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THE MAY 1936



RADIO EX

The All-wave DX Log of the World



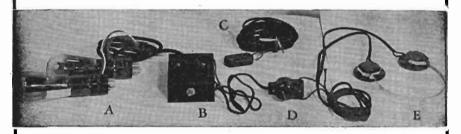
Alice Reingeart

Tuning the Antenna Circuit
The Annoying Problem of Fading
Where and When to Tune
for the Day's News
All the Broadcast Stations of the World



The "Perfect" Phone Adapter

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



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

PRICES

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

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

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

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

The Radex Press, Inc. Conneaut, Ohio



You're in the midst of living history!—tremendous events in Europe—modern music—the Asiatic military giants rocking the pillars of the world—news and new experiments of the inventor-amateurs! It's your world!—enjoy it to the utmost with a SCOTT, the magnificent 23 tube Full Range Hi-Fidelity receiver which has been making world DX reception records for 9 years.

COMPARE THIS DX LIST

Here is but one of dozens of SCOTT records—from Official Radio News Listening Post—39 foreign stations, on the broadcast band alone, in 7 hours!

COMPARE THESE FEATURES

.6 Microvolt Sensitivity with unmodulated carrier—twice the average useable sensitivity. Variable Selectivity 2 to 16 K.C.—three times more station separation.

Double A.V.C.—allowing maximum R.F. tube efficiency, for higher signal-to-noise ratio. 35 Watts Class "A" Power—concert volume without distortion. Five times average.

Short Wave Station Locator.

— beat frequency oscillator button signals instantly.

30 to 16,000 Cycles—provably greater High Fidelity than ordinary High Fidelity Radios.

More Performance Features including True Separate Bass and Treble Controls; 23 Tubes; and Oversize Construction throughout.

COMPARE ITS OWNER-LIST

These and other exclusive laboratory developments impossible to include in production type receivers, have made the SCOTT world-famous for distance-getting ability—have won for it distinguished owners in more than 146 countries—musicians, broadcasters, amateurs, princes and presidents! You can own the SCOTT for no more than you would pay for a good radio!

E. H. SCOTT RADIO LABORATORIES, INC. 4424 Rayenswood Ave., Dept. 15H6, Chicago, III.

Visit our new permanent salon at 630 Fifth Ave., New York City

COMPARE IT IN YOUR OWN HOME

Put the SCOTT in your own home anywhere in U. S. A. on 30-day trial! Put it to a side by side comparative performance test with any other receiver at any price! If after making this test you are not convinced that the SCOTT gives you vastly superior performance, brings you more foreign stations with more enthralling volume, with more diamond sharp clarity and more beautifully true tone—you may return it for refund without any obligation whatever.

Every SCOTT is custombuilt to the highest precision standards known. Every SCOTT carries a five year perfect performance guarantee. Sent direct to you from the laboratories, fully aged, tested, and proved with nation-wide installation service. Mail Coupon—NOW—for one of the most extra-

ordinary records in all the history of worldwide DX reception!



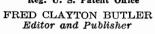
City ____State____

May 1, 1936



RADIO INDEX

Reg. U. S. Patent Office



CARLETON LORD

DX Editor



TWELTH YEAR

B. FRANCIS DASHIELL

Technical Editor

PAGE TAYLOR Short Wave Editor

Number 99

CONTENTS

Frontispiece—Alice Reinheart
In the "True Story Court of Human Relations"

	PAGE
The Close of the RADEX Mystery DX Contest	8
Five Years of DXing, by S. R. Lewis, Grand Winner	8
Our Readers' Troubles, Diagnosed by the Technical Editor	12
Around the All-Wave Dial, by the Short Wave Editor	17
A Tuned Antenna System	22
Turning our Readers' Dials, by the DX Editor	24
Leaves from a DXers Scrap Book, by "Count de Veries"	30
The DX Policy of Station CFCO, by John Beardall	33
The Clearing House Reports, by Emily Griswold, Secretary	34
What I Like About the Globe Circlers DX Club, by Reginald Vining	35
The New Stromberg-Carlson Receiver, by the Technical Editor	37
What About the Problem of Fading? by B. Francis Dashiell	
The Problem of Man-Made Interference, by Carleton Lord	44
Assorted Short Wave Information	49
Where and When to Tune for the News of the Day	
What's on the Air Tonight? The Hour-by-Hour Programs	
Classified Index to Your Favorite Features	
Around the Clock on the Short Waves	
A Quick Index to All Station Data	112

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Closing the MYSTERY CONTEST

• • Announcing the Winners

FTER several weeks of checking and rechecking entries, the judges have closed the books of the first Mystery DX Contest. The winners have been determined beyond shadow of doubt, individual station reports have been sent on to the respective broadcasters, and the final announcement is ready for our readers.

As brought forth in the April issue, Station CFCO decided at the last moment to remain on the air for a total of four hours. Although a few contestants reported this station four times, we were obliged to consider this as but a single program, eligible for a maximum of 20 points, regardless of when it was heard. While we regretted the necessity of subtracting as high as 60 points from some scores, final analysis has shown that this policy alone could be fair to every contestant.

No less than 57 non-participating stations were reported. Some of these were broadcasting special test or DX



Here is the staff of WTRC at Elkhart, Ind. which broadcast a fine special program for the RADEX Mystery DX Contest on February 23rd. From left to right are the Announcer, Mr. Schrock: Chief Engineer Singleton; Asst. Engineer Zellmer; Station Director Baker, and Mrs. Ethel Geiss, the studio pianist.

programs, while others were operating on their regular late schedules. Most widely claimed were KROC and WTAL, each of whom was reported by 13 contestants. Neither of these two stations had been contacted by us in regard to the contest.

In judging all reports, we considered only the following "official" stations:

			•			
February 22						
1:45-2:45	CKLW	1030	Windsor, Ont.			
2:00-3:00	KFNF	890	Shenandoah, Iowa			
	W9XBY	1530	Kansas City, Mo.			
	WBIG	1440	Greensboro, N. C.			
	WFBR	1270	Baltimore, Md.			
	KFYR	550	Bismarck, N. D.			
2:00-6:00	CFCO	630	Chatham, Ont.			
3:00-4:00	KGIW	1420	Alamosa, Colo.			
	WDNC	1500	Durham, N. C.			
	WNEW	1250	Newark, N. J.			
4:00-5:00	WEXL	1310	Royal Oak, Mich.			
2100 0100	WLAC	1470	Nashville, Tenn.			
	WSUI	880	Iowa City, Iowa			
5:00-6:00	KWBG	1420	Hutchinson, Kans.			
0.00 0.00	WHAM	1150	Rochester, N. Y.			
	*********	1100	200000000000000000000000000000000000000			
	F	ebruary :	23rd			
2:00-3:00	KOH	1380	Reno, Nevada			
	WPHR	880	Petersburg, Va.			
	w8x0	700	Cincinnati, Ohio			
	XEPN	585	Piedras Negras, Coah.			
3:00-4:00	KOMA	1480	Oklahoma City, Okla.			
	· WAAW	660	Omaha, Neb.			
	\mathbf{wbbr}	1300	Brooklyn, N. Y.			
	WIBM	1370	Jackson, Mich.			
	wsyr	570	Syracuse, N. Y.			
	WTFI	1450	Athens, Ga.			
	WTRC	1310	Elkhart, Ind.			
4:00-5:00	WHJB	620	Greensburg, Pa.			
	WNEW	1250	Newark, N. J.			
	WOI	640	Ames, Iowa			
5:00-6:00	GJLS	1310	Yarmouth, N. S.			
	CKNX	1200	Wingham, Ont.			
	WCSH	940	Portland, Me.			
February 24th						
0.00 8.00						
2:00-3:00	CFCN	1030	Calgary, Alta.			
	KWYO	1370	Sheridan, Wyo.			
3:00-4:00	CKOV	630	Kelowna, B. C.			
	KVOD	920	Denver, Colo.			
	WADC	1320	Akron, Ohio			
4:00-5:00	WHA	940	Madison, Wisc.			
5:00-6:00	WFBC	1300	Greenville, S. C.			
	WNBX	1260	Springfield Vt.			

Readers will note that this schedule coincides with that published in the April issue, with the exception of the elimination of KDYL, previously included in the 2:00-3:00 period on February 24th, and the addition of



This is how the Mustery Program from WSXO was broadcast. At the muraphones are Announcers Al Godwin at the left and Durwood Kirbu at the right. At the mano are the Devore Sisters, Billie, Marjoric and Ruth. while starding behind them are Rev Griffith, tenor, and Louise Raymond, soprano. Freddie Rochr is at the organ and Production Man Lewis Valentine is cueing the song.

CKOV to the 3:00-4:00 spot on the same date. The former had agreed to come on, but failed to do so; while the latter was not reported among the early entries and we assumed that it, too, had failed to broadcast its program.

And now for the winners:

The first prize, a 23-tube Scott All-Wave receiver, was won by S. R. Lewis, R.F.D. 3, Box 660, Toledo, Ohio. Scoring a total of 765 points, Mr. Lewis gained maximum credit for 38 stations and wound up a fine report with 5 points for KOH. The only station missing was little CKOV and a check on the entries reveals that this station was not reported East of the Mississippi.

Long established as a DXer of outstanding ability, Mr. Lewis wins new laurels through his excellent work in this contest. In another section of this issue, we present an article by Mr. Lewis which was written before the contest and we are of the opinion that it will be of special interest to our readers.

Second prize, a 7-tube Hallicrafters Super-Seven receiver, goes to C. R. Herman, 605 S. Cedar St., Owosso,

Mich. Scoring a total of 720 points with correct reports from 36 participating stations, Mr. Herman is to be congratulated for the fine bit of listening which won so valuable an award.

Tied for third place, with 700 points each, were Arthur E. Foerster, 1926 Hoyt Ave., Indianapolis, Ind., and William Vornkahl, Jr., Westport. Conn. For his prize, Mr. Foerster chose a replacement set of Raytheon tubes, while Mr. Vornkahl will receive a set of National Union tubes.

In fifth place, Mrs. Ella B. Smith, Owosso, Mich., received a total of 695 points and a set of Study and Refereence Texts for the National Radio Institute courses.

In order of final standing, the remaining prize winners are:

- 6. Earl R. Roberts, 2308 Roosevelt Ave., Indianapolis, Ind.—replacement set of Radiotron tubes.
- 7. W. H. Ronecker, 2630 Burd Ave., St. Louis, Mo.—set of the famous Trimm headphones.
- 8. Vane A. Jones, 1105 W. 31st St., Indianapolis, Ind.—his choice of any Lynch antenna system.
- 9. Harry M. Gordon, 317 E. 10th St., Erie, Pa.—Candler Code Course.
- Bireley Ross, 2426 Alco St.,
 Dallas, Tex.—Set of Radiotron tubes.
- 11. Hiram A. Crain, 25 St. Leonards Ave., Toronto, Ont.—a Perfect Phone Adapter.
- 12. H. E. Bash, 913 E. Indiana Ave., Elkhart, Ind., subscription to RADEX.
- 13. David M. Walton, Box 515, Picton, Ont.—a World Globe.
- 14. Donald W. Shields, Box 345, Roseville, Ohio—Amateur Radio Call Book Magazine.
- 15. William Tawzer, Jr., R.F.D. 2, Glenshaw, Pa.—subscription to RADEX.
- 16. C. M. Zimmerman, 323 Chestnut St., Sunbury, Pa.—subscription to RADEX.

17. Charles Wright, 1309 N. Haugh St., Indianapolis, Ind.—subscription to RADEX.

18. Robert W. Wood, R.F.D. 1, Hillsboro, N. H.—subscription to RADEX.

19. H. J. Arbic, 23 Guelph St., Acton, Ont.—Radio Amateur Call Book Magazine.

20. Ray McCann, Greensboro, Pa.—Radio Amateur Call Book Magazine.

21. Claude Rainbolt, 375 E. Malacca Ave., Akron, Ohio—Radio Amateur Call Book Magazine.

22. R. H. Weaver, 605 W. Market St., York, Pa.—Radio Amateur Call Book Magazine.

23. Kermit Geary, R.F.D. 2, Walnutport, Pa.—Candler Course in Touch Typing.

Tied for last place among the prize winners were Walter J. Budd, St. Mihiel Dr., Burlington, N. J., and Anthony Sousa, East State Highway,



"Smiling Bill" Parker, announcer of WBIG at Greensboro, N. C. conducted the special program transmitted by that station for the RADEX Mystery Contest on Feb. 22. "Smiling Bill" is one of the most popular announcers in the south.

same city. The final award of a subscription to RADEX will be divided among these two readers, each receiving 5 copies.

Honorable mention goes to Harrv M. Emerick. Shanksville. Pa.: James Thurlow, Scottsville, N. Y .; Lavern D. Mitchell, Marquette, Iowa; Floyd Biss, Brittmount, Minn.; Kenneth R. Leu, Rockford, Ill.: Kenneth C. McCartt, Lexington, Ky.; John Grund, Hillsboro, N. H.: Irwin Beitman, Elyria, Ohio; James E. Hathhorn, Glenshaw, Pa.; Sanford Morris, Metuchen, N. J.; L. H. Windisch, Toledo, Ohio; Mrs. A. G. Hayslette, Covington, Va.; Max P. Guinn, Lafayette, Ind.; B. F. Smith, Sault Ste. Marie, Ont., Canada: Robert R. Rawstron, Worcester, Mass.; Edward S. Kocsan, Johnstown, Pa.: Harold A. Havne, Kalamazoo, Mich.: Norval B. Davis, Columbus, Ohio; Forrest D. Poole, Portsmouth, Ohio: Donald Iowa: Leighton Barnes, Grinnell, Norristown, Pa.; Robert Haney, Small, Winona, Minn.; John E. Ott, Sanborn, Iowa; W. H. Applegate, Chicago, Ill.; John L. Clark, Binghamton, N. Y.; and Lloyd J. French, West Hartford, Conn.

To other contestants, we extend congratulations for fine reports and hopes for better luck next time.

To the stations which took part in the contest, we can only repeat our sincere appreciation for the generous cooperation which made the contest possible, and we trust that the reports received were of some value.

To the following contributors of the valuable awards we add to our own the thanks of the prize winners, and suggest that readers of RADEX show their appreciation by patronizing these firms when in the market for the various products and services represented: E. H. Scott Radio Laboratories, Inc., 4450 Ravenswood Ave., Chicago, Illinois; The Hallicrafters, Inc., 3001 Southport Ave.,



The transmitter building of KFYR, Bismarck, N. Dak., 550 kcs., one of the stations which participated in the RADEX Mystery Contest on February 22nd.

Chicago, Illinois; National Radio Institute, 16th & U Streets, Washington, D. C.; RCA Manufacturing Co., Inc., Camden, N. J.; Arthur H. Lynch, Inc., 227 Fulton St., New York City; Trimm Manufacturing Co., 1770 W. Berkau Ave., Chicago, Illinois; The Candler System Co., Box 331, Asheville, N. C.; National Union Radio Corp., 570 Lexington Ave., New York City; Raytheon Production Corp., 30 East 42nd St., New York City; and Radio Amateur Call Book, Inc., 608 South Dearborn St. Chicago, Illinois.

This is to certify that all of the entries in the RADEX Mystery DX Contest have been carefully checked, and that the final standings and the awarding of prizes, as covered in the preceding article, are correct.

Signed.

Harry T. Curnow

County of Summit State of Ohio

Sworn to before me and subscribed in my presence this 28th day of March 1936.

Frances M. Burgess
Notary Public
My Commission Expires

Aug. 29, 1938

The Contest and Western Listeners

882 Portal Ave. Oakland, Calif. Feb. 25, 1936

"I N REFERENCE to your contest, I should like to state that there were no Pacific Coast stations on the air with your contest. The closest stations to us were CFCN, Calgary, Alta., and XEPN, Piedras Negras, Coah.

"It is not at all probable that I could have failed to receive any stations on the coast, as our receiver has consistently received the weakest stations all over the West. Moreover, during part of the contest, I received a 100-watt station in Mexico City with good volume.

"It was not a matter of failing to tune for the stations at the right time, as I was constantly trying all parts of the dial. Even by taking into consideration the uncertainty of reception and the hit-or-miss character of the contest, I should have obtained far better results if the schedule had been carried out as announced.

"Our set has all the qualities necessary for good reception — power, little noise, selectivity.

"While we appreciate your efforts in organizing this contest, I do not feel that it was entirely fair to West Coast listeners, unless, of course, many stations failed to carry out their part, in which case you cannot be blamed. In view of all the circumstances, I think some adjustment should be made so that Western listeners might get an even break with listeners in other parts of the country.

"Of course, if you can show proof that other West Coast listeners had satisfactory results in the contest, the foregoing complaint is entirely withdrawn, but'l do not believe this is possible."

Yours truly, (signed) Luis Ireland

Conneaut, Ohio, March 23, 1936 Mr. Luis Ireland,

882 Portal Avenue, Oakland, Calif. Dear Mr. Ireland:

As your letter of February 25th might be classed as a typical complaint from a West Coast listener, we have delayed reply until we had an opportunity to check all contest results carefully.

We agree that, as the contest turned out, Western listeners were obliged to work under a handicap. It is quite true that a majority of the participating stations were located in the East and Middle West. However, we cannot accept the blame for this condition.

When we started to work on the contest, we planned to have one station from each of the 48 states, the District of Columbia, the Territories of Hawaii and Puerto Rico, and the nine provinces of Canada. This would have brought the total to the anticipated sixty. Unfortunately for you Western listeners, we were unable to secure the cooperation of Pacific Coast broadcasters.

From our first batch of letters, two stations refused our request and several others did not reply. Carrying on with our station-per-state idea, we followed up the letters to the stations which had not replied and attempted to secure substitutes for those which had refused. Later, a third batch of letters was sent promiscuously to Western stations and, finally, a whole broadside of requests for programs was distributed.

While the Pacific Coast stations were refusing or ignoring our requests, the Eastern and Middle Western broadcasters were gradually falling into line, and that was the situation when the contest finally took place. We had done everything

possible to effect an equal distribution of programs.

In an effort to learn which stations had been reported by Western listeners, we segregated all of the reports from the Pacific Coast. We believe that you will be interested to learn that all but six of the 40 participating stations were correctly reported by listeners in the far West. Thus, it would have been possible for a Western listener to have scored 680 points, which would have placed him high among the winners and entitled him to a very nice award.

Of these six stations, we admit that interference from Western stations may have prevented reception in many instances. KFAC probably spoiled the WBBR program and KMTR, if on, may have been too strong for WSYR. Also, KOL might have interfered with WFBR. Several stations on 1370 kcys undoubtedly made it impossible to hear WIBM and may even have drowned out KWYO, while KGFJ must have swamped CKNX.

In passing, it is interesting to note that only 21 of the 423 entries originated West of the Rockies. With this in mind, it would seem that any advantages shown by the schedule favored sections where the interest was the greatest.

However, we have learned a great deal from our first attempt to sponsor an event of this nature and you may be sure that any future contests will have a number of changes in structure.

Thanking you for your interest, we are,

Yours sincerely, RADEX (signed) Carleton Lord DX Editor

The station which has been known for so many years as KWKC is changing its call to KCMO. It will remain on 1370 kcs.

Five Years Of DXing

• • • By S. R. Lewis*



Mr. S. R. Lewis, Grand Winner of the Mystery Contest

HEN I concluded my fifth consecutive year of DXing last October, I found that I was embarking upon the new season with an enthusiasm greater than that of my first year of dial twisting.

Five years is a long time to have been crawling out of bed at unearthly hours for a try at listening, and I must admit that my interest has been maintained solely by a gradual improvement in radio receivers, transmitting facilities and co-operation of broadcasters. Foreign as well as domestic stations seem to have many more DXes than in former years.

I prefer to term our present setup as "organized DXing," since it has been the union of listeners into eight or ten DX clubs which has made current conditions possible. So today we have organized groups of DXers working for the common good of the listeners at large, and there is the reason for the present popularity of this pastime.

Perhaps some may take exception to my contention that organized DX-ing is better than the old hit-or-miss style. While I will grant that there was a thrill to the accidental snagging of an unexpected station, I contend that that same pleasure is present today, enhanced by the knowledge that you can count on hearing additional new broadcasters on special programs.

I believe that I have been a DXer at heart ever since the inception of radio. It was fourteen years ago that local newspapers first presented articles on how to build receivers, and I still have my original oatmeal-box set. Graduating to a one-tube set and then to a three-lunger with a loudspeaker and everything, I arrived at the super-powered five-tuber which could pick up KFI after 1:00 A. M., although very weak.

In 1930, a man in my neighborhood, William Bowers, heard me talk about my "remarkable" reception of KFI and invited me over to his home. There, my good opinion of my listening ability was completely deflated, for he had cards and letters of verification from more than 20 West Coast stations. What a thrill for me to see actual proofs of reception, and how I resolved to go and do me likewise!

So, with Mr. Bowers' help, I erected a decent antenna. With RADEX as our guide, we located various stations by frequency on my dial, and I was ready to go.

Immediately, there began a contest between my friend and myself, to see who could verify the most West Coast stations. Gradually, I found that I wasn't hearing enough of these broadcasters to keep me busy, so I set about verifying ev-

erything I heard. I would allot myself a channel and strive to hear everything listed on that frequency. Many was the night I lay on a frequency for hours, waiting patiently for the needed station to break through the interference.

It was at about this time that I first tuned in KDFN, which was broadcasting a program for the NNRC. This was my first knowledge of the existence of DX clubs, and it was indeed a revelation to know that there were so many fellows interested in DX.

After reaching 300 verifications, the bug had bitten me so hard that I wasn't satisfied with hearing American stations alone. I went after every bit of information on the identities and schedules of the foreign stations.

Also, I set a goal of verifying every U. S. station listed in RADEX. In June of 1934, I nearly achieved this goal when I had all but two active stations.

Naturally, the monthly frequency checks have helped no end, and I cannot help but think of the decided break given the younger crop of DXers when stations began these tests on cleared channels. Why, I know of one Toledo DXer who heard and wrote to 30 stations in one night. He ran up a total of 500 veries during his first year of DXing. This is a far cry from my early days, when five new catches in a night and 300 in a year were tops!

For many years I DXed with a Crosley 8-tuber, which netted me my first 800 veries. This set was rewired for newer and more powerful tubes, and its conglomeration of dials resembled some sort of an infernal machine. There were even adjustments on the neutralizing condensers, which enabled me to peak the receiver on any desired frequency in the broadcast band. With the help of my antenna tuner, I

could boom a distant signal through and get selectivity which was unbelievable on so ancient a horseand-buggy model.

I am still a firm advocate of the antenna tuner and always use one when tuning for DX on my present receiver, an 11-tube Silver Marshall of 1931 vintage.

Having well over 1000 BCB veries at this writing, I cannot help but say a word about the absolute necessity of using good antenna and ground installations. There is point in telling what I think is the best, since my preference might well be unsuitable for other locations. Suffice it to say that I have three aerials. and a like number I have found that the fagrounds. miliar inverted L antenna, 125 feet



Erlu Neese, one of North Carolina's favorite vocalists, won every singing contest he ever entered and is now a star on WBIG. He took part in the Mystery Contest on February 22nd over WBIG at Greensborg, N. C.

long and 40 feet high, is my best bet for distant reception. I have had no success with the newer type transposed systems on the broadcast band. I find that an aerial of this type works fine on the short waves, but does not function to advantage on BCB signals.

For a ground, I like something in the copper line, buried about six feet in the earth. A radiator, hot water coil or sheet copper, firmly soldered to insulated wire running to the set, works well.

For evening reception, especially on split frequencies where foreign signals are covered up, I like to use my booster loop antenna. It has the pick-up usually absent from ordinary loops, while it retains all the advantages of directional effects.

It is sometimes surprising what can be done in the way of foreign reception in the evenings. Even though a desired station does not operate on a split frequency and is apparently covered up by locals, not a few worth-while catches may be made. Listeners in the northern part of the United States frequently report LS2 through WOAI, LS4 in back of WMAQ, LR4 through WBZ, and many others. My latest bit of this type of reception was hearing Radio El Mundo, LR1, announce very clearly through WTAM.

At the time of writing, my foreign verifications are divided as follows: Canada—92; Cuba—38; Mexico—48; South America—14 stations in 7 countries; Africa—1; Europe—30 stations in 10 countries; Australia—14; New Zealand—3; two each in Alaska, Hawaii, Puerto Rico, and the Dominican Republic; and one each in Costa Rica, Haiti, Bahama Islands, Guatemala, Miquelon Island, and San Salvador.

About 600 of my verifications are in card form, and these are placed in an enormous album, properly

(Continued on page 47)

The Editor Says—

R ADIO Station WCSH sends us some of the so-called reports of reception of the Mystery program which they received. It makes one boil just to go over them. Here is one that is all too typical, and on a postcard at that as many others were.

"I heard your program on Sunday morning, February 23, 1936, on 940 kc. with the power of 1000 watts. It come in fair and faided. Pleas send me verification."

All of the postcard reports demanded a verification. What nerve a man has who asks someone to do something for him and throws even the cost of the stamp onto the other fellow. We sugest that those who cannot afford to pay their own postage, give up DXing and go to collecting pins or pieces of string. So far as we are concerned we wish every station would make a practice of throwing postcard reports into their waste-basket. It is the postcard addicts who are going to ruin DX.

To the Hard of Hearing

To those whose hearing is defective. radio brings their greatest enjoyment. It also brings a problem. They cannot enjoy the programs unless the volume is turned up to a point which annovs others in the room. To such, headphones are a God-send. We have had many peculiar problems put up to us by the hard of hearing and so far we have been able to solve all of them. With the Perfect Phone Adapter, the deaf may listen to the radio with the speaker operating or with it silent. They may listen at a distance from the set and control the volume of the receiver from their chair. Or they may control only the volume of the phones leaving the volume of the speaker set at a point where it pleases the others. We are particularly anxious to be of, service to those who are afflicted and if they will write us fully just what they would like in the way of radio service, we will try to help them.

Floods and Radio

Radio demonstrated the vast service it can render in the recent floods. In every devastated region, broadcasting stations were kept operating without rest for days at a time. When every other means of communication had failed, radio kept relief officials in touch with the needs of particular localities. Undoubtedly radio saved hundreds of lives and brought relief to thousands.

The amateurs are to be especially commended for the great service they rendered. It has come to be taken as a matter of course for the amateurs to leap into the breach at the first sign of trouble. Anyone listening to the amateur bands during the floods must have been impressed with the service they were rendering.

On the other hand, one was also impressed most disagreeably with those amateurs who did not have sense enough to keep off the air with their chatter and leave the channels free for their brethren who were doing relief work. It was terribly annoying to hear the signals of those who were doing important work all mixed up with the "ers" and "ahs" of those who didn't know what to say next.

Station News

WJAS, Pittsburgh, has been authorized to increase its day power to 5,000 watts with 1,000 watts night, effective May 19.

A new station in Redding, Calif., has been authorized and assigned to 1200 kc. with 100 watts, unlimited time. Effective April 21.

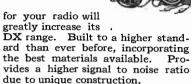
Three stations — KFPY, Spokane, WSPD, Toledo, and WFBM, Indianapolis—have been given day increases in power to 5,000 watts.

WIND, Gary, Ind., will be the Chicago metropolitan outlet for the new ABC, the third system headed by Samuel Insull.

KIUN, Pecos, KNEL, Brady, KGKL, San Antonio and KRLH, Midland, have formed the West Texas Broadcasting System.

TRIMM

FEATHERWEIGHT HEADSETS



TRIMM

RADIO MANUFACTURING CO

WHO, Des Moines, seeks an experimental license for the use of 500 kilowatts, putting it on a par with WLW.

WHIO, Dayton, has been authorized to increase its day power to 5,000 watts. It now uses 1,000 watts day and night on 1260 kc.

The NBC has been granted the sole right to broadcast the maiden voyage of the giant new German Zeppelin Von Hindenburg.

KSL, Salt Lake City, will broadcast every week from 6:30 a.m. Saturday to 1:00 a.m. Monday, MST.

KEUB is the new call of the 100watt station recently licensed for the city of Price, Utah. It will operate on 1420 kc.

KWK, St. Louis, will install a new Western Electric 5,000-watt transmitter in Baden which was formerly a part of the bed of the Mississippi River. Over eight miles of copper wire will be buried for a ground. The vertical radiator will rise 400 feet above the ground.

The CBS has bought Station KNX, Los Angeles, for a reported consideration of \$1,250,000.00. It will be used as the Pacific Coast key outlet.

Newspaperman Hearst has bought KTAT, Fort Worth, WACO, Waco, and KOMA, Oklahoma City. He already owns KTSA, San Antonio, and KNOW, Austin.

Our READERS' TROUBLES

$\bullet \bullet \bullet By$ B. FRANCIS DASHIELL

I HAVE a Ciscin Air Scout radio.
Could I use the parts in this to
build a short-wave converter to
work with my 7-tube Marconi broadcast set? Will I require any additional
parts so that I can make the RADEX
converter described in the magazine
some years ago? Also, is it possible to
use the latest type tubes in the broadcast set? I am using 56s at present in
place of the 27s, but find that a 56 will
not act as oscillator in this circuit.

We do not think that you can build a short-wave converter from the parts in your "Air Scout" receiver. A short-wave converter, to give pleasing results, must be carefully constructed and must use specified parts so as to get proper capacities and inductances. It is better, at this age, to build a converter from some carefully designed and assembled kit of parts. The RADEX converter was a simple device and met the problem in its day, but improvements now in evidence compel us to advise you to build something more modern and efficient.

There is a very good short-wave converter kit, that can be purchased. It is easily assembled, and it really works without tricky tuning and other adjustments. We have mailed you a copy of a circular describing this converter kit. Just because you have a few spare parts, does not mean that it is easy to assemble a radio set or converter from a diagram showing merely the connections.

We also feel that perhaps it is a good idea to steer clear of an attempt to use the latest types of tubes in your set. Engineers now design their receivers around the tubes, and the layman can not hope to do more than ruin the best efforts of these engineers by trying to use tubes which will not work at their best with the existing parts

and wiring layout. Of course, by the use of adapters, some new tubes can be used, but results are seldom so good that the expense and worry is worth while.

The Arcturus Company has a new line of metal tubes which are counterparts of the more popular glass tubes. They may be used with adapters, and will work just as well as the originals. We suggest, in this case you discuss the change with a local Arcturus dealer or the engineers at the plant, in Newark, N. J.

Economy 8 Has Hum

My problem concerns a bad hum in a home constructed a-c Economy Eight receiver. The output of the 56 a-f driver tube has no hum when checked with telephones, yet removal of the tube does not stop the hum. A resistor across the secondary of the push-pull transformer reduces the hum, but also the volume. Removal of one 59 push-pull tube stops the hum, while removal of the other does not. We recently replaced the power transformer and also the push-pull transformer. What do you believe to be wrong?

If the receiver worked satisfactorily before replacing the transformers, we feel, then, that the hum is being picked up by the audio transformer. Perhaps it is in the magnetic field of some other part. Changing the position of the transformer may clear up the trouble. It would be advisable to have the 59 type tubes carefully tested. If possible, try new ones as a temporary test. Make sure that the grid returns of both tubes are complete to the chassis. Try removing the 0.5 microfarad condenser across the filter choke. Substitute smaller values.

The position of the parts and wiring in the audio circuit of this set is highly

important, for there is always possible the least bit of pick up and regeneration. You should follow the manufacturer's layout to the letter.

Set Cuts Off

My Philco 14L cuts on and off after it has been playing for about an hour. It does this 3 or 4 times and then is all right. When it cuts off it has a mushy or sputtering sound, and moving the volume control or jarring the set makes it worse for a moment. Then the set, when tuned to a station, soon moves up about ten kilocycles on the dial and has to be returned. What is wrong?

From what you state about this set, we think the trouble is isolated in the audio system. Replace all coupling condensers with new ones. Generally, the replacement of all the condensers in the black cases or containers may be required to stop this type of intermittent reception.

The March, 1936, issue of RADEX contained an article on signal creeping in superheterodynes. In your case, however, we suggest that you try a new 6A7 tube. Go over all connections in this circuit with a hot soldering iron. Replace all fixed and trimmer condensers (just the mica dielectric in the condensers). This should stop the trouble of which you complain.

Playing Records

I have a RCA model 281 set and an Orthophonic Victrola that I should like to hook up together so I could play records through the radio loudspeaker. Must I have anything else besides an electrical pickup unit as I understand that the radio has the phonograph oscillator attached on the rear of the set? I see that some pickup units have different impedances. What about this?

If your receiver has a built-in phonograph oscillator such the RCA RK-24, you will need only a good phonograph pickup to work from your present turntable into your phonograph oscillator.



The attractive studios of KWYO at Sheridan, Wyoming are shown here. The RADEX Mystery Program from this station was heard on February 22nd.

We suggest a pick-up having an impedance of about 2500 ohms. Pickups are made with different value of impedance in order that they may match the circuit to which they are to feed. Impedance matching is necessary because maximum power transfers occur when the "source" impedance matches the load impedance. Any pick-up can be matched to any load by means of a matching transformer.

We would not advise the purchase of any expensive "high fidelity" pick-up device. The degree of fidelity will be entirely limited by the audio system of your receiver, which is the controlling factor. Be sure and get an arm which will take the 16-inch records if those are the ones you wish to play. The firm from which you purchase the pick-up will be glad to advise you as to which matching transformer you need, if such is required in your case.

Adjusting Trimmers

The line ballast on my Majestic model 100 broke down. A local service man tuned the set by adjusting the trimmers by inserting a tool through openings in the chassis. This did not help any, and later I found the line ballast bad and replaced it. Now I have good volume, but cannot tune many stations. How can I adjust those trimmers myself now to get the set in good shape?

The trimmer condensers of your model 100 Majestic receiver are located on your condenser gang unit. Tune your receiver to a high frequency station in the vicinity of 1400 kilocycles. Adjust the trimmers with an insulated or wooden tool for maximum signal output.

If the set squeals or whistles when tuning a station, it must be neutralized. This is accomplished by opening the filament circuit of the tube in the stage to be neutralized. Tune in a strong station at the high frequency end of the dial. Adjust the neutralizing condenser of that stage for minimum signal pick-up. Resolder the filament lead and proceed to the next r-f stage. After all of the r-f stages have been neutralized, realignment may be necessary. We believe that a special re-alignment tool with an offset adapter is required for aligning this set. It will be best to call in an experienced service man to do the work.

Tube Tester

I purchased a Sterling Professional Vacuum Tube Tester, No. R-402. It will handle only 4-prong tubes and is obsolete as far as testing the newer tubes is concerned. Can you give me some information about re-wiring this tester so it will work on the newer tubes? I recently enrolled in one of the larger radio schools and may need this tester in my service practice work.

Unfortunately, there is no practical possibility of bringing this old type tester up to date. The experimental work involved would amount to several times the price of the best tube tester you could buy. Then would come your calibration difficulties, and they will be many. You would also need a large number of good and bad tubes to make actual tests and comparison, and recording your readings for future use. Of course, there are a number of tube adapters that can be purchased that will permit of the testing some of the elements of multiprong tubes in 4-hole tester sockets.

We think re-wiring is highly impracticable, and if you should discuss this matter with the school giving you the service lessons we feel sure they will give you very little encouragement along similar lines.

Due to the low sensitivity of the meters in this tester, with the possible exception of your milli-ammeter, we doubt their real value for use in modern service work. Low resistance meters place a very heavy drain on radio circuits, causing the voltages to drop below normal and giving you a very misleading reading. Of course, once you learn how to interpret your readings, you can get along fairly well.

Boop-Boop-A-Doop

I have a 1935 Patterson model 85 receiver. When tuned to the low-frequency end of the 5th wave band (15 to 35 megs.), it goes "boop-boop-boop-pop" very rapidly, like a motor boat. It does not do this on any other bands except for the low-frequency end of the broadcast band during daylight. I use a 35-foot antenna; is it too short? If I hold my finger on the doublet post and on the antenna post, this popping noise stops and the stations still come in well.

From what you say, oscillations are occurring in your receiver. We suggest that you have the set checked for open by-pass condensers by letting the set "motor-boat," and then shunting the condensers in the set with others of about the same size, known to be in good condition. The test is made one at a time.

As this is an expensive set, it may be that changing your antenna will eliminate all your trouble. The fact that a signal increase is noted by placing your fingers on the binding posts, shows either poor antenna pick-up or an open circuit in the antenna coil of that particular wave band. Check up carefully on this situation, and also look for poor contacts in the waveband switching contacts. Equal sensitivity on all the wave bands in any set is not always possible, so we think

you should not become unduly alarmed about this.

Installing A-V-C

I have a 1930 TRF Lyric set and wish to apply some sort of automatic volume control. The set works very nicely, but fading comes all too frequently it seems. I would appreciate it if you can devise some practicable system that will apply to this set.

The receiver mentioned by you hardly has sufficient sensitivity to incorporate an automatic volume control. An attempt at such an installation would be a waste of time and you might stand a chance of losing the excellent results the set now gives.

Such work is always an experiment. While it might be worthwhile if you were a service man owning meters and testing apparatus, about the only really successful change-overs that have been accomplished are on extremely powerful and selective "supers."



Mr. Lee Fetcher. studio control engineer, snapped as he sent the W8XO Mystery DX Contest for RADEX over the air waves on Sunday morning, Feb. 23rd. W8XO is the experimental call sign of WLW at Cincinnati, Ohio, on 700 kcs.

If you wish to have the pleasure of building an a-v-c into a set, why not try building a modern set from a kit. For instance, the Thor Radio Company, 167 Greenwich Street, New York, N. Y., has some excellent kits incorporating a-v-c. There are other kits, too. that can be selected from advertisements. As you reside in another country, we believe that you could get a kit of parts through Customs at far less expense than an assembled receiver. Modern kits are easily assembled, for most of the work is factory made, and every step of the work is laid out in the instructions.

S-W Converter

I have a Kolster K-20 receiver, and desire to use a Stewart-Warner 301-A short-wave converter with this set. I have been told, however, that the highest voltage obtainable from the Kolster is only 170 volts, whereas the converter requires 250 volts on the plate. Can you help me find a way to get the necessary plate potential for the converter?

We think it is very likely that the converter may work quite well with as little as 170 volts on the plate. There is a resistor in the plate supply lead of the converter having a value of 25.000 ohms. Decrease this value to about 10,000 ohms, and 170 volts should work nicely. A higher voltage can be obtained by connecting the B plus lead of the converter to the junction of the filter chokes. If you are in doubt as to the proper connections, call in a service man. You might try an eighty-volt B battery in series with the 170-volt lead from the receiver to the 250-volt contact on the converter. This might not be so satisfactory in the long run.

New Condenser

I have a four-tube Majestic "International" radio receiver. The condenser was taken out and was lost. I have no way of finding out the number and type of condenser required for the radio. Can you tell me the size and style number so I can procure one?

Unfortunately, we have no information that is available about the Majestic "International" receiver. These sets are made, so we are told, by different circuit diagrams, and not all are similar. The size of the set, however, limits the design possibilities, and an 8 mfd. electrolytic filter condenser should prove suitable for replacement in any of these three different makes of radio sets.

But you have not stated which condenser is missing. If the condenser is used to couple the detector tube to the power tube, use a .02 mfd. tubular replacement. Then there are from ten to fifteen other bypass and coupling condensers in any small receiver so we suggest you see a service man about this. The same applies to a missing tuning condenser, if such is the case.

Static Eliminator

Some time ago I read in a literary magazine that a new device had been made that would cut down man-made interference and static in receivers. Do you know about this new invention, and where may it be purchased and how much?

We have not had an opportunity to witness a demonstration of the static eliminator to which you refer. It has been devised by a well-known radio man who edits much radio material of a technical nature. The device is an extremely quick-acting automatic volume control. A burst of static or man-made interference, if greater in intensity than the received signal, will be sufficiently strong to operate the eliminator, causing the amplification of the receiver to drop for the duration of the interfering noise. This invention may cause a bit of distortion with weak moments appearing during the program, all of which is better than the noise that otherwise would occur. It is a step in the right direction, for we all hope that some day static will be a thing of the past, and the device is worthy of the fine technician who invented it. We suggest that you

communicate with QST Magazine, Hartford, Conn., for information as to how the device is used in existing sets.

Fading

I have been disappointed in my new receiver because of the fact that it does not prevent fading. I thought that the modern sets, with their efficient automatic volume controls, held the signal at the proper level and fading was more or less a thing of the past. Can I do anything about it?

