY
                       WROT
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33980
                     WBÕA
                                                                       PR
                       WSAA
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San Marino, Calif. (6 units - 15 w).

New Orleans, La.
Swarthmore, Pa. (1 unit - 15 w).
Schenectady, N. Y.
Cleveland, Ohio. (25 units - 15 w).
Saginaw, Mich. (1 unit - 15 w).
Hicksville, N. Y. Press Wireless, Innc.
Lo Angeles, Calif.
Jersey City, N. J. (22 units).
Plymouth, Mass.
Woodbury, N. J. (1 unit - 12 w).
Cook County, Ill. (11 units - 15 w).
Harrisburg, Pa. Commonwealth of Pa.
Portable. State of Wis. Comservation Commission
                           KQDW
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                            WPEK
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                            WPFQ
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                            WQRB
                                                                                 \overline{MP}
                          WRBH
WRNH
W2XVW
KQBV
WQRS
WQYJ
WRLV
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31940
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WOJA
WÖXS
WÖXT
WÖXU
WÖXV
WÖVW
WRVB
W3XPT
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Same as above
Same as above
Harrisburg, Pa. Same as WJAB
Kellogg Mt. Fire Tower, Bradford County, Pa.
Same as WJAB
Rattlesnake Fire Tower, Clearfield County, Pa.
Same as WJAB
Portable. Telegram Pub. Co.
Portable. Same as KBRA
Portable. United Press Association
Long Beach, Calif.
Portable. United Press Association
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Same as above
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KAŌT
KAŌU
KGZM
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KODG
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KODO
KOEJ
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WPHD
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WÖM1
WÖNV
WÖNV
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WÖRA
WÖRP
WÖRP
WÖTB
WÖTC
WÖXY
WÖYI
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WRAB
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Rockport, Mass.
Hammond, Ind.
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15
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                                                                                                                                                  Gary, Ind.
                                                                                                                                                  Wierton, W. Va. (3 units - 15 w).
Danvers, Mass. (1 unit - 10 w).
                           WRAO
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                                                                                MP
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                           WRAU
                                                                                                                                                 Anniston, Ala.
Troy, N. Y. (2 units - 15 w)
Brooke County. (2 units - 15 w).
                           WRBD
                                                                                MP
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25
                           WRCD
                                                                                MP
                           WRGH
                                                                                MP
                                                                                                                                                Brooke County. (2 units - 15 w).
Danville, Va.
Suffolk, Va.
Hickory, N. C. (1 unit - 8 w).
Morrisville, Pa.
Daly City. Calif. Pess Wireless, Inc.
San Angelo, Tex. (2 units - 12 w).
Cedar Rapids, Iowa. (4 units - 10 w).
                          WRGU
WRGV
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                           WRGY
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                          WRMC
W6XDQ
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33220
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                          KGPZ
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WOIF
WOIJ
WOJI
WOKJ
WOKG
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Racine, Wis. (7 units - 100 w).
W. Harttord, Conn (4 units - 15 w).
Plaunfield, N. I
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                                                                                                                                                               Plainfield, N. J. (4 units - 12 w).
Racine, Wis. (7 units 96 w).
Ottawa Hills, Ohio (3 units - 12 v).
Juneau, Wis. _(6 units - 15 w).
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                             WÕLJ
WÕOL
WÕXO
WÕYZ
                                                                                        MP
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                                                                                                                                                             Ottawa Hills, Ohio 3 units - 12 w).

Juneau, Wis. (6 units - 15 w).

Fanwood, N. J.

Jefferson County, Wis. (3 units - 15 w).

Milton, Mass. (5 units - 10 w).

Whitewater, Wis. (1 unit - 15 w).

Marietta, Ohio (2 units - 12 w).

Watertown, Wis. (2 units - 15 w).

Janesville, Wis. (3 units - 15 w).

Dartmouth, Mass. (2 units - 10 w).

Elyria, Ohio (4 units - 15 w).

Wilmington, Del.

Wilmington, Del.

Portable. State of Oreg., Dept. of Forestry.

Twelve portable units, 6/10th watt each. Same

as KBSC.

Portable. Sameas KBSC.

Four portable units. Same as KBSC.
                                                                                                                                                                                                                                                                                      12 w).
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WRIT
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                             WWPD
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                            KBSC
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31580
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                             KQFN
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Portable Sameas KBSC.
Four portable units. Same as KBSC.
San Jose, Calif.
Fairhayen, Mass. E. Anthony & Sons.
Boston, Mass. Yankee Network, Inc.
Boston, Mass. (WBZ).
E. Springfield, Mass. (WBZA).
Boston, Mass. CBS, Inc.
New York City. NBC, Inc
New York City. NBC, Inc
New York City. NBC, Inc.
Portable. General Elec. Co.
Bound Brook, N. J. NBC, Inc.
Portable. Gen. Elec. Co.
Baltimore, Md. Monumental Radio Co.
Norfolk, Va. WTAR Radio Corp.
Baltimore, Md. WFBR, 7 St Paul St.
Philadelphia, Pa. (KYW).
Portable. General Engineers.
Chattanooga, Tenn. WDOD Brdcstg. Corp.
Memphis, Tean.
Oklahoma City, Okla. WKY Radiophone Co.
Dallas, Tex. A. H Belc Corp.
Pasadena, Tex. Houston Lighting & Power Co.
Humble, Tex. Same as W5XGB
New Orleand, La. Hebley-Maynard Air Serv.
Sam Francisco, Calif. Julius Brunton'& Sons
Los Angeles, Calif. CBS, Inc.
Portable. Press Wireless, Ltd.
Tacoma, Wash. State of Wash, Dept of Highways
Rochester, N. Y. Stromberg-Carlson Telephone
                            KOFO
KOFO
KOBR
WIXEQ
WIXER
WIXKA
WIXKB
WIXOE
W2XDG
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W3XKA
W3XPG
W4XBW
W4XCA
W5XAU
W5XD
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W6XAS
W6XDA
W6XXT
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                                                                                                                                                               Rochester, N. Y. Stromberg-Carlson Telephone
                                                                                                                                                       Rochester, N. Y. Stromberg-Carlson reiepnone Co. Buffalo, N. Y. (WBEN). Pitsburgh, Pa. Westinghouse Elec. & Mfg. Co. Cleveland, Ohio. United Brdcstg Co. Akron, Ohio. Allen T. Simmons. Detroit, Mich. Detroit News. Portable. W Va. Univ. Dept of Physics. CPrtable. Same as W8XUK Detroit, Mich. Detroit News. Milwaukee, Wis. The Journal Co. Chicago. Ill. (WENR). Kansas City, Mo. (KMBC). Minneapolis, Minn (WCCO). Denver, Colo. (KLZ Brdcstg. Co. St. Louis, Mo. Star Chroncicle Pub. Co. Portable. Same as above. Chicago, Ill. WGN, Inc. Chicago, Ill. WGN, Inc. Gregg County, Tex. (5 units - 20 w). Palo Alto, Calif. (3 units - 5 w). Sioux City, Iowa (4 units - 14 w). Davenport, Iowa. (6 units - 15 w). Burlington, Iowa.
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                            W8XAI
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New York City. Same as KEJC.
Chicago, III Same as KEJC.
Cleveland, Ohio. Same as KEJC.
New York City. Same as KEJC.
Washington, D. C. Same as KEJC.
Washington, D. C. Same as KEJC.
New York City. Same as KEJC.
New York City. Same as KEJC.
New York City. Same as KEJC.
Washington, D. C. Same as KEJC.
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Washington, D. C. Same as KEJC.
San Francisco, Calif. Same as KEJC.
San Francisco, Calif. Same as KEJC.
Portland, Ore. Oregonian Pub. Co.
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Bolinas, Calif. RCA Communications,
Alliance, Ohio, Ohio Pub. Serv. Co.
Fort Wayne, Ind. Ind. Serv. Corp. (1 unit -
25 w).
Louisville, Ky. (2 units - 12 w). Louisville Gas
& Elec. Co.
Portable. Northwestern Elec. Co.
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                    WRVC
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Wichita, Kans. Kans. Gas & Elec. Co.
Alliance, Ohio. (1 unit - 12 w). Oh
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WAOC
31460
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Serv. Co.
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Portable. Western
Same as WAHT.
Same as WAHT.
South Bend, Ind.
Detroit, Mich. I
Louisville, Ky. (
& Elec. Co.
Roanoke, Va.
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Detroit Edison Co.
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WRHD
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31500
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Alhambra, Calif. (2 units - 14 w).
Lawrence, Kans. (2 units - 15 w).
Chico, Calif. (1 unit - 12 w).
Sarasota, Fla. (3 units - 8 w).
Ft. Arkinson, Wis. (1 unit - 15 w).
Winnebago County, Ill.
                    KÕAH
WÕBM
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                    KQEO
                    WEAG
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                    WLRP
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                    WPWC
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Philadelhia, Pa. Fla.
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WQNJ
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Waynesboro, Va.
Tallahassee, Fa. (2 units - 8 w).
Hammond, Ind. (12 units - 4 w).
Chillicothe, Ohio
Charlotte, N. C.
Milwaukee, Wis. The Journal Co.
Fargo, N. Dak. WDAY, Inc.
Aurora, Ill. Martin R. O'Brien
Portable. Telegram Pub. Co.
Portable. Telegram Pub. Co.
Portable. United Press Assn.
                                                                                                    20
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                                                                                                100
                                                                                                                                                                                      (2 units - 8 w).
(12 units - 4 w).
                       WRBO
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                       WRGW
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PR
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Associated Press.
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Portable Associated Press.
Roscommon, Mich.
Harrisburg, Pa.
Harrisburg, Pa.
Kellogg Mt. Fire Tower, Bradford, Pa.
Rattlesnake Fire Tower, Clearfield County, Pa.
Portland, Ore. (18 units - 15 w).
Salem, Ore.
Portland, Ore. (13 units).
Pueblo, Colo. (3 units - 12 w).
Sandusky, Ohio
Shelby, Ohio (4 units).
Wayne County, Mich. (2 units)
New York City. (3 units - 25 w).
Cleveland, Ohio (25 units - 15 w).
Portable. Gulf Research & Development Co.
Portable. National Geophysical Co.
Dallas, Tex. Same as KOYA
Neward County, Mich. (2 units - 20 w).
Kingston, Pa.
Chicago, Ill. (6 units - 15 w).
Viola. N. Y. (15 units - 15 w).
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                       KOBC
KQCX
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WOFY
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WOJK
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                                                                                                                             Alexandria, Va. (6 units - 20 w., Kingston, Pa. Chicago, Ill. (6 units - 15 w). Viola, N. Y. (15 units - 15 w). Bloomfield, Hills, Mich. Haverford, Pa (1 unit - 12 w). Oakland County, Mich. Rockland County, N. Y. Stoneham, Mass. (1 unit - 15 w). Piermont, N. Y. Kingston, Pa. (2 units - 12 w). Lawrence. Mass.
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WRGM
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                       WRHB
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Kingston, Pa. (2 units - 12 w).