You must not expect the impossible of any automatic volume control. If a signal entirely fades out, no amount of a-v-c action will bring the signal back. An a-v-c only increases the gain of a set when the signal strength goes down close to the vanishing point, but when it vanishes there no longer is any signal to amplify, and only just so much sensitivity is practical in a set. You have a good receiver, but fading, fluttering and distortion on distant stations will occur in any set, and they cannot be overcome by present methods of design. So far, radio receivers can reproduce only what is fed to them from their antennas, and we certainly have not reached radio's millennium!

Crosley 42-S

I wish to connect a phonograph pickup to my Crosley 42-8 receiver. I expect to use a Bosch Recreater unit. I did try to connect it by means of an adapter to one of the 27 tubes, but there was no result at all. On the back of my Crosley are three terminals, one marked A, one marked P and the other marked G. What is the purpose of P? If I can not use the Bosch pick-up with the Crosley can it be used with a Philco 616-B?

You have connected the pick-up to the first a-f stage, and not much gain is available at that point. You can connect the pick-up in the grid return of the detector tube, a type 27, which is placed rather by itself toward the center of the chassis.

But we suggest you connect the pickup to the contacts made for that pur-(Continued on page 46)

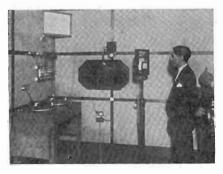
Around The ALL-WAVE Dial

• • • By PAGE TAYLOR

IFTY-FIVE news broadcasts are shortwaved to the world every twenty-four hours by the radio stations of four major European countries, England, Germany, France and Italy, according to information compiled by the Short Wave Institute of America at Washington. England supplies only seven of these daily broadcasts, but it sends each of them out on two or three different frequencies so all the world can hear. France contributes eighteen. Germany sixteen and Italy. fourteen of these broadcasts.

The British stations at Daventry use the English language exclusively; the first broadcast is heard at 4 o'clock in the morning, EST, with subsequent broadcasts at 0800, 1130, 1300, 1645, 1945 and 2245, EST.

The French shortwave stations cover eighteen hours out of the twenty-four, and a large share of their time is devoted to news broadcasts in various languages. English is heard at 0445, 0700, 1430, 2000 and 2320, EST. Besides English, the French stations use French,



Shortwave station PRA8 is not widely heard in the United States but it is expected that with their increase in power to 5 kw. this summer it will be well received. PRA8 transmits on 6040 kcs. and is owned by the Radio Club do Pernambuco, Brazil.

German, Spanish, Arabic, Italian and Portuguese.

Germany sends out six daily broadcasts in English, at 0430, 0700, 0900, 1400, 1600 and 2015. Other languages used on the balance of their news periods are German, French, Spanish, Dutch and Portuguese.

Italy so far holds the record for the number of languages used, fourteen, as follows: Italian, English, French, German, Spanish, Portuguese, Hungarian, Croation, Bulgarian, Albanian, Arabic, Greek, Roumanian and Esperanto. English is used at 1045, 1330 and 1800, EST.

Mum's The Word

A station in Goderich, Ontario, has aroused considerable comment during the past five months. Last November we were requested to keep this information to ourselves but as it seems to have been passed along to everyone else in the country, we may as well publish a letter Albert Steinmetz, 411 W. Girard Ave., Philadelphia, Pa. received from Goderich.

"Many thanks for your good letter and this will verify your reception of the 15 watt experimental station you heard operating in 6030 kcs. at 5:59 am, EST. We are experimenting with this low power station to determine the radius that a club station of 50-100 watts would The programs are entirely for DXers. It is unlicensed and hence no call sign is used and for this same reason kindly do not give it any publicity! This station has been reported on the other side of the Atlantic," This is something like the Kingfish trying to keep a secret after telling it to the Battle Axe. Goderich wants everyone to know about its radio station except the Radio Commission.

Mr. Steinmetz has been sending reports to the Hungarian stations regularly every week and has HAT4 verified twenty times as a reward. He has an interesting letter from the station which is partly quoted here: "The reason we do not have any 'propoganda' at the present time is that our programs at the present time are only experimental. We do not have special overseas programs and the allotted one hour each week is not enough. However, we shall soon build directional antennae and reception will be much better." [t is assumed that the directional antennae will be directed towards the United States.

The new shortwaver HIT at Trujillo City, Dominican Republic gives this schedule on its QSL card but does not state the standard time used. Most likely it is Dominican Time, twenty minutes faster than Eastern Standard. The hours: 1230-1400 and 1800 to 2100 daily except Sunday, with special DX programs on Saturdays from 2300 to 0100. HIT works on 1050 and 6630 kcs. with 200 watts power on the shortwaves. Reports should be addressed to Sr. F. A. Sanabia, Apartado 1105.

Radio Bangkok Reappears

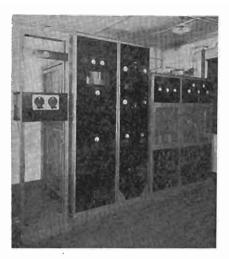
Sr. Miguel Rivera formerly of Peru but now residing in Hong Kong, sends information which should be highly interesting. He reports Radio Bangkok, HS8PJ, an experimental broadcasting station on 27.83 meters, but they announced they may scon change their wavelength to 29.5 meters (10.165 megs.). The aerial power is 10 kilowatts and the transmission schedule runs from 1300 to 1500 GMT, daily: (8 to 10 am EST). "XGOX, Nanking, is now transmitting in the evenings, but come in with interference, and their power seems to be quite low compared with HS8PJ," continues Sr. Rivera.

Additional information on station VQG has been obtained. This telephony station in Nairobi, Kenya Colony, was first reported in RADEX in April on about 15.2 meters. We understand from Mr. Pybus of Manchester, England, that VQG is on 19.630 megs. and is heard daily calling London. One listener in the United States reports hearing it.

new shortwave broadcasting station was inaugurated in La Ceiba. Honduras, on March 1. It uses the call letters HRD, is of 250 watts power and operates on a frequency of 6235 kcs., according to the American Consul located in that city. One or two of our readers give the call sign as HRV. This station is truly an international one, as the transmitter is a Collins, manufactured in Iowa; one of the owners is Dr. Tulio Castaneda of Guatemala and the other is Sr. Emilio A. Crespo of Honduras. Sr. Tito del Morales of Chile is the program director.

Another HJ1ABC

The call sign HJ1ABC is quite popular in Colombia. A third station is now reported using it. Ralph Gozen, 60 Warburton Ave., Yonkers, N. Y., states it is located in Cartagena and works on about 9600 kcs. at 2200 EST. Other information submitted by this tireless tuner is most timely, XDA at Chapultepec, Mexico, works irregularly on 6535 kcs. Station HI4V at Trujillo City, Dominican Republic is on 6480 kcs., and HI3C at La Romana, D. R. transmits on 6900 nearly every night until about 1930 EST. Another new Dominican is HIG at Trujillo, on 6290 kcs. early in the evenings. HRV, La Ceiba, Honduras, "La Voz de Atlantico," on 6240 kcs, tests often and is heard with a very good signal. Three Javanese stations, PLV, PLP and PMN broadcast simultaneously on Sunday mornings from 5:30 to 10 am, EST., and the Hong Kong station ZBW was heard on a Sunday morning at 8750 kcs.



· A view of experimental transmitter 3LR operated by the Australian National Broadcasting Service. 3LR works on 9580 kcs. daily except Sunday from 4 until 8 a.m., EST.

Greetings from Germany

Many American listeners will be glad to hear that DJD, 11,770 megs., has returned to the air with the North American programs, but we are all sorry to know that the best of all German stations, DJB, had to be discontinued. "DJD is usually considered as the star performer during the summer season," write the operators, "whereas, during the winter time DJC steps in as a worthy successor, provided our broadcasting friends in South and Central America are kind enough to stick to their proper frequencies."

The German shortwave station has inaugurated a novel policy; this is a special program schedule in which every type of broadcast has its special, fixed day. Thus, listeners can always tune in concerts by leading artists on Mondays; operatic transmissions and military music on Tuesdays; chamber music and vaudeville on Wednesdays: radio plays and sketches on Thursdays; symphonic concerts on Fridays: operettas, musical comedies and dance music on Saturdays, and on Sundays, concerts, light music and poetry.

Two of the highlights of the Zeeson programs should be of interest to all readers. One of these is the Letter Box Program in which personal greetings are sent to listeners. This teature proved so popular that the station decided to make it a daily broadcast, fixing the time from 4:55 to 5:00 pm, EST, for these messages. It is hoped that listeners will continue to provide sufficient material for these daily five minutes; this is a fine opportunity for any radio fan to hear his name announced from Berlin.

Several months ago a new type of broadcast was undertaken under the name of "Fun from Overseas," a program' which gives fans a chance to write their own radio continuity. Listeners the world over are invited to send in short stories about strange happenings in their daily lives and work which could be considered of general interest to other listeners to the station. The best of the stories are broadcast and the writers receive a prize consisting of a book on broadcasting in Germany. beautifully illustrated book of the country. Strangely, no response has been received from the United States and Canada, but as the competition is being continued, amateur short story writers on this continent still have a chance to participate.

The Elusive Javanese

It is quite a task to keep up with the many low powered Javanese stations, but some information recently received from Sourabaya, although not in agreement with other advices, It seems that may prove helpful. programs heard on the NIROM Network originate sometimes in Batavia and sometimes in Sourabaya. Batavia station is YDA, which has two frequency assignments, and the Sourabaya station in YDB. Last fall the YDA programs were radiated for a while over PLP on 11.000 megs., adding further to the confusion, but

now YDA works on 3040 and 6040 kcs. YDB worked formerly on 4470 kcs. but moved up to 9650 a few months ago. The NIROM programs are relayed on Sundays only over two commercial phone stations, PLP on 11 megs. and PMN on 10,260 megs. All these stations are received well.

Mr. L. W. Bewick, of Radio Station CHSJ, tells us that shortwave station VE9BJ is now owned by the New Brunswick Broadcasting Co., Ltd., with offices in the Admiral Beatty Hotel, St. John, New Brunswick. VE9BJ works on 6090 kcs. with 50 watts power, relaying CHSJ irregularly.

HJU gradually shifts its frequency, having moved from 9060 to 9510 kcs, in easy stages during the past Richard Bradley, 107 two months. Beechdale Road. Baltimore. Md., heard the station announce they would remain on 9510 and that their schedule was Monday, Wednesday and Friday from noon to 1400 and from 2000 to 2300, EST. Richard uses a 23-tube Scott and says it was necessary to advance the volume only 1/4 th of its capacity to receive HJU with good volume.

"HRN at Tegucigalpa, Honduras, is coming in excellently now," post-cards Don Gross, Box 6052, W. Asheville, N. C. "Their Sunday night broadcasts should not be missed by any shortwaver. HH3W at Port-au-Prince is very good between 1900 and 2015, EST on 9590 kcs.; announcements are in French and the musical programs are enjoyable. Two other good catches are TIGPH, 5820, at San Jose, C. R., and TI5HH, 5480 kcs. at San Ramon, Costa Rica."

New Skyways Stations

Lisle Hodnett, 72 John St., Ottawa, Ont., comes through with more interesting Canadian station news. "The call for the Toronto police is, I believe, VYQ instead of CYQ," he tells us. "The Ottawa police department operates CZ5O on about 2.35

megs. Some of the Dominion Skyways stations are CZ5K somewhere in Quebec; CZ5L, Mud Lake, P. Q.; CZ5M, Chibougamon, P. Q.; and CYS, Shoemaker, Ont. Another new station in the Dominican Republic is HIT, 6630 kcs., in Trujillb City, formerly Santo Domingo City."

No further reports have been received on reception of the apex stations, although it seems we have quite a number of readers who own sets capable of tuning below 10 meters or above 30 megacycles. schedule of one of these stations. W8XWJ, is sent to us by Ernst Dukatz. 4732 Williams. Detroit. W8XWJ, 31.6 megs, relays Mich. the Detroit News station WWJ from 6:15 am to 12:30 pm; from 2 to 5 pm and from 7 to 10 pm, EST. It was not stated but we believe this is a daily schedule.

Some schedules of a few of the other apex stations are given for the benefit of tuners having ultra shortwave equipment. W8XKA (KDKA) works on 55.5 megs. daily from 1500 to 2300, EST, and W8XAI relays WHAM of Rochester, N. Y. on 31.6 megs. from 0730 to 2400 EST daily. This station is justly proud of a recent report received from a listener in Panama.

Anthony Tarr, 909 W. Lee St., Seattle, Wash., has enjoyed reception from five of the six continents. "I have heard LRX on their frequency of 9.580 megs," he writes. "This Buenos Aires station heard testing with a fairly good signal between 2200 and 2300, EST. At about the same time the new CB960, Santiago de Chile on 9600 megs. is often heard. HJU, Buenaventura, Colombia was first heard on 9490 kgs. but later they moved 10 kcs. to 9500 because of cw QRM. W9XAA is using their 11830 kcs. frequency almost exclusively now, being on the air daily until midnight. Just after daybreak here the Germans DJB and DJE come through. GSB is the best of the Daventry stations now, producing an R9 signal on their evening transmissions. The other Europeans, Spain and Italy, do not come in so well. The Pontoise stations have now been given call letters, as follows: TPA2, 25.243 megs.; TPA3, 11.885 megs. and TPA4, 11.713 megs.

"The best South American here is HJN, which has moved to 5950 kcs. I have just logged my 100th s.w. station and now have 28 countries represented on all continents except Africa." Mr. Tarr wishes to exchange SWL cards.

S. W. for Reliability

"As reception on the broadcast band has been so bad during the past few months I have turned to the shortwaves for most of my DXing," explains Ray Corbett, 619—12th St., Sacramento, Calif. "The British stations seem to be the best, especially in the mornings, although the Italian on 25 meters is very good. I believe that before long I will succumb to the shortwaves; one doesn't need to stay up all night to hear DX."

"I have been reading RADEX for a year and a half now, and have not yet seen a strictly CW DXer mentioned," complains John Kofron, Jr., 3171 Euclid Hts. Blvd., Cleveland Heights, Ohio. "I know that 999 out of every 1000 DXers consider code as a mere bit of annoying static, but to me it carries a great deal more interest than 'phone DX. For this reason I would be very glad to get in touch with another DXer who is interested in code. My receiver is a new 7-tube Skyrider."

Dale Smith, Eugene, Oregon, says he believes a log of 1000 stations in less than three months on a five tube set is pretty good. "I have heard 40 of the states on the broadcast band and the same number of states on the 75-meter amateur band," Mr. Smith calculates. "Of the total more than



One of radio's most novel studios. This view of Studio "A" of WIBM at Jackson. Mich., is taken from the street outside. The entire front and side of the studio is open to public view through 16-foot high windows outlined in neon tubing. Two hundred persons can be seated inside and crowds numbering up to 600 have witnessed broadcasts from outside.

half are amateurs, 107 are police and 13 airways stations. My best distance on 75-meters is YV12RM, Maracaibo, Venezuela."

"The Japanese stations are coming in well out here." avers Wm. Hamilton, 520 Benicia Road, Vallejo, Calif. "On Sunday evening at 9:40 pm PST (12:40 am EST) I tuned in Nazaki on 10.660 megs. They were giving a talk in Japanese but signed off in excellent English, then the National Anthem. This reception was on a Stromberg-Carlson table set and a 50-foot antenna." Mr. Hamilton is a firm believer in a good ground and believes his good success is due more. or at least as much to having his set well-grounded as it is to his efficient aerial system.

Mr. L D. Brewer of 2246 N. 9th St., Phoenix, Ariz., has had considerable experience erecting aerials. "During the past year I have erected 21 aerials of various sizes and kinds for my Philco 16X. The Philco 60-foot doublet seems to be the best for shortwave work but a 100 foot flattop proved the best for broadcast band. I use 40-foot masts running N to S and NW to SE. During the

(Continued on page 47)

A Tuned Antenna System

INCE the coming of short waves and all-wave receivers, noise reducing antennas have found widespread use. In the days of the broadcast receiver local static noises were not an important factor, and any type of antenna was fairly satisfactory. But now that every form of electrical device broadcasts interferences that are picked up on the short waves, it is essential that efficient noise-eliminating antennas be used. An antenna that will pick up a maximum of energy on all signals will tend to over-ride interfering noises and make possible the reception of weaker stations.

The standard types of noise-reducing doublet antennas follow dimensions that approximately resonate in the short-wave bands. Simple tuning of the antenna is obtained by giving the flat top a length which causes it to resonate at about 49 meters, or 6,000 kilocycles, and again on the second harmonic. 25 meters, or 12,000 kilocycles, Certain combinations, such as double doublets, permit of fundamental resonance on additional wave lengths or harmonics, and thus a fixed degree antenna tuning automatically exists.

Adjustable Antennas

As we cannot have an elastic antenna, which changes length as we rotate the dial to different waves, we cannot provide a length of wire which resonates exactly to every signal being received. So the next best thing is to tune the antenna by hand. If we do this we have an antenna that responds to all signals and gives a maximum of sensitivity and volume. Some people object to this additional tuning, so antenna manufacturers have leaned back-

wards from this essential feature.

Philco recently made a concession to the tuned antenna principle. They installed a separate set of coils, tuned to the different wave bands covered by the receiver, and which are automatically cut in or out by the band changing switch. This feature eliminates the necessity of manual tuning; it is an advantage, but it still prevents tuning to each individual signal in the wave band being used.

Maximum efficiency of any antenna system calls for exact resonance to every signal. This can be obtained only by tuning, which means separate adjustments must be made. But to DX listeners and others interested in obtaining the fullest measure of signal sensitivity and selectivity, as well as volume, the simple additional operation of tuning the antenna is a work of love rather than just another nuisance.

The R9 Tuned Antenna

The new Silver Corporation's R9 tuned antenna is said to give from three to six times the volume obtainable from an ordinary doublet antenna. This audible increase in volume on the short waves results in the reception of signals so weak as to be unheard on older antenna systems. This sensitivity, coupled with the improved noise rejecting system and the ability to tune every signal between 9 and 200 meters, should prove of considerable interest to DX listeners.

The R9 antenna consists of a doublet 50 feet long—25 feet to each side—and 131 feet of twisted noise-rejecting transmission line or leadin, and a tuner and switch box. This system comes as a complete kit. all connections soldered, and

wire cut to length. To erect the antenna, it is merely necessary to attach hoisting lines to the two insulators at the ends of the 50 foot flat top, uncoil the transmission line and raise the antenna tight between its supports.

Where To Place

The higher it is hoisted the better, and the farther it is away from electrical apparatus and automobile highways, the better also. The long leadin is carried down to the radio set. It comes in an established length. All of it must be used, and if any is left over it can be coiled behind the receiver. If a longer leadin is required, a length of 78 feet must be added to the original leadin.

The small tuner box contains three balanced coupling transformers, the antenna tuning condenser, and a five-position selector switch. Three positions of the switch select the three transformers for different wave bands, the fourth feeds the transmission line directly through the tuning condenser to the receiver, and the fifth cuts off one half of the antenna top and connects it for ordinary broadcast reception.

How To Operate

This switching arrangement provides any desired type of atnenna for broadcast or short-wave reception, from a fully tuned antenna to the usual noise-reducing doublet, or a simple "L" type antenna. As a broadcast reception antenna need not be tuned, the tuning is confined to the three short-wave bands, covering from 9 to 200 meters,

In operation, the two tuner leads are connected to the antenna doublet binding posts of any all-wave receiver. It is necessary initially to select that dial setting which, in conjunction with one of the four switch positions, gives greatest volume on any one of the short-wave bands.



Benny Goodman with his celebrated "swing" orchestra, and Helen Ward, songstress, are heard each Tuesday over the new Elgin Swing Revue Program at 10 p.m.. EST. Benny Goodman has risen to international fame in less than eighteen months, and is today an outstanding exponent of the new "swing" music cycle.

Once the readings are noted down for these bands, it is only necessary to reset the dial for maximum results on the band.

It is not absolutely necessary to reset the tuner dial for each different station received, but to set the tuner and switch knobs for the loudest signals or greatest "R" deflection, is this form of meter is used, on the 16, 19, 25, 31 or 49 meter bands. In extreme DX work, individual station tuning will improve the volume a little, but it will be found that in most cases one initial setting for the desired band is all that need be done by hand. This makes the use of a tuned antenna system a very simple matter.

The new St. Paul, Minn., station on 1370 kcs. is to be known as WMIN. Edward Hoffman is the licensee.

Turning Our READERS' DIALS

• • • With the DX Editor

Atlantic reception of the medium waves dates back to the Stone Age of broadcasting, it has only been during the past three or four years that listeners have enjoyed any degree of success in this direction. And even today, most of us are unable to boast of truly reliable reception of European signals during the proper season.

While searching for an "Open Sesame" to regular R7-8 signals from across the Atlantic, not a few DXers have considered the possibilities of tuning for the long wave stations. On the surface, it would appear that everything would be in favor of such reception.

However, despite the appearance of new receivers which cover the 1000 to 2000 meter bands, reports of European reception on the long waves are few and far between. The first in many a moon comes from Robert D. Munn, Box 667, St. John's, Nfd.

"When I bought by RCA Victor Model 263," he writes, "my radio dealers told me not to expect too much from the X band, and that this band would only be good when the standard broadcast band was exceptionally fine. Actually, my experience with Droit wich, England, during the past Fall and Winter has shown that it comes in more consistently and with better volume than the English stations on the medium waves.

"For instance, any evening I have been home to tea—and I have been home for that meal most of the time this Fall and Winter—I can switch to Droitwich at six o'clock, Newfoundland time, for the news bulletins. In fact, I have been surprised at the consistency with which this station has been coming in."

Perhaps other readers have had suc-

cess in tuning foreign long wave stations. We are sure that accounts of such reception would be of interest to DXers.

While Atlantic Coast fans have an edge when it comes to European reception, W. A./ Seaman casts a vote for his home town, Houghton, Mich., as "one of the best geographical locations on the continent for DXing." Checking over a diagram which he submitted, we find that CKPR (100 miles), WCCO (300 miles), WMAQ and the other Chicago stations (400 miles), WTMJ (300 miles), and WLW (600 miles) can be heard with R7-8 volume every noon. Usual mid-day reception brings in KOA (900 miles), WSM (785 miles) and WOR (800 miles) at about R5-6, while late night DX shows KGU (4200 miles), LRS (6000 miles), and VE9EK (1100 miles), among others, audible at R5 volume.

Checking Winter Logs

"DXing has been pretty slack here," admits Clarence Burnham, 147 E. Main St., Gloucester, Mass. "My log stands at about 675, with 450 verified. The best veries include TGW, HHK, WKAQ, LS2, YV1RC, Poste Parisien, North National, Bordeaux, I1RO, EAJ1, and 4RK, while reports are out to LR3, LR5, LR6, PRB9 and Radio Normandie. Argentine stations certainly fool a fellow if he isn't careful. Thought I had a Cuban at 10:00 p.m. one night and I was certainly dumbfounded to find that it was LR3."

"The other evening I brought home a Super Sky Rider 9 from the shop where I work," offers Warren E. Winkley, Hughson, Cal. "I hitched her up and galloped all over the world. From 11:00 p.m. until 4:30 a.m. I picked up 25 Japs, nine Aussies, three Zedders and four Chinese

stations, all of which came in well enough to hear with good volume."

"DX conditions have been pretty ghastly at my domicile," laments R. T. Coales, 54 Chelsea Rd., Southsea, "I suppose the sun spots England. are at the bottom of it and I am convinced that we will not have peak conditions until the 1938 sun-spot maximum is long past. Reception from North America has been hit harder than that from South Amer-It is rare to hear even the big stations on the East Coast, let alone the smaller transmitters. I've hardly been able to get a whisper out of WLW, yet he used to put in an R9 wallop when DX was really DX! Stations such as WABC, WOR, WBZ, WTIC, WBT, and WCAU put in fairly good signals once in a blue moon, but that's all."

"I have been DXing for six years," recalls Lawrence Lundberg, 1020



Albert Steinmetz, 411 W. Girard Ave., Philadelphia, Pa. was one of the first short-wavers in this country to pick up the transmissions of the Budapest stations. The Hungarian Coat-of-Arms is prominently displayed here along with the pick of his QSL cards.

Lowry Ave. N., Minneapolis, Minn., "and have logged 632 stations, of which 335 are verified. My receiver is not very good for DX work, but I am quite proud of a few veries such as 10BP, CRCS, XES, XEU, WKAQ, KFPM, WPHR and a number of 100-watters on both coasts. WPHR sent me a gold fountain pen and pencil set for the most distant report on one of their test programs. I haven't heard any foreigners yet, but I am buying a new receiver this summer and have hopes for next season."

"My log stands at 708 stations," informs John C. Burke. 136 S. Kensington Pl., Springfield, Ohio, "and this includes hams, short wave and BCB stations. Although I have put off verifying except on a few better catches, I do have confirmations from 3ME, 3LR, 3WW, HIX and Zeesen stations. Would like to correspond with some one in Canada, on the West Coast or in Central America."

Radio Friendships

. One of the nicer rewards of DXing is the opportunity to "meet" fellow enthusiasts in distant cities. Many fine friendships have resulted from the exchange of letters and we are only too glad to publish the following note from a shut-in.

"I would like to ask a favor of you," pens Floyd M. Murphy, 615 W. Franklin St., Palestine, Ill. "I am confined to my bed and have been for almost two years. Would like to have some pen pals. Do you think you could help me get some—especially from foreign countries? I will answer all letters, trade QSL cards and photos."

"I like to correspond with foreign listeners," greets Gordon Gliddon. George St., Pleasant Point. South Canterbury. Timaru, New Zealand, "and I would esteem it a great favor if you would remind your readers that I would like to hear from any DXer in the world. I am also a keen

stamp collector, so you might say that I would like to receive stamps and will be sure to exchange ZL stamps by return mail."

There you are, boys! Consider yourselves properly introduced, and we'll see who writes the first letter.

"I have wondered for years why stations do not spell out their call letters in code as a means of identification," wonders E. E. Ely, R.F.D. 1, Box 9, Astoria, Ore. "This would carry and identify a station much farther than its modulations could be heard. The first, or last, note of the signal could take the place of an hourly time signal, thus providing a double service to listeners everywhere."

"The New Zealand DX Radio Association recently conducted a new competition to determine the Champion All-Around DXer of N. Z.," advises an unsigned member of that fine organization. "The winner was H. J. Looker, 110 Harbour Terrace, Dunedin, who scored a total of 592 Some very good confirmations were entered, including VK3LH (6 watts), VK4EA (6 watts), VK5IV watts), XHHG (100 watts), CKWX (100 watts), KDB, KGKB, KGCX and KGFK. Other veries were noted from the East, Europe and New Zealand."

"CKCO, Ottawa, has a permit to increase its power to 1000 watts," submits Hiram A. Crain, Jr., 25 St. Leonards Ave., Toronto, Ont., "but they are not likely to make the boost for a while. CKCO is really the oldest station in Canada. It was once called OA and was run by the government. Their initial communication to Montreal was the first radiophone message heard over 100 miles. This was at about the same time that KDKA started up."

"On February 2nd, I picked up two new Cubans which are not listed in RADEX," reports William Tawzer, Jr., Glenshaw, Pa. "The first was CMGH on 790, and they came in with good signal strength and no fading. The other, CMJX (not positive about the last two letters) was heard on 1190. They were strong at times, but faded badly. They had a lady announcer."

No Foreigners

"I have noticed in the March issue that many DXers have heard European and Australian stations on medium waves," remarks Robert Shellard, R.F.D. 5, Brantford, Ont. "How is it done? I have a GE Model K52 and have never heard them. I have tuned as far West as KPO, KFI, KFAC, W6XAI and KSL, as far South as XEPN and XEW, and as far East as Nova Scotia. Do the other DXers have powerful sets of 18 to 24 tubes, or what? I will not say that such reception is impossible, but I do say that there is some catch which we new DXers don't know about."

About the only catch we know of is the vital knowledge of how, when and where to tune. Of course, a sensitive receiver and an efficient aerial and ground system are absolutely necessary, but satisfactory results are obtained only when a listener knows how to make the most of his equipment. A fairly comprehensive report on tuning foreign stations was given in our October, 1935, issue, and we plan to revise this information for presentation early next fall.

In this connection, we would like to hear from readers in all parts of the country in regard to their foreign reception. We will condense and tabulate all tips on tuning so that listeners in every section will have an idea of how to tune for foreigners.

From Robert Homsher, 3440 Flora Ave., Kansas City, Mo., comes a reminder of the necessity of enclosing postage when asking stations for verifications or QSL cards. He quotes a letter from D. Reginald Tibbets, operator of W6ITH, Berkeley, Cal., who says.

"You may wonder at this letter in reply to your card. I am just writing to thank you for the manner in which your request for the QSL card was sent, the complete report, and the enclosure of the stamp. I receive about 20 SWL cards and letters a day. All of them are favored with my QSL card, but I do know that most amateur stations will pay no attention to a SWL card unless a stamp is enclosed. They would rather spend the postage money on equipment."

Whether listeners report to broadcast band stations, commercial short wave transmitters or the hams, return postage is always a vital factor, not to say a courtesy. Readers must remember that station operators are making a very definite concession when they send out verifications or acknowledgements.

Station Briefs

"DXers who have been unable to tune WACO in the past are going to get a break," promises R. B. Wolfe, Waco, Texas. "The station is going to build a radiation tower on top of the Amicable Building, which houses their studios and transmitter. The building is 22 stories high, so a tower on top of that should push their signals plenty far."

"The owner of CMQ, Miguel Gabriel, has gone to the United States to purchase a Western Electric short wave transmitter with 1 KW output," offers Alec Kinghorn, Box 2488, Havana, Cuba.

"Station WOCL has just been sold to John C. Drummond, of Utica." notes Edward Shirley, 802 N. Main St., Jamestown, N. Y., "and he plans to rebuild the station and make it a CBS outlet."

"CJRC has been heard testing their new 1 KW transmitter on 630 kcys," prefaces Anthony C. Tarr, Fort Lewis, Wash. "By finally logging KYW, I



Mildred Monson, the featured soprano of the Kellogg Singers has been engaged to entertain smart audiences at the Rainbow Room atop the RCA Building in Radio City. The Kellogg Program is broadcast each Friday at 8:30 p.m. EST. on the NEC-Blue Network.

at last have a station on every channel. The March frequency checks came through very well and I heard 95 per cent of those scheduled for the first three nights. Recent foreign veries which have come in are 2CO, 2GZ. 2UE, 3GI and JOCK1. The Aussuies and Japs are beginning to come through very nicely, with 3YA and 4YA the best of the bunch. 1YA is not so good. I have noticed that some of the lower power stations Down Under have nearly as much sock as the 10,000 watters."

"I have often wondered what DXers consider an ideal verie," wonders Morton D. Meehan, 563 Adams Ave., Elizabeth, N. J. "1, for one, prefer a card in several colors, with the call letters in large, bold-face type. I know that many others would rather have a letter, while some are contented with a mere stamp. I think it would be a swell idea if you asked readers what type of confirma-

tions they desire. The opinions could be tabulated and passed on to the radio stations."

On Reporting

Much has been written on the necessity of giving definite information on reception when reporting to a station. This is a little courtesy on the part of listeners which may be of some value to the engineering department. The following item from Harry M. Gordon, 317 E. Tenth St., Erie, Pa., brings an interesting slant to the matter of reporting.

"Last fall," he relates, "an engineer showed me a letter which his station had received from a listenerin New Zealand. The report included a chart which showed the signal level, and I noticed that the station's signal had faded out completely at 4:05 AM., EST, on that particular morning. Prior to this time, the station had been showing a signal of QSA3, R4. The engineer showed me his log book for that date and I noticed that, at exactly 4:05 AM, the power had been doubled. Then, at 4:25, the power was cut in halfback to its original strength-and the New Zealand chart showed that the signal had come back to its R4 level at that very moment. Thus, the engineer got some very good dope from this report. He learned that his signal faded out, when his power was increased, and came back to normal when the output was reduced. Reports such as these will keep DXing going for us."

"In your December issue, you remarked about the race being run by DX clubs to schedule to greatest number of special programs," recalls Bireley Ross, 2426 Alco St., Dallas, Texas. "I think this is all wrong. It seems to me that there should be no more than two or three specials from one station during an entire winter season. I do favor having more than one special, since a DXer might run into a bad night

and might be unable to get the station.

"I think it is silly to schedule specials from stations which put on monthly frequency checks. We have a chance at these stations every month, so what good does a special accomplish for the DXers? I believe that clubs should concentrate on broadcasters who do not give frequency checks and whose regular programs are buried under local inter-Here in the Middle West. the Eastern stations are hard to get because of near-by stations on the As most of the same frequency. clubs are located in the East, they seldom take into consideration their Western members, with the result that stations on the Atlantic Coast come on with specials before Western stations on the same channels have signed off. An hour or two difference in time would make all the difference in the world for the DXers out here, so I should think the stations would be more than anxious to reach the greatest possible number of listeners."

Balloon Aerials

"The aerial put up with balloons certainly has my interest," asserts Carl L. Sackett, Jr., 402 W. 31st St., Cheyenne, Wyo. "I hope that you will publish the results of this experiment."

"In suggesting the balloon or kite aerial," informs E. E. Ely, R.F.D. 1, Box 9, Astoria, Ore., "I am sorry to note that you did not caution prospective users to be very careful to avoid electric transmission lines in the vicinity. All of these carry at least 440 volts, which is enough to be fatal, and generally much higher voltages. The danger from even an insulated wire coming into contact with these lines is very great."

We admit that the idea of a balloon aerial, quoted from a URDXC bulletin of some weeks ago, seemed most interesting. While we have

been of the opinion that such an arrangement would be beyond the means of the average DXer, we are grateful for Reader Ely's warning. Not having heard any more of the experiments by the originator of the idea, we trust that his wires haven't become tangled with the "big kick lines."

"I would like to correct an error I made in my last letter," points out Rober J. Flynn, 541 Beach St., Belle Harbor, L. I., N. Y. "When I said that I had seven verifications. I was referring to my short wave log. tually, I have heard 275 broadcast band stations, of which about 45 are verified. My best catches are HHK. XEFL. 1YA. 2 BL. YV3RC (880 kcys), 10AK, LR5, LS2, KELD, CFJC, CHCK, CKMC, CKCH, KFVS, WNEL, Poste Parisien, Fecamp, Cardiff and others."

New Club Announced

"The International 6000-12.500 Mile Club was formed by me in August, 1935," advises Oliver Amlie, President, 56th City Line Ave., Overbrook, Philadelphia, Pa., "for the betterment of broadcast, short waves and amateur bands. To be eligible for membership, an applicant must send one of three groups of verifications: (1) 5 veries for short wave stations more than 6000 miles distant: (2) five veries of BCB stations more than 3500 miles away; or (3) 10 veries from amateur code or phone stations more than 6000 miles distant. veries must be inspected by the President before membership cards will be issued.

"The more verifications sent in, the higher the honors received. While 5 veries will entitle a DXer to membership, 10 veries will receive the Official DX Ace certificate. Twenty veries will win the Professional DX Ace degree and 40 veries will bring the Doctor of Degrees certificate.

"There are no dues or fees for members when joining—everything is free to all. We do expect members to send in their photographs for our album, and everyone must enclose return postage with their veries and for membership cards or certificates. Listeners everywhere are cordially invited to join our organization and to attend our bi-weekly meetings at 438 Market St., Philadelphia."

"If a self-addressed card is used with a report, I find that KSEI will verify!" supplies Frank W. Hoxie, Box 15, South Orrington, Maine. "I heard them request this on a broadcast, so I sent my card for a verie and received it O.K. They don't want letters, as they receive so many verification requests which have not enclosed return postage."

South Sea Air Mail

"I was quite anxious to have something come out on the recent KNX special about the coming air mail service to the South Seas," submits E. O. Cutler, Room 1313, 36 West 44th Street, New York City. "It will mean a lot to organized radio clubs in New Zealand and Australia. all know that New Zealanders, especially, listen in to American programs regularly, but the time taken by ordinary mail via steamer makes co-operation difficult in DX matters. Often special and elaborate broadcasts, which can be received in the South Seas, are arranged three or four weeks in advance, but details have been received too late for publicity down there."

Ernest Frank, 5424 S. Cornell Ave., Chicago, has just purchased a new Scott 23-tube receiver and would like to correspond with DX fans in or near that city, particularly those who are receiving TA or TP stations on the b. c. b.

The FCC has granted construction permit for a new station in Waycross Ga., to operate on 1200 kcs. with 100 watts.

Leaves From A DXer's Scrapbook

● ● ● By COUNT DE VERIES

PON the receipt of one fan letter, thereby establishing beyond question the wide-spread popularity of this column, your correspondent takes up the reins after a two months' vacation.

One of the contest stations, WCSH. Portland, Maine, has forwarded all reports received by them after their RADEX program on February 23rd. Upon checking against the station log, we have found all of the reports to be correct, and the requested verifications have gone forward to most of the listeners. If the following "postcard reporters" will forward return postage, they, too, will receive their confirmations: Clinton W. Mc-Graw, 93 First St., Hamden, Conn.; Ray L. Boucher, 53 Pleasant St., Southbridge, Mass.: Richard Daneker, 152 E. Second St., Lansdale, Pa.; Charles B. Marshall, Jr., 26 Victoria St., Washington, Pa.; and James Walker, Romney, W. Va. (Address RADEX, Conneaut, Ohio).

A number of amusing incidents were uncovered while checking early entries in the contest.

Fred Bisset, CDXR president, bemoaned local static and predicted that he would not win even a toothpick. President Bisset was wrong. He won a whole box of toothpicks, which have been forwarded to him.

A Buffalo listener was perhaps the most distraught of all contestants. After delivering his entry into the hands of his mailman at 3:00 p.m. on February 25th, we can appreciate his dismay when the negligent postman confessed the next day that he had forgotten to mail the entry until after the deadline. The contestant was prepared to submit a sworn statement from the letter carrier to the effect that the entry had actually

been in his hands in ample time to be mailed on February 25th.

Several listeners ran into difficulties with their receiving equipment. One Connecticut resident blew out a power pack while listening to Major Bowes on Sunday night and was unable to listen in on the final morning, truly having received the gong. Another listener was obliged to replace two tubes, one fuse and a pilot light during the height of the contest, but managed to stay the limit. A West Coast DXer confessed that his aerial blew down during the first night.

F. C. C. Checks WEDC

Another report from the Commission indicates that WEDC has been refused permission to broadcast after-midnight programs for a period of 30 days. The significance of this action is unknown at the present time, but every DXer hopes that it is the first step in the elimination of interference from the all-night stations.

As pointed out in another section of this issue, there seems to be economic justification for late programs by some stations—that is, if these broadcasters are to continue in operation. Consequently, it is difficult to demand the absolute cessation of all-night broadcasts. Rather, it can only be hoped that cleared channels may be available for DX and test transmissions at regular intervals.

A number of suggestions for such action have come for readers. Of these, only two appear to have a chance for success. The first calls for the segregation of all 24-hour stations on a few frequencies, leaving all other channels free for occasional late programs at will. The second



Unlucky Lucy Monroe will not receive this new RCA radio, but it will be given instead to the 1,000,000th guest of the NBC studio tours. In addition this millionth, guest will be dined and entertained in Radio City and featured on a coast-to-coast network broadcast.

suggests that all regularly-scheduled broadcasting stop at 1:00 a.m., local time, and begin again no earlier than 6:00 a.m. This would insure nationwide clear channels between 4:00 and 6:00 a.m., EST, and corresponding hours in other time zones.

Possibly, a combination of these two ideas might be worked out. Let the stations with 24-hour ambitions commit themselves to such a stand and take their places on channels reserved exclusively for broadcasters of this class. All other stations would be required to sign off no later than 1:00 a.m. local time. Of course, special, test or DX transmissions would be permitted after 1:00 a.m., local time, but under no circumstances should these be permitted to be scheduled regularly nor should they have commercial sponsors.

Arthur E. Foerster, prominent NNRC official, has been appointed chairman of a committee to study the all-night situation and arrive at some definite recommendation. Other DX clubs have designated members to assist Mr. Foerster. RADEX is pleased to work with this committee and will lend its assistance towards the successful consummation of the campaign.

Need For Action

That there is need for organization among DXers is evidenced by a recent news dispatch from Washington telling about a new bill, which may soon be passed and which would call for a nation-wide distribution of radio facilities, opening the way for the establishment of hundreds of new stations. The bill, introduced by Senator Wheeler of Montana, would scrap the current plan under which radio facilities are determined by density of population and would permit the F. C. C. to authorize stations where they might be needed.

Needless to say, the dumping of any number of stations upon the already-crowded broadcasting spectrum would only aggravate the present situation and do untold damage to the existing stations and listeners alike. Therefore, it is essential that any new plan for re-allocation of radio facilities should consider the problem of all-night stations.

Let us hope it will be possible to save the air for DXing before it is too late.

S. W. Observations

INCE the China Clipper winged its way from San Francisco to Manila, the air route to the Orient has become merely routine procedure. This 8000 mile span is now being covered on a regular 5-day schedule, yet only four years ago it was thought to be impossible.

Although an important milestone in the progress of aviation, it is a fact that the route would be impossible were it not for shortwaye radio.

Air bases had to be established by the Pan American Airways Co. at San Francisco, Midway, Honolulu, Wake, Guam, Manila and Macao, and at each of these points the initial task was the erection of a 200-watt transmitter.

This chain of radio stations now maintains hourly communication schedules with California and Manila on 5165 kcs. Unfortunately for DX-ers, these transmissions are not on voice, but if one can read Morse they can be identified by these call letters:

KNBD, Alameda, and KNBE, Giendale, Calif.; KNBF, Mokapu, Hawaii; KNBG, Guam; KNBH, Midway and KNBI, Wake Island.

* * *

Commissioner Payne of the FCC brought up a subject the other day that has been perplexing many of us for some time.

It is understood that, in the United States, a "shortwave broadcasting station" does not exist. transmitters in this country working on the s.w. are either commercial stations of private interests, or "relay" stations. Shortwave broadcasters are considered as "experimental" and bear experimental call letters. In this respect we are way behind several other countries, particularly Germany and England, who long ago took their stations from the experimental class and considered them as full-fledged commercial stations and gave them commercial call letters.

As experimental stations, our shortwavers cannot accept commercial advertising, so they must be maintained through the income from the sister stations which they relay. It naturally follows that some programs emanating from our stations have only local interest and the programs must be irksome to some overseas listeners.

While it is not our purpose to criticize American broadcasting, than which there is none better, we can-

not fail to mention that shortwave programs originating in London. Berlin, Paris, Madrid, Rome, Moscow, Tokyo, Melbourne, Sydney, Lisbon and Geneva, only to mention a few of the more important, are drawn up with a world-wide audience in mind rather than a local audience. Truly enough, some of the NBC and CBS programs that are shortwaved are the best entertainment in the world, but some of the day-time broadcasts from Boston, Pittsburgh. Schenectady and Chicago fail to interest listeners in other sections of our country or overseas.

Getting back to Mr. Payne; he is quite "het up" about the situation here and has decided the government itself can clear it up. It is proposed that cultural and intellectual programs be sponsored by the State Department and broadcast from the government stations at Arlington on five wavelengths which have been reserved. The State Department has not yet replied to the proposal but it is believed in some quarters that the reply will be unfavorable. We wonder why.

The British Broadcasting Corporation has a headache and admits it in one of their regular weekly releases. When one learns that the headache is over television, though, the news is not so startling, for who hasn't a headache over television? Engineers tax their brains for solutions and we tax our patience waiting for the engineers to give us a

chance to peek into the studios.

This British headache is due to the fact they must transmit two different systems of television, the Marconi and the Baird. Each system requires an entirely different broadcasting technique, but they must be capable of being received on the same receiver. To defray the expense of the transmissions, the BBC will authorize sponsored programs paid for by business firms, a radical

departure from their long-established practice of selling no time.

Some types of programs to be scanned are musicales, cabarets, concerts, fashion shows, etc. One interesting feature will be a large clock by which the televiewer can actually see the correct time.

Public broadcasting of television in London will begin in May of this year. For the USA we cannot even say "it may begin this year." Television news trickles into our office now and then from England, Germany, France, Italy and Japan, but so far not even the slightest dribble comes from television centers in the USA.

The most definite statement we have seen was from David Sarnoff, President of RCA, who predicts we will see television in five years, but, he adds, in a relatively short time we will have facsimile in our homes. Facsimile permits the transmission of letters, newspapers, maps, or still pictures, printing the picture on paper similar to the telephoto method of sending pictures over telegraph wires.

The CFCO DX Policy

By JOHN BEARDALL,
 Owner and Builder

THE writer has been chastised in a gentlemanly way by nearly every radio DX Club in existence because of the unwillingness of station CFCO to set dates for DX programs.

Our system of DXing is quite simple. First, we refrain from any advance publicity; second, we study atmospheric conditions before broadcasting, and third, we give positive replies to every correct report received if return postage or its equivalent is enclosed. This system has yielded us some 14,000 letters in the past three years as a result of ten special programs sent from this 100-watt station.

We believe that the DX fan gets a much greater kick out of reporting a station which appears to have come on the air by chance and endeavors to secure reports in a purely spontaneous manner.

We announce that we are broadcasting a special test program, and as a special inducement we offer a five dollar gold piece to the person sending in the most distant report.

When we decide to run a DX program we always start at about 2:45 a.m., which is the approximate time most of the Pacific Coast stations leave the air for the night. Before the broadcast is actually put on, however, we check on reception conditions for the evening by contacting several reliable local listeners at about 11 p.m. and have them check on the reception of a western, southern, eastern and northern station at a considerable distance. If these reports are favorable in all directions, we commence our program.

Sometimes we have stood by as much as ten days after deciding to put on a program, waiting for what we consider ideal atmospheric conditions.

As a result of our DX system, all our prizes, with three exceptions, have gone to New Zealand fans, this being, we believe, sufficient evidence to justify our DX policy. The remaining three prizes went to mariners on the high seas at distances considerably greater than any distance in the United States or Canada.

Our biggest thrill of the past three years was a cablegram from Gordon Ramsay, Vogel St., Dunedin, New Zealand, which read: "Test prize program. Reception good. Roll on Mississippi. Lets Get Together Again. Time on my Hands."

So bulky has become our mail that we have used one of the bath tubs in the operating room of the Wm. Pitt Hotel to hold the 14,000 letters from all parts of the world, the United States and Canada. The following



The CFCO Bath-tub

foreign countries are represented: New Zealand, 13; Hawaii, 3; South Africa, 2; Bermuda, 3; Puerto Rico, 5; Newfoundland, 3; Cuba, 5; Mexico, 1; Venezuela, 1, and eight from ships on the Pacific and Atlantic Oceans. A second bath tub is now being set aside for mail and already contains about 3000 letters.

The Clearing House Reports

• • By EMILY GRISWOLD Sectretary

A S THE Clearing House of the Inter-Club Cooperation Plan finishes its first season, DXers may be interested in learning something of what our work has been, what we have accomplished, and what the future holds in store for us.

The Clearing House worked directly in cooperation with the Chairmen of the various Courtesy Programs Committees. Each CPC chairman reported to me weekly on the programs scheduled by the members of his committee. These reports were generally received on Thursdays, and it was my job to check them over carefully and have my report in the mail the following day. My reports contained anywhere from 2 to 125

special programs. On but two occasions was I late with the work.

When the notice of a scheduled program came in, we checked to see if the particular frequency was already filled for the time in question. With the exception of foreign stations—which always came first—we gave preference to the card or letter which bore the earliest postmark.

If two stations were reported by different clubs for the same frequency at the same time, the broadcast with the later postmark was considered to be a conflict and, therefore, had to be cancelled in favor of the earlier special.

Some of the announcements of special programs came in from two days to six weeks in advance of the broadcast. Those which came in late didn't make the club bulletins. Programs reported far ahead of schedule seldom conflicted with other programs, while those which were announced about ten days prior to the transmission were the ones which caused the cancellations. Even so, there were but 20 or 25 conflicting programs during the entire season.

I have asked the various CPC chairmen to advise me of the reaction of stations whose programs had to be cancelled. So far, 'there have been no protests or 'kicks' and, in most cases, the specials were pushed ahead to a later date. I do not know how the individual CPCer felt about having a program cancelled after working so hard to get a dedication, since I came in contact only with the chairmen and they, in turn, with their own committeemen.

I have noticed that some club bulletins have, on occasion, failed to report part of the special programs announced in the Clearing House reports. After all the work of arranging a program and checking it through the Clearing House, it seems to me that the least those editors can do is give their members the full advantage of all that is reported. While some DXers may have the sta-

tions in question and may feel that it is useless to print the announcement, I am sure that there are many listeners who would be only too glad to try for a program if they only knew that the station was testing.

In the October issue of RADEX. there appeared the suggestion that the CPC of one club have a certain frequency one week, another club another week, etc. The smaller clubs were to receive but certain hours and one club wasn't to enter the plan at all, due to the nature of its programs. It struck me that this did not give the small club the breaks it needed to get ahead and push out of the "small club class." I thought all clubs should be free to get dedications whenever they could. didn't have enough conflicting programs this past season to warrant any classing of clubs.

I am not sure who will be running the Clearing House for the 1936-37 season, as it is up to the clubs to pass judgment upon the way it has been run this year. However, I would like to make a few suggestions which might assist the person selected to get the reports out and keep down the number of conflicts.

1. Have all CPC chairmen arrange their programs far enough in advance to enable specials to be shifted in case of conflict at any hour. Plenty of time is needed for this.

- 2. Arrange with the stations to start and conclude their programs on the hour and half-hour. This would eliminate some of the conflicts before they started. For example, a program from 3:45 to 4:15 would conflict with programs on both the 3:00 to 4:00 and the 4:00 to 5:00 periods.
- 3. Have only broadcast band programs listed on the Clearing House report. If a short wave bulletin is wanted, let that be kept separate and sent out on a different sheet as a SWL bulletin.
- 4. Let all reports from CPC chairmen be received at the Clear-

ing House on a Tuesday and give the operator until Thursday morning to mail the weekly reports. This gives a bit more time to check over the reports at the House and also allows a few days for the mail to travel before the week-end. The editors of the club bulletins would then have an opportunity to prepare their tip sheets over Saturday and Sunday.

I do hope that the Clearing House will continue to help the DXers as well as the stations. I know that unless something is done to see that stations get valuable reports on their dedications, we will be left without the grand hobby of DXing. After all, this special program business works both ways. A good report does help the station, while a good verification helps us as well.

Too much credit cannot be given Elwin Bullard for the work which he has done to bring the ICCP into existence. He has accomplished a great deal to help his own club, as well as all other organizations and each and every DXer.

What I Like About The GCDXC

● ● By REGINALD VINING*

ITH the purchase of a small radio in 1933, the natural desire to see what it would receive left that opening for the bite of the DX bug. I am happy to say that the first bite was fatal and long lasting.

While RADEX became sort of a monthly celebration for me, it was not until the spring of 1935 that I summoned courage to write in of my rapidly-growing log. In that letter, which was printed in the May, 1935 issue, I asked for DX correspondents.

An enthusiastic Bronx, N. Y., DXer was the first to reply to that notice. He was Ray Geller, Secretary and Treasurer of the Globe Circlers DX Club, and his letter paved the way for my connection with this organization.

I was able to compare a sample GCDXC bulletin which he forwarded with similar publications from three other clubs. The many features of the Globe Circlers bulletin led me to believe that this society was offering just what I wanted, and so I became a member of this rapidly-growing DX fraternity.

I found the "Hot Spot," official organ of the club, to be the hot spot in every sense of the phrase in regard to current DX news and radio listeners fellowship. It was an eight-page publication which did not stop with a few tips and letters from members. By inspecting a few copies of this bulletin, I noticed the following features:

- 1. Interesting and pertinent editorials by one who really DXes, William Wheatley, the president of the club.
- 2. A mail bag well-filled with reports and comments from the club's many active members.
- 3. An occasional column of genuine humor for the members who like to break the strain of dignified DXing with a chuckle.
- 4. A news column embracing lastminute flashes on the doings of the F.C.C., other clubs and the various stations.
- 5. A distinguished short wave tips section, crammed full of meaty information of real value to the beginner as well as the full-fledged DX-er. This column is edited by Joe Stokes, of the KDKA tip period, ably assisted by Eric Butcher.
- 6. An occasional Rogues Gallery column, giving the names and addresses of members who desire to exchange photographs with other members:
- 7. A very interesting and well-patronized Singleton and Eliminator contest, conducted by Ed Bachman, former president of the club.
 - 8. A "Calling CQ" column, which

brings together members who wish to correspond, sell or swap secondhand radio parts, identify unknown stations, etc.

- 9. Frequent "Jr. Winchell" humorous biographies of various officers and members in turn.
- 10. Notices of Good Will trips which the officers make to the homes of distant members.
- 11. A new feature in this rapidly growing bulletin, not found in the publication of any other DX club. This is a cartoon and caricature page, with drawings to interest the members in DXing and in each other.

Continued inspection has shown that the Hot Spot has open-minded editors who are continually soliciting the ideas of members on how to improve the bulletin and the organization. Better yet, many of these ideas are put into effect.

A club fellowship is thus engendered which can be illustrated no better than by citing the case of Ray Stockdale, of Zanesville, Ohio. When learning of Ray's illness last fall, the Editor of the Hot Spot passed on the sad news to other GCDXC members. The result of this small notice can best be told by quoting from a letter written to me by Mrs. Stockdale on March 17th:

"The pile of GCDXC letters has reached very near the 900 mark, along with over 300 cards."

I am proud to be a member of a club which stands for the better class of DX, despises cheaters who attempt to fake veries, and emphasizes Quality and not Quantity when requesting special DX programs.

The Globe Circlers DX Club was organized in 1932 with about 50 members, having since absorbed a number of smaller organizations. It has constantly enrolled active members from all parts of the world. It is going places — and here is one member who is going with it.

*105 Tompkins St., Cortland, N. Y.

Stromberg-Carlson's New Receivers

• • • By the TECHNICAL EDITOR

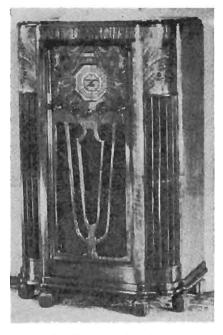
HEN Stromberg-Carlson is mentioned to oldtimers in the telephone and game, it immediately brings back memories of fine telephone apparatus. So it was natural that when Stromberg-Carlson of Rochester put its 41 years of experience into radio receivers, most of us knew that fine radios would be the outcome. Time has proved this, and so this month, RADEX is pleased to present to its readers a summary of the newest 1936 models offered by Stromberg-Carlson.

Their line embraces twenty entirely new and different all-wave models. Eleven of these models are similar in that they cover three wave bands — 540 to 1500 kcs.; 1450 to 3500 kcs. and 5600 to 18,000 kcs. In addition, there are three models that cover a slightly different range: 540 to 1700 kcs.; 1700 to 5400 kcs.; and 5400 to 18,000 kcs. Then there are six larger models of four wave bands each — 520 to 1600 kcs.; 1500 to 4200 kcs.; 3700 to 10,000 kcs.; and 8500 to 23,000 kcs.

All-Wave Models

All models cover the regular broadcast, foreign, police, aircraft and amateur wave bands, and some include the ultra-short wave band of 23,000 kilocycles (23.0 megacycles). Each model has its pre-selector stage for all bands, tuning range indicator, automatic volume control and manual volume control, tone control and clarifier, powerful class "A" audio amplification, the new Stromberg-Carlson speaker, and tractive table or console cabinet made of walnut

The smallest models have 6 tubes



The New Stromberg-Carlson

and the largest has 16 tubes. Some models are fitted with metal tubes and others have glass tubes. Delicate and positive tuning, necessary in all-wave reception, is made easy and accurate with the new dual-ratio tuner. A small center knob permits turning at normal speeds, and a larger rim, which is easily grasped, makes it possible to slow down the movement of the dial indicator. There is no troublesome gearshift. or pulling and pushing of knobs, to operate this tuning apparatus.

Music Goes 'Round

Tone reproduction is one of the prime purposes of any radio, and it is natural that efforts should be di-

rected toward the perfection of the tone units of radio receivers. The ability of any radio to reproduce all pitch tones and overtones of speech and music is of more consequence than any other quality. A proper balance between bass and treble, at all intensities from a whisper to full room volume, will not accentuate either tone. This is the goal of every radio manufacturer.

We do not know whether Stromberg-Carlson took a tip from a pair of popular song writers, or if these writers got their idea from Stromberg-Carlson, but in either case, it is a fact that in the newest Stromberg-Carlson high-fidelity receivers some of the music goes down and 'round and 'round. But it does not come out like it does in the song, and that strange event is worth a brief story in itself.

"Acoustical Labyrinth"

The Stromberg-Carlson engineers have coined one of those new phrases that every radio manufacturer expects of his publicity department. So we were not greatly surprised when we began to hear about the "Acoustical Labyrinth". Actually, however, this is more than a name, for the engineers have hit upon a very ingenious scheme to overcome booming and vibration.

We know that sound is projected from all sides of a speaker, and some low notes slip around through the back of the cabinet to cause boominess and distortion to annoy careful listeners. The "Labyrinth" nates these annoyances: it is attached to the back of the speaker. and all sounds from that source are led around and around through the winding passages constructed sound absorbing material until they are entirely muffled out. As a result, the only sounds that are heard are the ones projected directly from the front of the speaker. The confined air-column within the labyrinth

back of the speaker has a cushioning or shock-absorbing effect, and it permits a greater speaker volume without rattling or vibration.

A New Speaker

The use of this "labyrinth" makes possible the perfect reproduction of sound between 50 and 7500 cycles. It takes the unnatural boom out of voices and music, and provides reproduction of bass notes with a new regard for true fidelity. This feature is not incorporated in all Stromberg-Carlson sets, because of the cabinet space that is required. However, all the speakers have a new design that is worth of mention.

A newly discovered animal hide provides edge suspension for the loud speaker cone. It is called Carpinchoe leather, and is not affected by moisture and age. The chamoislike quality of this hide permits it to smooth out the harsh notes because it correctly absorbs the vibrations around the edge of the cone, and thus maintains high fidelity of tone.

The Model 84

The most popular of the larger Stromberg-Carlson radios is model 84. This all-wave receiver covers a range between 520 kcs. to 23,000 kcs. It has twelve tubes, of which eleven are metal and one is of glass. The a.c. input power consumption is 150 watts per hour, and the large speaker handles easily an output of 15 watts. The intermediate frequency used by this modern superhetrodyne circuit is 465 kilocycles.

The four tuning ranges of the set cover all important broadcast and special service bands of both American and foreign stations. In addition to the improved speaker and sound absorbing labyrinth, mentioned previously, audio reproduction is further improved by employing sound diffusing vanes in front of the loud speaker opening. These break up the otherwise directional higher frequencies,



Benay Venuta, often starred as a guest of Al Jolsen, is so popular that she is invited and re-invited to sing her blues songs with Victor Young and his Orchestra. Miss Venuta is returning to her old spot with Freddie Rich on the Penthouse program after a long absence due to her featured engagement in the road production of "Anything Goes."

thereby providing reproduction of the high notes in all parts of the room.

Metal Tubes

The line-up of the tubes in this model is as follows: The first metal tube is a type 6K7 that functions as a radio-frequency amplifier in the pre-selector stage: next comes a type 6A8 first detector or modulator; then a type 6C5 is used as the oscillator which is coupled to the modulator; a type 6K7 operates as the intermediate-frequency amplifier: the second detector or demodulator and automatic-volume-control combined is a type 6H6; a third 6K7 serves as the first audio amplifier; two 6F6 type tubes are connected in parallel and operate as an audio driver stage feeding the primary of a large pushpull audio transformer; and the output of this transformer feeds into another pair of 6F6 tubes that operate in push-pull for the audio power output stage. There is a type 6J7 tube that is used in an interstation noise-suppressing or "Q" circuit, and the only glass tube is a type 5Z3 rectifier.

Stromberg-Carlson has a new manual volume control of stainless steel working against nickeled silver for quietness. There is a similar unit that also gives noiseless treble tone control. A fidelity control increases the fidelity of the receiver when reception conditions warrant. The fullvision four-section airplane type dial is of an attractive design. Only the section of the dial that corresponds to the tuning range in use, as determined by the band-selector switch. is illuminated at any time. The dial is easy to read, and its tuning is very simple. A calibrated visual meter (not available on all models) enables the user to tune to exact resonance.

Antennas

A wave-band control switch selects the tuning range: illuminates the proper section of the dial; grounds out idle coils so as to maintain full sensitivity; and selects the proper antenna. Automatic antenna selection provides pre-selection on all stages of reception. and automatically selects the correct antenna matching impedance for the wave band being used. There is a new broadcast Stromberg-Carlson short-wave antenna kit designed for the new models. It tends to eliminate man-made noises and improve shortwave reception. But any good singlewire antenna, about 100 feet long. will work nicely. And the set has several antenna terminals on the rear of the chassis so that two or three different "L" antennas doublets may be connected if desired.

Permits for new stations at New London, Conn., and St. Augustine, Fla., have been granted for 100 watts on 1500 and 1210 respectively.

WHAT ABOUT FADING?

• • • By B. FRANCIS DASHIELL

HEN radio signals come and go, without warning or apparent reason, we say they are "fading". Many readers of RADEX are very much concerned when hard-to-find DX signals fade away and are lost. Although these signals become so weak they cannot be heard, it is not long before they return to full volume.

The fading action repeats itself in cycles, time after time, but seldom with any degree of regularity. At certain moments fading seems more pronounced than at others, and often there is associated an inability of signals to penetrate through a blanket or curtain that seems to veil distant stations. Thus we find that distant reception is fine at times, while at others it is almost impossible to pick up weak, far-away stations.

Automatic Volume Control

The makers of radio receivers have done all they can to overcome the fading that is associated with the transmission of radio waves through space. They have devised the automatic volume control system. It tends to hold constant the volume of the incoming signal to a level which is predetermined by the adjustment of the manual volume control knob.

But when the incoming signal falls away entirely, the automatic volume control has nothing to work on. The fading signal cannot be amplified because there is nothing to boost up. So the best of receivers, although fully fitted with automatic volume control circuits, cannot always prevent fading. They do, however, minimize fading, for as long as the signal does not disappear entirely, it can be

boosted up to the established level at such times. We seldom are aware that the signal is fading in the antenna; it is only when the signal is completely lost to the antenna that we realize that fading is happening in a modern radio set.

One of the readers of RADEX, writing to the Technical Editor, stated that he had been advised by the makers of his new radio set, that a spell of unwarranted fading might not be the cause of the set, but perhaps due to an increased activity of natural fading.

What Is Fading?

Naturally, this letter raised an interesting question, for fading is important to all radio listeners, particularly DX enthusiasts. So RADEX has made a survey of present-day fading, and a brief discussion of this strange phenomenon will not be amiss. In any case, there is little that we can do about these mysterious forces of nature over which we have no control. But, as we shall see later, if fading is due to any mechanical or electrical failure, we can correct the defect.

Radio signals are shot out with the speed of light from the transmitting station. There is one wave that travels along the ground. This ground wave does not go so very far, and it is never subject to fading. Many short-wave signals from nearby transmitters are received entirely via the ground wave, for they are in the skip-distance area of the sky wave. The wave that moves out into space is called the sky wave, and it is here that fading usually occurs. But, of course, there is also some interaction between the ground and sky waves which produces fading at intervals,

The sky wave travels out toward space, and it would move into the Universe if it continued as a projected wave or beam. However, there is a mysterious something which we choose to call the radio roof or ceiling, that bends these waves around the curvature of the earth and reflects them down to the surface. When a broadcast signal, or wave, passes through the region surrounding the earth, it becomes entangled in various opposing forces that tend to check its free passage. Thus, intermittent fading, or even a total loss of the wave, may result. At times these mysterious interferences become very severe, but as a rule they do not oppose world-wide reception to a serious degree.

Above The Stratosphere

High above us is a region that, while unlike the lower atmosphere in which we live, is composed of some sort of gas that is easily and quickly ionized or broken up into tiny electrons and electrical ions through the action of the sun. In the early days of radio research this high region or level was given the name Heaviside Laver. after the physicist who promulgated the theory. But now most scientists give the region a more distinctive termthe ionosphere.

Our atmosphere is divided into several layers or belts. We live in the lower region — the troposphere. About 20 miles up is the beginning of another belt. This is the stratosphere, and we have heard much about trying to reach it with balloons. Still higher is the ionosphere — that strange region where the northern and southern lights play in winter, and where great magnetic storms spread their influence to the earth beneath to put land telegraph lines out of commission and blanket all radio reception.

Any change in the upper atmosphere will have a direct bearing on

radio waves. Its under-surface, dense with ions, acts as a reflector. Let us suppose that a station in London is broadcasting and a person in Omaha is listening. The wave that is propagated from London rushes up to the sky, but when it reaches the radio ceiling it is bent back toward the earth and reflected down where it is picked up by the antenna at Omaha. This is similar to a beam of light thrown against a mirror and then reflected to another position.

Why Fading Occurs

Now let us suppose that the density and height of the reflector or radio mirror is made to vary. If it is less dense, the radio wave will penetrate deeper into the ionsphere and be weakened by absorption; if the surface beneath is undulating or constantly changing in height above the earth, the angle of reflection will be changed from time to time. As a result the London signal being received at Omaha will vary in intensity or die out entirely. This action is similar to that which can be demonstrated if a glass mirror is held in a shaking hand, and if clouds pass over the sun; the intensity of the reflected light beam will vary or fade out from time to time.

When anything disturbs the radio ceiling or reflecting layer, fading is certain to occur. But what can be of such magnitude that it can influence the density and smoothness of this gigantic, invisible region where ions abound, and which has the power to reflect downwards the radio waves shot out from thousands of transmitters on earth?

The sun is the only source of the vast energy necessary to affect our outer atmosphere. It ionizes the rare gas and varies the density of the ionosphere. This is demonstrated by the fact that, during the day, when the sun's rays ionize the lower levels of our atmosphere, the reflecting layer lies closer to the earth and the angle

of reflection is less. Broadcast reception does not cover the distance by day that it does by night when the reflecting level rises higher above the earth.

The Sun And Radio

As long as the power of the sun is thrown off steadily, radio waves go about their business without much solar interference. The sun, therefore, becomes the indirect reason for the fading and blanketing of signals. But as soon as the sun goes off into some sort of erratic spree, radio and land communications will be affected to a serious extent.

The principal cause of the sun's misbehavior in this respect is a breaking out with sun spots. These large black spots are occasionally observed in the sun's equatorial belt, and sometimes may be seen through smoked glass by the naked eye. The greatest spots may measure up to 150,000 miles across, and such activity may mean magnetic troubles on earth.

Sun spots appear with greatest activity every eleven years. Back in 1924 there was a period when very few sun-spots were in evidence. But the cycle gradually rose to a maximum in July, 1928, when great sunspot activity was noted on the sun. Radio reception was then at a low level, and distant stations simply could not be heard with any satisfaction at all. Magnetic storms surged through the earth, and telegraph lines were rendered useless many times. The year 1928 will long be remembered as one of radio's most troublesome erals.

More Sun Spots Due

The sun-spot cycle began to diminish until August, 1933, when radio reception was very good on the broadcast bands, and magnetic interferences caused no trouble. This cycle is again on the upturn, and should reach its peak in 1939. It appears that radio reception on the

broadcast and long wave bands will meet many troubles during the coming three or four years. Fading should become more general, while an occasional blanketing of distant signals may be noted at times.

But when sun-spot activity increases and the upper regions rapidly change in electronic density, the short waves travel greater distances and come through with less interference. So, at the present time, we are entering an era of good shortwave reception. This should gradually increase until 1939, and then drop off to 1945, when indifferent short-wave reception from long distances may be expected. However, during that time, good broadcast and long-wave reception will be the rule.

There is much that can be said about this complicated subject, but many scientists are making daily observations and studies, and some day more will be known about the phenomenon of fading. It is sufficient to say, however, that with better receivers constantly appearing and more power being used by transmitters, the fading and absorption of signals noticed in 1928 should not be so troublesome in the years that are approaching, particularly in 1938-39.

Power Fading

We now come to the question of what causes fading within the receiver, and how it may be corrected. When a set seems to fade with unusual severity it should be looked upon with suspicion. Once the set is known actually to be faultless, then we are safe in assuming that natural fading is causing the annoyance, and that nothing further can be done about it.

Fading also may be caused by trouble in the power circuit. The unit may not be producing a steady flow of electricity, and slight intervals of voltage variation can easily change the operating characteristics of the tubes. Thus the volume of the signals being amplified may fall at irregular intervals. Sometimes this is due to interaction or coupling between the power unit and the circuit, and a more complete separation of the two circuits might correct the trouble.

Then, too, if the a-c power lines leading to the receiver carry a flow of current that varies its line potential a few volts up or down, the rectified current furnished to the tubes will cause the operating potentials of the tubes to swing up or down with corresponding changes in volume, similar to fading.

Antennas And Tubes

Antennas are one of the principal causes for worry when sets seem to fade. If the wire sways in the wind, or the leadin swings close to some grounded surface, such as a metal down-spout, fading of signals will Apartment-house antennas. usually strung in racks and closely parallel to each other, are affected by the tuning of different sets attached to adjacent antennas. This kind of fading appears only at times, and provokes much concern, for it is difficult to locate the reason for such erratic behavior.

The tubes in a receiver often cause many forms of grief, and fading is one of these. Temperature variations within the tube tend to change the positions of some of the elements, and therefore influence the smooth action of the tube to such an extent that fading is observed. Sometimes even the color or degree of redness of the heated cathode or filament will be seen to change when signals fade away or come back louder than ever.

And, of course, many times the cause of fading is found in a defective automatic-volume-control circuit. A tube that is gassy will be unfit for this purpose. Poor connections, or parts subject to change be-

cause of heat, will vary the coupling between the automatic-volume-control tube and the rest of the circuit it operates. Gassy tubes in the r-f and i-f stages of the receiver may prevent those stages from being properly controlled by the a-v-c tube.

Defective Parts

There is a form of fading that is caused by faulty tuning condensers. The vibration of the speaker may bring about a shifting of the position of the plates, and thus detune the set. Frequency-shifting produces a similar effect, and this phase of signal "creeping" has already been thoroughly discussed in an article that appeared in the March, 1936, issue of RADEX.

Defective parts, such as bypass condensers or resistors, result in severe fading at times. When a condenser is shorted, it is possible that momentary fading will occur. If the condensers in the r-f or a-f circuits of the receiver are leaky, they should be replaced. And a defective biasing circuit, with its grid condensers and resistors, is a likely point for suspicion.

A common fault lies in poorly soldered contacts, imperfectly fitted tubes in their sockets, defective grid leaks, and the vibration of the chassis due to the speaker. These all tend to alter the constant resistance at these points of contact and cause changing potentials in the operating circuits. A hot soldering iron, or a piece of fine emery cloth, as well as a careful readjustment of tension parts, will cure this form of fading.

Errata

Harold J. Clark, secretary of the Plainfields' DX Club, writes us that our statement regarding dues in that organization was in error. They are 75 cents for the first year and 50 cents thereafter.

The Problem of Man-Made Interference

● ● By Carleton Lord

EVER since the early days of broadcasting, listeners have been obliged to endure barrages of static interference in varying degrees of intensity. Some of this static can be traced to natural causes and must be expected at certain seasons of the year, while the rest is known to be the result of electrical equipment of man's design.

Although engineers have been unable to eliminate the natural static, it is an established fact that the manmade variety can be prevented. With that in mind, it is astonishing to realize that few, if any, attempts have been organized to conquer this bugbear of ordinary reception.

In certain sections of large cities and towns, the racket caused by various electrical appliances limits reception at all times to powerful local stations, while localities are few and far between where some degree of man-made noise is not prevalent.

While long-distance devotees have been the first to cry out at this wanton waste of reception possibilities, there are few average listeners who can truthfully state that they are not affected in some degree by electrical interference.

During the past few years, many manufacturers have capitalized on the situation through the merchandising of so-called noise eliminating devices. Possibly the first gadget to appear on the market was an ordinary filter intended to cut out disturbances coming into a receiver through the power line. While this served its purpose, it did not begin to affect the interference picked up by the aerial and lead-in system.

Next in line came the original

noise-reducing antenna system, and listeners are divided on their opinions of the effectiveness of these de-Designers of the systems vices. worked on the principle that most of the noise was picked up by the lead-in, so they pitched their aerials in the skies, away from all interference, and defied the racket to penetrate the armored lead-in Whatever else may have resulted from such an installation. chances were excellent that signal strength would be reduced to a point where noise wouldn't be noticed.

More recent developments in antenna design have been more effective in the reduction of interference, but we have yet to receive a report which has claimed complete elimination of noise without sacrifice of signal—and that should be the aim of engineer and listener alike.

While a tooth-ache may be relieved temporarily by home remedies, a good dentist will go to the root of the trouble and correct the cause. By the same reasoning, radio interference should be attacked at its source rather than at its destination, and the sooner listeners realize this and act accordingly, the better reception will be for all of us.

Although pretending to be a leader in radio broadcasting, the United States is woefully weak on the in-Only a few terference problem. communities have ordiscattered nances covering this subject, and even then the enforcement of the laws cannot be said to be stringent. A listener is usually faced with the choice of enduring the racket or convincing an unsympathetic power company of the necessity of tracing the source of the noise-and the results are likely to be the same in either case.

While American listeners, scurry for cover at the approach of a barrage of interference, the same cannot be said for their contemporaries in foreign countries. In Great Britain, for example, Post Office engineers investigate all complaints about noise, and are usually successful in tracing and eliminating the cause. Special displays at radio shows distribute information on the suppression of interference, while competent authorities are always ready to give advice on individual problems.

French statutes have a special section devoted to radio interference. and filters are prescribed for specified noise-making apparatus. Manufacturers are compelled to provide such filters on all new equipment. while owners and operators are required to install the necessary de-Heavy fines are in order when discovered sources of noise are not immediately suppresed. standard of interference-free reception has been established and set owners are requested to report for investigation any apparent excesses of noise.

German engineers have recently developed special equipment for the tracing of interference-producing apparatus, and the location of source of racket is comparatively simple. Here again, government regulations provide for the prompt elimination or correction of the offending equipment.

Down in New Zealand, the Post and Telegraph Department has been applying pressure as the result of increasing complaints about interference. It was ordered that a whole section of a street railway system install proper suppressing devices. The coşt of filters for each car ran in excess of \$20 and a comprehensive survey was started to determine whether the entire system could be cleared up.

A comparison of these examples with conditions in the United States would be superfluous. Manufacturers continue to put out vacuum cleaners, fuel oil burners, electric mixers, washing machines, refrig-

erators and countless other electrical equipment without regard for filtering of the resultant interference. Signs and traffic lights flash continuously. X-ray machines and high-frequency devices buzz in hospitals and doctors' offices. Automatic machinery in factories clutter the air with maddening racket. Street cars, garages and filling stations combine to lay down a heavy blanket of noise.

And the American listener goes about his business, protesting a bit when interference spoils a favorite program, yet doing absolutely nothing about it!

He may erect a noise-reducing antenna, spending \$20 or \$25 for the proper masts and equipment, but even then he is applying only a deadening anesthetic for a partial relief. He seldom thinks of the only sure elimination of his trouble—an attack upon the actual source of the noise.

How much simpler and more effective it would be to rout out the interference - producing equipment and see that proper filters were installed. Why should a neighborhood of twenty or thirty families be obliged to spend hundreds of dollars for noise-reducing equipment when a few inexpensive filters would eliminate all of the racket at its source?

The answer lies with the listener himself. As long as he protests vaguely at existing conditions, he can expect no change. When he finally arouses himself to a state of action, he has a chance of ridding himself of annoyance for all time.

Italy is reported building a powerful 500,000 watt radio station to compete with the huge broadcasting plant in the Soviet Union, claimed to be the most powerful in the world. We still believe WLW is the biggest, however. It has 500,000 honest watts.

Hollywood Salutes The World

A N EXAMPLE of what can be done by a station when broadcasting a DX program was afforded listeners during the gigantic international good-will program from KNX, Hollywood, Cal., between 3:00 and 7:00 a.m., EST, on March 1st.

Presented in co-operation with the Newark News Radio Club, on the inspiration of its vice-president, E. O. Cutler, KNX arranged a colorful program of sustained interest, and dedicated portions of the broadcast to countries whose radio reception at a particular hour made it possible for listeners to tune this station at the highest peak of efficiency.

The significance of the occasion was better exemplified by the fact that British, Japanese and Argentine consuls, and other international dignitaries, spoke directly to the nations which they represented. Among the nations saluted were England, Canada, Mexico, Spain, Algeria, Sweden, Norway, Alaska, Japan. Siberia, China, Australia, Argentina and the Philippine Islands.

Other guests included well-known artists as well as civic and industrial leaders. Established Pacific Coast radio entertainers were supplemented by special talent from many of the Hollywood motion picture studios.

Of special and dramatic interest was the placement by Pan-American Airways of their entire Pacific facilities at the disposal of KNX for the period of the broadcast, for among the focal points of the program were the isolated Pacific islands on the course of the trans-Pacific clipper ships. The lonely ground crews were addressed by Colonel Clarence M. Young, General Manager of Pan-American Airways for the Pacific Coast.

Listeners who tuned to KNX on this morning were rewarded by an outstanding program of international interest.

Our Readers' Troubles

(Continued from page 16)

pose. As you state, there are three posts on the back of the Crosley set. A is for antenna, G is for ground, and P is for the phonograph pick-up. A short piece of wire will be found connecting P with G in your set. This wire must be broken or removed when the pick-up is connected across P and G. The broken gap must be closed when the set is used for radio purposes. With proper connections your pick-up can be used with any radio receiver.

New Tubes

Can I change the tubes in my Philco 211 receiver for newer glass tubes without changing the wiring? Does a tube control the automatic-volume control circuit, and if so, which one? My volume control knob is very noisy. Is it possible to lower the tone of the phonograph, when used, but the radio tone seems to be very satisfactory when signals are tuned in? A rattle has started in the speaker at some of the low notes, and must I get a new cone for the speaker?

A change in the tubes in your present set would not be advisable as the set uses an automatic volume control. However, the Arcturus Tube Company, of Newark, N. J., is making metal counterparts of your glass tubes, and with adapters they may be used in your receiver. We suggest you write to them. The 27 type detector-rectifier is the a-v-c tube, and has nothing to do with the action of the hand-operated volume control knob. From what you say a new volume control unit should be installed.

It is likely that a new cone in your speaker may be required to stop rattling on low notes, although a recentering by an experienced service man may be all that is necessary.

You can lower the tone of the set when high pitched phonograph records are being played through the pick-up unit, by the use of a tone control. The same effect may be obtained by connecting a .02 mfd. 600-volt condenser between the plates of the 45 type tubes. A single-pole single-throw switch in series with the condensers and either of the 45 plates will enable you to bring the tone back to normal when signals are being received. As some high voltage will be on part of this switch, care must be exercised in its use.

The All-Wave Dial

(Continued from page 21)

year I have verified three stations in Japan, five in Java, ZBW in China, three in Australia, VPD in the Fiji Islands, five in Africa (including CR6AA), and many stations on all the other continents. At the present time I have 42 letters out for verifications."

Allie Landgraf promises to answer every letter he receives from users of Midwest 18-tube receivers. Mr. Landgraf, 97 Park St., Chilton, Wisc., is a new DXer and is trying to build up a good log. So far he has heard GSC, DJC, DJI, EAQ and CRCX.

The popularity of Esperanto as an international language has gradually been growing ever since its inception in 1887, although it still seems doubtful that it will replace either French or English as a universally understood language. A number of radio stations in Europe announce in this language and some of them even write their letters in Esperanto. Mr. George Sholin, 55 Lapidge St., San Francisco, Calif., feels that Esperanto should be most valuable in

international broadcasting and is trying to popularize it among short-wave fans. He has offered to send to any RADEX reader a small grammar in return for five cents in unused United States stamps, or foreign readers can obtain one for the equivalent of ten cents in stamps. The grammar can be learned in an hour and the vocabularly is sufficiently large for daily use.

The Editor has one of Mr. Sholin's books and feels that it is worth a nickle to anyone who is interested. We haven't tried to learn Esperanto yet but a glance through the book almost convinces us that it could be easily learned.

"I have been concentrating on the 20-meter amateur phones lately." confesses Walter Wallin, 89 Garvan St., E. Hartford, Conn. "All American districts. Newfoundland, Mexico. Dominican Republic, Costa Rica, G5's and G6's in England are in my I would like very much to have the address of a Belgian amateur I just heard, ON4VK. He stated in his transmission that he just came on 20-meters on March 30 and would like reports on his station. I would like to correspond with anyone interested in logging amateurs."

Five Years of DX

(Continued from page 10)

marked by states, countries, etc. Letters are divided in a like manner in a large box file.

I have a small trunk full of DX souvenirs and mementos of past dial-twisting achievements. Quite a number of prizes are included, as well. One easily-remembered souvenir is a small birthday cake, with the call letters KGVO done in colored sugar on top of the frosting. This was sent to me way back in 1932. Too, there is a miniature bale

of cotton from Baton Rouge. Mexican bird made up of feathers, and so many more.