Lawrence, Mass.
Reading, Pa. Reading Brdcstg. Co.
Baltimore, Md. Monumental Radio Co.
Portable. Same as W3XPI
Bristol, Tenn (WOPI).
St. Petersburg, Fla. Chamber of Commerce.
Portable. Loyola University
Phoenix, Ariz. Sale River Valley Co.
New York City. NBC, Inc.
Hollywood, Calif. KMTR Corp.
Nampa, Idaho. Frank E. Hurt.
Walla Walla, Wash. KUJ.
Lansing, Mich. WJIM
Erie, Pa. WLEU.
Tuscola, Ill. WDZ Brdcstg. Co.
Fargo, N. Dak. WDAY.
Aurora, Ill. Martin O'Brien.
Camden, N. J. RCA Mrf. Co.
Camden, N. J. Same as above.
Los Angeles, Calif. John H Hidy.
Portable. Northern Radio Co.
Seattle, Wash. Radio Labs., Inc.
Portable in Asia. Trans-Asia, Inc., Lawrence
Thaw Expedition.
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                       WRHE
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                       WRHW
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W10XJR
W10XJS
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Denver, Colo. NBC, Inc.
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KEJD
31220
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                                                                                                                               San Francisco, Calif. Same as KEJC.
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                       KEJH
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WQRY
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                                                                                            Madison County, Ill.
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                WQSP
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                WOSR
WOSU
WOSW
WOSX
WOTF
WOTG
WOTK
                                                                                            Alton, Ill.
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                                                                                            Hamtramck, Mich
Decatur, Ill.
Belleville, Ill.
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                                                                                            Haverstraw, N. Y.
Winnetka, Ill.
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                                                                                           Winnetka, Ill.
Niles Center, Ill.
Park Rigde, Ill.
Bayonne, N. J.
Kingston, N. Y.
Port Jervis, N. Y.
Chicago Heights, Ill.
Darien, Conn.
Granite City, Ill.
Hammond, Ind.
Garv. Ind.
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WRAB
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Salem, Mass.
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                                                                                            Chattanooga, Te
Hickory, N. C.
Olympia, Wash.
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25
                                                  MP
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                 WRCG
                                                                                           Olympia, Wash. (3 units - 10 w). Marysville, Calif. Hoquiam, Wash. (3 units - 10 w). Bremerton, Wash. (3 units - 10 w). Centralia, Wash. (2 units - 12 w). Kansas City, Mo. (50 units - 7½ w). Tulsa, Okla. (15 units - 10 w). Des Moines, Iowa. ( unts - 15 w). Tacoma, Wash. Duncan, Okla. (2 units - 15 w). Fort Smith Ark. (2 units - 15 w).
                                                                      100
                                                                                                                                    (3 units - 10 w).
                 WRCK
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                WRGY
KACE
KADS
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20580
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                 KAPL
                 KASF
                KGHS
KGWH
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                 KGPE
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                 KGPO
KGZG
                                                                                            Fort Smith, Ark. (2 units - 15 w).
Port Angeles, Wash.
Joplin, Mo.
Pierce County, Wash. (1 unit - 15w; 3 units -
                                                   MP
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                 KGZN
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                                                   MP
                 KNFK
                 KNHE
KPAP
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                                                                                            10 w).
Colfax, Wash. (3 units - 15 w).
San Bernardino County, Calif. (9 units).
Huntington, Ind. (1 unit - 15 w).
                                                                         12
                                                   MP
                 KQAJ
KQBA
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                                                                                            Huntington, Ind. (1 unit - 15 w). Peru, Ind.
Norristown, Pa. (1 unit - 15 w). De Witt County, Ill. (3 units).
La Porte, Ind.
Kokomo, Ind. (6 units).
Fort Wayne, Ind (10 units - 15 w).
Jacksonville, Fa. (1 unit - 5 w).
Jacksonville, Fa. (1 unit - 5 w).
Miami, Fla. (5 units - 15 w).
Miami, Fla. (9 units - 16½ w).
Providence, R. I.
Mobile. Ala.
                 KODM
KSGBC
WAKA
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                  WASC
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                 WMPL
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                 WPDT
WPDZ
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                 WPFG
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8
                  WPFG
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                                                                                            Mobile, Ala.
Bristol, Va.
                 WPFG
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                                                                        15
17
                 WPFZ
                                                   M\bar{P}
                                                                                            Oneonta, N. Y. (1 unit - 10 w).
Lafayette, Ind. (6 units - 15 w)
Clearwater, Fla. (2 units - 17 w)
                                                                      71/3
15
                 WPGF
                                                   \mathbf{MP}
                 WPGW
                                                   MP
                                                                                                                                   (2 units - 17 w).
                 WPHV
                                                   MP
                                                                         12
                                                                                            Newark, Ohio.
Marion, Ind. (6 units - 10 w).
                 WOFJ
WOFQ
                                                   MP
                                                                        10
                                                                                            Marion, Ind. (6 units - 10 w).
Cleveland, Ohio.
Grosse Pointe, Mich.
Danville, Ill. (4 units).
Portable. Gulf Research & Development Co.
Snow Cruiser, Little America
East Base, Little America
West Base, Little America
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Camden, N. J. RCA Mfg. Co.
Portable Northern Radio Co.
Seattle, Wash. Radio Labs., Inc.
Seattle, Wash. Same as W7EY
Pittsburg, Calif.
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                 WÕRW
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KAWN
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3066C
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                 W7XBA
W7XEY
W7XEZ
                                                                                            Pittsburg, Calif.
Martinez, Calif.
                                                     E1
                                                                        60
                                                    E1
                                                                        60
                                                                                            Columbia, Mo.
Charlotte, N. C.
                KOBT
KOCE
KODE
                                                                                                                                   (2 units - 10 w).
(8 units - 10 w).
                                                   MP
                                                                      100
30700
                                                                                            Evansville, Ind.
Olean, N. Y.
Phoenxville, Pa.
Hendersonfi Ky.
                                                   MP
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                  WPDV
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21570	WCBX	В	10000	New York City
21590	WGEO	В	40000	Schenectady: N. Y.
21610	JLT4 JLS3	T	• • • •	Nazaki, Japan
21620 21630	W3XAL	B	35000	Nazaki, Japan Nazaki, Japan New York City
21640	GRZ	B B	33000	London, Gt. Britain Cincinnati, Ohio Budapest, Hungary Hingham, Mass. Tropical Radio Teleg. Co. Hicksville, N. Y. Press Wireless, Inc. Snow Cruiser, Little America. Byrd Antarctic
21650	WLWO	В	50000	Cincinnati, Ohio
21680	HAD	В	• • • •	Budapest, Hungary
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23100	VBH KRTA	Ĕ	125	Snow Cruiser, Little America, Byrd Antarctic
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	KRTC	E	125	East Base, Little America
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7	WCBN W2XEY	ĞĔ	15	Portable. General Elec. Co.
7	W2XRZ	$\widetilde{\mathbf{GE}}$	50	Portable. General Elec. Co.
,	W3XAB '	E	••••	West Base, Little America New York City. CBS, Inc. Portable. General Elec. Co. Portable. General Elec. Co. Camden, N. J. RCA Mfg. Co. ofrtable. RCA Mfg. Co. Portable. Press Wireless. Ltd.
,	W3XAM W6XXT	E	5000	Portable. RCA Mig. Co. Portable. Press Wireless, Ltd.
,	W7XBA	Ė	15	Portable Northern Radio Co.
7	W7XEY	$\mathbf{E}_{1}$	60	Seattle, Wash. Radio Labs, Inc. Portable. W. Va. Univ., Dept. of Physics Portable. Same as W8XUK.
7	WXUK WXUL	GE	10	Portable. W. Va. Univ., Dept. of Physics
23120	WXUL	GE	10	Portable. Same as W8XUK.
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23450	WBK	č	10000	Hicksville, N. Y. Press Wireless, Inc.
25200	W8XUM W2XQO	FAV B	100	Columbus, Ohio. WBNS, Inc.
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25600 1 25640	WSLR	$_{\mathbf{B}}^{\mathbf{B}}$	25000	Viacha, Bolivia Hicksville, N. Y. Press Wireless, Inc. Columbus, Ohio. WBNS, Inc. Flushing N Y. Boston, Mass. Bern, Switzerland
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23700	W2XRZ	ĞĒ	50	Fortable. General Elec. Co. Portable. Gen. Elec. Co. Newark, N. J. Bamberger Broadcasting Service Portable. Press Wireless, Ltd. Portable. W. Va. Univ. Dept. of Physics
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7	W6XXT	$\mathbf{G}\mathbf{E}$	5000	Portable. Press Wireless, Ltd.
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	WCAB	B	10000	Philadelphia, Pa.
	W9XPD	$\bar{\mathbf{B}}$	1000	St. Louis, Mo. Pulitzer Pub. Co. Spartanburg, S. C. (WSPA) Los Angeles, Calif. (KGFS) Cincinnati, Ohio. Crosley Corp. Portable. General Elec Co.
	W4XH	$\mathbf{B}$	50	Spartanburg, S. C. (WSPA)
	W6XKG	В	100	Los Angeles, Calif. (KGFS)
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,	W6XXT	GE	5000	
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20100	GSK W9XJL	В	250	Superior, Wis. Head of the Lakes Brdcstg. Co.
26150	W4XA	$\mathbf{B}$	1000	Nashville, Tenn. Nat'l. Life Accident Ins. Co.
7	W9XUP	В	• • • •	St. Paul, Minn. Nat'l. Battery Brdcstg. Co.
26300 T	W2XJI W9XAZ	B B	500	Nashville, Tenn. Nat'l. Life Accident Ins. Co. St. Paul, Minn. Nat'l. Battery Brdcstg. Co. Newark, N. J. Bamberger Brdcstg. Serv. Milwaukee, Wis. The Journal Co.
26450	W9XA W9XA	В	1000	Kansas City, Mo. Commercial Radio Equipment
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	W9XTA	$_{ m B}^{ m B}$	500 100	Harrisburg, Ill. Schenert Radio Serv.
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1902		B C	5000 20000	Dixon, Calif. A. T. & T.
1914	40 LSM3	C	••••	Rugby, Gt Britain Bangkok, Thailand Dixon, Calif. A. T. & T. Buenos Aires, Arg. Cia. Internacional de Radio, Defensa 143.
1922	20 WDP	Ţ	20000	Ocean Gate, N. J. Am. Teleph. & Teleg. Co. Rugby, Gt. Britain Rome, Italy Clearwater, Calif. Mackay Radio & Teleg. Co. Nairobi, Kenya. Cable & Wireless, Ltd., Box 777 Lawrenceville N. J. Hicksville, N. Y. Press Wireess, Inc.
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2152	20 IZM	B	••••	Rome, Italy Nazaki, Japan
2153	WCAE	B B	10000	Philadelphia, Pa. London, Gt. Britain
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WETC	4	100	a South Bend, Ind.	Al Todd; Paul Mangus
WHBC	• • •	250 · 250	a Kinston, N. C. a Canton, Ohio	Kenneth Sliker, Ch. Eng.
WHBY	Ë	250	a Appleton, Wis.	W. J. Stangel, Ch. Eng.
WHOP	٠٠;	250	a Hopkinsville, Ky.	David Foote Ch. Fng.
WIL^		250	a St. Louis, Mo.	C. H. Stoup, Ch. Eng.
WJBC		250	a Bloomington, III.	A. M. McGregor
MIRM	Х	100	a New Orleans, La.	O. K. Garland, Ch. Eng.
ONLW	ç	250	a W. Palm Beach, Fla.	Reginald B. Martin
WJRD	Ę	100 (.25)	a Tuscaloosa, Ala.	James R. Doss, Jr.
WKBO	Ŋ	100 (.25) 250	a Harrisburg, Pa. z Orlando, Fla.	Charles Myers, Ch. Eng.
WLOG	DP	100	z Logan, W. Va.	7727 2
WLVA		250	a Lynchburg, Va.	J. T. Orch, Eng.
WMFR	D	100	a High Point, N. C. 7 Mobile Ala	A. B. Ouiglev
WMPC	Ğ	250	a Lapeer, Mich.	Hollis F. Hayes, Ch. Eng.
WOLS	Й	250	a Florence, S. C.	O. Lee Stone
WSAM	GP	100 (.25)	z Saginaw. Mich.	Officer Hely, Cit. Eng.
WSKB.	X	100	z McComb, Miss.	••••
WSOO	P	100 (.25)	z Saul Ste. Marie, Mich.	Dichard & Blackburn
WTOL	M	250	a Toledo, Ohio	Michael Kent, Mgr.
WWAE	- 4	100	a Hammond, Ind.	Robert Myers, Ch. Eng.
1210	kcs.	(247.8 m.)		Al Todd; Paul Mangus Jonas Weiland Kenneth Sliker, Ch. Eng. W. J. Stangel, Ch. Eng. C. H. Stoup, Ch. Eng. A. M. McGregor Charles C. Carlson O. K. Garland, Ch. Eng. Reginald B. Martin James R. Doss, Jr. Charles Myers, Ch. Eng. J. T. Orch, Eng. E. J. Day, Ch. Eng. A. B. Quigley Hollis F. Hayes, Ch. Eng. O. Lee Stone Oliver Hely, Ch. Eng. Ch. Charles Myers, Ch. Eng.
CHLT		100	z Sherbrooke P O	Marcel Provst, Mgr.
CICS		50	a Stratford, Ont.	Frank M. Squires
CKBI	Ę	100	a Prince Albert, Sask.	Gerald Prest
CKMC		50	a Cobalt. Ont.	R. L. MacAdam
CKNB	Ť	100	a Campbellton, N. B.	C. S. Chapman, Mgr.
CWHK	• • •	200	z Cruces, Cuba	Virgil Evans Prog. Dir.
KANS	Ň	250	a Wichita, Kans.	Herbert Hollister, Mgr.
KASA	M	100	a Elk City, Okla.	Lyman Brown, Prog. Dir.
KDLR		250	a Devils Lake, N. Dak.	Howard Walters, Mgr.
KFJI		100	a Monterey, Calif. a Klamath Falls, Ore.	Geo. Kincaid, Mgr.
KFOR	EM	100 (.25)	a Lincoln, Nebr.	Don Searle, Mgr.
KFOR KFPW KFYM	EM XZ	100 (.25) 100 ·	a Lincoln, Nebr. a Fort Smith, Ark.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr.
KFOR KFPW KFXM KGLO	EM XZ M2 C	100 (.25) 100 · 100 250	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr.
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KFOR KFPW KFXM KGLO KGY KHBG	EM XZ AZ A	100 (.25) 100 - 100 250 100 250	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa a Olympia, Wash. okmulgee, Okla.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr.
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KFOR KFPW KFXM KGLO KGY KHBG KIUL KLACA KOVO KPFA	EM XZ AZ C M 	100 (.25) 100 250 100 250 100 250 250 250 250	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa o Olympia, Wash. o Okmulgee, Okla. a Garden City, Kans. a Carlsbad, N. Mex. kilgore, Texas a Provo, Utah Helena, Mont.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr.
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KFORW KFXM KGLO KGYBG KIUL KLOCAA KOYO KPFAC KROYO KROYO KROYO KROYO KWJB KWJB	EXXXC M	100 (.25) 100 250 100 250 100 250 250 250 250 250 100 100 (.25) 250 250	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa o Olympla, Wash. o Kmulgee, Okla. a Garden City, Kans. a Carlsbad, N. Mex. a Kilgore, Texas a Provo, Utah Helena, Mont. a Pasadena, Calif. a Sacramento, Calif. a Ardmore, Okla. z Watertown, S. Dak. a Globe, Ariz. z Sweetwater, Tex.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr. E. B. Craney, Mgr. David Black, Mgr. Milton Cooper, Ch. Eng. Paul W. Ross, Ch. Eng. Bartley Sims, Mgr.
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KFOR KFPXM KFXM KGLY KHBL KOVA KLACAO KPFC KVSO KVSO KWJAX WBBL WCOU WCRU WCRU WCRU WCRU WCRU WEDC	EXXZOX:::::EXZOXP:::PX53XX 4:G	100 (.25) 100 250 100 250 100 250 250 250 250 250 100 (.25) 250 250 100 (.25) 100 100 100 100 100 250 100	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa o Olympla, Wash. o Kmulgee, Okla. a Garden City, Kans. a Carlsbad, N. Mex. kilgore, Texas a Provo, Utah Helena, Mont. a Pasadena, Calif. a Sacramento, Calif. a Ardmore, Okla. z Watertown, S. Dak. a Globe, Ariz. z Sweetwater, Tex. z Yuma, Ariz. wilkes-Barre, Pa. a Richmond, Va. a Red Bank, N. J. a Columbus, Ohlo a Lewiston, Maine z Montgomery, Ala. a Chicago, III. a Harrisburg, III. a Harrisburg, III. a Chicago, III.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr. David Black, Mgr. Milton Cooper, Ch. Eng. Paul W. Ross, Ch. Eng. Bartley Sims, Mgr.  Drury Lenington, Prog. Dir.  J. E. Lowe, Ch. Eng. Leslie Hall, Ch. Eng. Al Thompson, Ch. Eng. Clinton R. White J. R. Tate, Ch. Eng. Caleb Frisk, Ch. Eng.
KFOR KFPXM KFXM KGY KHUL KLAH KOVFA KLAH KOVFA KVSAT KVSAT KWJB KVSAT KWJB KWSAT WBBAL WCOU WCRW WEBO WCOV WEBO WFAS	EXXXCA : : EX2CMP : : PA5 3XA 4 :43	100 (.25) 100 250 100 250 100 250 250 250 250 250 250 100 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25)	a Lincoln, Nebr. a Fort Smith, Ark. a San Bernardino, Calif. z Mason City, Iowa a Olympla, Wash. a Carlsbac, N. Mex. a Kilgore, Texas a Provo, Utah a Helena, Mont. a Pasadena, Calif. a Sacramento, Calif. a Ardmore, Okla. z Watertown, S. Dak. a Globe, Ariz. z Sweetwater, Tex. z Yuma, Ariz. wilkes-Barre, Pa. a Richmond, Va. a Red Bank, N. J. a Columbus, Ohlo a Lewiston, Maine z Montgomery, Ala. c Chicago, Ill. a Harrisburg, Ill. a Chicago, Ill. c Cicago, Ill. c Chicago, Ill. a White Plains, N. Y.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr. David Black, Mgr. Milton Cooper, Ch. Eng. Paul W. Ross, Ch. Eng. Bartley Sims, Mgr.  Drury Lenington, Prog. Dir.  J. E. Lowe, Ch. Eng. Leslie Hall, Ch. Eng. Al Thompson, Ch. Eng. Clinton R. White J. R. Tate, Ch. Eng. Selma Seitz, Prog. Dir. Bredley Overton Ch.
KFOR KFPKM KFPKM KFYM KHOLY KHOLY KHOLY KOOV KPFA KROOY KVWJB KYUM WBRB WCOU WCRO WEBO WCRO WEBO WEBO WFFO WFFO WFFO	EXXXOX : :::EXCOXP ::PX5 aXX 4 :Ga :P	100 (.25) 100 250 100 250 250 250 250 250 250 250 100 100 (.25) 250 250 100 (.25) 100 100 100 100 100 100 100 100 100 10	a Lincoln, Nebr. Fort Smith, Ark. San Bernardino, Calif. Mason City, Iowa Olympia, Wash. Okmulgee, Okla. Garden City, Kans. Carlsbad, N. Mex. Kilgore, Texas Provo, Utah Helena, Mont. Pasadena, Calif. Sacramento, Calif. Ardmore, Okla. Globe, Ariz. Watertown, S. Dak. Globe, Ariz. Wilkes-Barre, Pa. Richmond, Va. Red Bank, N. J. Columbus, Ohlo Lewiston, Maine Montgomery, Ala. Chicago, Ill. Harrisburg, Ill. Chicago, Ill. White Plains, N. Y. St. Augustine, Fla. Et. Meyers. Fla. Et. Meyers. Fla.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr. David Black, Mgr. Milton Cooper, Ch. Eng. Paul W. Ross, Ch. Eng. Bartley Sims, Mgr.  Drury Lenington, Prog. Dir.  J. E. Lowe, Ch. Eng. Leslie Hall, Ch. Eng. Al Thompson, Ch. Eng. Clinton R. White J. R. Tate, Ch. Eng. Selma Seitz, Prog. Dir. Bradley Overton, Ch. Eng.
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KFOR KFPMO KFPMO KFYMO KFYMO KHULH KOOKO KPFA KNOW KPFA KYUAX WBBLB WCOV WCRBO WFOY WFOY WFOY WFOY WFOY WFOY WFOY WFO	EXXXCX :::::EXCXP ::PX53XX 4 :43 :P3 :	100 (.25) 100 (.25) 100 (.25) 100 (.25) 250 (.25) 250 (.25) 250 (.25) 250 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25) 100 (.25)	a Lincoln, Nebr. Fort Smith, Ark. San Bernardino, Calif. Mason City, Iowa Olympla, Wash. Okmulgee, Okla. Garden City, Kans. Carlsbad, N. Mex. Kilgore, Texas Provo, Utah Helena, Mont. Pasadena, Calif. Sacramento, Calif. Ardmore, Okla. Watertown, S. Dak. Globe, Ariz. Sweetwater, Tex. Yuma, Ariz. Wilkes-Barre, Pa. Red Bank, N. J. Columbus, Ohlo Lewiston, Maine Montgomery, Ala. Chicago, Ill. Harrisburg, Ill. Chicago, Ill. White Plains, N. Y. St. Augustine, Fla. Freeport, N. Y. Gulfport, Miss. Grande Miss.	Don Searle, Mgr. Dorothy Gibson, Mgr. J. C. Lee, Mgr. F. C. Eighmey, Mgr. W. R. Taft, Mgr. A. F. Schultz, Ch. Eng. F. D. Conard, Mgr. Jack Hawkins, Mgr. H. A. Degner, Mgr. E. B. Craney, Mgr. David Black, Mgr. Milton Cooper, Ch. Eng. Paul W. Ross, Ch. Eng. Bartley Sims, Mgr.  Drury Lenington, Prog. Dir. J. E. Lowe, Ch. Eng. Leslie Hall, Ch. Eng. Al Thompson, Ch. Eng. Clinton R. White J. R. Tate, Ch. Eng. Selma Seitz, Prog. Dir. Bradley Overton, Ch. Eng. Harry H. Carman C. H. Dyess, Ch. Eng.
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WINN WIBY WILMS WIMC WINN WKOK WLOFG WOCB WPAX WPAX WSAY WSAY WSAY WSAY WSAY WSAY WSAY WSAY	PEXB DB : : OP :: PAKGA :X :Z : :	250 250 250 250 100 100 250 250 250 250 250 250 250 250 250 2	x 8 8 x x x 8 8 a 8 8 8 8 8 8 8 8 8 8 8	Louisville, Ky. Gadsden, Ala. Hagerstown, Md. Lansing, Mich. Beckley, W. Va. Rice Lake, Wis. Jamestown, N. Y. Akron, Ohio Sunbury, Pa. Lima, Ohio Hibbing, Minn. Hyannis, Mass. Manitowoc, Wis. Thomasville, Ga. Petersburg, Va. Raleigh, N. C. Rochester, N. Y. Chicago, Ill. Nashville, Tenn. Bridgeton, N. J. Charoltte, N. C. Springfield, Ill. Charleston, S. C. Parral, Chih. Durango, Dgo. Juarez, Chih.	Vernon Story, Ch. Eng. Grover Crilley, Mgr. Leo Yiha, Ch. Eng. Joe L. Smith, Jr. Walter McGenty Gene LaValle, Prog Dir. Paul L. Miller, Eng. S. L. Gladfelter, Ch. Eng. Charles Persons, Ch. Eng. Charles Persons, Ch. Eng. Francis M. Kadow H. Wimpy Geo. T. Case, Mgr. Thurlow Greene Ed Jacker, Ch. Eng. James Turner L. L. Caudle, Ch. Eng. Edward Ring, Ch. Eng. D. M. Dradham, Ch. Eng. David G. Cervantes Alejandro O. Stevenson Dario Cordoba
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1230	kcs.	(243.8 m.)			Lopez
CMCB CMJE KGBX KGGM KYA WNAC WOL XECA XECA XEHR XEHR XELK XEOX	 	200 200 500 1000 1000(5) 1000(5) 1000(5) 1000 250 250 125 250	<b>azaaaaazzz</b> aaa	Havana, Cuba Camaguey, Cuba Springfield, Mo. Albuquerque, N. Mex. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Washington D. C. Tampico, Tam. Monterrey, N. L. Guadalaiara, Jal. Puebla, Pue. Zacatecas, Zac. Los Mocis, Sin.	V. Montes, Dir. Primo Alfonso Casares R. D. Foster, Mgr. Mike Hollander, Mgr. Frances Pike, Prog. Dir Henry V. Seay, Mgr. Nicolas M. Picet Rodolfo Junco de la Veg?
1240	kcs.	(241.8 m.)			
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	kcs.	(239.9 m.)		
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	kcs.	(238 m.)		
CMBD CMJO KGVO KHSL KOIL KRGV KUOA KVOA WHIO WHID WHID WNBX WTOC	S CE SE DE DE CO	200	Ciego de Avila, Cuba Missoula, Mont. Chico, Calif. Omaha, Nebr. Weslaco, Texas Siloam Springs, Ark. Tucson, Arlz. Fredericksburg, Va. Dayton, Ohio Niagara Falls, N. Y. Springfield, Vt.	Luiz Perez Garcia Bonifacio Ildefonso A. J. Mosby, Mgr. Harold Smithson, Mgr. Don Searle, Mgr. Ken L. Gibson, Mgr. C. M. Books, Mgr. Gi' Maynier, Prog. Dir. Ernest Adams, Ch. Eng. Wm. Moore, Ch. Eng. Wm. B. Smart, Prog. Dir.
1270	kcs.	(236.1 m.)		
CMHD KGCA KOL KVOR KWLC WASH WFBR WJDX WOOD XESM XEXB XEXE	DQ2 MCD2 aDN RR RN .A	200 d 100 a 1000 (5) a 100 (5)	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.	Manuel Alvarez M. Elmer Pederson, Mgr. Charles Greenley Hugh Terry, Mgr. Dr. O. J. H. Preuss Sandy Mek, Prog. Dir. Wm. Q. Ranft, Ch. Eng. Percy Root, Ch. Eng. Sandy Meek, Prog. Dir
1280	kcs.	(234.2 m.)		
CMKO KFBB KLS WCAM WCAP WDOD WIBA WORC WRR WTNJ XEKR XEMX	C :22CNCM2 :A	200 1000 (5) a 250 a 500 a 500 500 1000 (5) b 1000 (5) a 500 a 500 a 100 z 100 z	Great Falls, Mont. Oakland, Calif. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.	Manuel Angulo Faran Jessie Jacobson, Mgr. S. W. Warner, Mgr. R. L. Horn, Prog. Dir. Frank S. Lane, Mgr. M. F. Chapin, Ch. Eng. Chas Jordan, Prog Dir E, P. Knowles, Ch. Eng.
	kcs.	(232.4 m.)		
CMCG KDYL KLCN KTRH WATR WEBC WJAS WJHP WNBZ WNEL	: D402; DD4:	200 1000 (5) a 1000 (5) a 250 a 1000 (5) a 1000 (5) a 250 z 1000 a 1000 (2.5) a	Salt Lake City, Utah Blytheville, Ark. Houston, Texas Waterbury, Conn. Duluth, Minn. Pittsburgh, Pa. Jacksonville, Fla. Saranac Lake, N. Y.	O. Montenegro S. S. Fox, Mgr. C. L. Lintzenich, Mgr. B. F. Orr, Mgr. Chas. Persons, Ch. Eng. Walter McCoy, Ch. Eng. Carlyle Wright, Mgr. Juan Piza
	kcs.	(230.6 m.)		
KALE KFAC KFH WBBR	 C 2	1000 a 1000 a 1000 (5) a 1000 a	Los Angeles, Calif. Wichita, Kans.	Dick Rand, Prog. Dir. E. Tyler, Log Dept. Russell L. Lowe, Mgr.