The pictures of stations, personnels and transmitters are framed if possible, and there are a lot of them, too One of the best is from I1NA, Napoli, Italy, which shows the Bay of Naples in the background.

It is small wonder that I take my DX seriously. With all of these fine memoirs of many happy hours spent at my radio, how can I but hope for more thrill-packed sessions in the future? I think that my DX hobby has brought me something which mere money cannot buy. Pleasure such as this can be acquired only after long practice and perseverance. at dial twisting.

Rt. No. 3, Box 660, Toledo, Ohio.

THE MONTH'S CHANGES

O	N THE SHORTWAVES
2.414	KACN, San Buenaventura, Calif. New
	KACO, Tracy, Calif. New.
0.400	KACS, Bakersfield, Calif. New.
2.430	KNHG, Prescott, Ariz. New.
	WAKH, Bloomfield, N. J. New.
0.450	WCPD, Charleston, S. C. New.
2.450	KACR, Seminole, Okla. New.
2.466	WAKG, Clearwater, Fla. New.
2.490	KACQ, Kalaloch, Wash. New.
3.190	WAJJ, -K, -L, -M, -N, portables in Florida.
3.430	YDO6, Sourabaya, Java, from 2.730.
5.165	KNBE, Glendale, Calif.; KNBF, Mokapu, Ha-
	waii; KNBG, Sumay, Guam; KNBH, Mid-
	way; KNBI, Wake. New airways.
5.890	HCK, Quito, Ecuador, from 5.815.
6 .0 90	VE9BJ, new owner: New Brunswick Brdcstg.
	Co., Admiral Beatty Hotel, St. John, N. B.
6.155	COKG, Santiago, Cuba. Formerly CO9GC on 6.150.
6.235	HRD, La Ceiba, Honduras. New.
6.280	HIG, Trujillo, D. R. New.
6.420	HIIS, Puerto Plata, D. R. New.
6.630	HIT, Truillo, D. R. New.
6.980	HI3C, La Romana, D. R. New.
9.500	PRF5, Rio de Janeiro, from 9.505.

9.510 HJU, Buenaventura, Colombia, from 9.500. XEME, Merida, Yuc. New. CQN, Macau, from 6.072.

DZB, Nauen, Germany, from DJJ.

VRR4, Stoney Hill, Jamaica, from 11.495.

TPA4, Pontolse, France, from 11.720. GSN, Daventry, Great Britain. New. TPA3, Pontoise, France. GBB2, Rugby, G. B., from GBB, 13.500.

HRF, Tegucigalpa, Honduras, New. GBA2, Rugby, G. B., from GBA, 13 984.

HS8PJ, Bangkok, Slam. New. DZC, Nauen, Germany, from DIQ

DZB, Nauen, Delete.

15.180 GSO, Daventry, G. B. New.

9.520 9.700

10.042

10.165

10.285

10.420

11.595

11.715

11.820 11.880

13.595

13.827

13,990

15 245 TPA2, Pontoise, France, from 15.250. GSP, Daventry, G. B. New. GAD, Rugby, G. B. New. VQG, Nairobi, Kenya. New. 15.310 19 480 19.630

THE MONTH'S CHANGES IN STATION DATA

NEW					
980	XEF	Juarez, Chih.			
1000	XEBK	Nuevo Laredo, Tams.			
1200		Redding, Calif.			
1210	XEAT	Hidalgo, Chih.			
1240	XEAC	Tijuana, L. C.			
1310	XEAG	Cordoba, Ver.			
1370		New Albany, Ind.			
1420	KEUB	Price, Utah			
1500	KTEP	El Paso, Texas			
		POWER			
730	\mathbf{CMK}	Havana, Cuba, 3000 from 250			
760	CMHX	Cienfuegos, Cuba, 200 from 500			
790	CMGH	Matanzas, Cuba, 250			
810	CMCF	Havana, Cuba, 600 from 250			
910	CJAT	Trail, B. C., 1000 from 250			
920	$\mathbf{C}\mathbf{M}\mathbf{X}$	Havana, Cuba, 1000 from 650			
1320	KID	Idaho Falls, Ida., 500 from 250			
		FREQUENCIES			
640	CMBC	Havana, Cuba, from 970			
680	CMCG	Havana, Cuba, from 1255			
810	CMCF	Havana, Cuba, from 815			
820	CMHW	Cienfuegos, Cuba, from 810			
970	CMBX	Havana, Cuba, from 640			
1060	CMBX	Havana, Cuba, from 1380			
1110	CMCJ	Havana, Cuba, from 1100			
1300	WHBL	Sheboygan, Wisc., from 1410			
1370	HIZ	Trujillo, D. R., from 1300			
1380	CMCR	Havana, Cuba, from 1410			
1420	CMCQ	Havana, Cuba, from 680			
1460	CMCU	Havana, Cuba, from 1280			
1400	CO COT	DELETE			
1420	CMGI	Matanzas, Cuba			
1500	CMCN	Havana. Cuba			

Stop Press Notes

KWSC. Pullman. Wash., is to increase day power from 2000 to 5000 watts.

WCLO, Janesville, Wis., may increase power from 100 to 250 watts.

KIEM, Eureka, Calif., will change from local to regional channel and increase power from 100 to 500 watts.

WEED, Rocky Mount, N. C., will increase day power from 100 to 250 watts.

1, KIRO, Seattle, Until August Wash., will use 1000 instead of 500 watts on 710 kc.

WORL will move its studio from Babson Park to 610 Beacon Street, Boston, Mass.

WAIM, Anderson, S. C. has permission to change frequency from 1200 to 630 kc. and power from 100 to 1000 watts.

Assorted S. W. INFORMATION

READERS who are not acquainted with some of the radio abbreviations or expressions which are often seen and heard, may find something of interest in the assortment given below.

The Spanish Alphabet

A, pronounced ah; B, bay; C, say or thay*; D, day; E, ay; F. effay; G, hay; H, ah-hay; I, ee; J, ho-tah; K, kah L, el-lay; M, em-may; N, en-nay; O, oh; P, pay; Q., koo; R, airray; S, ess-say; T, tay; U, oo; V, vay W, doo-ble-vay; X, eckis, ay-kis, ek-key*; Y, yay, ee-grek, ee-gray-yee-ah*; Z, zed.

*These pronunciations are given the way they sound on the radio and may not agree with Spanish textbooks. Slightly different accents are heard in the various Spanish-speaking countries, which accounts for the difference in pronunciation of some of the letters. One, oo-no; Two, dose; Three, trace; Four, koo-at-tro; Five. think-ko; Six, sase; Seven, sate; Eight, oh-cho; Nine, noo-ay-ve; Ten, diez.

Amateur Abbreviations

To save the trouble of sending a lot of extra dots and dashes, many words are shortened by the amateurs and these short forms are often seen in print. The letter X is used for "trans-" as in "xmitter," xmission," etc. "Xtal" is the shortened form for crystal. Schedule is spelled "sked."

You, u; Your, ur; Thanks, tnx or thanx; Good, gud; From, de; Phone, fone; Again agn; Some, sum; Very, vy; And, es; With, wid; Please, pse; Best regards, 73; "Love and kisses," 88.

An operator is an "op"; his typewriter is a "mill"; he proudly refers to his xmitter as "junk" or "a rig," while his aerial is usually a "sky wire" and the pylons supporting the sky wire are "sticks." Instead of typing on his typewriter, he "pounds" the mill, and the hand with which he operates his key is his "fist." A good op is said to have a "gud fist."

While programs for retransmission are being lined up, some interesting lingo is sometimes used by the commercial ops, such as "Down in the mud," which means that the signals are of low volume, or the modulation is too low. Those who sing as if they were tired are said to have "lock jaw" and those who skip over notes, especially in scales, are "scoopers."

All radio operators, amateur and professional alike, seem to be "old men" and "young ladies," regardless of their respective ages. OM and YL are the abbreviations for "old man" and "young lady."

CQ is a general call to any station wishing to QSO.

A QSO is a communication between two stations.

A QSL is an acknowledgment, as a QSL card, which verifies reception of a transmission.

K means "go ahead." When an operator finishes his own part of a transmission and wishes the communicating station to reply, he terminates his own transmission by sending K in code. or, if using phone, says "K," or "wah dit dah" (the way K sounds in code), or he merely says "go ahead."

CUL means "see you later," or CU agn, "see you again."

QRA, a station's address.

QRM, interference from other stations, or local QRM can be interference caused by faulty electrical appliances nearby (man-made static).

QRN, Atmospherics, or natural static.

QRT, "quit."

QSA, The understandability of signals is expressed by the QSA Code. QSA1 being signals which are not at all intelligible and QSA5 being perfectly understandable signals.

QSB, fading.

R, The R Code describes the volume of signals, ranging from R1, the faintest signals which can be heard in the headphones, to R9, the very best signals on the loudspeaker.

A1, Continuous wave (code) emission.

A2, Interrupted continuous wave (code) emission.

A3, Voice emission.

CW. Continuous wave.

ICW, Interrupted continuous wave.
Condition A, Inverted modulation
or "scrambled speech."

Condition B, Intelligible speech.

CMC, Canadian Marconi Co.

BBC, British Broadcasting Corp. RCA, Radio Corporation of America.

NBC, National Broadcasting Co. CBS, Columbia Broadcasting System.

AWA, Amalgamated Wireless (A/sia), Ltd.

A/sia, Australasia.

AT&T, American Telephone and Telegraph Co.

FRC, Federal Radio Commission. PTT, (Bureau des, or Regie des) Postes, des Telegraphs et des Telephones. The abbreviation PTT is often given, erroneously, as the call-sign of various French or French Colonial stations. It is the abbreviation for the governmental bureau or department which controls the station.

TSF, another common French abbreviation, which is translated by our words "wireless" or "radio." TSF is Telegraphie sans fil, or, telegraphy without wire.

M. S., (preceding the name of a ship)), Motor Ship, or M. V., Motor Vessel.

H. M. S., His Majesty's Ship.

R. M. S., Royal Mail Ship.

AST. Atlantic Standard Time.

EST, Eastern Standard Time (EDST, "daylight time").

CST, Central Standard Time (CDST, "daylight time").

MST, Mountain Standard Time.

PST, Pacific Standard Time (PDST, "daylight time").

JST, Japanese Standard Time.

EAST, Eastern Australia Standard Time.

CET, Central European Time.

MEZ, The German abbreviation for CET.

LST, Local Standard Time.

GMT. Greenwich Mean Time.

GST. Greenwich Summer Time.

Greenwich Mean Time is the time system in which noon occurs at the time the sun passes over the meridian of Greenwich, England, and the standard time of nearly every locality in the world is calcuated to agree with Greenwich in minutes and seconds, but to differ in hours by whole numbers. The true sun time of New York is 4 hours and 56 minutes slower than Greenwich, but the standard time differs by exactly five hours.

Publications which have readers in every part of the world, cater to only a minority of their subscribers when only Eastern Standard Time is given, as all their subscribers, except those living in the Eastern Time Zone, must convert the time to their own standard. A better way is to give time as RADEX does, in GMT and the five Standard times of North America.

GMT commences at midnight (0000) and continues through 24 hours to 11:59 pm (2359), without starting over at noon, as we do, thereby averting the necessity of using AM and PM. Thus, in GMT, 12:45 am is expressed 0045, and 12:45 pm, is 1245, 1 pm is 1300, or 13 hours past midnight. To convert GMT into EST, it is necessary only to subtract 5 hours and no minutes (500) from GMT, because EST is exactly 5 hours slower than GMT. Thus, 1400 GMT is 900 EST, or 9:00 am. If the result of this subtraction is greater than 1200, subtract 1200. Thus, 2100 GMT, minus 500 gives 1600, or 16 hours past midnight. Subtract the 12 hours of the morning (1200) and obtain 400, or 4:00

pm, EST.

Persons living in the Central time zone must subtract 600, as their time is 6 hours slower than Greenwich.

MST, subtract 7 hours.

PST, subtract 8 hours.

AST, subtract 4 hours.

Hawaii, subtract 10 hours and 30 minutes (1030). Thus, 2145 GMT. minus 1030 gives 1115, or 11:15 am, Hawaiian Time.

Out in California some of our readers are hearing a Mexican station on 730 kcs, which may be XEBC back This station, located in on the air. Caliente, B. C., was tempo-Agua discontinued several months rarily ago, according to information from the Mexican radio authorities.

Where to Get the DAY'S NEWS

Daily except Sunday unless otherwise noted.

- 1 Thursday only
- 2 Sunday only
- 3 Monday only
- 4 Except Monday
- 5 Except Saturday
- 6 Tuesday and Friday
- .7 Tues., Thurs. and Sat.
- 8 Mon., Wed., and Fri.
- 9 Saturday only
- a Including Sunday
- b Tuesday and Wednesday
- c Tues., Thurs. and Fri. d Thurs., Fri. and Sat.

ATLANTIC TIME

550

1240

7:59 a.m. 12:15 p.m. 7:00 p.m. CKCW 1370 CFNB CHSJ 1120 12:30 p.m. CJCB 1240 9:00 a.m. CHNC 1410 7:30 p.m. CKCW 1370 1310 CFCY4 630 CJLS 9:30 a.m. 1:00 p.m. 8:00 p.m. CHNS 930 CJCB CJCB 1240 10:30 a.m. 5:05 p.m. 11:45 p.m. 1120 CFCY CJCB 1240 CHSJ

EASTERN STANDARD TIME

7:00 a.m.	WPRO 630	WBSO 920	11:00 a.m.	WKJC 1200	WMBO 1310	WJR. 750	4:00 p.m.
WIBX 1200	WSPD 1340	9:30 a.m.	Red & Blue ²	WKOK 1210	12:45 p.m.		WHDL 1420
WJR 750	WTAG 580	KQV 1380	CMKM 1120	WLEU 1420	CKCV 1310 ³		WKJC 1200
WNEL 1290	WTIC 1040	WFDF 1310	WCKY 1490	12:03 p.m.	CKTB 1200	1:45 p.m.	WNEL 1290
7:15 a.m.	WWVA 1160	WHDL 1420	WGBI 880	WWJ 920	WAAT 940	WICC 600	WSPA 920
WCMI 1310	8:05 a.m.	WIP 610	WKJC 1200	12:15 p.m.	WADC 1320	WTAR 780	WSPD 1340
WKZO 590	WEEI 590	WKBZ 1500	WMBC 1420	WBIG 1440	WCSH 940	2:00 p.m.	4:15 p.m.
WNAC 1230	8:15 a.m.	WNEW 1250	WNEL 1290	WBZA 990	WEAN 780		CKLW 1030
WNBX 1260	WASH 1270		WSAR 1450	WCAP 1280	WGH 1310	WKJC 1200	WHEC14305
WSAJ 1310 ¹	WBSO 920	9:45 a.m.	WTIC 10402	WDAS 1370	WMFD 1370	WKRC 550	WOL 1310
7:30 a.m.	WIP 610	WGBI 880	11:15 a.m.	WHAM 1150	WPAR 1420	WSPD 1340	4:30 p.m.
WAAT 940	WKZO 590	9:55 a.m.	WMPG 1200	WKBN 570	WTBO 800	2:15 p.m.	WQAN 880
WBT 1080	WNBC 1380	CKLW 1030	WSPD 1340	WOL 1310	12:55 p.m.	WBT 1080	4:45 p.m.
WMBC 1420	WSAR 1450	WOKO 1430	11:30 a.m.	WSOC 1210	WBRE 1310	2:30 p.m.	WAIM 1200
WSAI 1330	8:30 a.m.	10:00 a.m.	WAGM 1420	WEEI 590	1:00 p.m.	KQV 1380	WCNW 1500
7:35 a.m.	WCAU 1170	Red & Blue	WBNS 1430	WHEC 1430	CKCV 13104	WINS 1180	5:00 p.m.
WICC 600	WEHC 1420	CBS	WDBO 580	WNBC 1380	KDKA 980	2:45 p.m.	WBSO 920
7:45 a.m.	WFBC 1300	WCAU 1170	WSYB 1500	WOPI 1500	WFBC 1300	WAAB 1410	WMBX 1260
WBIG 1440	WHK 1390	WDEL 1120	11:45 a.m.	WWVA 1160	WFBG 1310	WEEU 830	WBZA 990
WFIL 560	WOPI 1500	WELL 1420	WNAC 1230	12:20 p.m.	WJBK 1500	2:55 p.m.	WKJC 1200
WINS 1180	8:45 a.m.	WIBX 1200	WSYR 570	WBCM 1410	WJSV 1460	WBAL 1060	WKRC 550
WKRC 550	WJEJ 1210	WJSV 1460	11:55 a.m.	12:25 p.m.	WKJC 1200	WBNS 1430	WOR 710
WLW 700	8:55 a.m.	WKJC 1200	CFCF 600	CFRB 690	WMBR 1370	WCAE 1220	5:10 p.m.
WMAZ 1180	WEAN 780	WNBH 1310	WBAL 1060	12:30 p.m.	WNBH 1310	3:00 p.m.	WSPD 1340
WSAZ 1190	· 9:00 a.m.	WNYC 810	Noon	WBEN 900	WPRO 630	WBRE 1310	5:15 p.m.
7:55 a.m.	WAIM 1200	WOR 7102	CJIC 890	WBT 10802	WSAR 1450	WGB1 880	CMCF 815
WBNS 1430	WBEN 900	WPAR 1420	CMJA 1010	WCAE 1220	WSPD 1340	WINS 1180	WBIG 1440
WMBR 1370	WBIG 1440	WPTF 680	WBZ 990	WELL 1420	WTAG 580	WIP 610	WBZ 990
8:00 a.m.	WCSC 1360	WSPA 920	WCAE 1220	WFDF 1310	WTIC 1040	WKJC 1200	WCAU 1170
CFRB 690	WGAR 1450		WDAE 1220	WIBM 1370	1:10 p.m.	3:14 p.m.	WCSH 940
CKLW 1030	WIS 1010	10:15 a.m.	WFBR 1270	WJAS 1290	WCAD 1220	WFAS 12101	WMFF 1310
CMJH 1360	WJBK 1500	WKZO 590	WFIL 560	WKBZ 1500	1:15 p.m.	3:15 p.m.	WSAR 1450
CMKM 1120	WKJC 1200	WLW 700	WFMD 900	WKRC 550	WCAU 1170	WMAZ 1180	WBAL 1060
WAAB 1410	WLEU 1420	WSAR 1450	WGAR 1450	WKZO 590	WMAZ 1180	3:30 p.m.	5:20 p.m.
WADC 1320	WMAZ 1180	10:30 a.m.	WIBX 1200	WOR 710	WTFI 1450	WJSV 1460	WJR 750
WCKY 1490	WMBR 1370	WBIG 1440	WINS 1180	WPAX 1210	1:20 p.m.	WMCA 570	5:30 p.m.
WFBR 1270	WMFF 1310	WMAZ 1180	WIOD 1300	WQAN 880	WHEB 740		CRCK 1050
WKBN 570	WSOC 1210	CBS Sun.	WIP 610	WSPA 920			WBRB12106
WKJC 1200	9:15 a.m.	10:45 a.m.	WIS 1010	12:35 p.m.	CKLW 1030		WFLA 620
WOR 710	WBRE 1310		WJW 1210		WBTM 1370	WGBI 8802	WICC 600

WNBC 1380	WCSC 1360	CBS	WGBI 880	7:30 p.m.	WKJC 1200	WNBH 1310	WHEC 1430
WOCL 1210	WGAR 1450	Red & Blue	WIMS 1180	WFAS 12109	WTAR 780	WNEL 1290	WIBX 1200
5:35 p.m.	WIBX 1200	CFRB 690	WMBO 1310	WMAZ 1180	9:15 p.m.	10:05 p.m.	WJAS 1290
WWVA 1160	WIS 1010	WFBC 1300	6:55 p.m.	7:45 p.m.		WBT 1080	
5:45 p.m.	WKJC 1200	WFBR 1270	WCKY 1490	WELL 1420	WBT 1080 ²	WGAR 1450	$WLW 700^5$
CRCO 880	WMBC 1420	WFDF 1310	WJSV 1460	WEEI 5902	9:30 p.m.	WSAR 1450	WNAC 1230
WCMI 1310	WMMN 890	WFIL 560	WOKO 1430	WFBC 1300	CMJK 780 ⁵	10:15 p.m.	WOR 710
WEHC 1420	WNAC 1230	WHAM 1150	7:00 p.m.	WGBI 8806	WBTM 1370	CKLW 1030	WPRO 630
WIOD 13077	WPRO 630	WJBK 1500	CMJA 1010	7:55 p.m.	WEXL 1310	10:30 p.m.	WTAG 580
WKOK 1210	WSOC 1210	WKBZ 1500	CMKM 1120	WBNS 1430	WMBR 1370	WBIG 1440	WTIC 1040
WMAZ 1180	WSVA 550	WKRC 550	WAAB 1410	8:00 p.m.	WMCA 570	WBNS 1430	11:05 p.m.
WNBH 1310	6:05 p.m.	WNEW 1250	WKJC 1200	WKJC 1200	9:45 p.m.	WOL 1310	WEEI 590
WBRE 1310	WWJ 920	WOPI 1500	WLBZ 620	WWVA 1160	WAAB 1410	WSPD 1340	11:10 p.m.
WBT 1080	6:15 p.m.	WOR 710	WTBO 800	8:10 p.m.	WPAR 1420	WWSW1500 ⁵	Blue Net
5:55 p.m.	WGH 1310	WSAI 13308	WRDO 1370	WIBM 1370	WSYR 570	10:45 p.m.	11:15 p.m.
CKLW 1030	WJAS 1290	WTAG 580	7:15 p.m.	WIP 610	10:00 p.m.	CHRC 580	CBS Sun.
WBNS 1430	WKBN 570	WTIC 1040	WBBR 1300	8:30 p.m.	WBRE 1310	WIP 610	11:20 p.m.
WEEI 590	WPAR 1420	6:35 p.m.	WBIG 1440	CKCO 1010	WCKY 1490	11:00 p.m.	WICC 600
WJSV 1460	WRVA 1110	WEAN 780	WBRE 1310	WCKY1490 ²	WCSC 1360	CFCF 600 ⁵	11:30 p.m.
WMBR 1370	WSAR 1450	WPTF 680	WEBR 1310	WFDF 1310	WGBI 880	CFRB 690	Red Net ²
6:00 p.m.	WSPD 1340	6:40 p.m.	WIBX 1200	9:00 p.m.	WIS 1010	CRCK 1050	WHK 1390
CJIC 890	WWSW1500 ⁵	WIOD 13008	WMPG 1200	CKOC 1120		WBEN 900	WOR 710
KDKA 980	6:20 p.m.	WIP 610	WNEW 1250	CMCD 960	WKBZ 1500		WTIC 1040 ²
WAGM1420 ¹	WMCA 570	6:45 p.m.	WNYC 810	WFBC 1300	WKJC 1200	WEEI 5902	Midn't.
WBEN 900	WEEI 590	CFCH 930	WSYB 1500	WGBI 880			WCAU 1170
WCAE 1220	6:30 p.m.	WDAE 1220	WTFI 1450	WJBK 1500	WLW 700	WFIL 560	WCKY 1490

CENTRAL STANDARD TIME

5:30 a.m.	KFNF 890	9:05 a.m.	KGDE 1200	WJTL 1370	WSFA 1410 WISN 1120 WTMV 1500
KFNF 890	8:00 a.m.	WILL 890	WBEO 1310	WMBD 1440	1:00 p.m. WLBC 1310 5:15 p.m.
6:15 a.m.	KARK 890	WRTN 1370	WIND 5602	WOC 1370	CKY 960 WSGN 1310 WCCO 810
KFEQ 680	KFAB 770	9:15 a.m.	10:40 a.m.	WSIX 1210	KCRC 1360 WTMV 1500 WMC 780
WBAP 800	KFYO 1310	KARK 890	KFEQ 680	WTMV 1500	KFOR 1210 3:05 p.m. 5:20 p.m.
WFAA 800	KGFW 1310	KFAB 770	10:45 a.m.	WTRC 1310	KGKL 1370 KFNF 890 KGGF 1010
6:30 a.m.	WDAY 940	KFEQ 680	WKEU 1500	XEWZ 1150	KRNT 1320 3:15 p.m. 5:30 p.m.
KASA 1210	WFBM 1230	KPAC 1260	11:00 a.m.	12:15 p.m.	WCBS 1420 WGST 890 CBS
KMBC 950	WJJD 1130	KSTP 1460	KFJZ 1370	KGGF 1010	WDOD 1280 3:30 p.m. Red & Blue
WHO 1000	WJTL 1370	WLBC 1310	KFNF 890	WBRC 930	WHBU 1210 KSOO 1110 KASA 12102
6:45 a.m.	WKBB 1500	WMBD 1440	KSTP 1460	WCLS 1310	WMT 600 KSTP 1460 KFAB 770
KWBG 1420	WKBH 1380	9:30 a.m.	WHBU 1210	WFBM 1230	WSM 650 WGBF 630€ KFJB 1200
7:00 a.m.	WMBH 1420	KFIZ 1420	WSGN 1310	WHBY 1200	WTAX 1210 WHO 1000 KPAC 1260
KABR 1420	WMFN 1210	KFYO 1310	WTMV 1500	WKBB 1500	WTMJ 620 3:45 p.m. WOAI 1190
KFJZ 1370	WTMV 1500	KTBS 1450	11:15 a.m.	WROK 1410	WTMV 1500 KABR 1420 5:35 p.m.
KRNT 1320	8:15 a.m.	KTWO 560	WDAF 610	WOWO 1160	1:15 p.m. KOIL 1260 KVOO 1140d
WCCO 810	KFJM 1370	WJBC 1200	11:25 a.m.	12:20 p.m.	KPAC 1260 WKEU 1500 WENR 870
WIBW 580	KGFK 1500	WJJD 1130	WDAY 940	KFNF 890	KTBS 1450 WTAX 1210 5:40 p.m.
WMT 600	WAAW 660	WKBB 1500	11:30 a.m.	WRTN 1370	KWTO 560 ² 4:00 p.m. CKY 960
WTAD 900	KASA 1210 ²	WMT 600	KFPW 1210	WTAW 1120	1:30 p.m. KBTM 1200 5:45 p.m.
WTCN 1250	8:30 a.m.	WTRC 1310	KRNT 1320	12:25 p.m.	WLBC 1310 WHBU 1210 KFYO 1310
KSO 1430	KGKB 1500	CBS^2	KWBG 1420	KDLR 1210	WMBH 1420 WTMV 1500 WDAY 940
7:05 a.m.	KLPM 1240	9:45 a.m.	WMT 600	12:30 p.m.	1:45 p.m. 4:15 p.m. WDSU 1250
WSGN 1310	KSD 550	KMBC 950	KSO 1430	KFEQ 680	KFDY 780 KWTO 560 WFBM 1230
7:15 a.m.	KSTP 1460	WJBO 14202	11:45 a.m.	KFJM 1370	KGEX 630 WHB 860 WKEU 1500
KGGF 1010	KWBG 1420	KDLR 1210	KABR 1420	KWTO 560	WHEF 1500 WJAG 1060 WNOX 560
KPAC 1260	WCCO 810	10:00 a.m.	KASA 1210	WAGF 1370	2:00 p.m. 4:30 p.m. WTRC 1310
WHO 1000	WGPC 1420	KFVS 1210	KFAB 770	WIBA 1280	WHBU 1210 KFAB 770 5:50 p.m.
WKEU 1500	WJBO 1420	KLCN 1290	KGKB 1500	WJAG 1060	WJJD 1130 KGEX 630 KSTP 1460
7:20 a.m.	WSFA 1410	KVOS 1210	KV00 1140	WKBH1380 ²	WJTL 1370 KMBC 950 KFJM 1370
WHB 860	WTAQ 1330	WCCO 810	WBAA 890	WKEU 1500	WTMV 1500 KSTP 1460 5:55 p.m.
WOI 640	8:45 a.m.	WGST 890	WCCO ,810	WNBR 1430	2:15 p.m. WDAF 610 WMT 600
7:30 a.m.	KNOW 1500	WHBU 1210	WDSU 1250	12:35 p.m.	KWBG 1420 WOC 1370 6:00 p.m.
KFRO 1370	WSGN 1310	WIND 560	WIND 560	WJMS 1420	WBAP 800 WTMJ 620 KARK 890
KGBZ 930	9:00 a.m.	WJTL 1370	11:55 a.m.	12:45 p.m.	WFAA 800 5:00 p.m. KFEQ 680
KMBC 950	Red & Blue	WMBH 1420	KFAB 770	KBTM 1200	WKEU 1500 KFEQ 680 KVOL 1310
KSTP 1460	CBS	WROK 1410	WOAI, 1190	KFIZ 1420	WNAD1010b KFIZ 1420 KWTO 560a
KWTO 560	KGCA 1270	WTAX 1210	Noon	KFRO 1370	2:20 p.m. KFJZ 1370 WHBY 1200
WIBA 1280	KGBY 1340	WTMV 1500	CJGX 630	KFYO 1310	WCCO 810 KFXR 1310 WJBO 1420
WDSU 1250	WDAF 610	10:05 a.m.	KARK 890	KLPM 1240	2:25 p.m. KOMA1480 ⁵ WTAQ 1330
XEFO 940	WGST 890	KLPM 1240	KGDY 1340	KRGV 1260	WTCN 1250 KSOO 1110 WTAX 1210
7:40 a.m.	WHBU 1210	10:15 a.m.	KGEX 630	KSTP 1460	2:30 p.m. WHBU 1210 WTMV 1500
KFEQ 680	WHBY 1200	CJGX 630	KGNF 1430	WBAA 8909	KSTP 1460 WHO 10009 6:10 p.m.
7:45 a.m.	WIND 560	WBOW 1310	KMBC 950	WBOW 1310	KVOS 1210 WIRE 1400 KLPM 1240
KRGV 1260	WKEU 1500	WDOD 1280	KVOL 1310	WCCO 810	WDAY 940 WJJD 1130 6:15 p.m.
KVOO 1140	WNOX 560	WJMS 1420	WGPC 1420	WHO 1000	WIND 560 WJTL 1370 KFNF 890
WNBR 1430	WOWO 1160	10:25 a.m.	WHB 860	WKBH 1380	3:00 p.m. WMBD 1440 KFRO 1370
WOAI 1190	WTMJ 620	WTCN 1250	WHBU 1210	WLBC 1310	KARK 890 WOI 640 KFRU 630
7:50 a.m.	WTMV 1500	10:30 a.m.	WISN 1120	WMFN 1210	KFJB 1200 WSM 650 KFVS 1210
KABR 1420	WIND 5602	KFOR 1210	WJJD 1130	WNOX 560	WHBU 1210 WTCN 1250 WLBC 1310

WMFN 1210	6:55 p.m.	7:30 p.m.	8:30 p.m.	WHBY 1200	WIBW 580 WTMJ 620 10:30 p.m.
WGL 1370	KGDE 1200	WIND 560	KFJZ 1370	WJTL 1370	WOAI 11902 WTMV 1500 Red Net2
6:30 p.m.	7:00 p.m.	7:45 p.m.	KFOR 1210	WMT 600	9:45 p.m. XENT 910 WHO 10009
KASA 1210	KGKB 1500	WRTN 1370	WIND 560a	WNBR 1430	WROK 1410 XEWZ 1150 WRTN 1370
KDLR 1210	KWBG 1420	WTAD 900	WEBQ 1210	WNOX 560	10:00 p.m. 10:05 p.m.
KFOR 1210	WAVE 940		8:45 p.m.	WSFA 1410	KPRC 920 WCCO 810
KOIL 1260	WBOW 1310	8:00 p.m.	KFNF 890	WTCN 1250	
KWKC 1370	WJTL 1370	KARK 890	KGKB 1500	9:15 p.m.	WDAY 940 10:10 p.m. 11:00 p.m.
WDOD 1280	WKBB 1500	KFIZ 1420	WSGN 1310	KFPW 1210	WENR S7(15) Dide Not 1
WHO 1000	WMBH 1420	KVOO 11402	9:00 p.m.	KSD 550	WGST 890 10:15 p.m. KMBC 950
WNBR 1430	WNAX 570	WGN 720	KFYO 1310	WFBM 1230	WHBU 1210 CBS2 WHBU 1210
WSGN 1310	WTMV 1500	WHBU 1210	KGKL 1370	9:30 p.m.	WIBA 1280 KLPM 1240 WJTL 1370
6:45 p.m.		WTMV 1500	KMBC 950	KRNT13202	WIRE 1400 KSTP 1460 WTMV 1500
KRGV 1260	7:15 p.m.	XENT 910a	KRNT 1320	KTBS 1450 ²	WMBD 1440 WGBF 6309 XENT 910
WKBH 1380	KFNF 890	8:15 p.m.	KSO 1430	WDOD 1280	WNBR 1430 WHO 1000 Midn't.
WSFA 1410	WJMS 1420	KGBX 1230	KTBS 1450	WGBF 630c	WOAL 1190 WTCN 1250 KSTP 1460

MOUNTAIN STANDARD TIME

6:00 a.m.	8:30 a.m.	11:00 a.m.	12:20 p.m.		5:00 p.m. 7:00 p.m.	
KFKA 880	CBS Net ²	XETB 1310	KOY 1390	CHCK 1010	KVOR 1270 KFEL 920	KTSM 1310
7:45 a.m.	CHAB 1200	11:45 a.m.	12:25 p.m.	3:30 p.m.	5:30 p.m. 8:00 p.m.	
KGKY 1500	CKBI 1210	KICA 1370	KDFN 1440	KIUL 1210	KDFN 1440 CHWC 1010	
KLZ 560	9:15 a.m.	KLZ 560	12:30 p.m.	KSL 1130		Blue Net ²
	KDYL 1290	Noon	KFKA 880	3:45 p.m.	KFKA 880 KVOR 1270	CBS Net ²
8:00 a.m.	KICA 1370	KFEL 920	KGEZ 1310	KLZ 560	KOY 1390 XEFV 1210	9:30 p.m.
Red & Blue a	KIUL 1210	KTAR 620	1:00 p.m.	4:00 p.m.	6:15 p.m. 8:15 p.m.	Red Net ²
CBS Net ²	KIUP 1370	12:15 p.m.	CFCN 1030	CHWC 1010	CHAB 1200 KICA 1370	
CHWC 1010	9:30 a.m.	KFBB 1280	KVOR 1270	KFEL 920	KGEZ 1310 KLZ 566	CFCN 1030
KFEL 920	CKCK 1010	KGHL 780	2:00 p.m.	KICA 1370	KGVO 1260 8:30 p.m.	KDYL 1290
KVOR 1270	10:00 a.m.	KGVO 1260	KICA 1370	4:30 p.m.	6:30 p.m. KDFN 1440	KGHL 780
8:15 a.m.	KOY 1390	KGIR 1340	2:30 p.m.	Red & Blue	KGCX13109 8:45 p.m.	KOY 1390
CFRN 1260	10:30 a.m.	KIUP 1370	KDYL 1290	CBS Net	6:45 p.m. XEAF 990	11:00 p.m.
KGVO 1260	KDFN 1440	XEAF 990	KSIIN 1200	KIDW 1420	KDFN 1440 9:00 p.m.	KTAR 620

PACIFIC STANDARD TIME

6:00 a.m.	7:15 a.m.	8:30 p.m.	KVOS 1200	10:15 a.m.	KFRC 610	KREG 1500 12:45 p.m.
KJBS 1070	KERN 1370	CRCV 1100	KGDM 1100	KELW 780	KJBS 1070	KVI 570 CKOV 630
KRSC 1120	KFBK 1490	KGFJ 1200	9:30 a.m.	10:20 a.m.	KQW 1010	KVOS 1200 KFXM 1210
6:30 a.m.	KMJ 580	KXRO 1310	KJR 970	KLX 880	KROW 930	W6XAI 1550 1:00 p.m.
KOIN 940	7:30 a.m.	8:45 a.m.	KMPC 710	11:00 a.m.	KRSC 1120	KGFJ 1200
	CBS Net2	KOIN 940	9:45 a.m.	KRSC 1120	KUJ 1370	12:20 p.m. KOIN 940
6:45 a.m.	7:45 a.m.	KWJJ 1040	KFI 640	11:15 a.m.	12:05 p.m.	KIT 1310 KRSC 1120
KRLC 1420	KFPY 890	9:00 a.m.	KFOX 1250	KOIN 940		12:30 p.m. KJBS 10702
7:00 a.m.	KRKD 1120	KFRC 610		11:30 a.m.	12:10 p.m.	KFPY 890 1:30 p.m.
CBS Net	8:00 a.m.	KFXM 1210	9:51 a.m.	CJAT 910	CHWK 780	KIEM 1210 KMPC 710
Red & Blue a	KIT 1310	KOOS 1390	KPQ 1500	KRKD 1120	CKWX 1010	KOOS 1390 1:45 p.m.
KGDM 1100	KRSC 1120	KRSC 1120	10:00 a.m.	11:45 a.m.	12:15 p.m.	KPQ 1500 CHWK 780
KQW 1010	KUJ 1370	KWG 1200	KJBS 1070	KGHF 1200	KECA 1430	KRLC 1420 KRKD 1120
KRSC 1120	8:15 a.m.	9:15 a.m.	KQW 1010	Noon	KHSL 950	KTRB 740 2:00 p.m.
KUJ 1370	KROW 930	KOL 1270	KUJ 1370	KFJR 1300	KOL 1270	KXRO 1310 KRSC 1120

WHAT'S ON THE AIR TONIGHT

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

COLUMBIA(C)			
Call	Dial		

L, Red (R)
Dial

NATIONAL, Blue (B)				
_				

TIME: ED Eastern Daylight; E Eastern; C Central; M Mountain For Pacific Time subtract one hour from Mountain. RADEX is the only publication listing stations in alphabetical order for your convenience.