WEVD WFBC WHAZ WHBL WLOL	NX 2	1000 1000 (5) 1000 250 (1) 1000	a a Q z	New York, N. Y. Greenville, S. C. Troy, N. Y. Sheboygan, Wis. Minneapolis, Minn.	Frank Blair, Prog. Dir. H. D. Harris, Ch. Eng. Herbert Mayer, Ch. Eng. Herbert Mayer, Ch. Eng.  Laurie L. Smith Laurie L. Smith Lou Keplinger, Mgr. Lou Keplinger, Mgr. Lou Keplinger, Ch. Op. C. B. Baxter, Mgr. De Witt Landis, Mgr. Donald Treloar Clark Standiford, Mgr. John Bennett, Mgr. F. W. Meyer M. H. Bonebrake, Mgr. G. V. Wilson, Mgr. G. V. Wilson, Mgr. G. V. Wilson, Mgr. G. V. Wilson, Mgr. Karl O. Wyler, Mgr. Herbert Mgr.  Co. Learke, Ch. Eng. Wayne Boothe, Annor'r. Karl O. Wyler, Mgr. Col. Eduardo Perez F. R. V. DeGruy, Mgr. L. Rose, Mgr. Harry R. Spence, Mgr. Col. Eduardo Perez F. R. V. DeGruy, Mgr. Louis G. Baltimore Norman H. Blake, Ch. Eng. E. Hayes, Ch. Eng. Paul W. Holton, Eng.  Albert Zink, Mgr. Roy Host, Ch. Eng. F. S. Loeb, Mgr. J. Samuel Brody A. Lynne Brannen Gene Stratton, Prog. Dir. Roy Thompson, Eng. J. Samuel Brody A. Lynne Brannen Gene Stratton, Prog. Dir. H. W. Wilson, Eng. Julius Geise, Ch. Eng. John R. Pepper Donald A. Burton  Cenneth Taylor, Ch. Eng. John Nazak, Ch. Eng. L. Strunk Herbert Harmon, Mgr.  C. Rummell, Ch. Eng.
1310	kcs.	(228.9 m.)		,	
CFGP	• • •	100	а	Grande Prairie, Alta.	••••
CJKL	··· Ė	100	a	Charlottetown, P. E. I. Kirkland Lake, Ont.	••••
CKCV	F	100	a	Yarmouth, N. S.	Laurie L. Smith
CMKE	Ş	****	z	Manzanillo, Cuba	
KARM		250 250	a	Fresno, Calif. Bend, Ore.	Lou Keplinger, Mgr.
KCKN KCR I	Ē	250 250	a	Kansas City, Kans.	Ralph Nelson, Prog. Dir.
KFPL	• • • • •	100 (.25)	f	Dublin, Texas	C. B. Baxter, Mgr.
KGEZ		100 (.25)	a	Lubbock, Texas Kalispell, Mont.	De Witt Landis, Mgr. Donald Treloar
KGFW	•••	250 250	a	Kearney, Nebr.	Clark Standiford, Mgr.
KMYR	Ϋ́P	100 (.25)	a	Denver, Colo.	F. W. Meyer
KOME	EM	250 250	a	Oklahoma City, Okla. Tulsa, Okla.	M. H. Bonebrake, Mgr.
KPDN		100 250	a	Pampa, Texas	S. L. Patterson, Mgr.
KROC	EN	250	a	Rochester, Minn.	F. C. Clarke, Ch. Eng.
KSRO		250 250	a	Santa Rosa, Calif.	Tom Spellman, Ch. Eng. W. R. Nichols, Ch. Eng.
KSUB KTSM	N2XZ	100 250	a	Cedar City, Utah	Wayne Boothe, Anno'r.
KUIN		100	ā	Grants Pass, Ore.	····
KVOL		250	а <b>а</b>	Lafayette, La.	Geo. H. Thomas, Mar.
KVOX	Ē	250 100	a	Moorhead, Minn.	M. M. Marget, Mgr.
KWFC	P	100 (.25)	z	Hot Springs, Ark.	*****
KWOS	• • •	250 250	a	Jefferson City, Mo.	Randall Jessee, Mgr. R. L. Rose, Mgr.
KXRO	W	250	a d	Aberdeen, Wash . Guatèmala City, Guat.	Harry R. Spence, Mgr.
WAML		250	ā	Laurel, Miss.	R. V. DeGruy, Mgr.
WBRK	Ķ	250	a	Pittsfield, Mass.	Norman H. Blake, Ch. Eng.
WCLS	ᄶ	100 250	a	Joliet, III. Ashland, Kv.	E. Hayes, Ch. Eng.
WDAH	2	250	ă	El Paso, Texas	····
WEBR	В	250 250	8	Buffalo, N. Y.	Albert Zink, Mgr.
WEMP	• • •	250 50	a	Milwaukee, Wis. Royal Oak, Mich.	Roy Host, Ch. Eng.
WFBG	Ŗ	100		Altoona, Pa.	Roy Thompson, Eng.
WFIG	P	100 (.25)	z	Sumter, S. C.	F. S. Loeb, Mgr. J. Samuel Brody
WGAU	·к	250 250	a	Athens, Ga. Newport News, Va.	A. Lynne Brannen Gene Stratton Prog. Dir.
WGTM	•••	250	ā	Wilson, N. C.	H. W. Wilson, Eng.
WINX	P	250	z	Washington, D. C.	Julius Geise, Ch. Eng.
WJPF WJPR	Р	100 (.25) 250	z	Terrin, III.	Powell Hunter Ch Eng
WLAK	Ň	250	ž	Lakeland, Fla.	John R. Pepper
WLBJ	P	250 250	z	Bowling Green, Ky.	Donald A. Burton
WLNH	М	250 250	a	Laconia, N. H.	Kenneth Taylor, Ch. Eng.
WMFF	В	250	a	Plattsburg, N. Y.	John Nazak, Ch. Eng.
WRAW	MX	100 (.25)	a	New Bedford, Mass. Reading, Pa.	I. Vermilya
WROL	N	250 100	a	Knoxville, Tenn.	L. Strunk
WSAV	Ň	100	a	Savannah, Ga.	····
WSJS WSJS	CM	100 ( <b>.25</b> ) 250	a	Birmingham, Ala. Winston-Salem, N. C.	::::
WSOY	• • •	100 (.25)	а	Decatur, III.	Dichard Vinceton Dres Di-
WTEL	- 4	100	ā	Philadelphia, Pa.	Richard Kingston, Prog. Dir.
WTJS	•••	250	a	Jackson, Tenn.	B. C. Rummell, Ch. Eng.

10 10 17			
WTRC XEAG XEBO XEFW XETB XEX XEX	250 250 25 25 300 8 500 8 500 250 250	Cordoba, Ver. C. Irapuato, Gto. Tampico, Tam. Torreon, Coah. Monterrey, N. L.	R. R. Baker, Mgr. Diodoro Zuniga Alfonso Martinez  Aurelio G. Zaragoza
1320 kce	(227.1 m.)		
CMCR KGHF B KGM BCMZX KID KRNT C WADC CX WORK N WSMB RX	200 2 500 2 1000 2 500(1) 2 1000(5) 2 1000 5	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Des Moines, Iowa Akron, Ohio	J. H. McGill, Pub. Dir. Webley Edwards, Mgr. Jack Duckworth, Mgr. Edmund Linehan, Prog. Dir. Robert Wilson J. E. Mathiot, Ch. Eng. H. G. Nebe, Ch. Eng.
1330 kcs.	(225.4 m.)		
KGB MX KMO M KRIS N KSCJ NX WDRC CX WSAI MNX WTAQ CX	1000 8 500 8 1000 (5) 8 1000 (5) 8 1000 (5) 8 1000 (5) 8 1000 (5) 8 1000 (5) 8 1000 (5) 8 1000 (5)	San Diego, Calif. Tacoma, Wash. Corpus Christi, Tex. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Green Bay, Wis.	David R. Young, Prog. Dir. Carl E. Haymond T. Frank Smith, Mgr. C. W. Corkhill, Mgr. Italo Martino, Ch. Eng. Bill Bailey, Pub. Dir.
1340 kcs.	(223.7 m.)		
KDTH EN KGOO NO N	500 2 500	Butte, Mont. Dodge City, Kans. Pensacola, Fla. Manchester, N. H. Fayetteville, N. C. Toledo, Ohio Ponce, Puerto Rico Obregon, Son. Victoria, Tam. Mexico City, D. F. Chihuahua, Chih. Villa Acuna, Coah. Merida, Yuc.	E. B. Craney, Mgr. N. C. Peterson, Mgr Emilio Manzanilla Fernando Elizalde Maria Remedios Delgado Vincente Hernandez Julio Molina Font
1350 kcs.	(222.1 m.)		
CMCA KIDO N KWK BM WAWZ 2 WBNX 2 WMBG RX	200 a 1000 (2.5) a 1000 (5) a 1000 a 1000 a 500 a	Boise, Idaho St. Louis, Mo. Zarephath, N. J. New York, N. Y.	J. M. Gonzalez, Dir. C. G. Phillips, Mgr. Clarence Cosby, Mgr.
1360 kcs.	(220.4 m.)		
CMJH KCRC EM KGER KLPM KSLM M WSLM C WFBL C WGBS C WGBC D WSBT C2	200 250 250 250 250 250 250 250 250 250	Enid, Okla. Long Beach, Calif. Minot, N. Dak. Salem, Ore. Charleston, S. C. Syracuse, N. Y. Chicago, III. Vicksburg, Miss.	Luis Marauri H. Wm. Butterfield, Annc'r. Jay Tapp, Ch. Eng. Richard Schmidt, Mgr. Clyde Wiegand, Ch. Eng
1370 kcs.	(218.8 m.)		
CFAR CFOS CJOC CKCW F CKRN CMGE HIZ KEEN 3 GELD KERN BEXZ	100 a	Owen Sound, Ont. Lethbridge, Alta. Moncton, N. B. Rouyn, P. Q. Cardenas, Cuba Trujillo, D. R. Seattle, Wash. El Dorado, Ark.	J. O. Tardif, Mgr. Genero Sebater Frank Hatton Arthur Dailey, Mgr. F. E. Bolls Robert Stoddard, Mgr.

KFGQ	_ D	100	8	Boone, lowa	
KFGQ KFRO KFVS	DXZ	100 250 250 100 100	a	Longview, Texas	Harold Johnson, Mgr.
KGFL	•••	100	a	Cape Girardeau, Mo.	E. Whitmore, Mgr. Earle Yates, Mgr. Chas. C. Alsup, Mgr. Jack Hawkins, Mgr. Ray Beckner, Mgr. Lawrence Yates, Mgr. Howard Davis, Mgr. Robert Dean, Mgr. Leonard Wilson ugene Roth, Mgr.
KGFL KICA		100	а	Roswell, N. Mex. San Angelo, Texas Clovis, N. Mex. Pecos, Texas	Earle Yates, Mgr.
KIUN		100 100 100 250 250 250 100 250 100(.25)	a	Clovis, N. Mex.	Chas. C. Alsup, Mgr.
KIUP	:::	100	a	Durango, Colo.	Ray Reckner Mor
KLUF		250	a	Durango, Colo. Galveston, Tex. San Antonio, Tex. Rapid City, S. Dak. La Junta, Colo.	Lawrence Yates, Mgr.
KMAC KOBH	5	250 250	a	San Antonio, Tex.	Howard Davis, Mgr.
KOKO	• • •	100	a	La Junta, Colo.	Robert Dean, Mgr.
KONO KORN	··· <b>.</b>	250	a	San Antonio, Tex.	ugene Roth, Mgr.
KRE	• • •	250	a	Fremont, Nebr.	A
KRKO KRMC	тġ	50	a	Everett. Wash.	Lee Mudgett
KRMC KTEM	· M	250	a	Jamestown, N. Dak.	Frank Gillespie Prog. Dept.
KTOK	EMN	250 250	a	Oklahoma City Okla	Burton Bishop, Mgr.
KTOK KTSW KTUC	CE	250	a	Emporia, Kans.	K. W. Trimble, Gen. Mar
KUJ	CE	250	a	Tucson, Ariz.	Frank Howe, Mgr.
KVFD	Ġ	250 50 250 250 250 250 250 250 250	a	Walla Walla, Wash.	H. E. Studebaker, Mgr.
KVGB		250	a	Great Bend, Kans.	••••
KVRS KWLK	• • •	250 250 250	а	Rock Springs, Wyo.	Ken Nielson, Mgr.
KWYO	• • •	250	a	Congylew, Wash.	H W Sighart Mar
WABY	D 4 4	100 (.25) 250	a	Albany, N. Y.	Harold Smith, Mor.
WARM	D. P	250	a	Dothan, Ala.	Julian Smith, Mgr.
WATL	4.4	100 (.25) 250 100 250 250 250 250	a	Atlanta, Ga. Atlanta, Ga. Asheville, N. C. Clarksburg, W. Va. Buffalo, N. Y. Williamson, W. Va.	ugene Roth, Mgr.  Arthur Westlund, Mgr. Lee Mudgett Frank Gillespie Prog. Dept. Burton Bishop, Mgr. Joseph Lee, Mgr. K. W. Trimble, Gen. Mgr Frank Howe, Mgr. H. E. Studebaker, Mgr.  Ken Nielson, Mgr. H. W. Siebert, Mgr. Harold Smith, Mgr. Julian Smith, Mgr.
\// A T\//	D	100	а	Asheville, N. C.	••••
WBLK WBNY WBTH	N 2	250 250	а	Clarksburg, W. Va.	
WBTH		250	8 2	Williamson, W. Va.	Roy Albertson
WBTM WCBM WCNC	• • •	100(.25)	a	Danville, Va.	
WCDM	• • •	250 250	a	Baltimore, Md.	Louis Hiland Ch. Fra
WCOS		250	а	Columbia, S. C.	tewis Hiland, Ch. Eng.
WDAS WDWS	• • •	<b>250</b>	a	Philadelphia, Pa.	Harold Davis, Prog. Dir.
WFOA	ċ	100 (.25) 250 250 250 250 250 250 250	a	Danville, Va. Baltimore, Md. Elizabeth City, N. C. Columbia, S. C. Philadelphia, Pa. Champaign, III. Evansville, Ind. Hattlesburg, Miss	••••
WFOR WFTL WGBR		100	а	Hattlesburg, Miss. Ft. Lauderdale, Fla. Goldsboro, N. C.	
WGBR		100(.25) 250	a a	Ft. Lauderdale, Fla.	Tom M. Bryan
WGL	N	250 250	a	Fort Wayne, Ind.	• • • •
WGRC	М	250	a	Fort Wayne, Ind. New Albany, Ind.	Jack Gardner, Ch. Eng.
WHBQ WHDF	• • •	250	a	Memphis, Tenn. Calumet, Mich.	••••
WHKY		100 250 250 250 250	z	Memphis, Tenn. Calumet, Mich. Hickory, N. C. Virginia, Minn.	
WHLB WHLS		250 250	a	Virginia, Minn.	Vernon Baumgartner Angus Pfaff, Mgr. M. L. Medley W. H. Dunn, Prog. Dir. Harold H. Shoms
WHUB	 Р В	250 250	a z	Cookeville Tenn	M. L. Medlev
WHUB WIBM	В	250 250 <b>250</b> 250	а	Port Huron, Mich. Cookeville, Tenn. Jackson, Mich. Asheville, N. C.	W. H. Dunn, Prog. Dir.
WISE	Ŋ	250 <b>250</b>	z	Asheville, N. C.	Harold H. 8homs
MINO MISE	P	250 250 100(.25) 10-100 250 250	a	Onelika Ala	Robert Donahue
WLLH	S	10-100	a	Lawrence, Mass. Lowell, Mass. Mansfield, Ohio	• • •
WLLH WMAN	W2	250 <b>250</b>	a a	Lowell, Mass.	Robert Donahue
WMAN WMBR	ັເ	100 (.25) 10-100 250 250 250 100 (.25) 250 250	a	Jacksonville, Fla.	H. B. Greene, Ch. Eng. Richard Dunlea Frank R. Pidcock
WMFD WMGA	• • •	100(.25)	а	Jacksonville, Fla. Wilmington, N. C.	Richard Dunlea
WMIN		<b>250</b>	z	Moultrie, Ga. St. Paul, Minn.	Frank R. Pidcock
WWSL	DEX	100	a	Decarui, Ala.	
WOC WORD	DEX C P	250	а	Davenport lows	Allen R. Richter
WPAY		250 100(.25) 100	z a	Spartanburg, S. C. Portsmouth, Ohio Mayaguez, P. R. Williamsport, Pa.	Maurice L. Myers
WPRA	хх	1000(2.5)	а	Mayaguez, P. R.	
WRAK WRDO	MN	250	a	Williamsport, Pa.	i Mitaball
WRJN	WIA	250	8	Racine, Wis.	J. Mitchell
WSAU	···	250	а	Wausau, Wis.	••••
WSLB WSVS	D2	250 50	z b	Ogdensburg, N. Y.	H C Bioda
WSVS WTSP	52	<b>2</b> 50	.2	St. Peterburg. Fla.	
XECZ XEI XELZ	• • •	100	Z	San Luis Potosi, S. L. P.	Zeferino Z. Jimenez
λELZ	• • • •	160	a z	Morella, Micho.	Carlos Gutierrez Maria Gardena de Zetina
CMCW	NXZ	250 100 250 250 250 250 100 125 100 200 500 10000	ď	Wausau, Wis. Ogdensburg, N. Y. Buffalo, N. Y. St. Peterburg, Fla. San Luis Potosi, S. L. P. Morella, Micho. Mexico City, D. F. Havana, Cuba Reno, Nev. Pittsburgh. Pa.	A. Puente
KOH KQV	NXZ	10000	a b	Reno, Nev.	Merle Snider, Prog. Dir.
NO.	• • •	10000	D	Pittsburgh, Pa.	J. J. Laux, Mgr.

1380 WALA WING WKBH WNBC	kcs. CX N C B	(217.3 m.) 500(1) 250(.5) 1000 1000	a a a	Mobile, Ala. Dayton, Ohio La Crosse, Wis. New Britain, Conn.	W. O. Pape, Mgr Rogers B. Holt, Ch. Eng.
CMJC KABR KLRA KRLC WHK WQDM XEM	 ċ	(215.7 m.) 200 500(1) 1000(5) 250 1000(5) 1000 500	z a a a a f z	Camaguey, Cuba Aberdeen, S. Dak. Little Rock, Ark. Lewiston, Idaho Cleveland, Ohio St. Albans, Vt. Chihuahua, Chih.	Miguel Guillen Perez W. L. Dean, Prog. Dir. S. C. Vınsonhaler, Mgr. Donald H. Wike, Mgr. E. L. Gove, Tech. Sup.
CMAR CMKR	 B C	(214.2 m.) 200 200 5000 5000 5000 500 250 500 500	zzaadaaaaa azzzz	Guatemala City, Guat. Brooklyn, N. Y. Brooklyn, N. Y. Olean, N. Y. Indianapolis, Ind.	Jaime Nadal Paul R. Heitmeyer W. C. Gillespie Aron Kronenberg Bert Child, Prog. Dir. Earl Lewis, Ch. Eng.
CKFC	2	(212.5 m.)  50 100 200 500(1) 1000(2.5) 250(1) 1000 500(1) 500(1) 500(1)	aaaabaaaa	Vancouver, B. C. Vancouver, B. C. Vancouver, B. C. Havana, Cuba Grand Forks, N. Dak. Amarillo, Texas Medford, Ore. Boston, Mass. Bay City, Mich. Bluefield, W. Va. Rockford, III. Montgomery, Ala.	Andres Martinez Dalton Le Masurier, Mgr. O. L. Taylor, Mgr. E. A. Donaher Edw. L. Ketts
1420 CBY NO CKLOP CKAPS CKAPS KCONT KEDAN KGEN KGEN KGEN KGEN KGEN KGEN KGEN KGE	F F M E 4 M	250 100 250 100 250 100 250 250	8 8 8 8 8 7 8 8	Kenora, Ont. Nelson, B. C. Moron, Cuba San Antonio, Texas Albert Lea, Minn. Portland, Ore. Texarkana, Texas Denton, Texas Price, Utah St. Cloud, Minn. Fond du Lac, Wis. Shawnee, Okla. Alamosa, Colo. Safford, Ariz. Lamar, Colo. La Grande, Ore. Eugene, Ore.	Leon Trepanier, Ch.Eng

KTRI KVAAK KWACOM WAGOV WA WAGOV WA WAGOV WA WAGOV WA WA WA WA WA WA WA WA WA WA WA WA WA	B X . X PMBPC X C .	250 250 250 100 250 100 250 250 250 250 250 250 250 250 250 2	bb a x a a a a a a a a a a a a a a a a a	Wallace, Idaho Hutchinson, Kans. Portland, Ore. Waco, Texas Presque Isle, Maine Vincennes, Ind. Chattanooga, Tenn. Hazleton, Pa. Springfield, III. Charlottesville, Va. Rocky Mount, N. C. Battle Creek, Mich. Youngstown, Ohio Gastonia, N. C. Albany, Ga. Cicero, III. Anniston, Ala. Wilmington, Del. Ironwood, Mich. Poughkeepsie, N. Y. Lexington, Ky. Erie, Pa. Suffolk, Va. Springfield, Mass. Detroit, Mich. Joplin, Mo. Uniontown, Pa. Daytona Beach, Fla. Muscle Shoals City, Ala. New Orleans, La. Paducah, Ky. Parkersburg, W. Va.	Dietrich Dirks, Mgr.  W. B. Greenwald, Mgr. T. W. Symons, Jr. Mgr. James W. Pate, Mgr. R. W. MacIntosh Mgr. R. G. Patterson, Mgr. Edward Beisel, Prog. Dir.  Wm. Avers Wynne  F. C. Todd, Mgr.  Edwin Mullinax  Winston L. Clark, Mgr.  E. H. Clark, Ch. Eng.  Chas. McClane, Eng. W. Wright Esch  Julio M. Conesa G. G. Benson, Ch. Eng.
WSLI WSPB		100(.25) · 100(.25)	a	Caracota Ela	
	P	100 100(.25)	z	Martinsville, Va. Marsville, Calif. Valdosta, Ga.	••••
1430	KCS.	(209.7 m.)			
CJGX CMKZ KGNF KINY KSO WBNS WHEC WHP WMPS WOKO XERH	BM CCCBCC	1 <b>000</b> 200 1 <b>000</b>	z	Yorkton, Sask. Palma Soriano, Cuba North Platte, Nebr. Juneau, Alaska Des Moines, Iowa Columbus, Ohlo Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. Mexico City, D. F.	A. L. Garside, Mgr. Joaquin Venero Obregon J. B. Eaves, Eng. C. B. Arnold, Mgr. Edmund Linehan, Prog. Dir.
CJGX CMKZ KGNF KINY KSO WBNS WHEC WHP WMPS WOKO XERH	BMCCCB CK	1000 200 1000 1000 1000(5) 500(1) 500(1) 500(1) 500(1) 500(1) 500(1)	z	Yorkton, Sask. Palma Soriano, Cuba North Platte, Nebr. Juneau, Alaska Des Moines, Iowa Columbus, Ohlo Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. Mexico City, D. F.	••••
CJGX CMKZ KGNF KINY KSO WBNS WHEC WHP WMPS WOKO XERH	BMCCCB CK	1000 200 1000 1000 1000(5) 1000(5) 500(1) 1000(5) 500(1) 500(1)	Z	Timmins, Ont. Havana, Cuba Casper, Woo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Allentown, Pa. Allentown, Pa. Allentown, Pa.	••••
CJGX CMKZ KGNF KSO WHEC WHPP WMPS WOKO XERH CKGB CMBY KDFN KELA KXYZ WBIG WCBA WSAN XEFI	B CCCBK	1000 200 1000 1000 1000(5) 500(1) 1000(5) 500(1) 500(1) 500 (208.2 m.) 100 200 500 1000 1000 1000(5) 500	Zaaaaaaa aaaaaaaaa	Timmins, Ont. Havana, Cuba Casper, Wyo. Centralia, Wash. Houston, Texas Greensboro, N. C. Allentown, Pa. Peoria, Ill. Allentown, Pa.	R. H. Thomson Donald Hathaway Pedro Marti, Ch. Eng. J. Elroy McCaw, Mgr. T. Frank Smith, Mgr F. A. Giles, Tech. Dir. Geo. G. Snyder Prog. Dir.

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WAGA WGAR WHOM WSAR XEF	В С : М	500 (1) 1000 (5) 250 1000 100	8 8 f 8	Jersey City, N. J. Fail River, Mass.	Jess Swicegood R. M. Pierce, Ch. Eng. Gilberto Gil
1460	kee	(205.4 m.)			
	KCS.				
CMKF KSTP WJSV	RX CX	250 10000 (25) 10000	z z a	Holguin, Cuba St. Paul, Minn. Washington, D. C.	Manuel J. De Gongora Stanley Hubbard, Mgr. Harry R. Crow; Clyde Hunt
1470	kcs.	(204 m.)			
CMCX	• • • •	200	z	Havana, Cuba	L. Sanchez
HISQ KGA WLAC	1475 BM	100 5000 5000	2 8 8	Havana, Cuba Trujillo, D. R. Spokane, Wash. Nashville, Tenn.	Julio A. Garcia A. L. Smith, Mgr. J. T. Ward
1480	ķcs.	(202.6 m.)			
CWHX	•••	_200	a	Cienfuegos, Cuba	J. Garcia R.
KOMA WHIP	, D	5000 5000	a	Oklahoma City, Okla.	J. Garcia R. Haymond Ramsey
WKBW	ĆM	5000	z	Cienfuegos, Cuba Oklahoma City, Okla. Hammond, Ind. Buffalo, N. Y.	Elmer Herkner
		5000	•	Darraio, 14. 1.	••••
1490	kcs.	(201.2 m.)			
CMKQ	E	1000	-	Santiago do Cuba	Maria Abril Dumaia
KFBK WCKY	EKN	10000	ā	Santiago de Cuba Sacramento, Calif.	Mario Abril Dumois Howard Lane
WCKY	C	SULE	а	Sacramento, Calif. Cincinnati, Ohio Toluca, Mex.	C. H. Topmiller, Ch. Eng.
XEDR	:::	250 100	z	Toluca, Mex. Guaymas, Son.	Modeste Ortega
			-	Guayinas, Son.	Modeste Ortega
1500	kcs.	(199.9 m.)		·	
CMOX KAWM KBIX	F	100	a	Sault Ste. Marle, Ont.	J. C. Whitby E. Chisholm A. W. Mills J. H. Speck, Mgr. Louis P. Thornton Mary V. Keneaster, Prog. Dir. Gilbert Fawcett, Prog. Dir. Earl Pollock. Mgr.
CWOX	• • •	100 200 100	8	Sault Ste. Marle, Ont. Havana, Cuba Galiup, N. Mex. Muskogee, Okia. Baker, Ore. Big Spring, Texas Duluth, Minn. Santa Barbara, Callf. Sedalla, Mo.	E. Chisholm
KBIX	ĖM	100	a	Gallup, N. Mex. Muskonee, Okla	A. W. Mills
KBKR KBST	Ρ.	100 (.25)	z	Baker, Ore.	Louis P. Thornton
KDAL	M C	100 (.25) 100 (.25) 100 (.25) 100 (.25)	a	Big Spring, Texas	Mary V. Keneaster, Prog. Dir.
KDB	EM	100 (.25)	8	Santa Barbara, Calif.	Earl Pollock, Mgr.
KDRO	• 11	100 (.25)	7	Sedella, Mo.	····
KFDA K <b>G</b> FI	M	100 (.25)	z	Amarillo, Texas Brownsville, Texas Scottsbluff, Nebr. Brady, Texas Austin, Texas	Fred Hammand Ch. Free
KGKY	Ď	100 (.25) 250 250 250	ā	Scottsbluff, Nebr.	Fred Hammond, Ch. Eng.
KNEL	M	250 250	8	Brady, Texas	G. L. Burns
KOTN KOVC KPAB	Ď	100	ā	Pine Bluff, Ark.	B. J. Parrish, Mgr. Mark C. Crandall, Mgr. Meryel M. Valentine
KOVC	• • • •	250	a	Valley City, N. Dak.	Mark C. Crandall, Mgr.
KPLC	• • • •	100 250 250 250 250 250	8	Lake Charles, La.	C. R. Porter, Mar
KPLT KPQ		250 250	a	Austin, Texas Pine Bluff, Ark. Valley City, N. Dak. Laredo, Texas Lake Charles, La. Paris, Texas Wenatchee, Wash. Roseburg, Ore. El Paso, Texas Lihue, Hawaii Salt Lake City, Utah Santa Ana, Calif. Vernon, Texas	Merver M. Valentine C. R. Porter, Mgr. J. Bert Mitchell, Mgr. Cole E. Wylie, Mgr. Justin B. Toles, Mgr. Dorrence D. Roderick
KRNR		100 (.2 <b>5</b> )	a	Wenatchee, Wash.	Cole E. Wylie, Mgr.
KROD	P	250	z	El Paso, Texas	Dorrence D. Roderick
KTOH KUTA	P	100 (.25) 250 100 250 100	z	Lihue, Hawaii	C. J. Fern, Jr.
KVOE	Ň	100	a	Salt Lake City, Utah Santa Ana Calif	Frank C. Carman, Mgr.
KVWC		250	z	Vernon, Texas	Linest L. Spencer, Mgr.
KWEW					Mrs. C. C. Minvard, Sec'v.
KYO		100	a	Hobbs, N. Mex.	W. E. Whitmore
KXO KYCA		100	a	Hobbs, N. Mex. El Centro, Calif. Prescott Ariz	C. J. Fern, Jr. Frank C. Carman, Mgr. Ernest L. Spencer, Mgr. Mrs. C. C. Minyard, Sec'y. W. E. Whitmore F. M. Bowles, Mgr.
KXO KYCA KYSM		100 (.25) 250	a	Hobbs, N. Mex. El Centro, Calif. Prescott Ariz	H Kimberly Ch Eng
KXO KYCA KYSM WCNW WDAN	M P EN 2	100 100(.25) 250 100(.25)	a	Hobbs, N. Mex. El Centro, Calif. Prescott Ariz	H Kimberly Ch Eng
WDAN	EN 2	100 100(.25) 250 100(.25)	a	Hobbs, N. Mex. El Centro, Calif. Prescott Ariz	Arthur Faske Perry W. Esten, Ch. Eng.
WDAN WDNC WGAL	M P EN 2	100 (.25) 250 100 (.25) 250 250 250	a z a a a a	Hobbs, N. Mex. El Centro, Callf. Prescott, Arlz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa.	H. Kimberly, Ch. Eng. Arthur Faske Perry W. Esten, Ch. Eng.
WDAN WDNC WGAL WGIL WGKV	EN 2	100 (.25) 250 100 (.25) 250 250	a z a a a a a a	Hobbs, N. Mex. El Centro, Callf. Prescott, Arlz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa.	Arthur Faske Perry W. Esten, Ch. Eng.
WDAN WDNC WGAL WGIL WGKV	XPZ2 CZ Z	100 (.25) 250 100 (.25) 250 250	a z a a a a a a	Hobbs, N. Mex. El Centro, Callf. Prescott, Arlz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa.	H. Kimberly, Ch. Eng. Arthur Faske Perry W. Esten, Ch. Eng. Paul Kalbfleisch, Ass't Eng. Winifred Powers
WDAN WDNC WGAL WGIL	ENT CN N :C	100 (.25) 250 100 (.25) 250 250	a z a a a a a a	Hobbs, N. Mex. El Centro, Callf. Prescott, Arlz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa.	H. Kimberly, Ch. Eng. Arthur Faske Perry W. Esten, Ch. Eng Paul Kalbfleisch, Ass't Eng. Winifred Powers Russell Bennet
WDAN WDNC WGAL WGIL WGKV WKAT WKBB WGTC WHBB	XPZ2 CZ Z	100 (.25) 250 (.25) 250 (.25) 250 250 250 100 250 250 250 250	a	Hobbs, N. Mex. El Centro, Calif. Prescott, Ariz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa. Greenville, N. C. Selma, Ala. Detroit, Mich. Miami Beach, Fia. Duduque, Iowa Galesbur, Ill.	H. Kimberly, Ch. Eng. Arthur Faske Perry W. Esten, Ch. Eng. Paul Kalbfleisch, Ass't Eng. Winifred Powers Russell Bennet L. Carlson, Eng. Dept.
WDAN WDNC WGAL WGIL WGKV WKAT WKBB WGTC	SPEN CZ Z CP	100 (.25) 250 100 (.25) 250 250	a z a a a a a a	Hobbs, N. Mex. El Centro, Calif. Prescott, Ariz. Mankato, Minn. Brooklyn, N. Y. Danville, Ill. Durham, N. C. Lancaster, Pa. Greenville, N. C. Selma, Ala. Detroit, Mich. Miami Beach, Fla. Dubuque, Iowa Galesburg, Ill.	H. Kimberly, Ch. Eng. Arthur Faske Perry W. Esten, Ch. Eng Paul Kalbfleisch, Ass't Eng. Winifred Powers Russell Bennet