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

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

MONDAY

ED-5:45 p.m., E-4:45; C-3:45; M-2:45 - The Goldbergs

KFH KGKO KMBC KRLD KRNT KSCJ KTRH KTSA KVOR KWKH WAAB WABC WACO WBNS WBRC WBT WCAO WCCO WHAS WIBW WJAS WJR WKBW WKRC WMBD WOC WREC

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C - Buck Rogers 25th Century KFAB KMBC KMOX KRLD KRNT WAAB WABC WBBM WCAO WCAU WCCO WFBL WHAS WHK WJAS

WJR WJSV WKBW WKRC WOKO ED-6:15 p.m., E-5:15, C-4:15, M-3:15 C - Bobby Benson-Sunny Jim WAAB WABC WCAU WDRC WEAN WFBL WGR WHEC WOKO

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

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

B - Lowell Thomas

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 - Myrt and Marge

WABC WADC WBT WCAO WCAU WDAE WDBO WDRC WEAN WFBL WGR WHK WJAS WJR WJSV WKRC WNAC WOKO WQAM WSPD WTOC WWVA

R — Amos 'n' Andy CRCT KSD KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WJAR WLW WRC WTAG WTAM WTIC WWJ

ED-7:15 p.m., E-6:15, C-5:15, M-4:15

C — Ted Husing and Charioteers
-CFRB KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG WABC WBBM WCAO WCAU WCCO WEAN WFBL WFBM WGR WJAS WJSV WKRC WNAC WOKC

· Uncle Ezra's Radio Station KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — Singing Sam

KFAB KMOX KRNT WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJR WJSV WKRC WNAC WOKO WSPD

B - Lum and Abner WBZ WBZA WENR WGAR WJZ WLW WSYR

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

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

C — Renfrew of the Mounted KDB KERN KFBK KFPY KFRC

KGB KHJ KMJ KOIN KOL KSL KVI KWG

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Guy Lombardo and Orchestra KLRA KWKH WABC WBIG WBT WCAI WCAU WCHS WCSC WDBJ WDNC WDOD WDRC WEAN WFBC WFBL WGR WHEC WHP WIBX WICC WJAS WJSV WLAC WLBZ WMAS WMBG WNAC WNBF WNOX WOKO WORC WPG WREC WSJS WWL WWVA

– Hammerstein's Music Hall

WCSH KSD KYW WBEN WCAE WDAF WEAF WEEL WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC

B — Fibber McGee and Molly

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

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

KFAB KMBC KMOX KRNT KSCJ WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WMAS WNAC WOKO WORC WSPD

R — Voice of Firestone

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

B — Evening in Paris

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

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C - Lux Radio Theatre CFRB CKAC KDB KERN KFAB

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

- A. & P. Gypsies KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WGY WHO WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B — Sinclair Greater Minstrels

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

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

B - A Tale of Today KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSYR WXYZ

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

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

Å

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

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

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 C — Public Opinion CFRB CKAC KFH KFPY KLRA

MONDAY (Continued)

KRNT KSCJ KTRH KTSA KVOR
KWKH WAAB WABC WACO WADC
WALA WBIG WBNS WBRC WBT
WCAO WCAU WDAE WDBJ WDBO
WDNC WDOD WDDC WFBL WFBM
WFEA WGR WHAS WHEC WHP
WIBW WIBX WISN WJAS WJSV
WKBN WKRC WLAC WLBZ WMAS
WMBD WMBR WMMN WNAX
WNOX WOC WOKO WORC WPG
WQAM WREC WSPT WSJS WSMK
WSPD WTOC

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

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

C — Myrt and Marge

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSI KTRH KYI KWG WALA WBBM WBRC WCCO WFBM WGST WHAS WLAC WREC WSFA WWL

R — Amos 'n' Andy
KDYL KFI KGW KHQ KOA KOMO
KPO KPRC KSD KTHS WBAP
WDAF WHO WKY WMAQ WMC
WOAI WOW WSB WSM WSMB

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

C — Singing Sam KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

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

C — Pick and Pat KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

R — Voice of Firestone KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR

TUESDAY

ED-5:45 p.m., E-4:45, C-3:45, M-2:45 C — The Goldbergs, See Monday

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

KFH KGKO KLRA KLZ KMBC
KOMA KRLD KRNT KSCJ KTRH
KTSA KVOR KWKH WABC WACO
WALA WBBM WBIG WBRC WCAO
WCAU WDAE WDBJ WDBO WDNC
WDOD WDRC WEAN WESG WFBL
WFEA WGR WGST WHEC WHP
WIBX WJR WKBN WLAC WLBZ
WMAS WMBD WMBG WMBR
WNOX WOC WOKO WORC WQAM
WREC WSBT WSJS WSMK WSPD
WTOC WWL

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

KMOX WAAB WABC WADC WALA WBBM WBNS WBRC WCAO WCAU WDBO WDRC WEAN WFBL WFEA WHP WICC WKBN WLBZ WMAS WMBG WMBR WOKO WORC WSBT WSFA WWVA

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

C — Renfrew of the Mounted
KFAB KFH KLRA KMBC KMOX
KOMA KRLD KRNT KSCJ KTUL
KWKH WABC WADC WBBM
WBNS WCCO WDRC WFBM WHEC
WIBX WICC WISN WJSV WKBN
WKBW WMAS WMBG WNAC
WNBH WREC WSMK WSPD WWVA

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C — Myrt and Marge, See Monday

R — Amos 'n' Andy, See Monday

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

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

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

R — Human Side of the News

KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC

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

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

B - Lum and Abner, See Monday

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

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Frank Munn; Lucy Monroe

KFAB KMBC KMOX KRNT WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJR WJSV WKRC WNAC WOKO WSPD

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

B — Eno Crime Clues
KDKA KOIL KSO WBAL WBZ
WBZA WFIL WGAR WHAM WJZ
WLS WLW WMAL WMT WREN
WSYR WXYZ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C — Russ Morgan; Kon Murray CFRB KDB KERN KFAB KFBK KFPK KFB KFBK KFPK KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WABDW WBM WBNS WBRC WADC WBM WBNS WBRC WAD WCAU WCO WDAE WDBJ WDRC WCAN WCAU WCO WDAE WDBJ WDRC WCAN WFBL WFBM WGR WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSY WKRC WLAC WNAO WNAX WOKO WORO

WQAM WREC WSPD WWL

R — Wayne King and Orchestra
KFYR KPRC KSD KSTP KTBS
KVOO KYW WAVE WBAP WBEN
WCAE WCSH WDAF WDAY WEAF
WCEI WGY WHO WIBA WIRE
WJAR WJDX WKY WMAQ WMC
WOAI WOW WRC WSAI WSB WSMB
WTAG WTAM WTAR WTIC WTMJ

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

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

KFAB KFH KGKO KLRA KMBC
KMOX KOMA KRLD KRNT KSCJ
KTRH KTSA KTUL KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WDNC
WDOD WDRC WEAN WFBL WFBM
WFEA WGST WHAS WHEC WHK
WHP WIBW WIBX WICC WJAS
SJR WJSY WKBN WKBW WKRC
WLAC WLBZ WMAS WMBD WMBG
WMBR WNAC WNAX WNOX WOKO
WORC WOWO WPG WQAM WREC
WSBT WSFA WSJS WSPD WTOC
WWI

R—Vox Pop; Sidewalk Interviews
KSD KYW WBEN WCAE WCKY
WCSH WDAF WEAF WEEI WFBR
WGY WHO WHIO WIRE WJAR
WMAQ WOW WRC WTAG WTAM
WTIC WWJ

B — Ben Bernie and Orchestra

KDKA KOIL KPRC KSO KTBS
KTHS KVOO KWK WBAL WBAP
WBZ WBZA WFIL WFLA WGAR
WHAM WIOD WIS WJAX WJZ WKY
WLS WLW WMAL WMT WOAI
WPTF WREN WRVA WSOC WSYR
WTAR WWNC WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C — Fred Waring's Pennsylvanians CFRB CKAC KFAB KFH KGKO KLRA KLZ KMBC KMOX KOH KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WCSC WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WIBX WHEC WHK WHP WIBW WJAS WJR WJSV WICC WISN WKBN WKBW WKRC WKBH WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WNBF WNOX WOC

TUESDAY (Continued)

WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

R --- Texaco Fire Chlef

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

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

KFAB KFH KLRA KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WABC WACO WADC WBBM WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDOD WEAN WFBL WFBM WGST WHEC WHK WJAS WJR WHAS WJSV WKBW WKRC WLAC WMBG WMBR WNAC WOKO WQAM WREC WTOC WWL

R — Elgin Swing Time Revue KDYL KFI KFYR KGW KHQ KOMO KPO KPRC KSD KSTP KHQ KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAPI WAVE WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEL WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ

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

-Jimmy Fidler; Hollywood Gossip KDYL KFI KGW KHQ KOMO KPO KSD KTBS KTHS KPRC KYW WAPI WAVE WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFAA WFBR WGY WJAR WJDX WKY WMC WOAI WOW WRC WSB WSM WSMB WTAG WTAM WTIC WWJ

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

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

C - Myrt and Marge, See Monday R - Amos 'n' Andy, See Monday

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

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

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

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

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

WEDNESDAY

ED-5:45 p.m., E-4:45, C-3:45, M-2:45 C - The Goldbergs: See Monday

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

ED-6:15 p.m., E-5:15, C-4:15, M-3:1 C - Bobby Benson, See Monday

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 - Myrt and Marge, See Monday

R — Amos 'n' Andy, See Monday B — Easy Aces, See Tuesday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C --- Paris Night Life KFAB KMOX KRNT WABC WBBM WBT WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJSV WKRC WNAC WOKO WORC

R - Uncle Ezra, See Monday

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

B - Lum and Abner, See Monday ED-7:45 p.m., E-6:45, C-5:45, M-4:45

C — Boake Carter, See Monday C - Renfrew of Mounted, See Mon.

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

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

R — Your Hit Parade

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

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

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

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 - Chesterfield Program KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBW WKRC WLAC WMBD WMBG WLBZ WMAS WMBR WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG

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

WOAM WREC WSFA WSJS WSPD

i

WTOC WWL

R - Corn Cob Pine Club KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WHIO WIRE WJZ WLS WMAL WMT WREN WRVA WSYR WXYZ

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

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

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C - Crime Crusade: Phil Lord KFAB KLZ KMBC KMOX KOMA

KRLD KRNT KSL KTRH KTSA KTUL KWKH WAAB WABC WBBM WBNS WBRC WBT WCAO WCAU WCBL WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WMBG WMBR WOKO WORC wowo WOAM WREC WTOC WWL

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

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

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 C — Paris Night Life KDB KERN KFBK KFPY KFRC

56

Wednesday (Continued) KGB KHJ KLZ KMJ KOIN KOL

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

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

C — Burns and Allen

KSL KVI KWG

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

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

THURSDAY

ED-5:45 p.m., E-4:45, C-3:45, M-2:45 C — The Goldbergs, See Monday

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Vocals by Verrill
KFH KGKO KLRA KMBC KMOX

KOMA KRLD KRNT KSCJ KTRH KTSA KVOR KWKH WAAB WABC WALA WRIG WRNS WRRC WRT WCAO WCAU WDAE WDBO WDNC WDOD WFBL WFBM WGST WHK WISN WJAS WJR WJSV WKBW WLAC WMBG WMBR WNOX WNOX WLAC WMBG WOKO WOAM WREC WSJS WTOC

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

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

B - Lowell Thomas, See Monday

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

C — Myrt and Marge, See Monday

R — Amos 'n' Andy, See Monday

B — Easy Aces, See Tuesday

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

R — Edwin C. Hill, See Tuesday

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

B - Lum and Abner, See Monday

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

C - Renfrew of Mounted, See Mon.

ED-8:90 p.m., E-7:09, C-6:09, M-5:00

C — Chrysler Airshow KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG KWKH WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WMBR WNAC WOKO WQAM WWL

R - Rudy Vallee's Variety Hour CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WJAR ED-10:30 p.m., E-9:30, C-8:30, M-7:30 WLW WMAQ WOW WRC WTAG C—March of Time, See Monday WTAM WTIC WTMJ WWJ

Pittsburgh Symphony

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

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

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

B - Death Valley Days KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30 C - Ed Wynn; Lennie Hayton KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WCAO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMMN WNAC WNAX WNBF WNOX WOC WOKO WORC WQAM WREC WSFA WSJS WSPD WTOC WWL

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C — Horace Heidt and Orchestra KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDBO WDRC WFBL WFBM WGST WHAS WHK WISN WJAS WJR WJSV WKBW WKRC WLAC WMBG WNAC WNAX WOC WOKO WQAM WREC WWL

R --- Bing Crosby: Jimmy Dorsey CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEL WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTICWTMJ WWJ WWNC

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 Goose Greek Parson

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

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

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

C — Myrt and Marge, See Monday

R — Amos 'n' Andy, See Monday

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

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

C - Walter O'Keefe, See Tuesday

FRIDAY

ED-5:45 p.m., E-4:45, C-3:45, M-2:45 C - The Goldbergs, See Monday

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

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

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

B - Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C - Myrt and Marge, See Monday

R - Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C - Lazy Dan, Minstrel Man CKAC KFAB KMOX KOMA KRNT WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WMAS WMBG WNAC WKRC

R - Uncle Ezra, See Monday

WOKO WSPD WWL

ED-7:39 p.m., E-6:30, C-5:30, M-4:30 B — Lum and Abner, See Monday

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

-Renfrew of Mounted, See Tues.

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

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

R - Cities Service Concert CRCT KOA KPRC KSD KSTP KTBS KTHS KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEL WFAA WFBR WGY WHO WHIO WIOD WJAR WKY WMAQ WOAL WOW

FRIDAY (Continued)

WRC WRVA WSAI WTAG WTAM WTIC WTMJ WWJ

B - Irene Rich: Drama

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

ED-8:15 p.m., E-7:15, C-6:15. M-5:15 B - Wendell Hall

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

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

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

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

C - Hollywood Hotel

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

- Frank Munn: Bernice Claire KSD KYW WBEN WÇAE WCSH WDAF WEAF WEEI WFBR WGY WJAR WLW WMAQ WOW WRC WTAG WTAM WWJ

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

KDYL KFI KFSD KGW KOA KOMO KPO KSD KTAR KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WTAG WTAM WTIC ww.r

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

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 - Campana's First Nighter

KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KVOO KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIOD WJAR WJAX WKY WKLW WMAQ WMC WOAI WOW WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

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

- Marion Tailey and Orchestra KDYL KFI KFYR KGW KHO KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHIO WIBA WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

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

- Amos 'n' Andy. See Monday

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

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

C — Lazy Dan, Minstrel Man KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

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

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

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

SATURDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Frederic William Wile KFH KGKO KLRA KLZ KMBC

KMOX KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WAAB WABC WACO WADC WALA WBBM WBIG WBRC WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDOD WESG WFBL WFBM WGST WHEC WHK WIBW WIBX WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 C — Atlantic Family; Frank Parker WABC WADC WBIG WBNS WBRE WBT WCAO WCAU WCBA WDAE WDBJ WDBO WDRC WEAN WFBG WFBL WGBI WGR WGST WHEC WHK WHP WIBX WICC WJAS WMAS WMBG WMBR WNAC WNBF WOKO WORC WORK WOAM WRAK WSJS WTOC WWVA

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Ziegfeld Follies; Fannie Brice CKAC CKCL KFAB KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WOAM WREC WTOC WWL

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

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

B - National Barn Dance

KDKA KOIL KPRC KSO KTBS KTHS KVOO KWK WAPI WAVE WBAL WBAP WBZ WBZA WFIL WGAR WHAM WIRE WJDX WJZ WKY WLS WMAL WMC WMT WOAI WOOD WREN WSB WSMB WSYR WXYZ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C - Salon Moderne

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

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

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

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

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

B -- National Barn Dance KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KSTP KTAR WDAY WEBC WIBA WLW WTMJ

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

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

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

SUNDAY

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

R — Major Bowes' Capitol Family CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KVOO KYW WAPI WAVE WBAP WBEN WCAE
WCSC WCSH WDAF WDAY WEAF
WEBC WEEI WFAA WFBC WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WOSC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

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

- Radio City Music Hall

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

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

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

SATURDAY (Continued) KSCJ KSL KTRH KTSA KVOR WJR WKBN WKBW WKRO WLAC KWKH WABC WACO WALA WBNS WLBZ WMAS WMBD WMBG WBT WCAO WCCO WDAE WDBJ WDBO WDOD WESG WFBM WGR WHAS WHEC WIBW WIBX WJAS WJSV WKBN WKRC WLAC WLBZ WMBD WMBR WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSPD

ED-1:30 p.m., E-12:30, C-11:30, M-10:30

C — Musical Footnotes KMBC KMOX KRNT WABC WBBM WBNS WCAU WCCO WHAS WHE WJAS WJR WJSV WKBW WKRC

ED-1:45 p.m., E-12:45, C-11:45, M-10:45

C - Kaltenborn Edits the News CFRB KFH KFPY KHJ KCKO KLRA KLZ KMBC KMOX KRLD KRNT KSCJ KSL KTRH KTSA KVOR KWKH WAAB WABC WADC WALA WBIG WBRC WBT WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WESG WFBL WGST WHAS WHK WHP WIBW WIBX WISN WJAS WJR WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBD WMBR WMMN WNAC WNOX WOC WOKO WORC WOAM WREC WSBT WSJS WSMK WSPD WTOC

ED-2:00 p.m., E-1:00, C-12:00, M-11:00

C -- Poet's Gold; David Ross KFAB KLRA KLZ KMBC KMOX

KOMA KRLD KRNT KSL KTRH KTUL WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHK WJAS WJR WJSV WHEC WKBW WKRC WLAC WNAC WOKO WOWO WREC WWL

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

ED-2:30 p.m., E-1:30, C-12:30, M-11:30

 Jose Manzanares and Orchestra KFAB KMBC KMOX KOMA KRLD KRNT KTRH WABC WADC WBBM WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WHAS WHK WISN WJAS WJR WJSV WKBW WKRC WMBR WNAC WOKO WQAM WREC WSPD WWL

ED-3:00 p.m., E-2:00, C-1:00, M-12:00 C - Philharmonic Symphony

CFRB CKAC KFH KGKO KLZ KOMA KRLD KSCJ KTRH KTSA KVOR KWKH WABC ## WTOC WWL WES WSMK WSPD KTRH KISA KVOR KWKH WBIG WTOC WWL WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCCO WDAE WDB, WDRC WDRO WDRC WDRO WDRO WDRO WEAN WESG WFBL WFBL WFBL KFH KGKO KLRA KOMA KRLD WIBW WIBX WICC WISN WJAS

WMBR WNAC WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

B — Your English

KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTHS KVOO KWK WAPI WAVE WBAL WBZ WBZA WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WIOD WJAX WJZ WKY WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSYR WXYZ

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

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

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

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

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

C — Jose Manzanares and Orchestra KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

ED-6:00 p.m., E-5:00, C-4:00, M-3:00 C — Phil Spitalny and Orchestra

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

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

WFBL WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WWL WWVA

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

KMOX WAAB WABC WADC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHEC

SUNDAY (Continued)

WHK WJAS WJR WKBW WKRC WSPD WWVA

ED-7:00 p.m., E-6:00, C-5:00, M-4:00 - Eddie Cantor

KFAB KFH KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDOD WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WICC WJAS WJR WJSV WKRC WLAC WNAC WOKO WOWO WREC WSPD WWL

– Jack Benny; Johnny Green

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

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

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

- Fireside Recitals

KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B - Ozzie Nelson; Robt. L. Ripley KDKA KDYL KFI KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTAR KVOO KWK WBAL WBZ WBZA WCKY WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WJAX WJDX WJZ WLS WMAL WMC WOAI WPTF WREN WRVA WSB WSM WSMB WSYR WTMJ WWNC WXYZ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45 R --- Sunset Dreams; Morin Sisters CFCF CRCT KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHO WHIO WIRE WJAR WLW WMAQ WOAI WOOD WOW WRC WTAG WTAM WTIC WWJ

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C-World Dances; Lud Gluskin

KFAB KFH KFPY KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWG KWKH WABC WADC WALA WBBM WBNS WBRC WBT WCAO WCAU WCCO WDOD WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK

WHP WICC WJAS WJR WJSV WKRC WLAC WNAC WNAX WOC WOKO WOWO WREC WSPD WWL

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

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C - Ford Concert

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

R - Manhattan Merry-Go-Round CFCF KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFBR WGY WHO WHIO WIBA WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WTMJ WWJ

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

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

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

B — Walter Winchell

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

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

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

C—Freddie Rich and Orchestra KDB KERN KFAB KFBK KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC WADC WALA WBNS WCAO WCAU WCCO WDRC WFBL WFBM WHAS WHK WHP WIBW WJAS WJR WJSV WKBW WKRC WOC WOKO WSPD WWL

R — General Motors Concert

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

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C - Understanding Opera

CFRB CKAC KGKO KLRA KOH KOMA KRLD KSL KTSA KTUL KWKH WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFEA WGST WHEC WHP WIBX WICC WJAS WKBN WKBW WLAC WLBZ WMAS WMBG WMBR WMMN WNAC WOKO WORC WQAM WREC WSJS WSMK WTOC WWVA

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C - Eddie Cantor

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

R — Sunset Dreams; Morin Sisters KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WBAP WDAF WKY

ED-11:15 p.m., E-10:15, C-9:15.M-8:15 B — Walter Winchell

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

ED-11:30 p.m., E-10:30, C-9:39, M-8:30 C — Voice of Experience KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL

- Jack Benny; Johnny Green KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR.

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

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

We have prepared a very interesting circular on methods of attaching head phones and distant speakers to radio sets. One of these will be sent you for the asking. Address The Radex Press, Inc., Conneaut, Ohio.

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Daylight Saving

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

CONCERTS

Ford Concert, 9:00 p.m. Sunday, C General Motors Concert, 10:00 p.m. Sunday, R Hilharmonic Symphony, 3:00 p.m. Sunday, C Pittsburgh Symphony, 8:00 p.m. Thurs., B Radio City Musie Hall, 12:30 p.m. Sunday, B Understanding Opera, 10:30 p.m. Sun., C

DANCE BANDS

Victor Arden, 8:30 p.m. Friday, C Ben Bernie, 9:00 p.m. Tuesday, B Ray Block, 7:15 p.m. Tues. and Thurs., C Jimmy Dorsey, 10:00 p.m. Thursday, R Eddie Duchin, 9:30 p.m. Tues., R Lud Gluskin, 8:00 p.m. Sunday, C Al Goodman, 8:00 and 12:00 p.m. Sat., C Benny Goodman, 10:00 p.m. Tuesday, R Glen Gray. 9:00 and 11:30 p.m. Tuesday and Thursday, C day, C
Johnny Green, 7:00 and 11:30 p.m. Sunday, B
Louls Gress, 7:00 p.m. Sunday, C
Lennie Hayton, 9:30 p.m. Thurs., C
Horace Heidt, 10:00 p.m. Thursday, C
Richard Himber, 10:00 p.m. Tues., B
Jack Hylton, 9 and 12 p.m. Sun., B Hal Kemp, 7:30 p.m. Sunday, C Wayne King, 8:30 p.m. Tuesday and Wednesday, R Benny Kruger, 8:30 p.m. Mon., C Benny Kruger, 8:30 p.m. Mon., C Guy Lombardo, 8:30 p.m. Monday, C Abe Lyman, 5:00 p.m. Sunday, C Al Lyons, 10:30 p.m. Tuesday, C Jose Manzanares, 2:30 and 5:30 p.m. Sunday, C Russ Morgan, 8:30 p.m. Tues., C Ozzie Nelson, 7:30 p.m. Sunday, B Ray Noble, 9:30 p.m. Wednesday, C George Olsen, 10:30 p.m. Saturday, R Raymond Paige, 9:30 p.m. Fiday, C Raymond Paige, 9:00 p.m. Friday, C Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R Freddie Rich, 10:00 p.m. Sunday: 8:00 p.m. Friday, C Phil Spitalny, 6:00 p.m. Sun., C Rudy Vallee, 8:00 p.m. Thursday, R Fred Waring, 9:30 and 12:00 p.m. Tuesday, C: 9:30 and 12:00 p.m. Friday, B Paul Whiteman, 9:45 and 11:30 p.m. Sunday, B Victor Young, 9:30 p.m. Saturday, R

DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R Amos 'n' Andy, 7:00 and 11:00 p.m. daily, except Sat. and Sun., R Phil Baker, 7:30 p.m. Sunday, C Phil Baker, 7:30 p.m. Sunday, C Jack Benny, 7:00 and 11:30 p.m. Sunday, B Burns and Allen, 8:30 and 11:30 p.m. Wednesday, C Eddie Cantor, 7:00 and 11:00 p.m. Sunday, C Easy Aces, 7:00 p.m. Tues., Wed., and Thurs., B Fibber McGee and Molly, 8:00 p.m. Monday, B Lymand Abert, 7:30 p.m. doi:10.000 p.m. And Sun B Lum and Abner, 7:30p.m. daily, except Sat. and Sun., B Ken Murray, 8:30 p.m. Tues., C Walter O'Keefe, 9:00 and 11:30 p.m. Tuesday and

Thursday, C Pick and Pat, 8:30 and 11:30 p.m. Monday, C Stoopnagle and Budd, 9:00 p.m. Wed., R Ed. Wynn, 9:30 p.m. Thursday, C

DRAMA

Cavalcade of America, 8:00 p.m. Wednesday, C Crime Crusade, 10:00 p.m. Wednesday, C Death Valley Days, 9:00 p.m. Thursday, B Eno Crime Clues, 8:00 p.m. Tuesday, B First Nighter, 10:00 p.m. Friday, R Goldbergs, 5:45 p.m. daily exc. Sat. and Sun., C Phillips Lord, 10:00 p.m. Wednesday, C Lux Radio Theatre, 9:00 p.m. Monday, C Myrt and Marge, 7:00 and 11:00 p.m. daily, except Sat. and Sun., C News of Youth, 6:15 p.m. Tues., Thur., Sat., C Parties at Pickfair, 10:00 p.m. Tues., C Renfrew of the Mounted, 6:45 and 7:45 p.m. Mon.

thru Fri., C

Irene Rich, 8:00 p.m. Friday, B Buck Rogers, 6:00 p.m. Mon., Wed., and Fri., C A Tale of Today, 9:30 p.m. Mon., B True Story Court, 9:30 p.m. Friday, R Welcome Valley, 8:30 p.m. Tuesday, B

POPULAR PROGRAMS

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

Chesterfield Program, 9:00 p.m. Wed., C Chrysler Airshow, 8:00 p.m. Thursday, C Cities Service Concert, 8:00 p.m. Friday, R Contented Program, 10:00 p.m. Monday, R Corn Cob Pipe Ciub, 9:00 p.m. Wednesday, B Elgin Swing Time, 10:00 p.m. Tues., R Evening in Paris, 8:30 p.m. Monday, B Fireside Recitals, 7:30 p.m. Sunday, R Fleischmann Variety Hour, 8:00 p.m. Thursday, R Flying Red Horse Tavern, 8:00 p.m. Friday, C Goose Creek Parson, 10:45 p.m. Thurs., C Hammerstein's Music Hall, 8:00 p.m. Monday, R Hit Parade, 8:00 p.m. Wed., R Hammerstein S. Music Harr, S. Ob J. M. Moliday, R. Hib Parade, 8:00 p.m. Wed., R. Hollywood Hotel, 9:00 p.m. Friday, C. Krueger Musical, 7:15 p.m. Tuesday and Thursday, C. Magic Key of RCA, 2:00 p.m. Sunday, B. Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R. Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R. Manhattan Merty-Go-Round, 9:00 p.m. Sunday, R March of Time, 10:30 p.m. Mon. thru Frl., C Maxwell House Show Boat, 9:00 p.m. Thursday, R Musical Footnotes, 1:30 p.m. Sunday, C National Barn Dance, 9:30 and 11:00 p.m. Saturday, B Parls Night Life, 7:15 and 11:15 p.m. Wednesday, C Poet's Gold, 2:00 p.m. Sun., C Shell Chateau, 9:30 p.m. Saturday, R Shell Chateau, 9:30 p.m. Saturday, R Sinclair Minstrels, 9:00 p.m. Monday, B Swift Studio Party, 9:30 p.m. Mon., R Texaco Fire Chief, 9:30 p.m. Tuesday, R Town Hall Tonight, 9:00 and 12:00 p.m. Wed., R Uncle Ezra, 7:15 p.m. Mon., Wed., and Fri., R Voice of Firestone, 8:30 and 11:30 p.m., Monday, R Vox Pop, 9:00 p.m. Tuesday, R Ziegfeld Follies, 8:00 and 12 p.m. Sat., C

Armida, 7:15 and 11:15 p.m., Wednesday, C Smith Ballew, 9:30 p.m. Sat., R Connie Boswell, 9:30 p.m. Wednesday, C Fannie Brice, 8:00 and 12:00 p.m. Sat., C Patti Chapin, 8:00 and 12:00 p.m., Sat., C Charlotters, 7:15 p.m. Monday, C Vivian Della Chiesa, 1:30 p.m. Sunday, C Bernice Claire, 5:00 p.m. Sunday, C, and 9:00 p.m. Friday, R Jerry Cooper, 7:15 p.m. Tuesday and Thursday. C Bing Crosby, 10:00 p.m. Thursday, R Crumit-Sanderson, 5:30 p.m. Sunday, C Morton Downey, 8:30 p.m. Mon., B Jessica Dragonette, 8:00 p.m. Friday, R Phil Duey, 8:00 and 11:30 p.m. Tuesday, R Alexander Gray, 8:00 p.m. Thursday, C Wendell Hall, 8:15 p.m. Friday, B Frances Langford, 9:00 p.m. Friday, C La Prelle Bros., 8:30 p.m. Monday, C Lazy Dan, 7:15 p.m. Friday, C Pierre LeKreune, 7:15 and 11:15 p.m. Wed., C Elizabeth Lennox, 8:30 p.m. Friday, C James Melton, 8:00 p.m. and 12:00 p.m. Sat., C Lucy Monroe, 8:00 p.m. Tuesday, C and 9:30 p.m. Sunday, R Morin Sisters, 7:45 and 11:00 p.m. Sunday, R Frank Munn, 8:00 p.m. Tuesday, C; 9:30 p.m. Sunday and 9:00 p.m. Friday, R. Donald Novis, 9:30 p.m. Tuesday, R

Frank Parker, 7:00 p.m. Saturday, C
Pickens Sisters, 8:30 p.m. Monday, B
Lily Pons, 9:00 p.m. Wednesday, C
Carmella Ponselle, 8:30 p.m. Friday, C
Dick Powell, 9:00 p.m. Friday, C
C Lanny Ross, 9:00 p.m. Thursday, R
Fritzi Scheff, 8:00 p.m. Tuesday, C
Gear Shaw, 8:30 p.m. Friday, C
Ethel Shutta, 10:30 p.m. Friday, C
Ethel Shutta, 10:30 p.m. Sat., R
Singin' Sam, 7:30 and 11:15 p.m. Monday, C
Smiling Ed McConnell, 6:30 p.m. Sunday, C
Kate Smith, 7:30 p.m. Tuesday, and Thurs., C
Oliver Smith, 5 p.m. Sunday, C
Marion Talley, 10:30 p.m. Fri., R
Benay Venuta, 6:00 p.m. Tuesday, C
Helen Ward, 10:00 p.m. Tuesday, C

Boake Carter, 7:45 p.m. daily except Sat. and Sun., C Rev. Charles E. Coughlin, 4:00 p.m. Sunday Jimmy Fidler, 10:30 p.m. Tuesday, R Edwin C. Hill, 7:15 p.m. Tues., Thurs., Sat., R Ted Husing, 7:15 p.m. Monday, C H. V. Kaltenborn, 1:45 p.m. Sun., C Public Opinion, 10:45 p.m. Monday, C Robert L. Ripley, 7:30 p.m. Sunday, B Sidewalk Interviews, 9:00 p.m. Tuesday, R Lowell Thomas, 6:45 p.m. daily except Sat. and Sun., B

TALKS

Trans-Atlantic Broadcast, 12:45 p.m. Sunday, C Voice of Experience, 6:45 and 11:30 p.m. Sunday, C Frederic William Wile, 6:00 p.m. Saturday, C Walter Winchell, 9:30 and 11:15 p.m. Sunday, B Your English, 3:00 p.m. Sunday, B

FOREIGN B. C. STATIONS BY FREQUENCIES

Wavelength in meters is given in parentheses following frequencies in kilocycles. Entering dial number in square provided will enable you to identify stations heard. Power is given in second column in kilowatts and decimals thereof. Actual frequency is given in parentheses. While call letters are given wherever possible, very few European stations use these calls. Time is Local unless otherwise stated.

520 (576.6)	570 (526)	120. Vienna, Aust. (592) Wein No. 1, Johan-
LKH .7 Hamar, Nor. (519) OFH 10. Viipuri, Fin. (527)	CB57 5. Santiago, Chile. Soc. Nacional Agricultura RW68 10. Tcheliabinsk, USSR.	nesgrasse No. 4B. Daily 310-1900 EST
RW34 10. Stalingrad, USR. (519) (577)	600 (499.7)
5. Ljubljana, Yug. (527) 2YA 5. Wellington, N. Z.	000 (433.1)
5 Tartu, Est. (517)	Featherstone St. Mon. to Sat. 700-900;	CNR 25. Rabat, Mor. (601)
530 (565.7)	1000-1100; Sun. 900- 1215; 1300-1430; 1800- 2200.	Radio Maroc, Office Cherifien des Postes et Telegraphes,
11BZ 1. Bolzano, I. (536)	100. Stuttgart, G. (574)	FJP .5 Noumea, New Cale-
16. Wilno, Pol. (536)	Charlottenplatz No. 1	donia. JONG .5 Miyazaki, Japan (CP)
	Daily 0000-2000 EST	PRH2 25. Porto Alegre, Brz.
540 (555.2)	(571)	(now building)
010 (000.2)		RW82 2.5 Frounze, USR. (608) SBD 10. Sundsvall. Swe. (601)
HAL 120. Budapest, Hun. (SBD 10. Sundsvall, Swe. (601) XMHA 1. Shanghai, China.
Budapest VIII, 9 dor Utca No. 7.	an-	ZTC 10. Cape Town, S. Af.
Weekdays 0045-1	815: CC58 .5 Temuco, Chile. Luis	4QN 7. Clevedon, Ausl.
Sun, 315-1900 EST		
	RW36 10. Archangel, USR (586)	610 (491.5)
550 /5/E 1\	RW54 10. Khabarovsk, USR.	010 (431.0)
550 (545.1)	XQHA .25 Shanghai, Chn.	CX4 1. Montevideo Uru.
RW52 20. Tchita, USSR. (55	YLZ 15. Riga, Lat. (583)	CX4 1. Montevideo, Uru. Direccion de Agrono-
2CR 10. Cumnock, Ausl.	344 IV. Holshall, Aust.	mia, Millan, 746: 10-
	Sw. 15. Grenoble, F. (583)	12; 17-19
(556) Report to P	TT, Daily 300-1730 EST	11FI 20. Florence, I. EIAR
Berne, Speichergr	590 (508.2)	Stazione di Firenze.
No. 6.		Weekdays 130-1730; Sun. 310-1730 EST
Weekdays 600-1 Sun. 130-1630 ES		JODK2 10. Seoul, Ko.
Julii 250-2550 E5	Tomabecio, EST.	KZRM 50. Manila, P. I. (618.5)
F(0 /F2F 4)	— Daily 4 a.m7:30 a.m.	Daily 600-2300
560 (535.4)	LS10 6. Buenos Aires, Arg.	RW18 1. Pratigorsk, USR
IdDA A Delement (FCF)	Radio Callao, Callao	RW22 10. Oufa, USR. (617) RW50 2.5 Oust Abakansk, USR
I1PA 4. Palermo, I. (565) MTCY 100. Hsinking, Mch.	(666) RW35 10. Astrakhan, USR (598)	(617)
RW41 1.2 Syktyvkar, USR. (RW79 10. Murmansk, USR.
RW42 10. Gorki, USR. (565)	7ZL 1. Hobart, Ausl.	XGSS .015 Tsunshi, Chn.
XGOH 10. Chengtu, China.	Elizabeth St. Mon. to	2FC 3. Sydney, Ausl.
XLHB .045 Shanghai, China.	Fri. 830-1030; 1200-	96 Market St. Mon.
ZUG 10. Grahamstown, S. 6WA 10. Minding. Ausl.		to Fri. 830-930; 1100- 1300: 1330-1530: 1630-
6WA 10. Minding, Ausl.	100; Sat. 830-1000; 565) 1230-1300; Sun. 1200-	1745; 1900-100; Sat.
Radio Atha Luain		830-930; 1100-1830;
Daily 830-1800 ES		1900-100; Sun. 1130-

		1345; 1630-1815; 1930- 2400			Relays 5CL Mon. to Fri. 9-10; 1230-1600; 17-1830; 1930-130; Sat.	::::::	2.5 1.5	Belgrade, Yug. (686 Salisbury, S. Af. (681.9)
	•	33.6)		.1	9-1030; Sun. 1230- 1530; 17-19; 1945-0030 Shanghai, Chn.	690	(43	34.5)
CB62 CT1AA	1. 20.	Santiago, Chl. Radio Chilena. Lisbon, Por. (629)	650	(4	61.3)	CX8	.5	Montevideo, Uru. Ramon Puyal, Caigua
		Emissora Nacional. Daily 700-1900 EST	CX6	10.	Montevideo, Uru.	LV6		3710 Mendoza, Arg. Radio Prov. de Mendoza.
LKT LKT	.5 20.	Matsuye, Jap. (625) Trondelag, Nor. (629)			Estacion Oficial, Mar- tin Fierro 2603. 12-	XGOY 6WF	.25 3.5	Kunming, China. Perth, Ausl.
LV3 RW31 XHHK	2. 10. .1	Cordoba, Arg. Ivanovo, USR. (625) Shanghal, China	Joce	.3	14; 17-23 Asahigawa, J. (655) Pres. NBC, Hokkaido			Hay St. Mon. to Fri. 1030-1230; 1400-1730;
4ZP	.5	Invercargill, N. Z. R. T. Parsons, 155 Layard St. N., Mon.,			Asahikawa Branch, EST Daily 11 p.m 7:30 a.m.			1830-20; 21-3; Sat. 1030-12; 1430-3; Sun. 14-17; 1830-2030; 2115-
		Wed. 1230-1330; 1830- 2130; Tues., Thus., Fri. 1230-1330; 1900-	JQAK 1YA	.5 10.	Dairen, Mnch. (652) Auckland, N. Z.		7.	200 Paris, F. (695) FPTT Ecole Superieure des
		2200; Sat. 1830-2130; Sun. 1100-1200; 1830-			Karangahape Rd. Mon. to Sat. 7-9; 10- 23; Sun. 9-1215; 13-			Postes et Telegraphes (Testing with 120 kw.) Daily 300-1800 EST
No. 1	15.	2200. Brussels, Belg. la Rue du Bastion		100.	1630; 18-22 Cologne, G. (658) Dagoberistrabe No. 38	700	(42	28.3)
		Weekdays 655-1800; Sun. 445-1900 EST			Daily 0000-1800 EST	JOKK	.5	Okayama, J.
		Cairo, Egypt.	660	(45	4.3)	PRA7 RW48	.05 2.5	Sao Paulo, Brz., Rua Tibirica 26 (706) Elista, USR. (704)
930	.5	,	XGOA RW38	75. 2.	Nanking, Chn. Alexandrovsk USR.	SBA	55.	Stockholm, Swe. (704) Weekdays 145-1700;
LS3	5.	Hamamatsu, Jap. (635) Buenos Aires, Arg.		20. 50.	(662) Jerusalem, Pal. (668) Manchester, G. B.	VPB XMHC	1.75	Sun. 3-17 EST Colombo, Cey. (705) Shanghai, Chn.
OKP	120	Radio Mayo, Callao 1526 Praha, Cz. (633) The			(668) North Regional Weekdays 515-1900; Sun. 730-1745 EST	ZP15 2NR	;. 7.	Villarrica, Par. Lawrence, Ausl.
		Radio Journal, Praha, Cz. Daily 0030-1730	670	(A A		<i>7</i> 10	(42	22.3)
RW28	.8	EST Vladivostok, USR. (635)	JFAK	10.	Taihoku, For.	I1R0	50.	Rome, I. (713) Weekdays 130-1730;
RW32 RW84	10.	Vladivostok, USR. (635)	LS4	7.	Buenos Aires, Arg. Radio Portena, Bei-	JOJK LS1	3. 5.	Sun. 335-1730 EST Kanazawa, J. Buenos Aires, Arg.
AW84 3AR	1.2 4.5	Oust-Abakansk, USR. (635) Melbourne, Ausl.	MTFY RW23		grano 1841 Harbin, Mnch. (674) Groznyi, USR. (676)			Radio Municipal, Teatro, Colon
		120A Russel St., Mon. to Fri. 830-1100; 1300-	YV6RV 2CO	.35 1.	Valencia, Vnz. Corowa, Ausl.	RW16 XGML XGOS		Samara, USR. Kashing, Chn. (714.3) Chunking, Chn. (711)
		1900; 1930-2400; Sat. 830-1100; 1300-1900; 1930-130; Sun. 1225-			Relays 3LO and 3AR. Mon. to Fri. 830-13; 1330-1530; 1630-1745;			16.4)
	,	1630; 1810-2230			19-1; Sat. 830-1030; 1130-13; 1330-1830; 19- 100; Sun. 1130-1345;	JFBK	1.	Tainan, For.
640	•			100.	1430-1815; 1930-2400 Sottens, Swi. (677)	JORK	.5	Kochi, J. Mr. Mat- suo, Mgr., EST Daily 10:15 p.m7:30 a.m.;
CB64	1.	Vina del Mar, Chile. La Union, Av. Por- tales 528			Report to PTT Berne, Speichergrasse No. 6. Weekdays 630-1630:	DDF4		Sun., 10:30 p.m7:30 a.m.
CC64	.1	Concepcion, Chile. El Sur, Freyre 799			Sun. 355-1630 EST	PRF2	.25	Rio Claro, Brz. (725) Radio Club of Rio Claro
JOUK RW29	.3 10.	Akita, J. (645) Petrozavodsk, USR. (648)	680	(44	0.9)	PRG5 RW9	.75	Santos, Brz. Radio Atlantica
RW56 YN	90.	Penza, USR. Lyons, F. (648). La oua (testing).	CW27 HJN	.15 .5	Salto, Uruguay. Er- nesto Popelka Bogota, Col. (681)	XLHC	36. .05 .05	Kiev, USR. (722) Shanghai, Chn. Shanghai, Chn.
ZEK	.5	Daily 215-1800 EST	JOKK JOFK	.5 .5	Fukuoka, J. Hakodate, J.	3YA	10.	Christchurch, N. Z. Gloucester St. Mon. to Sat. 7-9; 10-23;
		Sat., from 12:30. The	LKD RW17 RW27	.5 10.	Bodo, Nor. (686) Kazan, USR. (686)			Sun. 9-1215; 13-1630; 1730-22
		Secretary, Hong Kong Brdcstg. Com., P. O. Box 200.	RW46	4. 1.2	Makhatch, USR. (689) Karaganda, USR. (686.5)	6GF	2. //1	Kalgoorlie, Ausl.
ZTJ 5CK		Johannesburg, S. Af. (645)	RW71		Petropavlovsk, USR. (689)	730 CB73	(41	,
J.C.R.	1.5	Crystal Brook, Ausl.	RW74	1.2	Tcheboksary, USR.	CB/3	1.	Santiago, Chile. UI-