WKBY	. 100(.25)	a Richmond, Ind.	••••
WKBZ	250	a Muskegon, Mich.	• • • •
WKEU WKNY D	D 100 X 100	a Griffin, Ga. a Kingston, N. Y.	••••
WMEX X	Ž (ŏŏ25)		••••
WMJM	P 100(.25) P 100(.25) C 250 M 100 P 100 . 250	z Cordele, Ga.	••••
WMOG	P 100(.25) \	z Brunswick, Ga.	• • • •
WNBF WNLC	M 100	a Binghamton, N. Y. a New London, Conn. z Syracuse, N. Y.	••••
WOLF	P 100	z Syracuse. N. Y.	••••
WOMI	. 250	a Owensboro, Ky.	••••
WOPI	. 250 C 250	a pristoi, tenn.	• • • • • • • • • • • • • • • • • • • •
WRGA	250	a Augusta, Ga. a Rome, Ga.	••••
WRTD BX	Ž 100	a Richmond, Va. a Salisbury, N. C. a Rutland, Vt.	David Bain, Ch. Eng.
WSTP	<b>M 250</b> M 250	a Salisbury, N. C.	James R. Yost, Ch. Eng.
VACTARC		a Rutland, Vt.	••••
WTMV ::	250	z Ocala, Fla. a E. St. Louis; III. a Woodside, N. Y. a Pittsburgh, Pa.	F. S. Liggett, Ch. Eng.
WWRL	2 100 (.25)	a Woodside, N. Y.	Liggett, Cit. Elig.
	. 250 400		••••
XEQK	P 100 (.25)	z Mexico City, D. F. z Erie, Pa.	
••••	1001.237	Z Life, Fa.	
1510 kc	s. (198.6 m.)		
CFRC		a Kingston, Ont.	H. H. Stewart, Ch. Eng
CKCR	F 100 . 100	a Waterloo, Ont.	G Liddle
	/= OF D		
1520 kc	s. (19 <b>7</b> .3 m.)	· ·	
TGW	5000	e Guatemala City, Guat.	L. Schlesinger Carrera, Dir.
			ar semiser sarrera, on:
1530 kc	s. (196 m.)		
CMC	. 200	z Havana, Cuba	
KITE	. 1000	a Kansas City, Mo.	Pete Houck, Eng.
	M 1000	z Havana, Cuba a Kansas City, Mo. a Waterbury, Conn.	Pete Houck, Eng. S. E. Warner, Ch. Eng.
• • • •	P 1000	z Akron, Ohio	••••
1550 kc	s. (193.4 m.)		
WQXR	M 1000 X 1000	<ul> <li>a Bakersfield, Calif.</li> <li>a New York, N. Y.</li> </ul>	L. A. Schamblin, Mgr.
WONK	A 1000	a 110W 101K, 14. 1.	Russell Valentine, Ch. Eng.
1560 kg	s. (112.2 m.)		
			1 5 44 4 4 5
CMBF	5000	z Havana, Cuba	J P. Malvido, Dir.
1580 ka	s. (189.8 m.)		
		<del></del>	David Torres Breaks
CMRT	. 200	z Guines, Cuba	Raul Torres Pardal
1600 kg	s. (187.4 m.)		
			All and a All and a
CWRH	. 5000	e Havana, Cuba	Alberto Alvarez Ferrera
CMBH	Continued from Pa	e Havana, Cuba  ge 30) High assigned to 4	Alberto Alvarez Ferrera  Frequency Broadcast Stati
services :	as follows:		43,300 45,300 47 <b>,</b> 300 49,3
			13 500 45 500 47 500 40 50

(Continued from Page 30)	High Frequency B	roadcast Stations
aural broadcasting, are assigned to services as follows:	43,100 45,100 43,300 45,300	,
Non-Commercial Educational Broad-	43,500 45,500	. , ,
cast Stations	43,900 45,700	47,700 49 <b>,</b> 700
	43,900 45,900	47 <b>,</b> 900 49,900
42,100	. 44,100 46,100	48,100
42,300	44,300 46,300	48,300
42 <b>,</b> 500	44,500 46,500	48,500
42,700	44,700 46,700	48,700
42,900	44,900 46,900	48,900

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

Fort Smith		Athens			w Ha		Bernardi	San		I Dora		MA	ALABA
Name	GAU 1 Atlanta	WGAU		980			1 12	KFX:	1370				
WHIMA   Mail   Mail   Springs   KFSD   600   Waterbury   Waterbu		WAGA					Diego	San					Anniston
Birmingham   WAPT   1140   WAPT   1140   WAPT   1140   WBRC   930   WSGN   1310   Decatur   WMSL   1310   WSGN   1310   KSJR   1420   KSJR   1580   WJBY   1210   Huntaville   WOLAL   1380   WJBY   1210   Mohlle   WALA   1380   WMOB   1290   Mohlle   WSFA   1410   Selma   Sries   WSFA   1410   Selma   WSFA   1410   WSFA   WSFA   WSFA   1410   WSFA   WSFA   WSFA   141		WATL											
WAPT   1460   WBRC   930   WBRC   930   WBRC   1310   Decatur   WBRC   1310   Decatur   WBRC   1310   Chite   Rock   KPC   610   MBPM   1300   KBRK   830   KBRK   830   KBRK   830   KSAN   1420   WILM   1420		WMBI		1290									
WBGN   1319   Decatur   WMSL   1319   Decatur   WMSL   1310   KBTX   1300   KBC   790   DELAWARE   WMSL   1310   KBTX   1300   KBC		WGST											
Maggr		WSB	W			*****							
Decetter   WMSL   1370	Augusta			ARE	ELAW	DE						1819	
WMSL   1370   SARK   890   KQH   1200   KSAN   1420   WDEL   1130   WJ   MAGF   1370   KGH   1280   KSAN   1420   WDEL   1130   WJ   MAGF   MAGH		WRDW				1							
WAGF   1870   KGHI   1200   KSAN   1420   WDEL   1130   WDET   1130	Brunswick			ten	iming	WI						1370	
Madded   1370   Madded   Mad		WMOG			EL.	WDE	14	KSAI					
Pine Bluff	Columbus	WRBL		1429	M	WIL							
Huntaville   WBHP   1200	RBL 1 Cordele						15	KYA					
Siloss Springs   Sqw   1016   COLUMBIA   Wild   W		WMJM		t sf	TRICT	DIS.	Jose	San					
Mobile   WALA   1380   WALA		Griffin		BIA	OLUM	C(	16	KQW		loam f	1 8	1900	
WALA   1850   WMOD   1260   Montgemery   WOOV   1210   Bakersfield   Santa Ana   WJSV   1400   WMAD   6350   WWSFA   1410   Selma   WHBB   1500   KPMC   1550   Santa Barbara   KDB   1500   KTMS   1220   WWC   950   WWC   950   WWC   950   WWC   950   WWC   950   WWSFA   1410   WWSFA   141		WKEU				1	uls Obis	San				1200	
WMOB   1200   Montgomery   WCOV   1210   WSFA   1410   KERN   1370   KEME   1370   Muscle Sheals   City   Muscle Sheals   Kiri   City   Muscle Sheals   Kiri   City   Muscle Sheals   Kiri   Muscle Sheals   Muscle She	Macon	Macon		ton	ashing	Wa	12	KVEC				1220	
Montgomery   WCOV   1210   Bakersfield   KERN   1370   KERN   1370   KERN   1310   K	MAZ 1	WMAZ	W	1460	V	wjs	ta Ana	San	DALLA		١ .		
WOOV   1210   WSFA   1410   KERN   1870   KTMS   1220   WRC   950   WRC   95	Moultrie	Moultr	1!						HNIA	LIFU	1 _		
WSFA   1416   Selina   Selin	MGA 1	WMGA	W					San	اماما	- Lares	Ι.		
Selma		Rome WRGA		959	,	WRC	18	KDB					
WHIBB   1500   Musele Sheafs   City   WMSD   1420   Tuscaloses   WJRD   1200   Chice   Chice	RGA 1 Savannah											-410	
Nuscice   Sheals   CRE   1370   Stockton   Stockton   Chice   Chica   Chica		WSAV		DA	LORI	F						1500	
Stockton   Stockton	TOC 1	WTOC	W			ı —							Musola
WMSD	Thomasviile	Thoma	1 "1	Book	utana	l no							
Tuscolocsa   WJRD   1200   Chice   KHSL   1260   Visalia   KTKC   890   Watsonville   KTKC   890   WJRD   1210   Galnacuille   WJAX   900   WJRD   1290   WJRD   1210   KTOX   1250   KOX   1250   KTOX   1210   K		WPAX										1420	
Name	<b>Wayeross</b>								110			188	
ALASKA	AYX 1	WAYX	W.						1980			1200	
ALASKA			-										•
COLORADO	HAWAII	HAV	1 -										
Anchorage   KEEM   1450					al nesvi	G G	3 1	KHU	1000	-		E A	ALAS
Anchorage   KARM   1310   KA	Hile			830	U.F	WRU			1450				ALAG
RFQD   780	HBC 1 Honofulu	KHBC		VII30	eksonv	j ja	LORADO	l co	1400				
Second   S		KGMB						I —	1910				
Richard   Rich		KGU						010					
Note		Lihue											
Long Beach   KFOX 1250   Denver   WIOD 616   WIOD 616		KTOH										610	
RINY													
Refer   1860   Los Angeles   KLZ   560   WQAM   560   KECA   780   KMYR   1310   Mamil Beach   KLZ   560   WKAT   1860   KFSC   1300   KPOF   886   Ooala   KFSC   1300   KFSC   1300   KVOD   630   Ooala   KIVOD   1870   Ooala   CIVOD   Ooala   CIV	IDAHO	10	1	616									
Column			_										
RIZONA	Bolse			860								900	GBU
RIZONA		KIDO											
Red	ldaho Fail			1590					1800	AC	K	NA	ARIZO
Columb									640	I	K		
Note	Lewiston	KRLC							1120	SG	K		
Second   S	RLC 1 Nampa								1000	VD	K		
RCFJ   1200		KFXD							950			1210	
Lowell   L	Pocatello												
Keun   1200	SEI	KSEI	l K						200			1310	
REUN   1200   KNX   1050   La Junta   St. Augustine   KT   KOY   1390   Morcoed   KTOS   1040   Lamar   St. Petersburg   KV   KVOA   1500   KTRB   749   Monterey   KGHJ   1220   Monterey   KGHJ   1320   St. Petersburg   KV   WSUN   620   WTSP   1370   Monterey   KGHJ   1320   St. Petersburg   KV   WSUN   620   WTSP   1370   Monterey   KGHJ   1320   Sterling   WSPB   1420   WSPB   WS	Twin Falls								870				
Ref	TFI 1	STF1	87										
Note	Wallage								1120				
KTAR   528	WAL 1	KWAL	K										
Note									1040	os	K.		
Safford   Safford   Menterey   KOLN   1210   KTRB   746   KGHF   1826   Sarasota   WSPB   1420   Menterey   KOLN   1210   KGEK   1290   Tallahassee   WTAL   1310   Each   Tallahassee   Tallahassee   WTAL   1310   Each   Tallahassee   Tallahassee   WTAL   1310   Each   Tallahassee   Tall	ILLINO18	ILLI	I _	1870	3P	WTS			•	lodeste			
RGLU   1420   RDON   1210   RGEK   1290   Tallahassee   W1   RTUC   1370   RLS   1280   RUN   1210   RUN			_	3	rasota	Sa			749	RB ·	K	1200	
Tueson	Aurora							Ste	y	iontere			
RTUC   1870   KLS   1280   CONNECTIGUT   Tampa   WJ   WDAE   1220   WFLA   829   WCC   WFLA   829   WCC   WFLA   829   WCC   WFLA   829   WCC   WJNO   1200   WJNO   WJN		WMRO					1	KGE	1210	ON	KI	1420	
KVOA         1260         KLX         1280         CONNECTIGUT         WDAE         1220         WFLA         829         WC           Yuma         KROW         980         Bridgeport         WFLA         829         WC           KYUM         1210         Pasadena         WICC         600         WJNO         1200         WICC           KPPC         1210         Hartford         WICC         600         WJNO         1200         WICC	Bloomingto			- 1316				l	4	akland	1 (		
KYOA         1260         KLX         880         WOAR         1220         W		WJBC		1000			ECTICU	CONF					
Yuma	Carthage CAZ	WCAZ						_	880	X	KJ	1260	VOA
WICC 600 WINO 1200 WI Hartford	Champaign						ganari	P-I					
KPPC 1210 Hartford		WDWS										1210	YUM
	Chicage			2400		,   ,,,,,,,							
	AAT	WAAF	w		1					tedding			. D
		WBBM		BIA	GEOR	1 (			1200	CV	K	SAS	AKKAN
Sacramente WTHT 1260		VCBD							ente	acrame	1		
Blytheville KFBK 1490 New Britain Albany Wo	CFL	WCFL					Britair	Nev					
		WCRW		1420			. 1	WNB	1210	OY	K	1290	LCN

WERN WGS         1350 WGR         Ames WGR         4 Ames WGR         WHOP 1350 WARX 13	'	NORTH AMERICA	N B. C. STATION	AS BY LOCATION	S
Works   1200   Wild   1200	11220	10WA			MINNESOTA
WILD   1300   WILD   WILD   1300   WILD   1300   WILD   1300   WILD   1300   WILD	44 T37 170				
WILD   130			Lexington 1400		Albert Lea
WATE   MAYE	,,,				KATE 1420
WMAG   1086	. 11000			Fell Plus	
WHIRL   1200   WHT   600   WHIRL   1210   WHIRL					KDAL 1500
WSBC   1420   Davaniport   WOC   1870   Decorah   Decorah   Clore   WHEC   Davaniii   1500   Decorah   CKGOA   1270   WPAD   1420   Decorah   WSPAD   1420   Decorah   WSPAD   1420   Decorah   WSPAD   1420   Decorah   WSPAD   1420   Lawrence   WHEG   WARD   1210   Lawrence   WHEG   WILL   1270   WHEG   Lawrence   WILL   1270   WHEG   Lawrence   WILL   1270   WHEG   WILL   WILL	112224				
Closer   WHPC					Fergus Falls
Decorab   Decorab   Decorab   CROA   1270   WPAD   1420   Lawreness   WHFG   Meakaber   WLL   1570   Decorab   WLL   1570   Meakaber   WLL   1570   WMBD   1570   Meakaber   WLL   1570   WMBD   1570   Meakaber   WLL   1570   Meakaber   Meakaber   WLL   1570   Meakaber	Cicers				
Danville   WDAN   1509   Des Moines   WFAD   1430   Lawrense   WMFG   WIAW   Sign			Paducah		
Wildly   Death   Dea			WPAD 1420	Lawrence	
Descript	() DAM				
Man			LOUISIANA		
WHO		KBNT 1820	LUUISIANA		Minneapells
Dubusque   MGIA   1500   MKDFH   1540   WKBB   1500   WKBG   1210   Fort Dodge   Lafayette   WBKK   1310   WBKB   1500   WBKG   1310   Lafayette   WBKK   1310   WBKK	East On Troo		i ——		
WILD   1500	AA THEA		` Alexandria		
WKBB   1500   WBC   1110   Salom   WESX   1200   Work   WSX   Salom				WNLH 1310	
Weight	Uarrichura			WRRK 1810	
Herrin   Wiff   1310   Law collect   Wiff   Wiff   Law collect   Wiff   Wiff	WEBQ 1210				
Variety   Vari	Herrin	KVFD 1370		WESX 1200	
WCLS   1310	WJPF 1310				
Words	Jollet				
Peoria with Mains         KFJB         1200 Mason City         KMLIS         1200 Workers         Workers         St. Cloud City         Company         Workers         Workers         Company         St. Cloud Workers         Workers         St. Cloud Workers         St. Cloud Workers         St. Cloud Workers         St. Cloud Workers         Maint St. Cloud Workers         St. Cloud Workers         Maint St. Cloud Workers         Maint St. Cloud Workers         St. Cloud Workers         Maint St. Cloud Wor		Marshalltown			
Water   Wate					St. Cloud
WTAD   900   Rockford   1410   WROK   1410	AA BITTITI				
Reckford   1410   RPNF   890   RNA   320   Sloux City   SST   1240   Springfield   WSM   1240   Springfield   WSM   1210   Tuscola   WIDZ   1020   Urbana   WILL   530   Atolison   KYAK   1428   Coffeeyille   KGG   1820   KWRH   1100   KWRH   1240   WWDZ   1210   Eikhart   WTHC   Eikhart   WTHC   Exporta   Exporta			TOTAL 1258		St. Paul
NOOK   1410   Rook   Island   Sioux City   Springfield   Wilb   Island   Wil	WILD			WIAG 989	
Nook taland   WHBF   1340   Sloux City   SWMB   1320   WWL   SWMB   WWL   W					
WHIBF   1240   Springfield   WCBS   Springfield   WCBS   1210   Tuscola   WCBS   WCCS   WCCBS   WCCCS   WC				MICHIGAN	Virginia
Springfield   WCBS   1420   WTAX   1210   Tuscola   WTAX   1210   WTAX   1210   WTAX   1210   WTAX   1210   WTAX   1210   Eikhart   WTBC   1310   Evansville   WGBF   1310   WGBF   330   Fort Wayne   WGL   1370   WGBF   1370	WHBF 1240	1890 1890	WWL 850		
WCBS	Sarinafield	KTRI 1420	Shrevepert		
Tuscola   WDZ	WCBS 1420				KWNO 1200
No.	44.7.777	KANSAS	ELDS 2200		
Note			KWKH 1100		M1881881PP1
Note	1122	Abilene			
Adolson		KFBI 1056	MAINE		Greenville
INDIANA	WIIII		_		WJPR 1310
Anderson   Wilbu   1210   Eighart   Wilbu   1210   Eighart   Wilbu   1210   Evansyllie   Evansyllie   Wilbu   1210   Evansyllie   Evansyllie   Evansyllie   Wilbu   1210   Evansyllie   Evans		24 / 4444	Augusts		
Marting	INDIANA				
Martice   Mart	A - dereon				
Wilhight   Wilder			WABI 1200		
WTRC	Elkhart	Mario South		was wallering	
Evanaville					
WCSA   Section   WCSH   Section   WCSH	Evansville				
WOBF   350	WEOA 1870				
WGL   1370	HODE		WCBIL 020,		
Marry   Marr					WAML 1819
WOWO Gary   WIND   S00   Kansas City   Kex   1310   Kex	mua =====	Hutchinsen			
Manual City	110	KWBG 1420	WAGII		11222
Name			WALVEAUS	Jackson	
WHP	MATTI	KCKN 1310	MARTEARD	WIBM 1870	
WWAE   1200   Indianapolis   WREN   1229   WBAL   1600   WBZO   599   WBEN   1230   WBAL   1060   WBEN   1230   WBAL   1060   WBEN   1230   WBAL   1060   WBEN   1230   WBAL   1060   WBEN   1270   WCBM   1270   WCBM   1270   WBEN   1270					Vicksburg
Indianapolis					WQBC 1360
WFBM   1230   WBAC   500   WCAO   600   Lapser   WMPC   1200   Marquette   WCBM   1870   WMPM   1810   WCBM   1870   WMPM   1810   WCBM   1870   WCBM   1870   WMPM   1810   WCBM   1870   WCBM		11,20001			
WIBC   1050   WIBC   1490   KOAM   750   WFBB   1270   Marguette   WCMPC   1200   Marguette   WIBC   1310   KEVS   Muskegon   WIBC   1370   WFBB   1270   Muskegon   WIBC   1370   WIB					MISSOURI
WIRE   1400   WIRE   1400   WORD   1200   WMPC   1200   WMPC   1200   WIRE   1210   WMPC   1200   WIRE   1210   WMRC   1210   WIRE   1210	WIRC 1050		11020		
Muncle		Pittsburg	11 020-000		Cape Girardeau
WIBC   1810   KSAL   1800   WIBO   800   Muskegon   KFRU   WIBO   1870   Richmond   WKBY   1500   South Bend   WFH   1300   WFH   1310   WFH   1300   WFH   130					KEVS 1370
New Albany   Topeka   Frederick   WKBZ   1500   KFBU					
Wind					
Richmond   WKBY   1500   KANS   1210   KANS   1210   KANS   1210   WJEJ   1219   WHES   1376   WMBH   KANS   WSBT   1360   WSBT   1360   KENTUCKY   MASSACHU- SETTS   WEXL   1310   KITE   KMBC   WHAL   950   WJEJ   WASSACHU- SAginaw   WEXL   1310   KITE   KMBC   WHAL   950   WJEJ   WJEJ					
WKBY   1500   South Bend   KFH   1300   WFAM   1300   WSBT   1360   KENTUCKY   SETTS   Saginaw   KMBC   WHAL   950   WDAF	Richmond				
South Bend   WFH   1300   WFH   1300   WHAN   1310   WHA				17 4	· Jeplin
WFAM         1300         Kansas           WSBT         1350         KENTUCKY         MASSACHU- SETTS         Rayal Oak         KCMO           Terre Haute         WBOW         1200         KITE         Saglnaw           Vineennes         Achiand         Boston         WHAL         950         WDAF				WHIST 1986	
VIDEOUS   CONTINUE   SETTS   WEXL   1810   KITE			MAGRACUM.		Kansas City
WBOW 1200 - Saginaw KMBC Vineennes Ashiand Boston WHAL 950 WDAF		KENTUCKY			
Vincennes Ashland Boston WHAL 950 WDAF			95119		
		Ashland	Parter		KMBC 950
WAOV 1420 WCMI 1810 WAAB 1416 WSAM 1200 WHB	WAOV 1400				
1120				1 1	Poplar Bluff
WBAA 890 WBIJ 1810 WCOP 1120 WSOO 1200 KWOC					
1 11 11 11 11 11 11 11 11 11 11 11 11 1			, 11002 2220	. 11500 1200	W.1100 Tells

St. Jeseph	NEW JERSEY	New York	Kinston	WKBN 579
KFEQ 686		WABC 860	WFTC 1200	Zanesville
St. Louis	Asbury Park	WBIL 1160	Raisigh	WHIZ 1210
KFUO 550	WCAP 1280	WBNX 1850	WPTF 680	
KMOX 1999	· Atlantic City	WB0Q 860	WRAL 1210	OKLÁHOMA
KSD 559	WBAB 1200	WEAF 660	Rocky Meunt	Ada
KWK 1859	WPG 1100	WEVD 1800	WEED 1420	KADA 1200
KXOK 1259 WEW 769	Bridgeton	WHN 1916	Salisbury	Ardmore
WEW 769 WIL 1200	WSNJ 1210	WINS 1180	WSTP 1500	KV80 1210
Sedalla	Camden	WJZ 760	Wilmington	Elk City
KDRO 1500	WCAM 1288	WLTH 1400 WMCA 570	WMFD 1870	KASA 1210
Springfield	Jersey City		Wilson	Enid
KGBX 1938	WAAT 948	WNEW 1259 WNYC 810	WGTM 1810	KCRC 1860 Muskogee
KWTO 568	WHOM 1450	WOV 1189	Winston-Salem	KBIX 1500
	Newark	WQXB 1550	WAIR 1250 WSJS 1810	Nerman
	WHBI 1250	Niagara Falls	WSJS 1810	WNAD 1016
MONTANA	WOR 718	WHLD 1260	NORTH	Oklahoma City
	Red Bank	Ogdensburg	DAKOTA	KOCY 1810
Billings	WBBB 1216	WSLB 1870		KOMA 1489
KGHL 789	Trenten	Clean	Bismarck	KTOK 1870
Bozeman	WTNJ 1280	WHDL 1400	KFYB 550	WKY 900
KRBM 1429	Zarophath	Plattsburg	Devils Lake	Okmulgee
Butte	WAWZ 1850	WMFF 1819	KDLR 1210	KHBG 1210
KGIR 1840		Poughkeepsie	Farge	Ponea City
Great Falls	NEW MEXICO	WKIP 1420	WDAY 940	WBBZ 1200
KFBB 1280		Rochester	Grand Ferks	Shawnes
Helena	A 11	WHAM 1150	KFJM 1410	KGFF 1420
KPFA 1219 Kallspell	Albuquerque	WHEC 1486	Jamestown	Tuisa
KGEZ 1810	KGGM 1250 KOB 1180	WSAY 1210	KRMC 1870	KOME 1310
Missoula	Carlebad	Saranas Lake WNBZ 1299		KTUL 1400
KGVO 1269	KLAH 1210	Schenestady	KGCU 1240 Minot	KV00 1140
Wolf Peint	Clovis	WGY 198	KLPM 1860	
KGCX 1450	KICA 1870	Syracuse	Valley City	OREGON
	Gallup	WFBL 1860	KOVC 1500	
NEBRASKA .	KAWM 1500	WOLF 1500	1000	Astoria .
	Hobbs	WSYB 570	OHIO	KAST 1200
	KWEW 1500	WSYU 579		Baker
Frement KORN 1370	Reswell	Troy	Akren	KBKR 1500
KORN 1370 Grand Island	KGFL 1870	WHAE 1800	WADC 1820	Bend
KMMJ 749	Santa Fe	WTRY 050	WJW 1210	KBND 1310
Hastings	KVSF 1819	Utlea	Ashtabula	Corvaliis KOAC 556
KHAS 1200	-	WIBX 1200	WICA 940	KOAC 550 Eugene
Keargey	NEW YORK	Uister Twp.	Canten	KORE 1420
KGFW 1316		WKNY 1500	WHBC 1200	Grants Pass
Lincein KFAB 770	Albany	White Plains	Cincinnati WCKY 1490	KUIN 1810
KFOR 1210	WABY 1876 WOKO 1438	WFAS 1810 Woodside	WCKY 1490 WCPO 1200	Klamath Falls
Norfolk	WOKO 1430 Aubara	WWRL 1500	WKRC 550	KFJI 1210
WJAG 1066	WMBO 1830		WLW 700	La Grande
North Platte	Binghamton	NORTH	WSAI 1889	KLBM 1420
KGNF 1430	WNBF 1599	CARGLINA	W8X0 700	Marshfield
Omaha	Breeklyn	Asheville	Cleveland	KOOS 1200
KOIL 1260	WARD 1499	WISE 1370	WCLE 610	Medford
KOWH 660	WBBC 1400	WWNC STO	WGAR 1450	KMED 1410
WOW 599	WBBR 1809	Charlotta	WHK 1890	Portland
Scottsbier	WCNW 1500	WBT 1086	WTAM 1070	KALE 1800
KGKY 1500	WVFW 1400	W80C 1210	Columbus	KBPS 1420
	Buffale	Durham WDNC 1560	WBNS 1430	KEX 1160
	WBEN 900		WCOL 1210	KGW 629 KOIN 946
NEVADA	WBNY 1870	Elizabeth City	WHKC 640	
	WEBR 1310	WCNC 1870	wosu 570	
Rene	WGB 550	Fayetteville	Dayton	KXL 1420 Reseburg
KOH 1389	WKBW 1480	WFNC 1846	WHIO 1260	KRNR 1500
	WSVS 1879	Gastonia WGNC 1420	WING 1880	Salem
MEN	Canten	Goldsbero 1420	Lima WLOK 1210	KSLM 1360
NEW	₩CAD 1220	WGBB 1870	WLOK 1210 Mansfield	
HAMPSHIRE	Elmira	Greensbare	WMAN 1370	Pennsylvani <b>a</b>
	WENY 1200 WESG 250	WBIG 1440	Portemouth 1370	Allentown
Laconia		Greenville	WPAY 1870	
WLNH 1810	Freeport WGBB 1210	WCTC 1500	Toleda	WCBA 1440 WSAN 1440
Manehester	Jamestewn	Hickory	WSPD 1340	Alteona
WFEA 1840	WJTN 1210	WHKY 1370	WTOL 1200	WFBG 1810
Portsmouth	Newporth	High Peint	Youngstown	Easton
WHEB 746	WGNY 1229	WMFR 1200	WFMJ 1420	WEST 1200
				1100

Erie	Charleston	Beaumont	Texarkana	WASHINGTON
WLEU 1420	WCSC 1360	KFDM 569	KCMC 1420	Aberdeen
Gienside WIBG 970	WTMA 1210	KRIC - 1429	Vernen	KXRO 1310
WIBG 970 Greensburg	Columbia WCOS 1278	Big Spring	KVWC 1500	Bellingham
WHJB 620	WIS . 560	KBST 1500	Victoria	KVOS 1200
Grove City	Florence	Brady KNEL 1500	KVIC 1310	Centralla
WSAJ 1810	WOLS 1200	224	₩aop WACO 1420	KELA 1440
Harrisburg	Greenville	Brownsville	Weslace	Everett KRKO 1370
WHP 1430	WFBC 1800	KGFI 1500	KRGV 1260	Longview
WKBO 1200	Spartanburg	College Station	Wichita Faits	KWLK 780
Hazelton WAZL 1420	WORD 1370 WSPA 920	WTAW 1120	KWFT 620	Olympia
Johnstown	Sumter	Cerpus Christi		KGY 1210
WJAC 1370	WFIG 1310	KRIS 1320	UTAH	Pullman
Lancaster		Dallas	1	KWSC 1220
WGAL 1500	RTUOS	KRLD 1040 WFAA 800	Cedar City	Seattle KEEN 1370
New Castle	DAKOTA	WFAA 809 WBR 1280	KSUB 1310	KEEN 1370 KIRO 710
WKST 1250			Logan	, KJR 970
Philadelphia KYW 1020	Aberdeen	Denisa KDNT 1420	KVNU 1200	KOL 1270
WCAU 1170	KABR 1899		Oaden	комо 920
WDAS 1870	Brookings	Dublin	KLO 1400	KRSC 1120
WFIL 560	REDY 780	KFPL 1810	Price	KTW 1220
WHAT 1310	Pierre	El Paso	KEUB 1420	KXA 760
WIP 618	KGFX 680	KROD 1500	Prove	Spokane
WPEN 920	Rapid City	KTSM 1810 WDAH 1810	KOVO 1210	KFIO 1120 KFPY 890
WTEL 1810	ковн 3879	,,	Salt Lake City	KGA 1470
Pittsburgh	WCAT 1200	Fort Werth	KDYL 1290	KHQ 590
KDKA 980 KOV 1280	Sioux Fails	KFJZ 1249 KGKO 570	KSL 1130	Tacoma
11.49 /	KELO 1200 KSOO 1110	KGKO 576 WBAP 800	KUTA 1500	KMO 1330
WCAE 1220 WJAS 1290	KSOO 1116 Vermillion	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		KVI 570
WWSW 1500	KUSD 899	Galveston KLUF 1870	VERMONT	Vancouver
Reading	Watertown			KVAN 880
WEEU 830	KWAT 1210	Houston KPRC 920	Burlington	· Walla Walla
WBAW 1310	Yanktez	KPRC 920 KTRH 1290	WCAX 1200	KEJ 1370 Wonatchee
Scranton	· WNAX 570	KXYZ 1449	Rutland	KPQ 1500
WGB1 880		Kilgore	WSYB 1500	Yakima
WQAN 880	TENNESSEE	KOCA 1210	St. Albans	KIT 1250
Sharon WPIC 780		Laredo	WQDM 1890	
WPIC 180	Bristol	KPAB 1500	Springfield	WEST
WKOK 1210	WOPI 1500		WNBX 1260	VIRGINIA
Uniontown	Chattanooga	Lengview KFRO 1870	Waterbury	Beakley
WMBS 1420	WAPO 1429	Lubbook	WDEV 550	WJLS 1210
Wilkes-Barre	WDOD 1280 Cookeville	KFYO 1810		Bluefield
WBAX 1210	WHUB 1370		VIRGINIA	WHIS 1410
WBRE 1310	Jackson	Midiand KRLH 1420		Charleston WCHS 580
Williamsport WRAK 1379	WTJS 1810		Charlettesville	WCHS 580
	Johnson City	Pampa	WCHV 1420	Clarksburg
York WORK 1320	WJHL 1200	KPDN 1810	Danville	WBLK 1370
11.021	Knoxville	Paris	WBTM 1870	Fairmont
PUERTO RICO	WNOX 1010	KPLT 1500	Fredericksburg	WMMN 890
Mayaguez	WROL 1810	Pecos	WFVA 1260	Huntington
WPRA 1370	Memphis WHBQ 1870	KIUN 1870	Harrisonburg	WSAZ 1190
Ponce	WMC 789	Piainview KWBD 1200	WSVA 550	Parkersburg
WPAB 1340	WMPS 1430		Lynchburg	WPAR 1420 Wheeling
WPRP 1420	WREC 600	Port Arthur KPAC 1220	WLVA 1200	WWVA 1160
San Juan WKAQ 1240	Nashville	San Angelo	Newport News WGH 1310	Williamson
WKAQ 1240 WNEL 1290	WLAC 1470	KGKL 1870	WGH 1310 Norfolk	WBTH 1370
WINE INC	WSIX 1210	San Antenio	WTAR 780	
3HODE ISLAND	WSM 650	KABC 1420	Petersburg	WISCONSIN
		KMAC 1870	WPID 1210	
Providence	TEXAS	KONO 1370	Richmond	Appleton
WEAN 780		KTSA 550	WBBL 1210	WHBY 1200
WJAB 890	41.00	WOAI 1190	WMBG 1350	Ashland
WPRO 630	Abilene KRBC 1420	Sherman	WRNL 880 WRTD 1500	WATA 1370 Eau Claire
COUTH		KRRV 1310	WRTD 1500 WRVA 1116	Eau Claire WEAU 1050
SOUTH	Amarille KFDA 1500	Sweetwater	Roanoke	Fond du Lac
CANCLINA	KGNC 1416	KXOX 1210	WDBJ 980	KFIZ 1420
Anderson	Austin	Temple	Suffolk	Green Bay
WAIM 1200	KNOW 1500	KLEW 1310	WLPM 1420	WTAQ 1330