CX10 EAJ2 EAJ5	1. 3. 5.5	timas Noticias. Compania 1258 Montevideo, Uru. Internacional Brdcstg. Industria 2840; 11-15; 16-24 Madrid, 5p. (731) Radio-Espana Seville, Sp. (731) Daily 230-1630 EST	XLHI XLHJ 2YB		5 Shanghai, Chn. Shanghai, Chn. New Plymouth, N. Z. Empire Bldg., King St. Mon. 19-22; Wed. 1830-22; Sat. 1330-17; 1830-22; Sun. 18-22 Falkirk, G. B. (767) Scottish Regional Weekdays 515-19;	XLHL 4QG	.1 2.5	Shanghai, Chn. Brisbane, Ausl. State Insurance Bldgs. Mon. to Fri. 830-1030; 12-1530; 1630-18; 19-1; Sat. 830-10; 1230-1; Sun. 12-15; 1630-1830; 1915-24 Cardiff, G. B. (804) West Regional
JOSK LV1	1. 1.	Kokura, J. (735) San Juan, Arg. Radio Graffingna, C. de Correo 44	770	(38	Sun. 730-1730 EST	010	/25	Weekdays 515-1900; Sun. 730-1745 EST
RW65 XHGS 5CL	1. .05 2.	Saransk, USR. (734) Wuchow, Chn. Adelaide, Ausl.	CX12	1.	Montevideo, Ur. Radio Westinghouse, Itacabo 2620: 10-23	CX14	(3 <i>1</i> 5.	Montevideo, Uru. El Espectador Ltd.,
	20.	Hindmarsh Square. Same Schedule as 5CK, 640 kc.	JOHK LKF RW26	10. 1. 10.	Sendai, J. Frederikstad, N. (776) Stalino, USR. (776)	I1MI	50.	Lanus 5760. 10-24 Milan, I. (814) Radio Milano. Corso
740		Tallin, Est. (731)		.2 3.5	Madras, In. Melbourne, Ausl. 120A Russel St. Mon.			28, Ottobre 102, Mi- lano 134 Weekdays 130-1730;
OFD PRE6 RW64	1. 1.5 10.	Pori, Fin. (749) Uberaba, Brz. Ordjonikidze, USSR. (749)			to Fri. 830-930; 11-13; 1330-1530; 1630-1745; 19-1; Sat. 830-930; 11-1830; 19-1; Sun. 1130-1345; 1630-1815; 1930-	JOCK1 PRA6	10. 10.	Sun. 330-1730 EST Nagoya, J. Sao Paulo, Brz. (815) Radio Educadora Paulista. Rua Jose
XHHB 2BL	.05 3.	Shanghai, Chn. Sydney, Ausl. 96 Market St. Mon. to Fri. 830-1100; 13-		2.	24 Toulouse, F. (776) PTT Daily 330-1730 EST	VUC XQKC	3. .2	Bonifacio 12 Calcutta, In. Tientsin, China
		19; 1930-2400; Sat. 830-11; 13-19; 1930- 130; Sun. 1225-1630;	7 80	(38	(4.4)	820 CB82	(36	Santiago, Chl. El
	100.	18-2330 Munich, G., Funk- haus Rundfunkplatz	CB78	1.	Santiago, Chile. Co- operative Vitalicia, Agustina 1253, 9 piso		-	Diario Ilustrado, Moneda 1158, 9-10:
	5.	No. 1 Daily 0000-1800 EST Marseilles, F. (749) PTT	JOPK KZEG	.5 1.	Shizuoka, J. Manila, P. I. Daily 8-20	CW23 LV7	.25 1.	12-14; 16-1830; 20-24 Salto, Uruguay. Mo- desto Llantada Tucuman, Arg.
	.2	Daily 245-17 EST Sortavala, Fin. (749)	LT1 PRE7	4. 5.	Rosario, Arg. Radio Litoral, Cordoba 1049 Sao Paulo, Brz. (788)	PRH8	5.	G. Acha Munoz y Cia. Mendoza 437 Rio de Janeiro, Brz.
750 HS7PJ	•	9.8) Bangkok, Siam	XLHA		Radio Cosmos, Praca Marechal Deodora 52 Shanghai, Chn.	XLKB 2ZH		Radio Ipanema Tientsin, Chn. Napier, N. Z.
JOBK1 LR7	10. 15.	Osaka, J. Buenos Aires, Arg. Radio del Estado		120.	Leipsig, G. (785) Temporarily on low power. Daily 00-18 EST			C. B. Hansen & Co., 59 Latham St., Mon., Tue., Fri., 12-14; 19- 22; Wed. 12-14; 1830-
LUHO OAX4A		T'ung Hsien, Chn. Lima, Peru. Daily 11 a.m1 p.m.; 6-7; 9-11	<i>7</i> 90	(37	9.5)			2230; Thu. 12-14; Sat. 10-17; 19-23; Sun. 12- 15; 1830-22
PRA2 PRA8	1.5 3.	p.m. Rio de Janeiro, Brz. Rua da Carcoca 45 Pernambuco, Brz.	EAJ1	7.5	Barcelona, Sp. (795) Union Radio. Daily 215-19 EST	7H0	1.	Hobart, Ausl. 82 Eliz- abeth St. Mon. to Sat. 930-1030; 1330-
RW64	10.	Ave. Cruz Cabuga 394 Urdjonikidze, USR. (752)	JOGK LR10		Kumamoto, J. 5 Buenos Aires, Arg. Radio Cultura, Bel-		12.	1530; 1900-0030; Sun. 2130-2330 Bucharest, Ru. (823)
XGOK XQKB YV4RC	.15	Canton, Chn. Tientsin, China. Caracas, Vnz.	RW51 XLIJ	1. .05	grano 1841 Naltchik, USR. (794) Wusih, China	000	/6.5	Weekdays 6-1730; Sun. 430-1830 EST
ZTD	1.5	Durban, S. Af.	ZTB	.5	Bloemfontaine, S. Af.	830	(36	51.2)
7NT	7.	Kelso, Ausl. Same schedule as 7ZL, 590 kc.	4YA	10.	Dunedin, N. Z. Stuart St. Mon. to Sat. 7-9; 10-23; Sun. 9-1215; 13-	JOIK	10.	Sapporo, J. T. Okada, Chf. Engr. EST Daily.
	12. 10.	Katowice, Pol. (758) Maritzburg, S. Af.		16.	1630; 1730-22 Lwow, Pol. (795) Polskie Radjo SA,	LR5	29.	4 a.m7:30 a.m. Buenos Aires, Arg. Radio Excelsior, Mai-
760 CB76	•	· 			Rozglosnia we Lwowie Daily 1-18 EST	RW39	100.	pu 462 Moscow, USR. (832) Inna Marr, Esq.
		Valparaiso, Chl. Co- op. Vitalicia, Agus- tina 1253, 9 Piso		•	4.8)	Vor	007	Moscow-Stalin Radio Station. Daily 9-1630 EST
PRD9	.25	Sorocaba, Brz. (769) Radio Soc. Sorocaba	JOKG PRB7	.5 .5	Kofu, Japan. (CP) Rio de Janeiro, Brz.	XGF XLII	.007	5 Tsinan, Chn. (833) Wuhu, Chn.
RW78	3.	IJevsk, USR. (767)	XLHK	.007 5	Shanghai, Chn.	3GI	7.	Longford, Ausl.

840	(35	66.9)	LR6	26.	Buenos Aires, Arg. La Nacion, Florida 347			13; 1930-0030; Sa 9-10; 1930-0030; Sui
	_	T.1	RW85	2.	Igarka, USR. (871)			1230-1530; 1945-233
CB84	.1	Talcahuano, Chile.	XLIL	.05	Suchow, Chn.	4WK	.05	Warwick, Ausl.
		Francisco Morales.	2GB	1.	Sydney, Ausl. "The	\		King and Albion St
		Aldea 96	ì		Nation's Station'',	l		Daily 1230-1530; 19
F31CD	12.	Saigon, Indo.			Adyar House, 29	l		2330.
		Cie Generale de Tele-			Bligh St., Mon. to		100.	Hamburg, G. (904)
		graphie sans Fil, P.O.	l		Sat. 830-1; Sun. 930-			Radio Reichssende
		Box, 238	l		1330; 1415-24	l		Hamburg. Daily 0
LT8	.5	Rosario, Arg.	l	50.	London, G. B. (877)	l		18 EST
		Julio Blomberg, Sar-			London Regional.	ì		
		miento 958	l		Weekdays 515-1930:	010	/22	00 6
PRA4	.05	Bahia, Brz. Radio	l		Sun. 730-1745 EST	910	(32	(9.0 <i>)</i>
		Soc. da Bahia	l		3dii. 130-2143 E31		•	/
XGTM	.015	Chang-sha, Chn.	000	10	IA 5\	LR2	12.	Buenos Aires, Arg.
ХННА	1.	Shanghai, Chn.	880	(34	10.7)			Radio Argentina, Bo
ZBW	2.	Hongkong, C. (845)		(Į.		ivar 1356
		The Secretary, Hong	LV2	2.	Cordova, Arg. Radio	RW30	10.	Dnepropetrovsk,
		Kong Brdcstg. Com.,			Central, San Lorenzo	11,100		USR., (913)
		P. O. Box 200.	l		339	XLIM	.05	Hanim, Chn.
YC	•	Welliamter N 7	PRB2	.25	Curityba, Brz. (882)	4RK	2.	Rockhamton, Ausl.
.10	.2	Wellington, N. Z.	FRB2	.23		488	2.	Relays 4QG. San
		Featherstone St.	l		Radio Club Para-			sebadula es 400 %
		Mon. to Sat. 17-18;	DIFFOR		naense			schedule as 4QG, 80
		19-220; Sun. 18-22	RW61	1.	lochar-Ola, USR. (888)			kc.
	100.	Berlin, G. (841)	VUD	20.	Delhi, India. (882)		60.	Toulouse, F. (913)
		Radio Reichssender,	XHHV	.1	Shanghai, Chn.			Villa Schmidt, Ru
		Berlin Brdcstg. House	YV3RC		Caracas, Venz. (882)			Monie. Daily 3-19
		Daily 0000-1800 EST	1YX	.5	Auckland, N. Z.			EST
			1		Karangahape Road		.5	Limoges, F. (913)
250	/25	2.7)	1		Mon. to Sat. 17-18;			
วอบ	(95	4.()	l		Mon. to Sat. 17-18; 19-22; Sun 18-22	020	/22	E 0/
	•	,	6PR	.5	Perth, Ausl.	920	(32	25.9)
CX16	10.	Montevideo, Ur.	•	••	Barrack St., Mon. to	l	•	
		SADREP, Av. S. Mar-	1		Sat. 1030-12; 14-1530;	JOOK	.5	Niigata, J.
		tinez 13500	l		21-2; Sun. 2330-130	OKB	32.	Brno. Cz. (922)
EAJ3	3.	Valencia, Sp.	l	7.				Daily 0030-1730 EST
HSPI	2.5	Bangkok, Siam (856)		4.	Graz, Aust. (886) Daily 316-19 EST	PRC3	.25	Pelotas, Brz.
IOFK	10.	Hiroshima, J.	l		Daily 310-19 ES1			Soc. Radio Peloten
LKA	.35	Aalesund, Nor.	l		>	PRF4	10.	R'de Janeiro, Br
LKB		Bergen, Nor.	890	(32	(6.9)	FRF4	10.	(923). Soc. Anonin
	1.		0.00	(02	.0.0/			"Journal do Brasil"
LKP	1.	Porsgrund, Nor.	0000		Cambiana Obila Otta			Characteri Olem
PRB3	.25	Juiz de Fora, Brz.	CB89	1.	Santiago, Chile. Otto	XHHX		Shanghai, Chn.
		(857)			Becker, Ahuamada 113	2ZR	.015	Nelson, N. Z. Trafalgar St. Ten
		Radio Soc. de Juiz de	~~~		113	l		
		Fora, Parque Halfeld	CX18	1.	Montevideo, Uruguay Difusora El Especta	l		porarily silent.
RW73	10.	Simferopol, USR.			Dirusora El Especta	l		
	_	(859)			dor, Ltda., Olimar	9 30	(32)	22.4)
VQ7L0	.6	Nairobi, Ken. (858)		_	1364	700	(0-	
VUB	3.	Bombay, In. (855)	JOLG	.5	Tottori, Japan. (CP)	CB93	3.	Santiago, Chile.
XLIQ	.05	Hangchow, China	MTBY	1.	Mukden, Mnch.	CB33	3.	Huke, Providence
KQHB	.1	Shanghai, Chn.	OFA	10.	Helsinki, Fin. (895)			
RM	1.	Renmark, Ausl.	XGKA	.015	Kasking, Chn. (895) Asuncion, Par. (898)			1022
		River Murray Brd-	ZP9	1.5	Asuncion, Par. (898)	CX28	2.	Montevideo, Uru.
		csters, Ltd., 29 Run-		.5	Limoges, F. (895)			Radio Monecario,
		dle St., Adelaide						Humberto I No.
	1.	Sofia, Bul.	000	/22	(3.1)			11-1430; 16-24
• • • • • •	35.	Strasbourg, F. (859)	900	(9)	0.1/	JOAG	.5	Nagasaki, J.
		Radio Strasbourg		-		PRD2	1.	R'de Janeiro, Brz.
		PTT, 30 Rue de 22	CB90	1.	Valparaiso, Chile, El			(932) Soc. Radio Cri
		Nov. Weekdays 545-			Murcurio de Val.,			ceiro do Sul; Ru
					Casino de Vina del			Mariz e Barros 270
		19; Sun. 1630-19 EST			Mar.	RW55	1.	Engels, USR. (932)
		>	JODK1	10.	Seoul, Korea	VUG	1.	Delhi, India
860	(34	8.6)		1.	Manila, P. I.	XGON	.2	Nanking, China.
500	(0.1	J.U/			Daily 10-20	3UZ	.65	Melbourne, Ausl.
DD 4 3		Die de Jameiro Don	LU2	2.	Bahia Blanca, Arg.	302	.03	45 Bourke St. Mo
PRA3	2.5	Rio de Janeiro, Brz.	LU2	۷٠	Radio Bahia Blanca.			
		Radio Club de Brasil,			Can Paula Per /An			to Thu. 830-153
		Rua Betancourt da	PRF3	5.	Sao Paulo, Brz. (CP			1645-100; Fri. 830-1
		Silva 21			60 kw) Radio Difusora			1645-100; Sat. 83
KGOF	.5	Tsinan, China.		_	Sao Paule.			1330; 1930-130; Su
KHHD	.05	Shanghai, China.	XGOI	.5	Shanghai, China.			1130-1400; 1915-2330
	16.	Poznan, Pol. (868)	XGTM	.1	Tengchow, Chn.	No. 2	15.	Brussels, Belg. (93
		Daily 1-18 EST	2ZP		Wairoa. N. Z.			Weekdays 7-19; Sur
	.6	Paris, F. (868) AGEN			E. A. Perry, 128 Queen			5-19 EST
••••	.0	1 4115, F. (800) AGEN	,		St. Tue. 7-9; 18-2230;			- 20 EG.
					Wed. to Sat. 7-9; Sun.		100	۵۱ 🗀
270	121	4.6)				940	(31	9)
)/U	(34	4.0/			730-930.	710	701	-,
	•	,	3MA	.05	Mildura, Ausl.	JONK		Nagano, J. K. Yana
	40	Tokyo, J. M. Toma-			22 Deakin Ave. Mon-	JONK	.5	da, Dir. EST Dall 4-1930
OAK1	TO.							
OAK1	10.	Tokyo, J. M. Toma- becio, EST Daily 4 a.m7:30 a.m.			to Thu. 9-10; 12-13. 1930-24; Frl. 9-10; 12;			4 1020

PRE4	.25	Rio de Janeiro, Brz.	970	(30	9)			12-14; 16-21; Wednes-
		(941). Soc. Radio Cul- tura "A Voz do Es-		`	<i>'</i>	OKR	13.5	days 1130-14; 18-23 Bratislava, Cz. (1004)
SBB	10.	pacao''	CB97	1.	Santiago, Chile. Slam, Bolivar 1551	PRA9	1.	Daily 0030-1730 EST
288	10.	Goteborg, Swe. (941) Weekdays 145-17;	CX22	.25	Montevideo, Uru.	PRAS	1.	Rio de Janeiro, Brz. Radio Soc. Mayrink
XHHE		Sun. 3-17 EST		,	Fada Radio, Larranga 278. 1030-1530; 17-23			Veiga, Rua Mayrink
3ZR	.1 .4	Shanghai, Chn. Greymouth, N. Z.	JOBG	.5	Maebashi, J.	PRB8	.05	Veiga 17 Mogy das Cruzes,Brz.
		West Coast Radio Soc., Bright St., Cob-	XHIB 3BO	.075	Wusih, Chn. Bendigo, Ausi.	XGMK	.015 .05	Poatung, Chn. (1005) Taiyuan, Chn.
		den. Mon. to Frl.			Kangaroo Flat. Mon.	ZP3	.3	Asuncion, Par.
		730-830; 15-17; 18-19; 1930-22; Sat. 730-830;		,	to Frl. 1230-1500; 19- 24; Sat. 1230-24; Sun.	4GR	.5	Toowoomba, Ausl. Ruthven St. Mon. to
		1330-17; 18-21; Sun .		100	1130-1430; 2030-2330			Fri. 8-1530; 19-2330;
		12-1330; 1730-1830; 19-21.	•••••	100.	Belfast, GB (977)			Sat. 8-1130; 1930-2330; Sun. 1130-1430; 030-
	12.	Algiers Alg. (941) Radio PTT du Govt.	980	/20	5.9)			2330
		Radio PTT du Govt. Gen., Rue Berthe-	900	(Su	(a.a)			
		zene, Alger, Algeria,	CNO	.025	Casablanca, Mor.	1010)(29	6.9)
		N. Af. Daily 8-18 EST	I1GE	10.	(983) Genoa, I. (986) EIAR	0.0404		Carellana Obilia
		,			Stazione di Genoua. Weekdays 130-1730;	CB101	1.	Santiago, Chile. Radio Mayo, Bander
950	12	15.6)			Sun. 310-1730 EST	CX24		154
900	(3.	13.0/	JOXK	.5	Tokushima, J. T. Tsutsumi, Chf. Engr.	CX24	2.5	Montevideo, Uruguay SADREP, Las Rozas/
ŁR3	31.	Buenos Aires, Arg.	_		EST Daily 2205-730;	PRB9	5.	756 Sao Paulo, Brz. (1017)
		Radio Belgrano, Bel-	OAX4E	-05	Sun., 2230-730 Lima, Peru, Juan P.	FRD3	٥.	Radio Soc. Record,
₽P	60.	grano 1841 Paris, F. (959)			Goincochea, Jiron	RW86	5.	Praca da Republica 17 Tchernigov, USR.
,		Poste Parisien, 4 Rue du General-Foy.	PRC6	1.	Ocona No. 158 R'de Janeiro, Brz.	,	,	(1013)
		Daily 210-18 EST			Soc. Radio Philips,	3HA (5. .3	Hangkow, Chn. Hamilton, Ausl. 37
PRF8	.5	Bahia, Brz. (959) Radio Commercial da			Rua Sacadura Cabral 43	,		Hamilton, Ausl. 37 Gray St., "The Age Brdcstg. Service",
	_	Bahia	XMHB 2LV	.5	Shanghal, Chn. Invernell, Ausl.			Mon. to Sat. 830-1030;
RW40 RW54	1. 1.	Gomel USR. (959) Gomel, USR. (959)	2ZJ	.06	Gisborne, N. Z.	,		1330-1745; 1915-2400; Sun. 1230-1800; 2015-
XGOP	-3	Peiping, Chn.			229 Gladstone Rd.			0030
ZTP 2UE	.5 1.	Pretoria, S. Af. (952) Sydney, Ausl. Rex			Mon., Fri., Sat., 19- 22; Tues., Wed., 12-	4ZB	.025	Dunedin, N. Z. 180 Rattray St. Wed.,
		Sydney, Ausl. Rex Shaw, 296 Pitt St., Mon. to Fri. 730-15;		`	1330; 19-22; Thurs., 19-20			Thu. 18-23; Sun. 10-
		16-1: 5at. 730-1230:	4AY	.1	Ayr., Ausl. Norman	4ZM	.003	12 Dunedin, N. Z.
		1500-130; Sun. 930- 1330; 1815-0030.			L. Dahl, Airdmillon Rd. "The Voice of			McCracken & Wells,
• • • • • •	100.	Breslau, G. Schlesis-			the Cane Fields" Mon. to Sat. 16-1830;			17 George St. Mon., Wed., Thu., Fri. 9- 1145; 13-14; Tue. 9-
		che Funkstunde, GMBH, Breslau 18			1930-24; Sun. 2130-			1145; 13-14; Tue. 9- 1145; 13-14; 18-23;
		Daily 23-18 EST	6ÅM	1.	2330 Northam, Ausl.			Fri. 10-12; 13-14; Sat.
			07.11		Mon. to Sat. 10-12;	4ZO	025	9-12; 17-22; Sun. 14-22 Dunedin, N. Z.
960	(31	2.3)			1530-1730; 21-2; Sun. 1330-1730; 1830-2030;		.023	Mon. 12-13; 14-15; 20-
	•				2130-130			23; Tue., Wed., Thu., 12-13; 14-15; 17-18;
CC96	.1	Curico, Chile. Mer-		24.	Torun, Pol. (986) (Testing)			Fri. 12-13; 14-15; 17-
	.3 1.	Kyoto, J. Santos, Brz. Radio					50.	18; 19-23; Sat. 12-13 Daventry, G.B. (1013)
7 KD4		Club de Santos, Rua	990	(30	2.8)			Midland Regional. Weekdays 545-1815;
RW13	10.	de Pedro II 16. Odessa USR. (968)	JOEG	.3	Fukui, J.			Sun. 1130-1745 EST
RW67	2.	Oukhta, USR. (968) Odessa, USR. (968)	LR4	16.	Buenos Aires, Arg. Radio Splendid, Cal-			
RW69 XHHF	10. 1	Odessa, USR. (968) Shanghai, Chn.			Radio Splendid, Cal- lao 1526. Daily 11-24	1020)(29	3.9)
ŶV1RC		Caracas, Venz. (961)	PFBI	60.	Hilversum, Hol. (995)		•	-
		Brdcstg. Caracas, Apt de Correos 2009. Sun.			Heir Radio Hilver- sum, Ouden, Engweg,	EAJ15 EAJ19	3. .7	Barcelona, Sp. (1022) Oviedo, Sp. (1022)
`		9-23; Weekdays 16-	V001/	0	4. Daily 310-1810 EST	JBAK	.5	Fuzan, Korea
2ZF	.25	2230. Palmerston, N. Z.	XGOD	1.	Chuching, Chn. Hangchow, Chn.	OBJ	•••	Lima, Peru. Escuela Militor de Chorrillos.
		King St., Mon., Thu.,	2GZ	2.	Orange, Ausl.	XHHG 2KY	.1 1.	Shanghai, Ch. Sydney Ausl. The
		Sat., 20-22; Wed. 1815- 22; Fri., Sun., 19-2130	1000	/20	0 0/	ZK:		Block, George St. Mon., Tue., Thu.,
5DN	•3	Adelaide, Ausl. 29 Rundle St., Mon.	1000	(29	9.6)			Mon., Tue., Thu., Fri. 815-1330; 1430-17;
		to Fri. 915-115; Sat.	НЈЗАВІ	1 2,	Bogota, Col. (1005)			1745-0030; Wed. 815-
		915-15; 20-115; Sun. 845-0015.			"La Voz. de La Vic- tor", Aptdo 565. Sun.,			1330; 14-0030; Sat. 815-1240; 14-18; 1845-
					66			,,
					K K			

·4	2.	0030; Sun. 9-0030 Cracow, Pol. (1022)	RW57	4. .1	Tiraspol, USR. (1068) Shanghai, Chn.	1100	(27)	72.6)
3		-120011, 1011 (2022)	3YB	.025	Melbourne, Ausl.		` ` -	Description Coll
1030	1/20	1 1\			430 Little Collins St.	HJ3AB	D.05	Bogota, Col. Alford's Radio, Calle
1030	(4)	1.1)			Mon. to Sat. 20-24; Sun. 2030-2330			16. No. 5-40
CD103		Manallanaa Chila	4MB	.05	Maryborough, Ausl.	I1NA	1.5	Naples, I. (1104)
CDIO	.1	Magallanes, Chile. Ramon Verde San-	4,2	.00	Wynne's Stn. Mon.	XHHS	.1	Shanghai, Chn.
		chez, Mexicana 936			to Fri. 10-1130; 1330-	7LA	.3	Lanceston, Ausl. 67 Brisbane St. Mon.
CT1GL	5.	Parede, Por. (1031)			1530; 20-2330; Sat. 10-			to Fri. 9-1030; 1330-
		Radio Club Portu-		2.	1130; 1330-1530 Paris, F. (1068)			1530: 19-24: Sat. 9-
LR9	5.	guese.	•••••	2.	Radio-Cite			1530; 19-24; Sat. 9- 1030; 16-1830; 19-24; Sun. 1915-2330
LRS	5.	Buenos Aires, Arg. Radio Fenix, Santa			Radio-Orto			Sun. 1915-2330
		Fe 1174	1070	1/99	20 2)		50.	Madona, Lat. (1104)
PRC8	1.	Rio de Janeiro, Brz.	107	/(20	0.2			Weekdays 00-1630; Sun. 200-1700 EST
		Radio Soc. Guana-	LR1	50.	Buenos Aires, Arg.			3411. 200-1700 E31
		bara, Rua 1st deMayo 123			Radio El Mundo,	1110	/97	70.1\
XGOL	25	Foochow, Chn.			Maipu 555	1110)(21	70.1)
YV11R		. Maracaibo, Venz.	PYG2	10.	Sao Paulo, Brz. Ra-		ì	1/1 - 1-1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
		(1034)	VCAV	•	dio Tupy Sao Paulo Honan-fu, Chn.	CB111	1.	Vina del Mar, Chile. Los Castanos, Av.
3DB	.6	Melbourne, Ausl.	XGOX XKRI	.1	Canton, Chn. (1071)			Castanos 393
		36 Flinders St. Mon.		30.	Bordeaux, F. (1077)	CD111	.1	Magallanes, Chile.
		to Fri. 8-1; Sat. 8-130; Sun. 1130-1330; 1530-			Bordeaux - Lafayette			Radio Austral, Inde-
		24			Hotel des PTT, 220		_	pendencia s/n 20-23
	100.	Konigsberg, G. (1031)			Chemin do Tondu	LS5	5.	Buenos Aires, Arg.
		Daily 00-18 EST			Daily 300-1730 EST			Radio Rivadavia, Callao 1526
			1000	\		окк	11.2	Moravska, Cz. (1113)
1040	1/28	(8.3)	1080)(Z1	77.6)			Daily 0030-1730 EST
1010	(20	0.0/				2UW	1.	Sydney, Ausl., J. M.
CP4	10	La Paz, Bol.	JOBK2		Osaka, J. (1085) Obihiro, Japan (CP)			Prentice, Box 241D, GPO. "At the Cross
0.4	-0.	Carlos Lopez Vedela,	LT3	.5 4.5	Rosario, Arg. Radio			Roads of Sydney."
		Casilla 637		4.0	Soc. Rural de Cereal-			24 hours daily.
CW25	.5	Durazno, Uru.			istas, Pte. Roca 770		10.	Normandie, F. (1113)
		Artola Evangelisti y Cia. 10-13; 18-23	OAX4F	.05	Lima, Peru			Fecamp
JOJG	.5	Yamagata, Japan			F. W. Castelano & Hno. Opens and		001	Daily 2-21 EST Suchow, Chn.
.RW70	10.	Leningrad, USR.			closes "Anchors A-		.001	suchow, Chin.
хннн		Shanghai, Chn.			weigh" Daily except	1120	/0/	77
5 P 1	2.	Port Pirie, Ausl.			Sun., 15-17 EST	1120)(Zt	57.7)
		Relays 5AD. Mon. to Fri. 8-16; 19-1; Sat.	scc	2.	Falun, Swe. (1086)	CD112		Osorno, Chile. David
		8-16; 17-1; Sun. 1930-	XHHJ ZP7	.2 .7	Shanghai, Chn. Asuncion, Par. (1083)	CDIIZ		Arriagada, Baque-
		24	2AD	••	Armidale, Ausl.			dano 715
• • • • • •	40.	Rennes-Bretagne, F.	3SH	.05	Swan Hill, Ausl.	CW29	.05	Mercedes, Uru.
		Daily 3-1730 EST			Mon. to Sat. 14-15;			Bautista Abbo. 1130-
		\			2030-24; Sun. 1345- 1545; 1745-1930; 2045-	HAE	6.2	13; 1830-2230 Nyiregyhaza, Hung.
1050)(28	(5.5)			2330	HAE	0.2	(1122)
	•			.7	Zagreb, Yu. (1086)	LV5	.5	San Juan, Arg.
CX26	2.	Montevideo, Uru.						Radio Los Andes, G.
		Radio Uruguay, Millan 2370. 9-1430;	1090	1/27	75 1)	04744		'Acha 362 Lima, Peru. Radio
		16-23	1030	(41	U.1/	OAX41	• •	Internacional
11BA	20.	Bari, I. (1059) EIAR	CC109	.1	Rancagua, Chile.	PRH3	10.	Sao Paulo, Brz.
		Stazione di Bari			Jorge Romero, Inde-			Radio Piratininga
		Weekdays 130-1730;			pendencia 483	XLHM		Shanghai, Chn.
PRF6	.05	Sun. 335-1730 EST Bahia, Brazil. Radio	CX28	3.	Montevideo, Uru.	XLHN		Shanghai, Chn.
FRE	.03	Club da Bahia	EAJ7	10.	Madrid, Sp. (1095) Union Radio Station	4BC	1.	Brisbane, Ausl., R. F. Roberts, 43 Adelaide
RW33	1.	Krasnodar, USR.			EAJ7. Aptdo 745.			St., Mon. to Fri. 8-
	.1	Tien-tsin, Chn.			EAJ7, Aptdo 745. Daily 3-19 EST			0030; Sat. 8-11; 1330-
2CA	.5	Canberra, Ausl. Mon.	PRC2	3.	Porto Alegre, Brz.	,		0030; Sun. 830-1330;
		to Fri. 14-15; 19-2330; Sat. 1930-2330; Sun.			Radio Soc. Gaucha,			1630-24
		2130-2330	PRC7	.25	Galerie Chaves Bello Horizonte, Brz.		.5 1.	Alexandria, Eg. (1122) Newcastle, G.B. (1122)
	50.	Falkirk, G. B. Scot-	FRU	.25	Soc. Radio Minheira	•••••	٠.	itthoustio, Gib. (1122)
		tish National. Week-	RW75	10.	Vinnitza, USR. (1095)	1120	/9/	E 2\
		days 545-1815; Sun.	XGOB	.25	Loyang, Chn.	1130)(Zt	55.3)
		1130-1745 EST	XLIO		Shaohing, China		•	
40		• • • •	1ZB	.1	Auckland, N. Z.	CX30	.5	Montevideo, Uru. Radio Nacional, Por-
1060	(28	2.8)			153 Krangahape Rd. Tue. to Fri. 9-930;			venir 2384. 9-24.
	•	<i>,</i>			1015-1100; 1830-2130;	PRD8	1.	Nitheroy, Brz. (1132)
CB106	1.	Santiago, Chl.			Sat. 9-930; 1015-11;			Radio Club Flumi-
		Sud America, Goi-			1515-1645; Sun. 9-12;	SBH	10	nense Horby, Swe. (1131)
		colea 0122-11-13; 17-18			1830-2130	SPH	10.	, 546. (1131)

	Weekdays 145-1700;	XHHU		Shanghai, Chn.			77 York St., Mon. to
	Sun. 3-17 EST	2KA	.1	Katoomba, Ausl.			Fri. 830-15; 1630-0030;
XGOC .25 ZP1 1.	Nan-chang, Chn.	4MK	.1	80 Market St.	ŀ	ı	Sat. 830-14; 1445-0030; Sun. 12-14; 16-2330
ZP1 1. 6ML .5	Asuncion, Par. (1135) Perth, Ausl.	4141.67	••	Mackay, Ausl. 64 Nelson St., Mon. to	.	25.	Frankfurt, G. (1195)
0.01L .3	Lyric House, Murray			Fri. 11-1230; 15-19; 20-			Eschersheimer Lands-
	St. Mon to Fri. 1030-			0030; Sat. 11-19; 20-			trabe No. 33
	1230; 1430-16; 21-2; Sat. 1030-1230; 1430-			0030; Sun. 1130-14;	1		Daily 00-20 EST
	Sat. 1030-1230; 1430-			1630-1830; 20-23		5.	Freiburg, Ga. (1195) Kaiserslautern (1195)
	16; 2130-2; Sun. 2230-		15.	Mte. Ceneri, Sw.		.5	Kaiserslautern (1195)
	130			(1167) Report to PTT Berne,		2. .5	Trier, G. (1195) Cassel, G. (1195)
4440 /				Speighergrasse No. 6		2.	Coblenz, G. (1195)
1140 (263)			Weekdays 6-17; Sun.			
	/			430-1630 EST	1200	1/2/	0 0/
CB114 1.	Santiago, Chile. Chi-			,	1200	(27	
	lena Consolidada, E.	1170)/2 !	(6.3)	CB120	1.	Valparaiso, Chile.
*****	Lianos 35	11/	,,,	.0.0/			Chilena Consolidada,
11TO 7.	Turin, I. Weekdays 130-1730;	CC117		Concepcion, Chile.	l		Edwards 383
	Sun. 310-1730 EST	COII		Zenith, Rolando	HJ3AB	E 1.	Bogota, Clb., Uribe y Moreno, P. O. Box
XHHL .1	Shanghai, Chn.	1		Beckdorf, Av. Argen-	l		y Moreno, P. O. Box 317.
2HD .5	Newcastle, Ausl.			tina 977	LT9	.5	Santa Fe, Argentina.
	Box 123, Mon. to Fri.	CX32	.5	Montevideo, Uru.		••	Radio Roca Soler
	730-1530; 1630-1730;			Radio Marconi, Gen.	OAX4B		Lima, Peru
	19-24; Sat. 730-1530; 1630-1730; 19-130;	JOCK2	10	Hornos 537. 10-2 Nagoya, J. (1175)	PRD3	.25	Taubate, Brz. (1207)
	Sun. 1030-1330; 1630-		1.	Sao Paulo, Radio			Soc. Radio Banderi-
	1730; 1830-130			Cruceiro do Sul, Lar-	XHHN		ante Shanghai, Chn.
4YO 1.5	Dunedin, N. Z.			go da Misericordia 4	YV3RC		Caracas, Vnz.
	Mon. to Sat. 17-18;	PRC9	.25	Campinas, Brz. (1175)		٠	Bajos Pasaje Ramella
20.	19-22; Sun. 18-22	Į.		Radio Educadora di	VÜL	.1	Lahore, India
20.	London National, G.B. (1149)	XLIE	.05	Campinas Wusih, Chn.	3YL	.5	Christchurch, N. Z.
20.	North National, G.B.	2NZ	2.	Narrabri, Ausl.	ł		Mon. to Sat. 17-18; 19-22; Sun. 18-22
	(1149)	2ZD	.005	Masterton, N. Z.	5KA	.3	Adelaide, Ausl.
	Weekdays 545-1815;			Masterton, N. Z. W. D. Ansell, 7 Rimu	****		Richards Bldg., Mon.
20-	Sun. 1130-1745 EST			St. Daily 20-22. Re-			to Fri. 830-1; Sat. 830-
20.	West National, G.B. (1149)	[lays 2YA Tue., Fri., Sat., Sun.			2; Sun. 12-14; 17-18;
	Same as North	4TO	.2	Townsville, Aus.	N- 0	-	1845-100
	National	١٠٠٠	•-		No. 2	5.	Praha, Cz. (1204) Bangkok, Siam
		ļ		Fri. 9-1; 1330-1530;		••	Bangkok, Siain
1150(2	50 7\			1930-2345; Wed., Sat.,	1210	/9/	7 0\
1100(2				9-10; 15-19; 1930-2345; Sun. 2030-2330	1210	(24	(1.8)
HC2ET .3	Guyaquil, Ec. (1153)	Í	10.	Cophgen., Den. (1176)	CD121		Occurs Chile Bedie
HJ1ABM .0	5 Cartagena, Clb. (1154)			Strats Radio Fonien	CDIZI	••	Osorno, Chile. Radio Austral, E. Ramirez,
LR8 7.	Buenos Aires, Arg.			Heibergsgrade No. 7			2930
	Radio Paris, Cangallo	}		, , , ,	CX34	.5	Montevideo, Uru.
	Radio Paris, Cangallo 860	1100	\/9E	,	CX34	.5	Radio Artigas, Millan
ОАХ4Н	Radio Paris, Cangallo 860 Lima, Peru. Radio	1180	(25	4.1)			Radio Artigas, Millan 2370. 10-16; 18-23
•ОАХ4Н	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373		•	4.1)	CX34	.5 .5	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina.
OAX4H XGOZ .1	Radio Parls, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn.	1180 cb118	•	4.1)	LV10	.5	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo
OAX4H XGOZ .1 YV7RMO .5	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (153)		•	4.1) Santiago, Chile. Radio Bayer, Portal Fer-	LV10 OA4AR OA4D	.5 .025	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru
OAX4H XGOZ .1	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus.	CB118	1.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960	LV10 OA4AR OA4D XHKC	.5 .025 .025 .1	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China
OAX4H XGOZ .1 YV7RMO .5	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St.	CB118	1.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185)	LV10 OA4AR OA4D XHKC XLPH	.5 .025 .025 .1 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn.
OAX4H XGOZ .1 YV7RMO .5	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030;	CB118	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn.	LV10 OA4AR OA4D XHKC XLPH XLTC	.5 .025 .025 .1 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn.
OAX4H XGOZ .1 YV7RMO .5	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24;	CB118 LKM RW20	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn.	LV10 OA4AR OA4D XHKC XLPH	.5 .025 .025 .1 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtae, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl.
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghal, Chn. Melbourne, Ausl., S. Moraan. & Elizabeth	LV10 OA4AR OA4D XHKC XLPH XLTC	.5 .025 .025 .1 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z.	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton	LV10 OA4AR OA4D XHKC XLPH XLTC	.5 .025 .025 .1 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1438; 1330- 2330; Tue. to Sat. 9-10;
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu.	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon.	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1438; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230;	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon.	LV10 OA4AR OA4D XHKC XLPH XLTC	.5 .025 .025 .1 .015 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorile, Ausl.
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 121015; 20-2230;	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1438; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorlie, Ausl. 86 Palace Chambers.
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230;	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18;	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .015	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorlie, Ausl. 86 Palace Chambers. Mon, to Fri. 1430-1630
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158)	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-10; 1330-1430; 1930-2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorlie, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158)	CB118 LKM RW20 XHHZ	1. .1 10.	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18;	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-10; 1330-1430; 1930-2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorlie, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130
OAX4H XGOZ .1 YV7RMO .5 2WG .2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158)	CB118 LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1330- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorlie, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing)
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; 20-2230; Sun. 19-22 Sun. 19-22 Sun. 19-22 Sun. 19-22 Sun. 19-22 Sun. 19-25 Sun. 19-26 Nosice, Poland (1158)	CB118 LKM RW20 XHHZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-10; 1330-1430; 1930-2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorile, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio Lille, F. (1213) Radio
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso,	LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .1 .015 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorile, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing) Daily 3-1730 EST
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(25 CB116 .1	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 1930-24; Sun. 195-2015; Thu. 915-1015; O-2230; Sun. 19-22 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso, Prat 773	CB118 LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghal, Chin. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24 2) Buenos Aires, Arg.	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .1 .015 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorile, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing) Daily 3-1730 EST
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(2	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso, Prat 773 Salto, Uru.	LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24 2 Buenos Aires, Arg. Radio Prieto, Bolivar	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .1 .015 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Tsingtao, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9- 10; 1330-1430; 1930- 2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330 Kalgoorile, Ausl. 86 Palace Chambers. Mon. to Fri. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing) Daily 3-1730 EST
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(25 CB116 .1	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-230 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; Thu. 915-1015; 20-2230; Sun. 1922 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso, Prat 773 Salto, Uru. Salvador E Pera. 9-	LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24 2) Buenos Aires, Arg. Radio Prieto, Bolivar 1356 Lima, Peru. Radio	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, Peru Tsingtae, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-10; 1330-1330; Tue. to Sat. 9-10; 1430-1530; 1930-2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330; Tue. to Fil. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing) Daily 3-1730 EST
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(25 CB116 .1 CW31 .25	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso, Prat 773 Salto, Uru.	LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. 16-18: 1330-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24 2) Buenos Aires, Arg. Radio Prieto, Bolivar 1356 Lima, Peru. Radio Zenith, Casa Davile	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF 6KQ	.5 .025 .025 .1 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Li
OAX4H XGOZ .1 YV7RMO .5 2WG .2 2ZM .015 2.6 1160(25 CB116 .1 CW31 .25	Radio Paris, Cangallo 860 Lima, Peru. Radio Davila, Aptdo. 373 Chinkiang, Chn. Maracaibo, Venz. (1153) Wagga, Aus. 16 Fitzmaurice St. Mon. to Sat. 930-1030; 1330-1530; 1930-24; Sun. 2130-2330 Gisborne, N. Z. Mon., Tue., Wed., Fri., Sat. 915-1015; 20-2230; Sun. 19-22 Kosice, Poland (1158) Valparaiso, Chile. Radio Valparaiso, Prat 773 Salto, Uru. Salvador E Pera. 9-1230; 16-23	LKM RW20 XHHZ 3KZ	1. .1 10. .15 .6	Santiago, Chile. Radio Bayer, Portal Fernandez Co. 960 Tromsoe, Nor. (1186) Kharkov, USR. (1185) Shanghai, Chn. Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brdc. stg. Service." 24 Victoria St. Mon. to Fri. 8-1530; 16-18 1830-100; Sat. 8-1215; 1345-230; Sun. 16-18; 1930-24 2) Buenos Aires, Arg. Radio Prieto, Bolivar 1356	LV10 OA4AR OA4D XHKC XLPH XLTC 2GF 6KG	.5 .025 .015 .015 .015 .05	Radio Artigas, Millan 2370. 10-16; 18-23 Mendoza, Argentina. Radio de Cuyo Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, Peru Lima, Peru Tsingtae, China Pinghu, Chn. Wusih, Chn. Grafton, Ausl. 47 York St., Mon. 9-10; 1330-1330; Tue. to Sat. 9-10; 1430-1530; 1930-2330; Tue. to Sat. 9-10; 1430-1530; 1930-2330; Tue. to Fil. 1430-1630 22-2; Sat. 1730-2030; 2230-2; Sun. 2315-0130 Lille, F. (1213) Radio PTT Nord (testing) Daily 3-1730 EST