Janesville	Trail	Owen Sound	Saskatsen	CMCD 680
WCLO 1200	CJAT 910	CFOS 1370	CFQC 600	CMCF 810
LaCrosse	Vanceuver	Presentt	Watreus	CMCG 1290
WKBH 1880	CBB 1100	CFLC 980	CBK 540	CMCH 1050
Madison	CJOB 600	St. Catharines	Yorkten	CMCJ 1110
WHA 940	CKCD 1010	CKTB 1200	CJGX 1489	CMCK 970
WIBA 1280	CKFC 1419	Sault Ste. Marie		CMCL 720
Manitowee WOMT 1216	CKMO 1418	CJIC 1500	COSTA RICA	CMCM 856
	CKWX 1010	Stratferd		CMCO 1290
Marinette WMAM 570	Vietoria	CJCS 1210	Alajueia	CMCQ 1410
	CFCT 1450	Sudbury	TISCV 575	CMCU 1010
Milwaukee .		CK80 780	San Jese	CMCB 1320
WEMP 1310	MANITOBA	Timpins	TIAFB 900	CMCW 1880
WISN 1126		CKGB 1440	TIEMC 860	CMCX 1470
WTMJ 620	Branden	Terente	TIEP 880	CMCY 570
Poynetto	CKX 1120	CBL 840	TIFA 1600	CMK 720
WIBU 1210	Filn Fien	CBY 1420	TIGH 690	CMOA 666
Racine	CFAR 1870	CFRB 890	TIGPH 600	CMOX 1500
WRJN 1370	Winnipeg	CKCL 580	TIGPH2 1225 TIHO 1030	CMQ. 780
Rice Lake	CJRC 630 CKY 910	Waterles		CMW 550
WJMC 1210	CKY 910	CKCR 1510	TILJ 775	CMX 880
Sheboygan		Windser		CMZ 920
WHBL 1300	NEW	CKLW 1080	TINBC 1070 TING 750	Holgula
Stevens Point	BRUNSWICK	Winghaza	TIOS 940	CMKF 1460
WLBL 900		CKNX 1206	TIPG 625	CMKO 1280
Superior	Campbellton		TIRCC 1200	Manzazille
WDSM 1200	CKNB 1210	PRINCE ED-	TIRS 920	CMKE 1810
Wausau	Frederioton	WARD ISLAND	TIXD 800	CMKM 1080
WSAU 1870	CFNB 550			Matanzas
	Monoten	Charlottetown	CUBA	CMGF 1120
WYOMING	CKCW 1870	CFCY 630	. 0027	CMGH 710
	Sackville	CHCK 1810	Dames	Moren
		Summerside	Banes	CMJP 1426
Casper		CHGS 1450	CMKX 1190	Palma Seriane
KDFN 1440	St. John CHSJ 1120		Bayame	CMKZ 1430
Rock Springs	CHSJ 1120	QUEBEC	CMKL 950	Pinar del Rio
KVRS 1370			Calbarien	CMAB 1240
Sheridan	NOVA SCOTIA	Chicoutimi	CMHD 1270	CMAR 1400
KWYO 1870		CBJ 1139	Camaguey	
	Glass Bay	Hall	CMJA 860	Placetas
BAHAMA8	VAS 685	CKCH 1219	CMJC 1390	CMHP 1100
	Halifax	Montreal	CMJE 1230	Sagua la Grande
	CHNS \$30	CBF 910	CMJF 980	CMHA 1090
Nassau	Sydney	CBM 980	CMJK 1020	CMHO 1020
ZNS 790	CJCB 1240	CFCF 600	CMJW 1070	Saneti Spiritus
	Welfyille	CHLP 1126	CMJX 660	CMHB 1246
CANADA	CKIC 1016	CKAC 786	Cardenas	Santa Clara
CANADA	Yarmeuth	New Carilsie	CMGE 1870	CMHI 880
ALBERTA	CJLS 1316	CHNC 618	Clege de Avila	CMHW 689
		Quebes	CMJH 1860 CMJI 1180	Santlage
Calgary	ONTABIO	CHBC 580		· CMKC 1250
CFAC 980	UNIABIO	CKCV 1810		CMKD 910
CFCN 1030		CBV 950	Clenfueges	CMKG 1000
CICI 690	Brantferd	Rimeuski	CMHJ 1160	CMKQ 1496
	CKPC 980	CJBR 1089	CMHM 1450	CMKR 1400
Edmenten CFRN 960	Chatham	Resys	CMHX 1480	CMKW 1030
	CFCO 680	CKBN 1879	Cruces	CMKY 960
CJCA 780	Cobalt	St. Anne de la	CMHK 1210	Trinidad
CKUA 580 Grande Prairie	CKMC 1210	Pecetiere	Guantanamo	CMHT 920
CFGP 1200	Fert William	CHGB 1200	CMKS 710	
Lethbridge ·	CKPR 580	Sherbrooks	Guines	DOMINICAN
	Hamilton	CHL/F 1210	CM9RT 1580	REPUBLIC
CJOC 1210	CHML 1010	Three Rivers	Havana	
	CKOC 1129	CHLN 1420	CMBC 690	
BRITISH	Kenera	Val d'Or	CMBD 1260	Cludad Trulitte
COLUMBIA	CKCA 1429	CKVD 1200	CMBF 1560	HIG 900
	Kingston		CMBG 1140	HIN 1099
Chilliwask	CFRC 1510	SASKATCH-	CMBH 1600	HEX 866
CHWK 780	Kirkland Lake	EWAN	CMBL 750	HIT 1050
Kamieops	CJKL 1810		CMBQ 910	HIZ 1370
CFJC 880	Lenden	Moore Jew	CMBS 1170	HI8Q 1470
Kelowna	CFPL 730	CHAB 1200	CMBX 1089	
CKOV 580	North Bay	Prince Albert	CMBY 1440	EL SALVADOR
Nelson	CFCH 980	CKBI 1219	CMB2 940	EL SALTADON
CKLN 1420	Ottawa	Regina	CMC 1580	
Prince Rupert	CBO 830	CJRM 950	CMCA 1856	San Salvador
CFPB 580	CKCO 1010	CKCK 1919	CMCB 1230	YSS 646
		OLCE 1010	CHCB 1400	

QUATEMALA :	XEBW 1840 I	XERH 1480	I ÖAXACA	1 Tampleo
	XEFI 1646	XESM 1270		XECA 1280
	XEM 1390	XEW 899	Oaxaca	XEFW 1810
Quatemala City	Juarez	XEXX 1170	XEXH 1150	XES 990
<b>TGW 1520</b>	XEF 1450	DURANGO	PUEBLA	Victoria
TGX 1400	XEFV 1210		PUEBLA	XEBJ 1340
TGI 1310	XEJ 1020	Durange	Puebla	VERACRUZ
Quezaitenango	XEP 1160	XEBP 1150 XEE 1210	XETH 1210	V = 11. 10.10 =
TGQ 1450	Parral	X FOR 1810		Cerdeba
	XEAT 1210	GUANAJUATO	SAN LUIS	XEAG 1810
HONDURAS	COAHUILA	Irapuate	POTOSI	XECW 1249 Jaiapa
Teguolgalpa	Pledras Negras	XEBO 1810	San Luis Potesi	XEXB 1270
HRN 1450	XEMU 580	Leon	XECZ 1879	Minatitian
11111	XEPN 780	XEFM 1160		XEDW 1150
MEXICO	Sabinas	XEKL 1240	SINALOA	Verserme
	XEBX 640	Silao	Mazatlan XKBL 1228	XETF 1229
Aguascalientes	Saitille	XEWE 720		XEU 1010
	XEAS 2160		XEDS 1400	AEU _ 1010
Aguascallentes	XEKS 1240	JAL18CO	BONORA	YUCATAN
2000	Torreen	Guadalalara	BUNURA	1002.24
XEBI 1000	XEDE 1490	XED 1166	Capanea	Merida
	XETB 1310	XEHK 1230	XEFQ 1010	XEFC 1840
BAJA	Villa Acuna	XELW 1349	Guaymas	XEME 1240
CALIFORNIA	XEDH 1340	Guzman	XEDR 1499	XEZ 680
	XEBA 340	XEBA 1080	Hermosillo	A-E-24 000
Mexicali	DISTRITO		XEBH 920	St. Plerre
XEAA 750		MEXICO	Navojoa	FQN 609
XEAO 660	FEDERAL	Texcooo	XEAJ 1400	<u>FGN</u> 000
XECL 1110	Mexico City	XEXE 1270	XEDL 1246	NEWFOUND-
Tijuana XEAC 980	XEAI 1250	Tolges	Nogales	LAND
	XEB 1030	XECH 1499	XEAF 990	LAND
	XEBS 1840		Obregen	
XEBG 820 XEC 1150	XEBZ 810	MICHOACAN	XEAP 1840	St. John's
XELO 676	XEDA 1220			VOAC 1065
XEMO 860	XEDP 1080	Morella	TAMAULIPAS	VOAR 950
XERB 1090	XEFO 840	XEBC 1240		VOCM 1040
XEAD BOOK	XEJP 1180	XEI 1870	Matamoros	VOGY 840 VONF 646
CAMPECHE	XEK 990	NUEVO LEON	XEAM 750	
Campeche	XEKR 1280	NUEVO LEUN	Nuevo Laredo	VOWE 700
XEA 1400	XEL 1150	Monterrey	XEBK 1980	PANAMA
222	XELZ 1370	XEFB 870	XEDF 810	PANAMA
CHIHUAHUA	XEN 780	XEG 1230	XEFE 980	Colon
CHITCHICA	XEQ 789	XEH 740	XENT 910	HOR 840
Chihuahua	XEQK 1500	X177 690	Reynosa	
XEBU 1240	XERC 830	XEX 1810	XEAW 960	MIQUELON
	,			

KSAL in Salina, Kansas was heard testing on 1120 kcs. on March 19th at 3:45 A. M. They were running 1000 watts eith on a non directional aerial. They annonuced that they would soon begin broadcasting on 1120. They put in an R8 signal. (S. Tellis, Philadelphia, Penna. R1271).

KPAC Port Arthur Texas, is now using their new frequency of 1220 kcs. . . . KGLO is trying to get 120 kcs. and KWLC has protested. So it is in FCC courts now. . . . KGCA is permanently delected. They failed to send a representative to Washington conference last summer. KWLC's new tower is not in use. If KWLC gets to keep 1070 kcs. they plan to ask for an increase of power. They

verify by card signed by Arlo Weelery, operator. . . . KMYR Denver, Colo. is a new station under construction on 1310 kcs. . . . KFJZ 1240 kcs., Fort Worth are a 24 hour station, as is also WMMN Fairmont, W. Va. who have been on all night for past 5 weeks. . . . KFV Cape Girardeon, Mo. heard testing on 1370 kcs. (new Frequency) January 26, 1940 from 1210 kcs. (Merlin teen, Decorah, Iowa, and Dick Douglas, t. Joseph, Mo.)

WELI on 930 kcs. signs off at 12:07 a.m... WHKY, the new Hick-ory, N. C. station will be on the air by May 15. WDBJ has applied for 5000 watts at night. (Harold Tear, R924, Roanoke, Va.)

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

For 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	CMBL	759	СМНЈ	1160	CWBG	1140
CBF	910	CHGS	1450	СКСО	1010	CMBQ	910	СМНК	1210	СМВН	1600
CBJ	1120	CHLN	1420	CKCR	1510	CMBS	1170	СМНМ	1450	CMKW	1030
СВК	540	CHLP	1120	CKCY	1310	CMBX	1080	СМНО	1020	CMKX	1190
CBL	849	CHLT	1219	CKCW	1370	CMBY	1440	СМНР	1100	CMKY	960
CBM	960	CHML	1910	CKFC	1410	CMBZ	940	CMHT	920	CMKZ	1430
СВО	889	CHNC	619	CKGB	1440	CMC	1530	CWHW	.680	CMOA	660
CBR	1100	CHNS	930	CKIC	1018	CMCA	1350	СМНХ	1480	СМОХ	1500
CBV	950	CHRC	580	CKLN	1420	CMCB	1230	CMJA	860	CMQ	780
CBY	1420	CHSJ	1129	CKLW	1030	CMCD	630	CWIC	1390	CMW	550
CFAC	930	CHWK	789	CRMC	1210	CMCF	810	CMJE	1236	CMX	889
CFAR	1370	CJAT	910	CKMO	1418	CMCG	1290	CMJF	930	CMZ	920
CFCF	600	CJBR	1030	CKNB	1210	CMCJ	1110	CWJH	1360	CM9RT	1580
CFCH	930	CJCA	730	CKNX	1200	CMCH	1050	CWJI	1130	FQN	609
CFCN	1030	CICB	1240	CKOC	1120	CMCK	970	CWIK	1020	HIG	900
CFCO	630	င္ပင္ပ	690	CKOV	630	CWCL	730	CWJO	1260	HIN	1096
CFCT	1450	CJCS	1219	CKPC	930	CMCM	850	CMJP	1420	HIT	1050
CFCY	630	CJEX	1430	CKPR	580	CMCO	1200	CWJM	1670	HIX	800
CFGP	1200	CIIC	1500	CKRN	1379	CMCO	1410	CMJX	660	HIZ	1370
CFJC	880	CIKI	1310	CKSO	780	CMCR	1326	CMK	720	HISQ	1470
CFLC	930	CULS	1310	CKTB	1200	CMCU	1010	CMKC	1259	HOK	640
CFNB	550	Cloc	1210	CKUA	580	EMCW	1380	CMKD	910	HRN	1450
CFO5	1370	CJOR	600	CKYB	1200	CMCX	1470	CMKE	1319	KABC	1420
CFPL	730	CURC	630	CXWX	1010	CMCY	590	CMKF	1460	KABR	1390
CFPR	580	CJRM	950	CKX	1120	CMGE	1370	CMKG	1000	KADA	1200
CFQC	689	CKAC	730	CRY	916	CMGF	1120	CMKL	950	KALB	1210
CFRB	690	CKBI	1210	CMAB	1240	CMGH	710	CMKM	1080	KALE	1300
CFRC	1510	CKCA	1420	CMAR	1400	CMHA	1090	СМКО	1280	KANS	1210
CFRN	960	CKCD	1010	CMBC	690	СМНВ	1240	CMKQ	1490	KARK	890
CHAB	1200	CKCH	1210	CMBD	1260	<b>ØMHD</b>	1270	CMKR	1400	KARM	1310
CHCK	1310	CKCK	1910	CMBF	1569	CWHI	830	CMKS	710	KASA	1210
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<b>9</b> 0											, (DE)
KAST	1200	KFAM	1420	KFVD	1000	KGKO	570	KJR	976	KOIL	1260
KATE	1420	KFAR	610	KFVS	1370	KGKY	1500	KLAH	1210	KOIN	940
KAWM	1500	KFBB	1280	KFWB	950	KGLO	1210	KLBM	1420	коко	1370
KBIX	1500	KFBI .	1050	KFXD	1200	KGLU	1420	KLCN	1290	KOL	1270
KBKR	1500	KFBK	1490	KFXJ	1200	KGMB	1320	KLO	1400	KOMA	1480
KBND	1310	KFDA	1500	KFXM	1210	KGNC	1410	KLPM	1360	KOME	1310
KBPS	1420	KFDM	560	KFYO	1310	KGNF	1430	KLRA	1390	комо	920
KBST	1500	KFDY	780	KFYR	550	KGNO	1340	KLS	1280	KONO	. 1370
KBTM	1200	KFEL	920	KGA	1470	KGO	790	KLUF	1370	KOOS	1209
KCKN	1310	KFEQ	680	KGB	1339	KGU	750	KLX	880	KORE	1420
KCMC	1420	KFGQ	1370	KGBU	900	KGVO	1260	KLZ	560	KORN	1370
KCMO	1450	KFH	1300	KGBX	1230	KGW	620	KMA	930	KOTN	1500
KCRC	1360	KFI	640	KGCA	1279	KGY	1210	KMAC	1370	KOVC	1500
KCRJ	1310	KFIO	1120	KGCU	1240	KHAS	1200	KMBC	950	KOVO	1210
KDAL	1500	KFIZ	1420	KGCX	1450	КНВС	1200	KMED	1410	KOWH	660
KDB	1509	KFJB	1200	KGDE	1200	KHBG	1210	KMJ	580	KOY	1390
KDFN	1440	KFJI	1210	KGDM	1100	KHJ	909	KMLB	1200	KPAB	1500
KDKA	980	KFJM	1410	KGEK	1200	KHQ	590	KMMJ	740	KPAC	1220
KDLR	1210	KFJZ	1240	KGER	.∡ <b>136</b> 0	KHSL	1260	кмо	1330	KPDN	1310
KDNT	1420	KFKA	880	KGEZ	1310	KHUB	1310	KMOX	1090	KPFA	1210
KDON	1210	KFKU	1220	KGFF	1420	KICA	1370	KMPC	710	KPFT	1216
KDRO	1500	KFNF	890	KGFI	1500	KID	1320	KMTR	570	KPLC	1500
KDTH	1340	KFOR	1210	KGFJ	1200	KIDO	1350	KMYR	1310	KPLT	1500
KDYL	1290	KFOX	1250	KGFL	1370	KIDW	1420	KNEL	1500	KPMC	1550
KECA	780	KFPL	1310	KGFW	1310	KIEM	1450	KNOW	1500	KPO	680
KEEN	1370	KFPW	1210	KGFX	630	KIEV	859	KNX	1050	KPOF	880
KELA	1440	KFPY	890	KGGF	1010	KINY	1439	KOA	836	KPPC	1210
KELD	1370	KFQD	780	KGGM	1230	KIRO	710	KOAC	550	KPQ	1500
KELO	1200	KFRC	610	KGHF	1320	KIT	1250	KOAM	790	KPRC	920
KERN	1370	KFRO	1370	KGHI	. 1200	KITE	1530	КОВ	1180	KQV	1380
KEUB	1420	KFRU	630	KGHL	780	KIUL	1210	КОВН	1370	KQW	1010
KEX	1160	KFSD	600	KGIR	1340	KIUN	1370	KOCA	1210	KRBC	1420
KFAB	770	KFSG	1120	KGIW	1420	KIUP	1370	KOCY	1310	KRBM	1420
KFAC	1300	KFUO	<b>5</b> 50	KGKL	1370	KJB\$	1970	KOH	1389	KRE	1370
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KRGV	1260	KTBS	1450	KVOL	1310	KXRO	1319	VOGY	840	WBAL	1060
KRIC	1420	KTEM	1370	KVOO	1149	KXYZ	1440	VOAC	1065	WBAP	800
KRIS	1330	KTFI	1240	KVOR	1270	KYA	1230	VOAR	950	WBAX	1210
KRKD	1120	KTHS	1060	KVOS	1200	KYCA	1500	VOWR	700	WBBC	1409
KRKO	1370	KTKC	890	KVOX	1319	KYOS	1040	WAAB	1410	WBBL	1219
KRLC	1390	KTMS	1220	KVR\$	1370	KYSM	1500	WAAF	920	WBBM	770
KRLD	1049	КТОН	1500	KVSF	1310	KYUM	1210	WAAT	940	WBBR	1300
KRLH	1426	KTOK	1370	KVSO	1210	KYW	1020	WABC	860	WBBZ	1200
KRMC	1370	KTRB	740	KYWC	1500	TGQ	1450	WABI	1200	WBCM	1410
KRMD	1310	KTRH	1290	KWAL	1420	TGW	1520	WABY	1370	WBEN	900
KRNR	1500	KTRI	1420	KWAT	1210	TGX	1400	WACO	1420	WBHP	1200
KRNT	1320	KTSA	550	KWBD	1200	TGT	1310	WADC	1320	WBIG	1440
KROC	1310	KTSM	1310	KWBG	1420	TIAFB	900	WAGA	1450	WBIL	1100
KROD	1500	KTSW	1370	KWEW	1500	TIEMC	860	WAGF	1370	WBLK	1370
KROW	930	KTUC	1370	KWEC	1310	TIEP	830	WAGM	1 <b>42</b> 0	WBNS	1430
KROY	1219	KTUL	1400	KWFT	620	TIFA	1000	WAIM	1200	WBNX	1350
KRRY	1310	KTW	1220	KWG	1200	TIGH	690	WAIR	1250	WBNY	1370
KRSC	1120	KUIN	1310	KMJB	1210	TIGPH	605	WALA	1380	WBOQ	860
KSAC	580	KUJ	1370	KWJJ	1040	TIGPH2	1225	WAML	1310	WBOW	1200
KSAL	1500	KUOA	1260	KWK	1350	TIHO	1030	WAOV	1420	WBRB	1210
KSAN	1420	KUSD	890	KWKH	1100	TILJ	775	WAPI	1149	WBRC	930
KSCJ	1336	KUTA	1560	KWLC	1270	TILS	880	WAPO	1420	WBRE	1310
KSD	550	KVAK	1420	KWLK	780	TINBC	1070	WARD	1400	WBRK	1310
KSEI	900	KVAN	880	KWNO	1200	TING	750	WASH	1270	WBRY	1530
KSFO	560	KYCY	1200	KWOC	1310	TIOS	940	WATL	1370	WBT	1080
KSL	1130	KVEC	1200	KWOS	1310	TIPG	625	WATR	1299	WBTH	1370
KSLM	1360	KVFD.	1870	KWSC	1220	TIRCC	1200	WATW	1370	WBTM	1370
KSO	1430	KVGB	1370	KWTO	560	TIRS	920	WAVE	940	WBZ	990
KSOO	1116	KVI	570	KWYO	1379	TIXD	800	WAWZ	1350	WBZA	990
KSRO	1310	KVIC	1310	KXA	760	TI4NRH	725	WAYX	1200	WCAD	1220
KSTP	1460	KYNU	1200	KXL	1420	TISCV	575	WAZL	1420	WCAE	1220
KSUB	1310	KVOA	1260	кхо	1500	VAS	685	WBAA	890	WCAL	768
KSUN	1200	KVOD	630	KXOK	1250	VOCM	1040	WBAB	1209	WCAM	1280
KTAR	620	KVOE	1500	KXOX	1210	VONF	640	WBAL	760	WCAO	600