PRG9 .5	Radio Transmissora Brasileira Sao Paulo, Brazil. Radio Excelsior.	HC2JB .03 MABS .035 OAX4L .1	Guyaquil, Ec. 5 Siangyuang, Chn. Lima, Peru. Radio Miraflores, Calle	XGOE 1. 4BK .5	Radio Club de Sao Paulo, Rua 7 de Abril Yungning, China Brisbane, Ausl. Mon.
XGOT .5 4AK 1.	Pei-ping, Chn. Oakey, Ausl. Daily 19-0030	PYG8 .25 XLIF .07	Manco Capac 347 Bauru, Brz.		to Fri. 830-0030; Sat. 830-0130; Sun. 13-1530 1830-24.
4ZL .1	Dunedin, N. Z. 243 Macandrew Rd. Mon., Thu., Sat. 8-9;	No. 3 1.	5 Wusih, Chn. Rome, I. (1258) Kuldiga, Lat. (1258)	5. 4.2	Dornbirn, Aust. (1294) Klagenfurt, Aust. (1294)
3	1930-23; Tue., Wed., Fri. 8-9; Sun. 830-1030 Narvik, Norway (1222)	1260(2	38)	20. 2.	Linz, Austria (1294) Vorariberg, Aus. (1294)
1230(2	43.8)	CB126 1.	Santiago, Chl. (1265) Consorcio Espanol, Gran Ave. 2564. 9-10;	1300(23	30.6)
HJ4ABK .3 LS8 15.	Radio Stentor, Flo-	LT11 .5	16-17; 21-22. Parana, Arg. Radio Provincia de Entre Rios.	CB130 1.	Santiago, Chile. Ma- vis, Av. J.D. Canas 565 La Paz, Bol.
XLIR .05 2NC 2.	rida 8 Hangchow, China Newcastle, Ausl. Relays 2FC and 2BL.	XHHP .1 1ZM .05	Shanghai, Chn.	LT10 .1	Santa Fe, Arg. Radio del Inst. Soc. de la Univ. Nac. del Litoral
	Mon. to Fri. 830-1530; 1630-1745; 19-100; Sat. 830-1030; 1130-		22; Sat. 13-16; 17-24; Sun. 10-18; 19-22	LU6 .5 OAX4C	Mar del Plata, Arg. Radio Atlantica. Lima, Peru, Estaction
5.	1830; 19-100; Sun. 1130-1815; 1930-24 Gleiwitz, G. (1231)	3WR .05	High St. Mon. to Fri. 12-1430; 1930-0030;	PRC4 .05	Radiodifusora DUSA, Calle de Plumeros. Ampara, Brz. (1304)
1240(2		2.	Sat. 12-1430; 2030-2330 Sun. 2130-2230 Nurnberg, Ga. (1267)	XQHC .5 YV5RMO .1 2TM .05	Shanghai, Chn. 5 Maracaibo, Vnz. Tamworth, Ausl.
CB124 .25	Valparaiso, Chile. A. Garcia y Cia., Av. Brasil 212	1270(2	36.1)		Peel St. Mon. to Sat. 830-1030; 1330-1530; 17-18; 19-2330; Sun.
CW35 .25		LKK .5	Khristiansand, Nor. (1276) Stavanger, Nor. (1276)	•5	1330-1530; 1630-1830; 2030-2330. Danzig, Dan. (1303)
LU7 2.	Bahia Blanca, Argen- tina. Radio Ge. San Martin. Calle Saro-	LS9 6.	Buenos Aires, Arg. Radio La Voz del Aire, Pozos 439.	1310(22	,
LV-14 .5	mento 60 La Rioja, Arg. Radio Provincia de La	OA40 .1 PRE8 7.	Lima, Peru (1277) Rio de Janeiro, Brz. Soc. Radio Nacional Rua Buenos Aires 120.	LS7 10. PRE9 .5 SBC 2.5	Buenos Aires, Arg. Fortaleza, Brz. (1315) Ceara Radio Club
XHHY .1 2ZL .05	John Holden, 609	ZP4 .15	Tunis, Tun. (1275) 5 Wu-hu, Chn. Asuncion, Par. (1275)	SCK .25 SCO .25	Malmo, Swe. (1312) Karlstad, Swe. (1312) Norrkoping, Swe. (1312)
3TR .5	Park Rd. Thurs., 1830-23; Sun. 930-1200 Sale, Ausl. A Gil-	2SM 1.	Sydney, Ausl., 46 Car- rington St. "Double D Eucalyptus" Aus-	SCQ .25 5AD .3	Trollhattan, Swe. (1312) Adelaide, Ausl. Wey-
	christ, Raymond St., "Gippsland's Radio Station."		tralia House. Mon. to Sat. 830-1030; 1430- 24; Sun. 1230-24	1320(22	mouth St. Daily 9-100
6CK 1.	Mon. to Fri. 12-15; 19-24; Sat. 12-1430; 1930-24; Sun. 20-24	1280(2	34.2)	CB132 1.	Valparaiso, Chile. David Wallace, Es-
6IX .5	Cork, I. F. S. Perth, Ausl. St. George's Terrace. Mon. to Fri. 1230-1430	PRG3 10. XHHQ .08	Rio de Janeiro, Brz. Shanghai, Chn.	CD132 .1	meralda 1111 Valdivia, Chile. Car- los Kahler, Isla Teja
	2130-230; Sat. 1230- 1545; 2130-230; Sun. 17-1830; 2130-200	XHJA .1 3AW .6	Hankow, China Melbourne, Ausl. 218 Exhibition St. Mon. to Sat. 8-1130;	CW39 .1	Paysandu, Uru. Miguel Penna. 1030- 1230; 1730-2245
2.	Juan-les-Pins, F. (1249). Radio Cote d' Azur.	4ZC .007	1230-1; Sun. 1145-14; 18-24. 7 Cromwell, N. Z.	HJ3ABK .05	Magyarovar, Hun. (1321) Bogota, Col.
2 4 2	Orebro, Swe. Saffle, Swe.	120 .007	John I. Bilton, Low- burn Ferry. Daily	XLIA .015 3BA .05	Ningpo, Chn. Ballarat, Ausl. Armstrong and Dana
1250(2	Varberg, Swe.	1. 25	19-21. Aberdeen, G. B. (1285) Dresden, G. (1285) Tientsin, Chn.		Sts. Mon. to Fri. 9- 1145; 1330-1530; 2030- 24; Sat. 9-1145; 2030-
CX36 .25	Centenario Brdcstg.	1290(2	•		0030; Sun. 1430-1630; 20-2330
EAJ8 1.	Ignacio Nunez 2133. 9-14; 17-24 Sn. Sebastian, Sp.	CX38 .5	Montevideo, Uru.	1330(22	-
	(1258)	PRA5 5.	Sao Paulo, Brz. (1295)	CX40 .5	Montevideo. Uru.

НЈ1АВ	A .1	Radio Fenix, Chayos 4534; 8-24 Baranquilla, Clb., E.			845-1045; 1430-1530; 19-24; Sat. 9-1045; 1930-0030; Sun. 2030-			Fri. 1345-1515; 1930- 24; Sat. 1330-1430; 1930-24; Sun. 2030- 2330
		J. Pellet B., P. O. Box 751	No. 2	<u>.2</u> `	2335. Turin, I. (1357)	7BU		Burnie, Ausl.
PRE2	.5	R' de Janeiro, Brz. Soc. Radio Cajuti, Rua Conde de Bom-	1360)(22	20.4)		5.	Radio-Lyons, F. (1393)
FRG7	.25	fim 457 Jahu,Brz. Radio Club	CC136	-	Rancagua, Chile.	1400	(21	4.2)
XGSA		Jahuense Kiangyin, Chn. (1335)			Guillermo Espinosa, Milan 767	CB140	.1	San Antonio, Chile
XLIK	.075	Changchow, Chn.	CD136	.1	Magallanes, Chile. Santiago Aguilera,			Vina Santa Rita, Pob Coop. Victoria, Cas
2BH	.1	Broken Hill. Ausl., 10 O'Connell St., Mon.	Oissa		Valdivia 250	CW37	025	212 Colonia, Uruguay.
	_	to Sat. 9-11; 20-0030; Sun. 1230-15; 20-24	CW41	.05	San Jose, Uru. Radio San Jose 10-14; 18-23.			N. Gonzales Moren
1RO	.05	Rockhampton, Ausl.	OA4K	.15	Lima, Peru	FFZ OA6D	.25 .15	Shanghai, Chn. Arequipa, Peru
		Mon., Tue., Thu.,	PRC5	.1	Belem, Brz. (1364) Radio Club do Para	PRD5	1.	R' de Janeiro, Brz.
		Mon., Tue., Thu., Fri., Sat. 1930-2330; Wed. 1930-2345; Sun.	PRD4	.25	Araraquara, Brs.			Dpto. de Educacio d
		2030-2330			(1364) Radio Cultura			Pref. Largo d
	5.	Montpellier, F. (1339)			Araraquara,	XLHO	.1	Carloca 5 Shanghai, Chn.
• • • • •	2.	Bremen, G.	PRF9	.5	Ave. Feijo 25 Rio Grande do Sul,	2 ZO	.1	Palmerston, N. Z.
	2. 2.	Hanover, G. Madgeburg, G.			Brz. Empresa Radio-			J. V. Kyle, 50 Walde grave St. Tue. 1830
	2.	Stettin, G.			difusora Porto Ale-			grave St. Tue. 1830
	2.	Flensburg, G.	XQHD	•	grense			22; Thu. 1830-21; Sur 10-1230
	1.7	Lodz, Pol. (1339)	2MO	.05	Shanghai, Chn. Gunnedah, Ausl. P.		.5	Ornskoldsvik, Swe.
		· - \ · · · · · · · · · ·			O. Box 78. Mon. to	,		(1402)
1340)(22	(3.7)			Sat. 830-1030; 1330-		1.	Umea, Swe. (1402)
CB134	•	Santiago, Chile. Ra-			1530; 1930-2330; Sun. 930-1130; 1530-1730;	1410	(21	2.6)
00104		dio Aliviol, Gumer-	4PM	.1	1930-2330 Port Moresby, Ausl.	CC141	•	Concepcion, Chl.
CW19	05	sindo 135	No. 2	.1	Turin, I. (1366)	CC141	-1	Radio Phillips, Cau
C 1113	.03	Rocha, Uruguay. Juan J. Arispuru y	1050	/01	0.0			polican 370.
		Abel Machado	1370	J(ZI	18.8)	CX44	.2	Montevideo, Uru.
LKR LT7	.15	Rjukan, Nor. (1348)	CV42		Promotovidos Ilms			SADREP, Solis Grande 912. 8-2
_ ,	.5	Corrientes, Arg. Radio Provinciade	CX42	1.	Montevideo, Uru. Colonial Brdcstg.	PRB5	.05	Franca, Brz. (1415)
		Corrientas			Ave. Italia 3646. 11-24			Radio Club Hertz
OFE	.7	Tampere, Finland.	XHHA		Hangchow, Chn.	PRE5	.25	Uberaba, Brz. Radio Soc. Triangul
XGED	.015	(1348) Suchow, Chn.	XLID 3HS	.05 .05	Hangchow, China Horsham, Ausl.			Minero
XHHR	.05	Shanghai, Chn.	31.13		84 Wilson St. Mon.,	XHIA	-06	Chuchow, China
2RN	1.	Dublin, I.F.S. (1348)			84 Wilson St. Mon., Thu. 1330-15; 20-24;	2KO	.5	Newcastle, Ausl. 57 Hunter St. Mon
2XN	.05	Lismore, Aus. P.O. Box 138B. Mon. to			Tue., Wed., Fri. 1330- 15; 1930-24; Sat. 1330-			to Fri. 830-1730; 1830
		Fri. 830-930; 1530-			15; 20-0030; Sun.			24; Sat. 1130-0030;
		1630; 1930-2330; Sat.			1330-15; 2030-2330			Sun. 1030-1130; 1930
		830-930; 1930-2330		.5	Basle, Swi. (1375)		.05	2330 Uddevalla, Swe.
IZR	.004	Balclutha, N. Z.		.5	Berne, Swi. (1375)	Portug	iese	Common Wave (1411
		Clyde St. Tue. 1930-	1290	ገ/91	17.3)			
		Renton & Clark, Clyde St. Tue. 1930- 20; Thu. 19-20; Sun.	1300)(4)	14.3/	1420)(2]	1.1)
No. 2	4.	10-12; 1930-2130 Milan, I. (1348)	CB138	5.	Santiago, Chile. El		-	
	2.	Ille de F., F. (1348)			Murcurio, Cia. Esq.		.8	Paris, F. (1424) Radio LL
	5.	Salzburg, Aust. (1348)	*****		Morande	175	.05	Auckland, N. Z.
	2.	Konigsberg, G. (1348)		.05	Shanghai, Chn. ' Shanghai, Chn.	3XY	.6	Melbourne, Ausl.
	1. .5	Bordeaux, F. (1348) Cairo, Eg. (1348)	4BH	.6	Brisbane, Ausl. Par-			Princess Theatre.
	.5	Cairo, Eg. (1346)			bury House, Eagle St.			Mon. to Sat. 8-1530 1615-01; Sun. 1130-14
1250	/99	2 4			Mon. to Fri. 830-1030;			16-24
1350	(22	4.4)			1230-1430; 19-0030; Sat. 830-1030; 19-0030;		1.5	Beziers, F. (1429)
					Sun. 1330-1630; 20-24		.5	Alexandria, Eg. (1429
LKN LS6		Netodden, Nor. (1357)	No. 2	2.	Warsaw, Pol. (1384)		.6 10	Turku, Fin. (1429) Vaasa, Finland. O. Y
_30	6.	Buenos Aires, Arg. Radio del Pueblo,	400	n /a-			10.	Suomen Yleisradi
		Estados Unidos 1816	1390	U (2]	15.7)			A. B.
DAGE	.03	Arequipa, Peru	ľ	•	,			,
KQKA	.15	Tientsin, China.	CB139	.105	Valparaiso, Chile.	1430	1/20	9.7)
3GL	.05	Geelong, Ausl. Na- tional Mutual Bldg.,	LR11	1.	Zenith, Atahualpa 816. La Plata, Arg. Radio	<u>ŕ</u> 236	/(20	/
		Mon. 830-1045; 1430-	FKII	٠.	Univ. Nac. de La Plata	CC143	.1	Talca, Chile. Radi
		1530; 19-24; Tue.,	XLIN	.05	Wusih, Chn.			Talca, Chile. Radi Atlantida, Enriqu
								Camela Mallan Cam
		Wed., Thu. 9-1045; 1430-1530; 19-24; Fri.	2GN	.1	Goulburn, Ausl. Auburn St. Mon. to	l .		Garcia, Molino San doval

FOREIGN B. C. STATIONS BY FREQUENCIES

CW25	.5	Durazno, Uruguay, Artola, Evangelisti y	1460	(20	05.4)	1490)(2 (01.2)
		Cia.	CB146	•	San Felipe, Chile. II-	ON4CE	1	Chatelineau, Blg.
HAE3		Miskolc. Hung. (1438)	CB146	-1	ustre Municipalidad,	UN4CE		(1492)
PRD7	.25	Sorocaba, Brz.			Baquedano 715	XLKS	.02	Kashing, Chn.
RW10	100	Radio Club Sorocaba Minsk, USR. (1438)	CW33	.075	Florida, Uruguay.	No. 1	.1	Wallonia, Belg. (1492)
2WL		Wollongong, Ausl.			Omar F. Barreiro.	2TM	.05	
	.00	Russell Yeldon, Woo-	HAE4		Pecs, Hun. (1465)			Binche, Blg. (1492)
		longong Brdcstg. Co.	ON4EB		Antwerp, Belg. (1465)		.2	Nimes, F. (1492)
		"Ferranti Products."	XQHE	.25	Shanghai, Chn.	<u> </u>	.1	Courtrai, Belg.
		Mon. to Fri. 12-1330;	ZP5 7UV	.15 .3	Asuncion, Par. (1465) Ulverstone, Ausl.			mmon Wave (1492) Index by Calls
		20-2330; Sat. 20-2330;	100	.3	Mon. to Fri. 9-1030;	See EA) in 1	index by Calls
1CV	0.5	Sun. 2030-2230			19-24; Sat. 9-1030;	1 50	. /4	20.0
4GY	.05	Gympie, Ausl.			1330-0030; Sun. 1330-	1500)(19	99.9)
					1530; 19-2330.	l	•	
1440	(20	8.2)		1.5	Dresden, G. (1465)	CB150	1.	Santiago, Chile.
	\			.1	Courtrai, Belg. (1465)			Markoff Hnos.
CB144	1	Santiago, Chile. Se-			Bega, Ausl.	CX48	1.5	
O D T 44	••	guros Generales, Mo-						Vazquez y Cia., 18 de
		neda 1367	1470)(20	14)	LICAD	_	Julio 1333 Cali, Colombia
CB144A	.1	Santiago, Chile. Na-	'	'-	-,	HIJOAB		Jose Calderon N, Cia
	_	cimento, J. Infanta	CW43	.1	Lavellaja, Uruguay.			Radiodifusora Co-
		2290			B. C Blanes y I. R.			lombiana, S. A. Aptd
CB144B	.5	Santiago, Chile. Los			Volante.			50
		Cuatro Ases, Roman	XGDZ		Changchow, Chn.	PRG6	.25	Cruzeiro, Brz.
001110	4.	Diaz 2000	2BE	.1	Bega, Ausl.			Soc. Radio Manti-
CB144C	.15	Santiago, Chile. Luis Desmaras Los Leones.	3ZM	.06	Christchurch, N. Z. Green & Younger, 253	l	_	queira
		Calella 2860			Brougham St. Mon.	VUP	2.	Peshawar, India
LS11	.7	La Plata, Arg. Radio			to Thu. 730-10; 17-	XHHT		Shanghai, Chn.
		Proa. de Bs. Aires.			18; 19-22; Fri. 730-10;	XOCL		75 Tsinan, Chn. Shanghai, China.
OA6U	.05	Arequipa, Peru (1443)			Sat. 730-10; 20-24;	3AK	.23	Melbourne, Ausl.
PRG4		Jabotical, Brz. Radio			Sun. 11-14; 17-18; 19-	JAN		116 Queen St. Mon
		Club Jabotical (1442)			22			630-830; Tue. to Fri
XLHQ		Shanghai, Chn.	4CA	.1	Cairns, Ausl.			0100-0330; 630-830;
2QN		Deniliquin, Ausl.		.3	Plymouth, G. B.			Sat. 0100-0330; 630
4IP Snamick		Ipswich, Ausl. nmon Wave (1447).			(1474)			830; 1430-1530; Sun
s panisi	. Con	HIHOR WAVE (1441).		1.	Bournemouth, G. B. (1474)			0100-430; 14-16; 2330
					(1414)			0130
1450	1 <i>(2</i> (6.8)	1/00	/20	26		25	Hobart, Ausl. Pietasaari, Fin.
100	(=0		1400	7(40	2.6)		.2	Radio Alcala, Sp.
CX46	1 5	Monteviedo, Uru.	CW47	.1	Canelones, Uru.	Belgiu		s several 100 watt sta
UA40	1.3	Radio America, Cam-	C W47	.1	Rafael J. Espiga, 11-	tions o		
		ino Corrales 2808.			14: 16-23			
		10-24	PRH4	1.	Petropolis, Brz.	1510	1/10	98.6)
XLIB		Suchow, Chn.	XQHF	.2	Shanghai, Chn.	1010	/(10	
		Peiping, Chn.	2AY	.1	Albury, Ausl. John	YDA	.5	Tandjongpriok, Java
5MU	.1	Murray Bridge, Ausl.			Dower, 47 York St.,			Jung price
		Regional unit of 5AD.			(Sydney). Mon. to	152	7/10	96.0)
		Daily 9-24			Fri. 1345-1515; 19-24;	TOO	7(T	JU.U/
• • • • • •	5.	Paris, F. (1456) Eiffel Tower.	4BU	.1	Sat. 14-1515; 19-0030 Bundaberg, Ausl.	SCJ	.2	Kariskrona, Swe.

	SOUTH	4	LR7	750	15000	LV3	620	2000	Resist	ancia	
Δ	MERIC	.Δ	LR8	1150	7000	Corrie			LT5	1160	500
^		<i>,</i> ,,	LR9	1030	5000	LT7	1340	500	Rosar	io.	
-			LR10	790	10250	La Pla					
А	RGENTIN	NA A	LS1	710	5000	LR11	1390	1000	LT1	780	4000
			LS2	1190	30000	LS11	1440	700	LT3	1080	4500
Bahi	a Blanca		LS3	630	5000	La Ri	oia		LT8	849	500
LU2	900	2000	LS4	670	7000	LV14	1240	50 0	San J	luan	
LU7	1240	2000	LS5	1110	5000					730	1500
	os Aires		LS6	1350	6000		el Plata		LV1		
						LU6	1300	500	LV5	1120	500
LR1	1070	50000	LS7	1310	10000					_	
LR2	910	12000	LS8	1230	15000	Mend			Santa		
LR3	950	31000	LS9	1270	6000	LV6	690	500	LT9	1200	500
						LV10	1210	500	LT10	1300	500
LR4	990	16000	LS10	590	6000	LYIU	1210	300	LIIU	1300	500
LR5	830	29000	Corde	ba		Paran	a		Tucu	man	
LR6	870	26000	LV2	880	7000	LTII	1260	500	LV7	820	1000
								•			

			,
BOLIVIA	PRF3 900 5000	Bogota	CX34 1210 500
BOLIVIA	PRG9 1220 500	HJN 681 500	CX36 1250 250
La Paz	PRH3 1120 10000	HJ3ABD 1100 50	CX38 1290 500
CPX 1300 5000	PYG2 1070 10000	HJ3ABE 1200 1000	I CX40 1330 500
CP4 1040 10000	Sorocaba	HJ3ABH 1005 2000	CX42 1370 1000
	PRD7 1430 250	HJ3ABK 1320 50	CX44 1410 200
BRAZIL	PRD9 769 250	Cartagena	CX46 1450 1500
	Uberaba	HJ1ABM 1154 50	CX48 1500 1500
Amparo	PRE5 1410 250	Medellin	Paysandu
PRC4 1300 50	PRE6 740 1500	HJ4ABK 1230 300	CW35 1240 250
Araraquara		FOULDOR	CW39 1320 100
PRD4 1364 250	CHILE	ECUADOR	Rocha
Bahia PRA4 840 50		Companii	CW19 1340 50
	Concepcion CC64 640 100	Guyaquil HC2ET 1153 300	Salto
PRF6 1050 50 PRF8 950 500	CC64 640 100 CC117 1170 100	HC2JB 1250 30	CW23 820 250
	CC141 1410 100	HC23B 1230 30	CW27 680 150
Bauru PYG8 1250 250	Curico	PARAGUAY	CW31 1160 250
Belem	CC96 960 100	- AltAdoA1	San Jose
PRC5 1360 100	Magalianes	Asuncion	CW41 1360 50
Bello Horizonte	CD103 1030 100	ZP1 1135 1000	
PRC7 1090 250	CD111 1110 100	ZP3 1000 300	VENEZUELA
Campinas	CD136 1360 100	ZP4 1275 150	
PRC9 1175 250	Osorno	ZP5 1465 150	Caracas
Cruzeiro	CD112 1120 100	ZP7 1083 700	YV1RC 960 5000
PRG6 1500 250	CD121 1210 100	ZP9 898 1500	YV3RC 1200 3000
Curityba	Rancagua	Villarrica	YV4RC 750 100
PRB2 882 250	CC109 1090 100	ZP15 700	Maracaibo YV5RMO 1300 150
Fortaleza	CC136 1360 100		YV5RMO 1300 150 YV7RMO 1153 500
PRE9 1315 500	San Antonio	PERU	TITLE ATTACK AND A
Jabotical	CB140 1400 100		YVIIRMO 1034
PRG4 1442 250	San Felipe	Arequipa	YV6RV 670 350
Jahu	CB146 1460 100	OA6D 1400 150	1 1 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PRG7 1330 250	Santiago	OA6E 1350 30	EUROPE
Juiz de Fora	CB57 570 5000	OA6U 1443 50	LONGIL
PRB3 857 250	CB62 620 1000 CB73 730. 1000	Lima OAX4A 750 1500	
Mogy das Cruces PRB8 1000 50	CB73 730. 1000 CB78 780 1000	OAX4A 750 1500 OAX4B 1200 250	AUSTRIA
PRB8 1000 50 Nitheroy	CB82 820 1000	OAX4C 1300	
PRD8 1132 1000	CB89 890 1000	OAX4E 980 50 OAX4F 1080 50 OAX4H 1150 OAX4H 1190	Dornbirn
Pelotas	CB93 930 3000	OAX4F 1080 50	1294 500
PRC3 920 250	CB97 970 1000	OAX4H 1150	Graz
Pernambuco	CB101 1010 1000	OAX4H 1190	886 7000
PRA8 750 3000	CB106 1060 1000	1 UAA41 1120	Innsbruck 519 1000
Petropolis	CB114 1140 1000	OAX4L 1250 100	Klangenfurt
PRH4 1480 1000	CB118 1180 1000	OA4AR 1210 25	1294 4200
Porto Alegre	CB126 1260 1000	OA4K 1360 150	Linz
PRC2 1090 3000	CB130 130 1000	OA4O 1277 100	1294 15000
PRH2 600 25000	CB134 1340 500	OA4D 1210 25	Salzburg
Rio Claro	CB138 1380 5000	URUGUAY	1348 500
PRF2 725 250	CB144 1440 100 CB144A 1440 100	URUGUAT	Vienna
Rio de Janeiro PRA2 750 1500		Canelones '	592 120000
	CB144B 1440 500 CN144C 1440 150	CW47 1480 100	Vorariberg
PRA3 860 2500 PRA9 1000 1000	CB150 1500 1000	Colonia	1294 2000
PRB7 800 500	Talca	CW37 1400 25	
PRC6 980 1000	CC143 1430 100	Durazno	BELGIUM
PRC8 1030 1000	Talcahuano	CW25 1430 500	
PRD2 932 1000	CB84 840 100	Florida	Antwerp
PRD5 1400 1000	Temuco	CW33 1460 75	ON4EB 1465 100
PRE2 1330 500	CC58 580 500	Lavelleja	Binche 1492 100
PRE3 1220 10000	Valdīvia	CW43 1470 100	
PRE4 940 250	CD132 1320 100	Mercedes CW29 1120 50	Brussels No. 1 620 15000
PRE8 1270 7000	Valparaiso		No. 1 620 15000 No. 2 932 15000
PRF4 923 10000	CB76 760 10000	Montevideo CX4 610 1000	Chatelineau
PRG3 1280 10000	CB90 900 1000	CX4 610 1000 CX6 650 10000	ON4CE 1492 100
PRH8 820 5000	CB116 1160 100	CX8 690 500	Courtrai
Rio Grande do Sul	CB120 1200 1000	CX10 730 1000	1465 100
PRF9 1360 500	CB124 1240 250	CX12 770 1000	Liege
Santos	CB132 1320 1000	CX14 810 500	ON4RW 1500 100
PRB4 960 1000	CB139 1390 105	CX16 850 10000	Radio Comte
PRG5 720 750	Vina del Mar	CX18 890 1000	1500 100
Sao Paulo	CB64 640 1000	CX20 930 2000	Seraing
PRA5 1295 500	CB111 1110 1000	CX22 970 250	1500 100
PRA6 815 10000		CX24 1010 2500	Verviers
PRA7 706 50	COLOMBIA	CX26 1050 2000	No. 1 1500 100
PRB6 1170 1000		CX28 1090 3000	No. 2 1500 100
PRB9 1017 5000	Barranquilla	CX30 1130 500	Wallonia
PRE7 788 5000	HJ1ABA 1330 100	CX32 1170 500	No. 1 1492 100
		<u> </u>	

No. 2 1500	100	ILLE 1348	800	Manchester		Hamar	=00
BULGARI	Α	PP 959 Eiffel 1456	60000 20000	NN 1149 NR 668	20000 50000	LKH 519 Kristianssand	700
Sofia		Radio-Norma		Newcastle	1000	LKK 1276 Narvik	500
850	1000	Rennes		Plymouth		1222	300
CZECHOSLOV	AKIA	1040 Strasbourg	40000	1474	300	Notodden LKN 1357	150
Bratislava		SPTT 859	35000	HOLLAN	ID	Porsgrund LKP 850	1000
OKR 1004	13500	776	2000	Hilversum		Rjukan	
OKB 922	32000	913	60000	PFBI 995	60000	LKR 1348 Stavanger	150
Kosice	2600	GERMAN	IY	HUNGAF	RY	LKS 1276 Tromsoe	500
Moravska		Berlin		Budapest		LKM 1186	100
OKK 1113 Praha	11200	Bremen 841	100000	HAL 546 Magyarovar	120000	Trondelag LKT 629	20000
OKP 633	120000	1330	2000	HAE-2 1321	1250	POLAND	
No. 2 1204	5000	Breslau 950	100000	Miskolc HAE-3 1438	1250	POLAND	
DANZIG		Cassel 1195	2000	Nyiregyhaza HAE 1122	6200	Cracow 1022	2000
Danzig		Coblenz		Pecs		Katowice	
1303	500	Cologne	2000	HAE-4 1465	1250	758 Lodz	12000
DENMAR	K	Dresden	100000	IRISH FREE	STATE	1339	1700
Copenhagen		1285	250	Athlone		Lwow 795	16000
1176	10000	Flensburg	2000	565 Cork	60000	Poznan 868	16000
ESTONIA		Frankfurt		6CK 1240	1000	Torun	
Tallinn		1195 Freiburg	25000	Dublin 2RN 1348	1000	986 Warsaw	24000
731 Tartu	20000	Gleiwitz	5000	ITALY		No. 2 1384 Wilno	2000
517	500	1231	5000			536	16000
FINLAND		Hamburg	100000	Bari I1BA 1059	20000	PORTUGA	L
		Hanover	2000	Bolzano			
Heisinki OFA 895	10000	1330 Kaiserslauteri	1	I1BZ 536 Firenze	1000	Lisbon CT1AA 629	20000
Pietersaari 1500	250	Konigsberg	1500	IIFI 610 Genoa	20000	Parede CT1GL 1031	5000
Pori		1031	10000 2000	I1GE 986	10000	ROUMANI	
OFD 749 Sortavala	1000	Leipsig		Milan I1MI 814	50000	ROUMANI	
Tampere	200	785 Magdeburg	120000	No. 2 1348 Naples	4000	Bucharest 823	12000
OFE 1420	700	1330	2000	I1NA 1104	1500	SPAIN	
Turku 1429	500	Munich	100000	Palermo I1PA 565	4000		
Viipuri OFH 527	10000	Nurnberg	2000	Rome IIRO 713	50000	Alcala 1500	200
		Stettin	2000	No. 3 1258	1000	Barcelona	7500
FRANCE		1330 Stuttgart		Trieste IITR 1222	10000	EAJ15 1022	3000
Bordeaux 1077	30000	Trier	100000	Turin I1TO 1140	7000	Madrid EAJ2 731	3000
968 Grenoble	3000	1195	2000	No. 2 1357	200	EAJ7 1095	10000
583	15000	GREAT BRI	TAIN	LATVIA		Oviedo EAJ19 1022	700
Lille 1213	60000	Aberdeen		Kuldiga		San Sebastian EAJ8 1258	1000
Limoges	500	1285 Belfast	1000	1258	10000	Seville	1000
Lyons		977	1000	Madona	50000	EAJ5 731	5500
YN 648 RL 1393	90000 25000	Bournemouth	1000	Riga		Valencia EAJ3 850	3000
Marseilles 749	1600	Cardiff	50000	YLZ 583	15000		
Montpellier		WN 1149	20000	NORWA	Y	Spain has man tions of 100 wa	atts or
1339 Nice	5000	Daventry MR 1013	50000	Aalesund LKA 850	350	less on 1492 an	
1249	2000	Falkirk		Bergen		see Index by Ca	
Nimes 1492	200	SN 1050 SR 767	50000 50000	LKB 850 Bodo	1000	SWEDEN	
Paris	600	London	20000	LKD 686	500		
AGEN 868 FPTT 695	120000	LN 1149 LR 877	20000 50000	Fredrikstad LKF 776	1000	Falun SCC 1086	2000

			1		$\overline{}$			
Goteborg		Kazan		ÁSIA		XHHN	1200	100
SBB 941 I	10000	RW17 686 100	000		- 1	XHHP XHHO	1260 1280	100 80
SBH 1131	10000	Kharkov RW20 1185 100	1 000	CEYLON		XHHR	1340	50
Karlskrona		Kiev			——	XHHS	1100	100
SCJ 1530 Karlstad	200	RW9 722 360 Krasnodar	000	Colombo VPB 705	1750	XHHT XHHU	1500 1160	100 100
SCK 1312	250		000 L	VFB 705	1750	XHHV	880	100
Malmo	7	Leningrad		CHINA		\mathbf{x} HH \mathbf{x}	920	1000
SBC 1312	2500	RW70 1040 100	000	Canton		XHHY	1240	100
Norrkoping SCO 1312	250	Magnitogorsk	100 L	XGOK 750	1000	XHHZ XLHA	1180 780	150 50
Orebro		Makhatch		XKRI 1071	100	XLHB	560	45
1240 Ornskoldsvik	200	RW27 689 40 Minsk	000	Chang-Chow XGDZ 1470	10	XLHC XLHD	720 720	50 50
1402	500	RW10 1438 1000	000 L	XLIK 1330	75	XLHE	1380	50
Saffle	- /	Moscow		Chang-sha XGTM 840	15	\mathbf{XLHF}	1380	50
1240 Stockholm	400	RW39 832 1000)00	Chengtu	15	XLHI XLHJ	760 760	7.5 100
SBA 704	55000	Mourmansk RW79 610 100	1 000	XGOH 560	10000	XLHK	800	7.5
Sundsvall		Naltchik ,	- 1	Chinklang XGOZ 1150	100	XLHL	800	100
SBD 601 : Trollhattan	10000	RW51 794 10	000	Chuching	100	XLHM XLHN	1120 1120	50 200
SCQ 1312	250	RW13 968 100	000 l	XGCK 990	7.5	XLHO	1400	100
Uddevalla		RW69 968 100	000	Chunking XGOS 711	1000	XLHQ	1440	30
1410 Umea	50	Ordjonikidze RW64 740 100	ا _۱ ۸۸۸	Foo-chow	1000	XMHA	600 980	1000 500
1402	1000	Oufa	ן יייי	XGOL 1030	250	XMHC	700	500
Varberg		RW22 617 100	000	Hangchow XGOD 990	2000	XQHA	580	250
1240	200	Oukhta RW67 968 20	000	XLID 1370	50	XQHB XQHC	850 1300	100 1000
SWITZERLAN	D	Oust-Abakansk	,,,,,	XLIQ 850	50	XÕHD	1360	200
		RW50 617 25	500	XLIR 1230	50	XQHE	1460	250
Basle 1375	500	RW84 635 12 Penza	200	Hangkow XGOW 1010	5000	XOHF XOHG	1480 1500	200 250
1375 Berne			200 l	XHJA 1280	100		640	100
1375	500	Petropavlovsk		Hanim XLIM 910	50	Shaohii	ng 1090	
Beremunster 556 10	00000	RW71 689 12 Petrozavodsk	200	Honan-fu	,	XLIO Shuhin		
Monte Ceneri		RW29 648 100	000	XGOX 1070	200	• • • • •	1090	• • • •
	15000	Pratigorsk RW18 610 10	000	Hongkong ZBW 845	2000	Siangya MABS	1250	35
Sottens 677 10	00000	Samara	ן יייי	Kiangyin		Suchow		33
		RW16 710 100	000	XGSA 1335 Kashing	10	XLIB	1450	15
U. S. S. R.		Saransk RW65 734 10	000 l	XGAK 895	15	XLIL	870 1110	50 10
Alexandrovsk		Simferopol	"" I	XGML 714.3	7.5	Taiyua	n	
RW38 662	2000	RW73 859 100	000	XLKS 1490 Kunming	20	XGOT	1000	50
Archangel RW36 586	10000	Stalingrad RW34 522 100	1 00c	XGOY 690	250	Tengch XHKB	ow 590	100
Astrakhan		Stalino		Loyang XGOB 1090	250	XTGM	900	100
	10000		000	Nan-chang	250	Tientsi: XLKB	n 825	55
Dnepropetrovsk RW30 913	10000	Syktyvkar RW41 563 12	200	XGOC 1130	500	XHKA	1050	i00
Elista		Tcheboksary	· ·	Nanking XGOA 660	75000	XQKA	1350	150
RW48 704	2500		200	XGON 900	200	XOKB XOKC	750 1280	150 100
Engels RW55 932	1000	Tcheliabinsk RW68 577 15	500 l	Ningpo		Tsange		100
Frounze		Tchernigov	- 1	XLIA 1320 Peiping	15	XKYY	1150	15
RW82 608	2500	RW86 1013 50	000	XGOP 950	300	Tsinan XGF	833	7.5
Gomel RW40 959	1000	RW52 556 200	000 l	XGOT 1220	500	XGOF	860	500
RW54 959	1000	Tiraspol		XLKA 1194 Pinghu	30	XOCL	1500	7.5
Gorki		RW57 1068 40 Vinnitza	900	XLPH 1210	15	Tsingta XHKC	1210	100
	10000	RW75 1095 100	000 l	Poatung		Tsunsh	j	100
Groznyl		Urdjonikidze	- 1	XGMK 1005 Shanghai	15	XGSS	610	15
RW23 676	1000	RW64 752 100 Vladivostok	900	FFZ 1400	250	T'ung l LUHO	Hsien 750	20
Igarka RW85 871	2000		300 l	XHHA 840	1000	Wucho	w	20
	2000	RW32 635 100	000	XHHB 740 XHHD 860	50 50	XHGS	730	50
ljevsk RW78 767	3000	YUGOSLAVIA	— J	XHHE 940	100	Wu-hu	1050	4.5
lochar-Ola		-	— I	XHHF 960	100	XDYF XGWH	1270 830	15 30
RW61 888	1000	Belgrade 686 25	500	XHHG 1020 XHHH 1040	100 100	Wusih	000	
Ivanovo	10000	Ljubijana		XHHI 1060	100	XHIB	970	75
	10000		000	XHHJ 1080	200	XLIE	1170	50 75
Karaganda RW46 686.5	1200	Zagreb 1086 7	700	XHHK 620 XHHL 1140	100 100	XLIF XLIJ	1250 790	75 50
2011 20 00010		/	<u> </u>		-00			