WCAP	1280	WDAH	1310	WESG	850	WGBI	880	WHBY	1200	WIL	1200
WCAR	1100	WDAN	1500	WEST	1200	WGBR	1370	WHDF	1370	WILL	580
WCAT	1200	WDAS	1379	WESX	1200	WGCM	1219	WHDH	830	WILM	1420
WCAU	1170	WDAY	940	WEVD	1310	WGES	1360	WHDL	1409	WIND	569
WCAX	1200	WDBJ	936	WEW	760	WGH	1310	WHEB	740	WING	1380
WCAZ	1070	WDBO	580	WEXL	1310	WGIL	1500	WHEC	1430	WINN	1210
WCBA	1440	WDEL	1129	WFAA	800	WGKY	1500	WHFC	1420	WINS	1180
WCBD	1080	WDEV	550	WFAM	1200	WGL	1370	WHIO	1260	WIOD	610
WCBM	1370	WDGY	1180	WFAS	1210	WGN	720	WHIP	1480	WIP	610
WCBS	1420	WDLP	1200	WFBC	1300	WGNC	1420	WHIS	1410	WIŖE	1400
WCCO	810	MDWI	1310	WFBG	1310	WGNY	1220	WHIZ	1210	WIS	560
WCFL	970	WDNC	1500	WFBL	1360	WGPC	1420	WHJB	620	WISE	1370
WCHS	580	WDOD	1280	WFBM	1230	WGR	550	WHK	1390	WISN	1120
WCHV	1420	WDRC	1330	WFBR	1270	WGRC	1370	WHKC	640	WJAC	1370
WCKY	1490	WDSM	1200	WFDF	1310	WGRM	1210	WHKY	1370	WJAG	1060
WCLE	610	WDSU	1250	WFEA	1340	WGST	890	WHLB	1370	WJAR	890
WCLO	1200	WDWS	1370	WFIG	1310	WGTC	1500	WHLD	1260	WJAS	1290
WCLS	1310	WDZ	1020	WFIL	560	WGTM	1310	WHLS	1370	WJAX	900
WCMI	1310	WEAF	660	WFLA	620	WGY	790	WHMA	1420	WJBC	1200
WCNC	1370	WEAN	780	WFMD	900	WHA	940	WHN	1010	WJBK	1500
WCNW	1500	WEAU	1050	WFMJ	1420	WHAL	950	WHO	1000	MIBO	1120
WCOA	1340	WEBC	1290	WFNC	1340	WHAI	1210	WHOM	1450	WJBY	1210
WCOC	880	WEBQ	1210	WFOR	1370	WHAM	1150	WHOP	1200	MIBM	1200
WCOL	1210	WEBR	1310	WFOY	1210	WHAS	829	WHP	1430	MIDX	1270
WCOP	1120	WEDC	1210	WFTC	1200	WHAT	1310	WHUB	1370	MIEI	1210
wcos	1370	WEED	1420	WFTL	1370	WHAZ	1300	WIBA	1280	WJHL	1200
WCOU	1210	MEEL	590	WFTM	1210	WHB	860	WIBC	1050	WJHP	1290
WCOY	1210	WEEU	830	WFVA	1260	WHBB	1500	WIB6	970	WILM	1210
WCPO	1200	WELI	930	WGAL	1500	WHBC	1200	WIBM	1370	WTIC	1046
WCRW	1210	WELL	1420	WGAN	640	WHBF	1240	WIBU	1210	WTJS	1316
WCSC	1360	WEMP	1310	WGAR	1450	WHBI	1250	WIBW	580	WTMA	1218
WCSH	940	WENR	879	WGAU	1310	WHBL	1300	WIBX	1200	WTMC	1500
WDAE	1220	WENY	1200	WGBB	1210	WHBQ	1376	WICA	940	LMTW	628
WDAF	610	WEOA	1370	WGBF	630	WHBU	1210	WICC	600	WTMV	1500

MJJD	1130	WLAW	680	WMFD	1370	<b>₩</b> OI	640	WQDM	1390	WSJS	1310
<b>WJLS</b>	1210	WLB	760	WMFF	1310	WOKO	1430	WQXR	1550	WSKB	1200
WJMC	1210	WLBC	1310	WMFG	1210	WOL	1230	WRAK	1370	WSLB	1370
WJMS	1420	WLBJ	1310	WMF3	1420	WOLF	1500	WRAL	1219	WSLI	1420
WJN0	1200	WLBL	900	WMFR	1200	WOLS	1200	WRAW	1310	WSM	650
WJPF	1310	WLBZ	620	WMGA	1370	WOMI	1500	WRBL	1200	WSMB	1320
WJPR	1310	WLEU	1429	WMIN	1370	WOMT	1210	WRC	950	LNSW	1219
WJR	750	WLLH	1370	MLMW	1500	WOCB	1210	WRDO	1370	WSOC	1210
WJRD	1200	WLLH	1379	WMMN	890	WOPI	1500	WRDW	1500	wsoo	1200
VSCW	1460	WLNH	1310	WMOB	1200	WOR	710	WREC	600	WSOY	1310
MTLW	1210	WLOK	1210	WMOG	1500	WORC	1280	WREN	1220	WSPA	926
MIM	1210	WLPM	1420	WMPC	1200	WORD	1370	WRGA	1500	WSPB	1426
WJZ	760	WLS	870	WMPS	1430	WORK	1320	WRJN	1370	WSPD	1340
WKAQ	1240	WLTH	1400	WMRO	1250	WORL	920	WRNL	880	WSPR	1146
WKAR	850	WLVA	1200	WMSD	1420	wosu	570	WROK	1410	WSTP	1500
WKAT	1500	WLW	700	WMSL	1370	wov	1150	WRR	1280	WSUI	886
WKBB	1500	WMAL	630	WMT	609	wow	590	WRTD	1500	WSUN	626
WKBH	1389	WMAM	579	WNAC	1230	wowo	1160	WRUF	830	WSVA	550
WKBN	570	WMAN	1370	WNAD	1019	WPAB	1340	WRVA	1110	WSVS	1370
WKBO	1200	WMAQ	678	WNAX	570	WPAD	1420	WSAT	1330	WSYB	1508
WKBV	1500	WMAS	1420	WNBC	1389	WPAR	1420	WSAJ	1310	WSYR	578
WKBW	1480	WMAZ	1189	WNBF	1500	WPAX	1210	WSAM	1200	WSYU	576
WKBZ	1500	WMBC	1420	WNBH	1310	WPAY	1370	WSAN	1440	WTAD	906
WKEU	1500	WMBD	1449	WNBX	1260	WPEN	920	WSAR	1450	BATW	580
WKIP	1420	WMBF	619	WNBZ	1296	WPG	1190	WSAU	1370	WTAL	1310
WKNY	1500	WMBG	1350	WHEL	1290	WPIC	780	WSAV	1310	MATW	1079
WKOK	1210	WMBH	1420	WHEW	1250	WPID	1210	WSAY	1210	<b>WTAQ</b>	1330
WKRC	550	WMBI	1080	WHIC	1500	WPRA	1370	WSAZ	1190	WTAR	789
WKST	1250	WMBO	1310	WHOE	1420	WPRO	630	WSB	740	WAW	1128
WKY	900	WMBR	1370	WNOX	1010	WPRP	1420	WSBC	1210	WTAX	1210
WKZO	590	WMBS	1420	WNYC	810	WPTF	680	WSBT	1360	WTBO	800
WLAC	1470	WMC	780	WOAI	1190	WQAM	560	WSFA	1410	WTCN	1259
WLAK	1310	WMCA	570	woc	1370	WOAN	880	WSGN	1310	WTEL	1310
WLAP	1420	WMEX	1509	WOCB	1210	WQBC	1360	WSIX	1210	WTHT	1208
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KHAN	1280	XEAF	990	XEBO	1310	XEDR	1490	KEK	998	XERB	1098
WTOC	1260	XEAG	1310	XEBP	1150	XED\$	1400	XEKL	1240	XERC	830
WTOL	1200	XEAL	1250	XEBS	1340	XEDW	1150	XEKR	1280	XERH	1430
WTRC	1310	XEAJ	1400	XEBU	1249	XEE	1210	KEKS	1240	XES	990
WTRY	950	XEAM	750	XEBW	1340	XEF	1450	XEL	1150	XESM	1270
WTSP	1370	XEAO	669	XEBX	640	XEFB	870	XELO	670	XET	699
WVFW	1400	XEAP	1340	XEBZ	810	XEFC	1340	XELW	1340	XETB	1310
WWAE	1200	XEAS	1160	XEC	1150	XEFE	980	XELZ	1370	XETH	1210
WWJ	920	XEAT	1210	XECA	1230	XEFI	1440	XEM	1390	XEU	1010
WWL	850	XEAU	1310	XECH	1490	XEFM	1160	XEME	1246	XEW	898
WWNC	570	XEAW	960	XECL	1110	XEFO	940	XEMO	860	XEWE	720
WWRL	1500	XEB	1030	XECW	1240	XEFQ	1010	XEMU	580	XEX	1310
wwsw	1500	XEBA	1080	XECZ	1370	XEFY	1210	XEMX	1280	XEXB	1279
WWVA	1160	XEBC	1240	XED	1160	XEFW	1319	KEN	780	XEXE	1,270
WXYZ	1240	XEBG	820	XEDA	1220	XEG	1239	XENT	910	XEXH	1150
W8XO	700	XEBH	930	XEDE	1400	XEH	740	XEP	1160	XEXX	1170
XEA	1400	XEBI	1000	XEDF	810	XEHK	1230	XEPN	736	XEZ	630
XEAA	750	XEBJ	1340	XEDH	1340	XEI	1370	XEQ	· 730	YSS	640
XEAC	980	XEBK	1080	XEDL	1240	XEJ	1020	XEQK	1500	ZNS	790
XEAD	1240	XEBL	1220	XEDP	1080	XEJP	1130	XERA	840		

#### (Continued from Page 38)

kcs.; VUC-1, Calcutta on 810 kcs., VUM-1, Madras on 1420 kcs. (Anton Jansen, Boskoop, Netherlands)

Supremacy Contestants
RT—Anthony C. Tarr, Seattle Wash.
R42—Robert Botzum, Reading,
Penna.

R101—Weston Richards, Zion, Ill.
R133—Carl Forestieri, Bronx, N. Y.
R168—Joseph T. Lippincott, E. Vassalboro, Me.

R695—Frank B. Lee, Wildwood, N. J.

R701—William France, Bridgeport, Ohio

R946—Bertram Podall, Gilman, Vermont

R964—Victor J. Balt, Aurora, Ill. R1117—Roger Causse, Lester, Penna. R1122—Richard Daneker, Lansdale, Penna.

R1305—Carl Horton, Athol, Mass. R1620—John C. Barnhart, Sunbury, Penna.

R1630—Mrs. L. E. Grannes, Eureka, Calif.

R1631—Thurston Lee, Fort Benning, Ga.

R1632—Clarence Burnham, Gloucester, Mass.

R1633—Warren Reichardt, Reading, Mass.

R1643—Jim Walker, Cass, W. Va.
—oJseph Becker, Sr., Hamil-

ton, Ohio Herbert Diedrich, Moline, Ill.

## Broadcast Notes

WKAT's hard to get veri has been received and they complimented me on my type of report. Anyone who can't get a WKAT veri should send a more complete report. (Clarence Burnham, Gloucester, Mass.)

WFAM schedule is daily 8 a.m. to 1 p.m. and 4:30-9 p.m., Sunday 9 a.m. to 5 p.m. . . . WSBT operates from 1 p.m. to 4:30 p.m., and 9 pm to 1 a.m. daily and on Sunday from 6 p.m. to midnight. (Roger Mais, R572, Mish-

awaka, Ind.)

Canada: CKGB Timmons Ont. now using 1000 watts, heard testing with very strong signal R9 plus from 3:30 P.M. EST. till 3:45 A.M. EST. (Merlin Steen, Decorah, Iowa and Allen G. Verrill, Brockton, Mass. R968)

CKNB 200 watts 1210 watts 1210 kcs. P. O. Drawer 840, is a new station in Campbellton, N. B. Canada. CJKL Kirkland Lake, Ont. now using 1000 watt on 560 kcs. (Merlin Steen, Decorah, Iowa)

CBA off 11:45 P.M. EST. (Henry Bennett Collingswood, N. J. R1342)

#### Latin America

Argentina: LRA has been heard testing every morning from 2-3 a.m. with an excellent signal for the past three weeks. (Allan G. Verrill, R968, Brockton, Mass.)

LS-11 seems to be on late every Saturday night on 1310 kcs. I have picked him up R8 the last three Saturday nights. . . LT-3 on 1080 kcs. is pushing WBT hard at times. (Clarence Burnham, Gloucester, Mass.)

LS-11 is my first and only S.A. veri, but to save me I cannot get any of the easier ones. Any suggestions? (Elwood B. Cole, Silver Springs Md.)

Brazil: PRG-9 on 1100 kcs. has broken through WOV several times. . . . PRD-2 on 1060 kcs. is using 10 kw. and not 5 kw. . . PRG-3 on 1280 kcs. is using only 10800 watts, not

25000 . . . PRH-8 seems to be the call of the Brazilian on 1130 kcs. He uses chimes similar to NBC and sings off at 9 p.m., with 10:30 sing off Wednesday and a midnight sign off on Saturday. They are in Rio de Janeiro, but call is announced so rapidly that I cannot make it out clearly. (Clarence Burnham, R 1632 Gloucester,

Colombia: HJ1ABN's new call is

HJAN . . . HJBJ on 1140 kcs. in Santa Marta is being heard here . . . A Bogota station on 1105 kcs. cannot be identified. (1105 station is HJCB-Bogota with 2 kw.-RL) (Clarence Burnham, R1632, Gloucester, Mass.)

HJAN on 1190 kcs. in Barranquilla, Colombia is my first S. A. station. They were still on at 2:51 a.m. Slogan is "La Voz de Victor." (James O.

Costa Rica: TIEMC was heard on Weaver, Elkhart, Ind.) 850 kcs. one morning just after 5 a.m. beneath WWL. (James O. Weaver, Elkhart, Ind.)

Cuba: CMQ heard by many DXers on 690 kcs. and has a very strong signal throughout the U.S.A. (W. A. Dobbuis, R672, Columbia, Tenn. Jack Hathaway, R771, Danville, Ill.; and C. R. Bendes, Pittsburgh Pa.)

Mexico. It was announced over XE-RA on January 30, 1940 that XERA would move to 960 kcs. and XEAW would move to 970 kcs. on February 8th. XERA is using 500 kw. power according to their QSL. (W. A. Dubbuis, R672, Columbia, Tenn, Route 1, Stanwood Morss, R1409, Bradford, Mass. Route 3, Henry Bennett, R1342, Collingswood, N. J. Kenneth Brown, R849, Hyde Park, Mass. A. G. Schleiter, Rochester, Pa. and H. L. Bartrane, R975 Crystal Lake, Ill.

CFCO Dx period from 10 to 10:30 A. M. Sundays. (Carl E. Sylvester Columbiaville, Mich. R36 Mich. 1)

CBK heard tonight late with fairly good signals on 540 kcs. (Jack Hathaway Danville, Ill. R771 and James O. Weaver, Elkhart, Ind.)

### 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.

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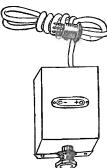
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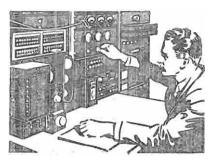
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