XLIN 1390 50	Okayama	1348 500	Clevedon
XLTC 1210 15 XLWU 1250 50	JOKK 700 500 Osaka	KENYA	4QN 600 7000 Corowa
Yungning XGOE 1290 1000	JOBK-1 750 10000 JOBK-2 1085 10000	Nairobi	2CO 670 1000 Crystal Brook
FORMOSA	Sapporo JOIK 830 10000	VQ7LO 858 600	5CK 640 7500 5PI 1040 2000
Taichu	Sendal JOHK 770 10000	MOROCCO	Cumnock 2CR 550 10000
JFCK 580 1000	Shizuoka	Casblanca	Denilquin
Taihoku JFAK 670 10000	Tokushima	GNO 983 25 Rabat	2QN 1440 Geelong
Tainan JFBK 720 1000	JOXK 980 500 Tokyo	CNR 601 25000	3GL 1350 50 Goulburn
INDIA	JOAK-1 870 10000 JOAK-2 590 10000	SOUTH RHODESIA	2GN 1390 100 Grafton
	Tottori JOLG 890 500	Salisbury	2GF 1210 50
VUB 855 3000	Yamagata	681.8 1500	Gunnedah 2MO 1360 50
VUC 810 3000	JOJG 1040 500	TUNISIA	Gympie 4GY 1430 50
Delhi VUG 933 1000	JAVA	Tunis TUA 1275 500	Hamilton 3HA 1010 300
Lahore	Tandjongpriok		Hobart
VUL 1200 100 Madras	YDA8 1510 500	UNION S. AFRICA	7HO 820 100 7ZL 590 1000
VUM 770 200	KOREA	Bloemfontaine ZTB 790 500	Horsham 3HS 1370 50
INDO-CHINA	Fuzan JBAK 1020 500	Cape Town ZTC 600 10000	3WV 580 10000
Salgon F31CD 840 12000	Seoul	Durban	2LV 980
	JODK-1 900 10000 JODK-2 610 10000	ZTD 750 1500 Grahamstown	Ipswich 4IP
JAPAN	MANCHUOKUO	ZUG 560 10000 Johannesburg	Kalgoorlie 6GF 720 2000
Akita JOUK 645 300	Dairen	ZTJ 645 10000 Maritzburg	6KG 1210 85 Katoomba
Asahigawa JOCG 655 300	JQAK 652 500 Harbin	750 10000	2KB 1160 100 Kelso
Fukui	MTFY 675 3000	Pretoria ZTP 952 500	7NT 710 7000
JOFG 990 300 Fukuoka	Hsinking MTCY 560 100000	OCEANIA	Launceston 7LA 1100 300
JOLK 680 500 Hakodate	Mukden MTBY 890 1000		Lawrence 2NR 700 7000
JOVK 680 500 Hamamatsu	PALESTINE	AUSTRALIA	Lismore 2XN 1340 50
JODG 635 500 Hiroshima	Jerusalem	Adelaide 5AD 1310 300	Longford 3Gl 830 7000
JOFK 850 10000	668 20000	5CL 730 2000	Mackay
Kanazawa JOJK 710 3000	PHILIPPINES	5DN 960 300 5KA 1200 300	4MK 1160 100 Maryborough
Kochi JORK 720 500	Manila	Albury 2A Y 1480 100	4MB 1060 50 Melbourne
Kofu JOKG 800 500	KZEG 780 1000 KZIB 900 1000	Armidale 2AD 1080	3AK 1500 200 3AR 580 4500
Kokura JOSK 735 1000	KZRM 618.5 50000	Ayr 4A Y 980 100	3AW 1280 600 3DB 1030 600
Kumamoto	SIAM	Ballarat	3KZ 1180 600
JOGK 790 10000 Kyoto	Bangkok	3BA 1320 50 Bega	3LO 770 3500 3UZ 930 650
JOOK 960 300 Maebashi	HSP-1 856 2500 HS7PJ 750 15000	2BE 1470 100 Bendigo	3XY 1420 600 3YB 1060 25
JOBG 970 500	1200	3BO 970 200 Brisbane	Mildura 3MA 900 50
Matsuye JOTK 625 500	AFRICA	4BC 1120 1000	Minding
Miyazaki JONG 600 500		4BH 1380 600 4BK 1290 500	6WA 560 10000 Murray Bridge
Nagano JONK 940 500	ALGERIA	4QG 800 2500	5MU 1450 100
JONK 940 500 Nagasaki	Algiers	Broken Hill 2BH 1330 100	Narrabri 2NZ 1170 2000
JOAG 930 500	941 12000	Bundaberg 4BU 1480 100	Newcastle
Nagoya JOCK-1 810 10000	EGYPT	Burnie	2HD 1140 500 2KO 1410 500
JOCK-2 1175 10000	Alexandria	7BU 1390 100	2NC 1230 2000
Niigata JOQK 920 500	1122 509 1429 500	Cairns 4CA 1470 100	Northam 6AM 980 1000
Obihiro JOOG 1080 500	Cairo 620 20000	Canberra 2GA 1050 . 500	Oakey 4AK 1220 1000
3000 1000 300	620 20000	2011 1050 , 500	7111 1220 1000

Orange 2GZ Perth			2FC	610	3000	NEV	V ZEAL	AND I	2ZM	1150	15
	990	2000	2GB	870	1000				Grevi	mouth	
			2KY	1020	1000	Aucki	and		3ZR	940	400
6IX	1240	500	2SM	1270	1000	IYA	650	10000	Hasti	nas	
6ML	1130	500	2UE	950	1000	1YX	880	150	2ZL	1240	50
6PR	880	500	2UW	1110	1000	1ZB	1090	100		cargill	
6WF	690	3500	Tamy			1ZS	1420	50	4ZP	620	500
Port M		0000	2TM	1300	50	Balck				ırewa	000
4PM	1360	100		oomba		4ZR	1340	4	1ZM	1260	50
			2GR	1000	500		tchurch	- 1	Maste		
Renma	850	1000	Town			3YA	720	10000	2ZD	1170	5
5RM	850	1000	4TO	1170	200	3YL	1200	500	Napie		
	mpton	`	Ulvers		200	3ZM	1470	60	2ZH	820	65
4RK	910	2000	U7V	1460	300	-		00	Nelso		•
4RO	1330	50	Wagg		300	Crom		_ 1	2ZR	920	15
Sale			2WG	1150	200	4ZC	1280	7			13
3TR	1240	500	Warw		200	Dune	din		2YB	Plymouth 760	100
		500	4WK	900	50	4YA	790	500			100
Sheppa					50	4ŸÔ	1140	150		erston N.	250
3WR	1260	50	Wollo	ngong		4ZB	1010	25	2ZF	960	250
Swan I	4:11		2WL	1430	50	4ZL	1220	100	2ZO	1400	100
3SH	1080	50				4ZM	1010	30	Waire		
		30	NEW	CALEDO	ONIA	4ZO	1010	25	2ZP	900	105
Sydney								23		ngton	
2BL	740	3000	Noun			Gisbo			2YA	570	5000
2CH	1190	1000	FJP	600	500	2ZJ	980	60	2YC	840	200

FOREIGN B. C. STATIONS BY CALLS

CB57	570	CT1AA	629	EAJ14	1500	HJ3ABE	1200	JOTK	625	LT11	1260 PRA8	750
CB62	620	CT1GL	1031	EAJ15	1022	HJ3ABH	1005	JOUK	645	LUHO	750 PRA9	1000
CB64	640	CW19	1340	EAJ16	1492	HJ4ABJ	1000	JOVK	680	LU2	900 PRB2	882
CB73	730	CW23	820	EAJ17	1492	HJ4ABK	1230	JOXK	980	LU6	1300 PRB3	857
CB76	760	CW25	1430	EAJ19	1022	HSP1	856	JQAK	652	LU7	1240 PRB4	960
CB78	780	CW27	680	EAJ20	1492	HS7PJ	750	KZEG	780	LV1	730 PRB5	1415
CB82	820	CW29	1120	EAJ21	1492	I1BA	1059	KZIB	900	LV2	880 PRB6	1170
CB84	840	CW31	1160	EAJ23	1492	!1BZ	536	KZRM	618.5	LV3	620 PRB7	800
CB89	890	CW33	1460	EAJ24	1492	I1FI	610	LKA	850	LV5	1120 PRB8	1000
CB90	900	CW35	1240	EAJ25	1502	I1GE	986	LKB	850	LV6	690 PRB9	1017
CB93	930	CW37	1400	EAJ26	1502	IIMI	814	LKD	686	LV7	820 PRC2	1090
CB97	` 970	CW39	1320	EAJ27	1492	I1NA	1104	LKF	776	LV10	1210 PRC3	920
CB101	1010	CW41	1360	EAJ29	1500	I1PA	565	LKH	519	LV14	1240 PRC4	1304
CB106	1060	CW43	1470	EAJ30	1500	I1RO	713	LKI	845	MABS	1250 PRC5	1364
CB111	1110	CW47	1480	EAJ31	1492	11TO	1140	LKK	1276	MTBY	890 PRC6	980
CB114	1140	CX4	610	EAJ32	1500	I1TR	1222	LKM	1186	MTCY	560 PRC7	1090
CB116	1160	CX6	650	EAJ33	1492	JBAK	1020	LKN	1357	MTFY	675 PRC8	1030
CB118	1180	CX8	690	EAJ34	1492	JFAK	670	LKO	1181	OAX4A	750 PRC9	1175
CB120	1200	CX10	730	EAJ35	1500	JFBK	720	LKP	850	OAX4B	1200 PRD2	932
CB124	1240	CX12	770	EAJ36	1500	JFCK	580	LKR	1348	OAX4C	1300 PRD3	1207
CB126	1260	CX14	810	EAJ37	1500	JOAG	930	LKS	1276	OAX4E	980 PRD4	1364
CB130	1300	CX16	850	EAJ38	1500	JOAK-1	870	LKT	629	OAX4F	1080 PRD5	1400
CB132	1320	CX18	890	EAJ39	1492	JOAK-2	590	LR1	1070	OAX4H	1150 PRD7	1430
CB134	1340	CX20	930	EAJ40	1500	JOBG	970	LR2	910	OAX4I	1120 PRD8	1132
CB138	1380	CX22	970	EAJ41	1492	JOBK-1	750	LR3	950	OAX4L	1250 PRD9	769
CB139	1390	CX24	1010	EAJ42	1492	JOBK-2	1085	LR4	990	OA4AR	1210 PRE2	1330
CB140	1400	CX26	1050	EAJ43	1492	JOCG	655	LR5	830	OA4K	1360 PRE3	1220
CB144	1440	CX28	1090	EAJ44	1492	JOCK-1	810	LR6	870	0A40	1277 PRE4	941
CB144A	1440	CX30	1130	EAJ45	1500	JOCK-2	1175	LR7	750	· OA6D	1400 PRE5	1410
CB144B	1440	CX32	1170	EAJ46	1492	JODG	635	LR8	1150	OA6E	1350 PRE6	740
CB144C	1440	CX34	1210	EAJ47	1492	JODK-1	900	LR9	1030	OA6U	1443 PRE7	788
CB146	1460	CX36	1250	EAJ48	1492	JODK-2	610	LR10	790	OFA	895 PRE8	1270
CB150	1500	CX38	1290	EAJ49	1500	JOFG	990	LR11	1390	OFD	749 PRE9	1315
CC58	580	CX40	1330	EAJ51	1492	JOFK	850	LS1	710	OFE	1340 PRF2	725
CC64	640	CX42	1370	EAJ52	1492	JOGK	790	LS2	1190	OFH	527 PRF3	900
CC96	960	CX44	1410	EAJ53	1492	JOHK	770	LS3	630	ОКВ	922 PRF4	923
CC109	1090	CX46	1450	EAJ55	1492	JOIK	830	LS4	670	OKK	1113 PRF6	1050
CC117	1170	CX48	1500	FFZ	1400	JOIG	1040	LS5	1110	OKP	633 PRF7	1380
CC136	1360	EAJ1	790	FJP	600	JOTK	710	LS6	1350	OKR	1004 PRF8	950
CC141	1410	EAJ2	735	F31CD	840	JOKG	800	LS7	1310	ON4CE	1492 PRF9	1360
CC143	1430	EAJ3	850	HAE	1122	JOKK	700	LS8	1230	ON4CE	1500 PRG3	1280
CD103	1030	EAJ4	1492	HAE2	1321	JOLG	890	LS9	1270	ON4EB	1492 PRG4	1442
CD111	1110	EAJ5	731	HAE3	1438	JOLK	680	LS10	590	ON4RW	1500 PRG5	720
CD112	1120	EAJ6	1492	HAE4	1465	JONG	600	LS11	1440	PFBI	995 PRG6	1500
CD121	1210	EAJ7	1095	HAL	546	JONK	940	LT1	780	PP	959 PRG7	1330
CD132	1320	EAJ8	1258	HC2ET	1153	100G	1080	LT3	1080	PRA2	750 PRG9	1200
CD136	1360	EAJ9	1492	HC2JB	1250	JOOK	960	LT5	1160	PRA3	860 PRH2	600
CNO	983	EAJ10	1492	HJN	681	JOPK	780	LT7	1340	PRA4	840 PRH3	1120
CNR	601	EAJ11	1500	HJ1ABA	1330	JOOK	920	LT8	840	PRA5	1295 PRH4	1480
CPX	1300	EAJ12	1492	HJ1ABM	1154	JORK	720	LT9	1200	PRA6	815 PRH8	820
CP4	1040	EAJ13	1492	HJ3ABD	1100	JOSK	735	LT10	1300	PRA7	706 PYG2	1070

PYG8						,							
RW13 960 RW85 1013 XGOB 1090 XHKB 590 YDA 1510 2RN 1340 ACA 1470 RW145 710 5BA 704 XGOD 990 XKRI 1071 YN 648 2TM 13100 AGY 1430 RW146 710 5BA 704 XGOD 990 XKRI 1071 YN 648 2TM 13100 AGY 1430 RW146 768 5BB 941 XGOE 1290 XLHA 780 YVIRC 960 2UE 950 AIP 1440 RW18 610 5BC 1312 XGOF 860 XLHB 560 YV3RC 1200 2UW 1110 AMB 1060 RW22 617 5BH 1311 XGOI 900 XLHA 780 YV1RC 750 2UW 1110 AMB 1060 RW22 617 5BH 1311 XGOI 900 XLHA 720 YV3RMO 1300 2WL 1430 APM 1360 RW26 76 5CA 1402 XGOK 750 XLHE 1380 YV1RMO1304 2WL 1330 APM 1360 RW26 76 5CB 1402 XGOK 750 XLHE 1380 YV1RMO1304 2YB 1340 AQG 800 RW26 769 5CC 1086 XGON 930 XLHI 760 ZBW 845 ZYB 760 ARK 910 RW27 689 5CC 1086 XGON 930 XLHI 760 ZBW 845 ZYB 760 ARK 910 RW28 635 SCD 1402 XGOP 950 XLHJ 760 ZEK 640 ZYC 840 ARK 910 RW28 645 SCF 1402 XGOF 71000 XLHB 800 ZPI 1135 ZZD 1170 ATT 1170 RW29 648 SCF 1402 XGOT 1220 XLHM 1120 ZPS 898 ZZJ 980 AVG 1140 RW31 625 SCH 1402 XGOT 1220 XLHM 1120 ZPS 898 ZZJ 980 AVG 1140 RW31 625 SCH 1402 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW31 593 SCG 1402 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW31 593 SCG 1302 XGOW 690 XLHG 710 TYB 790 ZZL 1240 AZZ 1220 RW33 1050 SCJ 1530 XGOY 690 XLHG 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1312 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1312 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1312 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1120 ZPS 898 ZZJ 980 AVG 1140 RW33 SS SCC 1302 XGOW 1010 XLHB 1300 XGOW 1010 XL	PYG8	1250	RW82	608	XGML	714.3	XHJA	1280	XQKB	750	2NZ		1290
RW31 960 RW86 1013 XGOB 1090 XHKB 590 YDA 1510 2RN 1340 ACA 1470 RW36 710 5BA 704 XGOD 990 XKRI 1071 YN 648 2TM 13100 AGY 1430 RW36 710 5BA 704 XGOD 990 XKRI 1071 YN 648 2TM 13100 AGY 1430 RW36 610 5BC 1312 XGOF 860 XLHB 560 YV3RC 1200 2UE 950 AIP 1440 RW38 610 5BC 1312 XGOF 860 XLHB 560 YV3RC 1200 2UW 11100 AMB 1060 RW22 617 5BH 1311 XGOI 900 XLHA 720 YV3RMO 1300 2WL 1430 APM 1360 RW36 76 5CA 1402 XGOK 750 XLHE 1380 YV1RMO1300 2WL 1430 APM 1360 RW36 76 5CA 1402 XGOK 750 XLHE 1380 YV1RMO1300 2WL 1430 APM 1360 RW36 76 5CB 1402 XGOK 750 XLHE 1380 YV1RMO1300 2WL 1430 APM 1360 RW36 76 5CB 1402 XGOV 750 XLHE 1380 YV5RW 670 2YA 570 AQM 600 RW36 675 5CD 1402 XGOV 950 XLHA 760 ZEK 640 2YC 840 ARK 910 RW36 913 5CG 1402 XGOT 1220 XLHM 1120 ZEX 640 2YC 840 ARK 910 RW36 913 5CG 1402 XGOT 1220 XLHM 1120 ZEX 845 ZZD 1170 ATM 1370 RW31 625 SCH 1402 XGOT 1200 XLHB 800 ZP1 1335 ZZD 1170 ATM 1370 RW31 625 SCH 1402 XGOT 1200 XLHB 800 ZP1 1375 ZZD 1170 ATM 1370 RW31 625 SCH 1402 XGOT 1200 XLHB 800 ZP1 1375 ZZD 1170 ATM 1370 RW31 505 SCJ 1530 XGOY 690 XLHB 700 XLHB 120 ZPS 898 ZZJ 980 AYO 1140 RW31 1050 SCJ 1530 XGOY 690 XLHB 120 ZPS 898 ZZJ 980 AYO 1140 RW31 1050 SCJ 1530 XGOY 690 XLHB 120 ZPS 898 ZZJ 980 AYO 1140 RW31 1050 SCJ 1530 XGOY 690 XLHB 1120 ZPS 898 ZZJ 980 AYO 1140 RW33 662 SCN 1402 XGOX 1070 XLHD 1100 ZTD TTD T50 ZZD 1200 AZZ 1220 RW35 S95 SCL 1402 XGOX 1070 XLHD 1100 ZTD TTD T50 ZZD 1200 AZZ 1220 RW35 S95 SCL 1402 XGOX 1070 XLHD 1100 ZTD TTD T50 ZZD 1200 AZZ 1220 RW35 S95 SCL 1402 XGOX 1070 XLHD 1100 ZTD TTD T50 ZZD 1200 AZZ 1220 RW35 S95 SCL 1402 XGOX 1070 XLHD 1100 ZTD T50 SZD 1100 AX	RW9	722	RW84	635	XGOA	660	XHKA	1050	XQKC	810	2QN	1440 4BU	1480
RW13		1438	RW85	871	XGOB	1090	XHKB	590	YDA	1510	2RN	1340 4CA	
RW12 686 SBB 941 XGOP 1320 XLHA 780 YVIRC 1900 2UW 1110 4MB 1060 RW20 1185 SBD 601 XGOP 860 XLHB 560 YVSRC 1200 2UW 1110 4MB 1060 RW21 617 SBH 1131 XGOV 900 XLHC 720 YVSRC 1200 2WG 1150 4MK 1160 RW22 617 SBH 1131 XGOV 900 XLHC 720 YVSRM 01300 2WL 1430 4PM 1360 RW22 676 SCA 1402 XGOK 750 XLHE 1380 YVSRM 01300 2WL 1430 4PM 1360 RW22 689 SCC 1086 XGON 930 XLHF 1380 YVSRW 1670 2YA 570 4QM 600 RW27 689 SCC 1086 XGON 930 XLHF 1380 YVSRW 1670 2YA 570 4QM 600 RW27 689 SCC 1086 XGON 930 XLHF 1380 YVSRW 870 2YA 570 4QM 600 RW27 689 SCC 1402 XGOV 751 XLHK 800 ZPL 1135 ZZD 1170 4TO 1170 RW29 648 SCF 1402 XGOV 1000 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW30 913 SCG 1402 XGOV 1000 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW30 913 SCG 1402 XGOV 1010 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW32 635 SCD 1402 XGOV 1010 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW32 635 SCD 1402 XGOV 1010 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW32 635 SCD 1402 XGOV 1010 XLHL 800 ZPL 1275 ZZF 960 4WK 910 RW32 505 SCD 1402 XGOV 1010 XLHD 1120 ZP9 888 ZZJ 980 4YO 1140 RW32 635 SCD 1402 XGOV 1500 XLHQ 1400 ZTB 790 ZZL 1244 4ZB 1011 RW33 1050 SCJ 1530 XGOV 690 XLHQ 1400 ZTB 790 ZZL 1244 4ZB 1011 RW33 686 SCM 1402 XGOS 1150 XLHA 1320 ZTD 750 ZZL 1244 4ZB 1011 RW33 686 SCM 1402 XGSS 610 XLID 1370 ZTD 750 ZZL 1244 4ZB 1011 RW33 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZR 920 4ZO 1011 RW33 686 SCM 1402 XGSM 840 XLIE 1170 ZUG 560 3AK 1500 4ZP 620 RW39 832 SCO 1312 XGTM 900 XLIF 1250 IYA 650 3AK 1500 4ZP 620 RW39 SZ SCO 1402 XGHM 900 XLIF 1250 IYA 650 3AK 1500 4ZP 620 RW35 SCP 1402 XGHM 900 XLIF 1250 IYA 650 3AK 1500 4ZP 620 RW35 SCP 1402 XGHM 900 XLIF 1250 IYA 650 3AK 1500 4ZP 620 RW35 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SAD 1310 RW41 563 SCQ 1312 XHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XLIK 1330 IYX 880 3AW 1280 SCP 1300 SCP 1402 XHHB 840 XL		960	RW86	1013	XGOC	1130	XHKC	1210	YLZ	583	2SM	1270 4GR	1000
RW12 686 SBB 941 XGOF 860 XLHB 560 YVRC 1200 2UW 1110 4MB 1060 RW20 1185 SBD 601 XGOH 560 XLHC 720 YVRC 1200 2UW 1110 4MB 1060 RW22 617 SBH 1131 XGOI 900 XLHD 720 YVRMO 1300 2WU 1140 4PM 1360 RW26 776 SCA 1402 XGOK 750 XLHE 1380 YV1RMO1034 2XN 1340 4PM 1360 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 683 SCC 1086 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 676 SS SCC 1402 XGON 930 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 676 SS SCC 1402 XGON 1000 XLHF 1380 YV1RMO1034 2XN 1340 4PG 800 RW27 676 SS SCC 1402 XGOY 1100 XLHL 800 ZPH 1275 ZPF 760 4RK 910 RW30 913 SCG 1402 XGOY 1120 XLHL 800 ZPH 1275 ZPF 960 4WK 900 RW30 913 SCG 1402 XGOY 1120 XLHL 800 ZPH 1275 ZPF 960 4WK 900 RW30 913 SCG 1402 XGOY 1100 XLHL 800 ZPH 1275 ZPF 960 4WK 900 RW30 913 SCG 1402 XGOY 1100 XLHL 800 ZPH 1275 ZPF 960 4WK 900 RW32 635 SCI 1402 XGOY 1100 XLHL 800 ZPH 1275 ZPF 1465 ZPH 820 4YA 730 RW31 625 SCH 1402 XGOY 1100 XLHL 1120 ZPP 888 ZPJ 980 4YO 1140 RW32 SS SC SCH 1402 XGOY 1500 XLHQ 1400 ZPB 930 ZZL 1240 4ZB 1010 RW33 686 SCM 1402 XGOX 1500 XLHQ 1400 ZPB 930 ZZL 1240 4ZB 1010 RW33 SS SC SCM 1402 XGOX 1500 XLHQ 1400 ZPB 930 ZZL 1240 4ZB 1010 RW33 SS SC SCM 1402 XGOX 1500 XLHQ 1300 XTH 2300 XLHQ 1400 ZPB 930 AYO 1140 XGOX 1500 AYO 1500 A	RW16	710	SBA	704	XGOD	990	XKRI	1071	YN	648	2TM	1300 4GY	1430
RW29 676 SCA 1402 XGOU 1900 XLHB 1380 YV6RV 670 2WG 1150 4MK 1160 RW22 617 8BH 1131 XGOU 900 XLHD 720 YV5RMO 1300 2WL 1430 4PM 1360 RW23 676 SCA 1402 XGOU 1900 XLHD 720 YV5RMO 1300 2WL 1430 4PM 1360 RW23 676 SCA 1402 XGOU 1900 XLHB 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1086 XGON 330 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1402 XGOU 1900 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1402 XGOU 1900 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1402 XGOV 7010 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 648 SCF 1402 XGOV 7010 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW29 648 SCF 1402 XGOT 100 XLHF 800 ZP1 1135 ZZF 340 4RV 300 RW33 913 SCG 1402 XGOT 1220 XLHM 1120 ZP5 1465 ZZF 380 4VA 790 RW31 625 SCH 1402 XGOW 1010 XLHR 120 ZP5 1465 ZZF 380 4VA 790 RW31 655 SCH 1402 XGOW 1010 XLHN 1120 ZP5 1465 ZZF 380 4VA 790 RW33 615 SCJ 1530 XGOY 690 XLHQ 1400 ZTB 790 ZZL 1240 4ZE 1010 RW33 150 SCJ 1530 XGOY 690 XLHQ 1400 ZTB 790 ZZL 1240 4ZE 1010 RW33 586 SCL 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW35 586 SCM 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW35 S66 SCM 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW38 S66 SCM 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW38 S66 SCM 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW38 S66 SCM 1402 XGSA 1315 XLIA 1320 ZTD 750 ZZD 1400 4ZL 1220 RW38 S66 SCR 1402 XHHB 840 XLIE 1170 ZUG 560 AAK 1500 4ZP 620 RW39 S32 SCO 1312 XGTM 840 XLIE 1170 ZUG 560 AAK 1500 4ZP 620 RW39 S50 SCR 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 686.5 SCR 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 686 SCS 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 686.5 SCR 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 686 SCS 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 686 SCC 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 680 SCC 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 680 SCC 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 680 SCC 1402 XHHB 840 XLIE 1370 ZTP 952 ZZR 920 4ZO 1010 RW36 680 SCC 1402 X			SBB	941	XGOE	1290	XLHA	780	YVIRC	960	2UE		
RW220 1185 SBD 601 XGOH 560 XLHC 720 YV4RC 750 2WL 113014PM 1360 RW22 676 SCA 1402 XGOK 750 XLHE 1380 YV11RMO1034 2XN 134014QG 800 RW26 776 SCB 1402 XGOL 1030 XLHE 1380 YV11RMO1034 2XN 134014QG 800 RW26 776 SCB 1402 XGOL 1030 XLHE 1380 YV11RMO1034 2XN 134014QG 800 RW27 689 SCC 1086 XGON 930 XLHI 760 ZBW 845 2YB 760 4RK 910 RW28 635 SCD 1402 XGOV 950 XLHI 760 ZEK 640 2YC 840 4RC 1330 RW28 725 SCE 1402 XGOV 1000 XLHI 800 ZP1 1135 2ZD 1170 4TO 1170 RW29 648 SCF 1402 XGOT 1000 XLHI 800 ZP1 1135 2ZD 1170 4TO 1170 RW30 913 SCG 1402 XGOT 1202 XLHI 1120 ZP5 1465 ZZH 820 4YA 790 RW31 625 SCI 1402 XGOT 1200 XLHI 800 ZP4 1275 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1000 XLHI 800 ZP5 1465 ZZH 820 4YA 790 RW31 625 SCI 1402 XGOX 1070 XLHI 1120 ZP5 1465 ZZH 820 4YA 790 RW31 625 SCI 1402 XGOX 1070 XLHI 1120 ZP5 1465 ZZH 820 4YA 190 RW32 635 SCI 1402 XGOX 1070 XLHI 1120 ZP5 1465 ZZH 820 4YA 190 RW33 1050 SCJ 1530 XGOY 690 XLHI 1300 ZTB 790 ZZL 1240 4ZB 1010 RW38 652 SCK 1312 XGOZ 1150 XLB 1370 ZTB 790 ZZL 1240 4ZB 1010 RW38 662 SCK 1312 XGOZ 1150 XLB 1370 ZTD 750 ZZO 1400 4ZL 1220 RW35 598 SCL 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTD 952 ZZP 800 4ZP 1200 AZP RW39 S32 SCO 1312 XGSM 840 XLID 1370 ZTD 952 ZZP 800 4ZP 1200 AZP RW34 SSC SCR 1402 XHH 840 XLID 1370 ZTD 952 ZZP 800 4ZP 1200 AZP 800	RW18	610	SBC	1312	XGOF	860	XLHB	560	YV3RC	1200	2UW	1110 4MB	
RW22 517 65CA 1402 XGOU 900 XLHD 720 YV5RMO 1300 2WL 1430 4PM 1360 RW25 776 6CB 1402 XGOU 1030 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1086 XGON 930 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW27 689 SCC 1086 XGON 930 XLHF 1380 YV6RV 670 2YA 570 4QN 600 RW28 635 SCD 1402 XGOV 950 XLHJ 760 ZEK 640 2YC 840 4RK 910 RW28 725 SCE 1402 XGOV 100 XLHL 800 ZP1 1135 ZDD 1170 4TO 1170 RW29 643 SCF 1402 XGOT 1020 XLHU 800 ZP4 1275 ZFF 960 4WK 900 RW30 913 SCG 1402 XGOT 1220 XLHM 1120 ZP5 1465 ZH 820 4YA 790 RW31 625 SCH 1402 XGOW 1010 XLHN 1120 ZP5 1465 ZH 820 4YA 790 RW31 625 SCH 1402 XGOW 1010 XLHN 1120 ZP5 1465 ZH 820 4YA 790 RW31 652 SCH 1402 XGOW 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 1050 SCJ 1530 XGOY 690 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 1050 SCJ 1530 XGOY 690 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 598 SCL 1402 XGSX 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW36 S66 SCM 1402 XGSX 1031 XLHD 1370 ZTD 752 ZZP 900 4ZCM 1150 4ZC 1280 RW36 S66 SCM 1402 XGSX 1031 XLHD 1370 ZTD 752 ZZP 900 4ZCM 1010 RW38 662 SCN 1402 XGSX 103 XLHD 1370 ZTD 752 ZZP 900 4ZCM 1010 RW38 S66 SCM 1402 XGSX 1010 XLHD 1370 ZTD 752 ZZP 900 4ZCM 1010 RW38 S65 SCM 1402 XGSX 1010 XLHD 1370 ZTD 752 ZZP 900 4ZCM 1010 RW38 S65 SCN 1402 XGTM 840 XLIE 1170 ZUG 560 3AK 1500 4ZP 620 RW39 S32 SCC 1312 XGTM 900 XLIF 1250 IYA 650 3AR 630 4ZR 1340 RW41 563 SCC 1402 XHHB 840 XLIE 1170 ZUG 560 3AK 1500 4ZP 620 RW38 S32 SCC 1312 XHGS 730 XLIB 1350 IYA 880 3AW 1280 SAD 1310 RW41 563 SCC 1402 XHHB 840 XLIE 1300 IYA 830 JRM 1280 SAD 1310 RW41 563 SCC 1402 XHHB 840 XLIE 1300 JRM 1280 JRM 1280 SAD 1310 RW41 563 SCC 1402 XHHB 840 XLIE 1300 JRM 1280 JRM 1280 SAD 1310 RW41 563 SCC 1402 XHHB 840 XLIE 1300 JRM 1280 JRM 1280 SAD 1310 RW41 563 SCC 1402 XHHB 840 XLIE 1300 JRM 1280 JRM 1280 SAD 1310 JRM 1300 JRM 1	RW20	1185	SBD	601	XGOH	560	XLHC	720	YV4RC	750	2WG		1160
RW25 676 SCA 1402 XGOK 750 XLHE 1380 YV1RMO1034 ZXN 1340 4QG 800 RW26 776 SCB 1402 XGOL 1030 XLHI 760 ZBW 845 ZYB 760 4RK 910 RW27 689 SCC 1086 XGON 930 XLHI 760 ZBW 845 ZYB 760 4RK 910 RW28 635 SCD 1402 XGOP 950 XLHJ 760 ZEK 640 ZYC 840 4RC 1330 RW28 725 SCE 1402 XGOS 711 XLHK 800 ZP1 1135 ZZD 1170 4TO 1170 RW29 648 SCF 1402 XGOS 711 XLHK 800 ZP1 1275 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1000 XLHL 800 ZP1 1275 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1220 XLHM 1120 ZP5 1465 ZZH 820 47A 790 RW31 625 SCH 1402 XGOV 1010 XLHN 1120 ZP5 1465 ZZH 820 47A 790 RW31 625 SCH 1402 XGOV 1070 XLHO 1276 ZP5 988 ZZJ 980 4YO 1140 RW32 SS SCI 1402 XGOV 1070 XLHO 1470 ZTB 790 ZZL 1240 4ZB 1010 RW33 1050 SCJ 1530 XGOV 690 XLHQ 1440 ZTB 790 ZZL 1240 4ZB 1010 RW33 522 SCK 1312 XGOV 690 XLHQ 1440 ZTC 600 ZZM 1150 4ZC 1280 RW33 SS SC SCD 1402 XGSA 1335 XLIB 1450 ZTJ 645 ZZP 900 4ZM 1010 RW38 686 SCM 1402 XGSA 1335 XLIB 1450 ZTJ 645 ZZP 900 4ZM 1010 RW38 686 SCM 1402 XGSA 1335 XLIB 1450 ZTJ 645 ZZP 900 4ZM 1010 RW38 686 SCM 1402 XGSA 1335 XLIB 1450 ZTJ 645 ZZP 900 4ZM 1010 RW38 SS SCO 1312 XGOV 870 SLIB 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1450 ZTJ 645 ZZP 900 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1450 ZTJ 645 ZZP 900 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1450 ZTJ 645 ZZP 900 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1370 ZTP 952 ZZR 920 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1370 ZTP 952 ZZR 920 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SLIB 1370 ZTP 952 ZZR 920 4ZD 1010 RW38 SS SCO 1312 XGOV SCT 840 SCT	RW22			1131	XGOI	900	XLHD	720	YV5RM	O 1300	2WL		
RW26 776 SCB 1402 XGOL 1030 XLHF 1330 YV6RV 670 ZPW 570 4QN 600 RW27 689 SCC 1086 XGON 930 XLHJ 760 ZEW 845 ZYB 760 4RR 910 RW28 635 SCD 1402 XGOP 950 XLHJ 760 ZEK 640 ZYC 840 4RO 1330 RW28 635 SCD 1402 XGOT 1000 XLHL 800 ZP1 1135 ZZD 1170 4TO 1170 RW30 913 SCG 1402 XGOT 1000 XLHL 800 ZP1 1275 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1000 XLHL 800 ZP1 1275 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOV 1010 XLHL 1200 ZP5 1465 ZZH 820 4YA 790 RW31 625 SCL 1402 XGOW 1010 XLHL 1200 ZP9 898 ZZJ 980 4YO 1140 RW32 635 SCI 1402 XGOW 1010 XLHL 1200 ZP9 898 ZZJ 980 4YO 1140 RW33 635 SCI 1402 XGOW 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 598 SCL 1402 XGOW 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 598 SCL 1402 XGOX 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 RW33 598 SCL 1402 XGSS 610 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 582 SCO 1312 XGTM 900 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 562 SCN 1402 XGTM 900 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 565 SCQ 1312 XGTM 900 XLID 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 SCQ 1312 XHGS 730 XLIJ 130 1YX 880 3AW 1280 SAD 130 RW41 563 SCQ 1312 XHGS 730 XLIJ 790 1ZB 1090 3BA 1320 SCK 640 RW42 565 SCR 1402 XHHB 740 XLII 1330 1YX 880 3AW 1280 SAD 1310 RW36 586 SCW 1402 XHHB 840 XLIIK 1330 1ZM 1260 3BO 970 SCL 730 RW36 586 SCW 1402 XHHB 840 XLIIK 1330 1ZM 1260 3BO 970 SCL 730 RW56 686.5 SCR 1402 XHHB 840 XLIIK 1330 1ZM 1260 3BO 970 SCL 730 RW56 686.5 SCW 1402 XHHB 940 XLIIN 1390 ZAD 1880 3GL 3350 SNM 1350 SNM 1450 RW55 SW 1402 XHHB 960 XLIN 1390 ZAD 1880 3GL 3350 SNM 1500 FP 1040 RW55 566 SCW 1402 XHHB 960 XLIN 1390 ZAD 1880 3GL 3350 SNM 1500 FP 1040 RW55 566 SCW 1402 XHHB 960 XLIN 1390 ZAD 1880 3GL 3350 SNM 1350 SNM 1450 RW55 982 VD 704 727 XHHB 1040 XLIR 1230 ZBL 740 3KZ 1380 GAM 980 SCR 724 WUB 983 XHHB 1260 XHB 1260 XMHA 600 ZBB 870 SWR 1240 GKG 1240 RW55 988 VUB 1500 XHHB 1340 XLIN 1390 ZBC 1470 SWR 1240 GKG 1240 RW55 988 VUB 1500 XHHB 1340 XLIN 1300 ZBC 1470 SWR 1240 GKG						750			YV11RN	101034	2XN		
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RW28 725 SCE 1402 XGOT 1200 XLHM 1120 ZF5 1455 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1220 XLHM 1120 ZF5 1465 ZZF 960 4WK 900 RW30 913 SCG 1402 XGOT 1220 XLHM 1120 ZF5 1465 ZZF 960 4WK 900 RW31 625 SCH 1402 XGOV 1010 XLHM 1120 ZF5 1465 ZZF 980 4YA 790 RW31 625 SCH 1402 XGOV 1070 XLHO 1400 ZTB 988 ZZJ 980 4YA 1790 RW33 1050 SCJ 1530 XGOY 690 XLHQ 1440 ZTC 600 ZZM 1150 4ZC 1280 RW33 1050 SCJ 1530 XGOY 690 XLHQ 1440 ZTC 600 ZZM 1150 4ZC 1280 RW35 598 SCL 1402 XGOX 1150 XLHA 1220 ZTD 750 ZZO 1400 4ZL 1220 RW35 598 SCL 1402 XGSA 1335 XLIB 1450 ZTJ 645 ZZP 900 4ZM 1010 RW38 662 SCN 1402 XGSS 610 XLID 1370 ZTG 560 3AK 1500 4ZP 620 RW39 832 SCO 1312 XGOY 1150 XLIB 1370 ZTG 560 3AK 1500 4ZP 620 RW39 832 SCO 1312 XGOY 1150 XLIB 1370 ZTG 560 3AK 1500 4ZP 620 RW44 563 SCC 1402 XGTM 900 XLIF 1250 IYA 650 3AK 630 4ZR 1340 RW44 563 SCQ 1312 XGGY 1150 XLIB 1370 ZTG 560 3AK 500 4ZP 620 RW44 565 SCR 1402 XGYM 150 XLIB 1300 IYA 850 3AR 630 4ZR 1340 RW41 563 SCQ 1312 XHB 740 XLIB 1300 IYA 850 3AR 630 4ZR 1340 RW42 565 SCR 1402 XHHA 840 XLIB 170 ZTB 1090 3BA 1320 5CK 640 RW42 565 SCR 1402 XHHA 840 XLIB 1300 IZB 1090 3BA 1320 5CK 640 RW46 704 SCT 1402 XHHB 740 XLIB 870 IZB 1090 3BA 1320 5CK 640 RW51 T94 SCV 1402 XHHB 740 XLIB 870 IZB 1420 3DB 1030 5DN 960 RW50 617 SCU 1240 XHHB 740 XLIB 870 IZB 1420 3DB 1030 5DN 960 RW50 617 SCU 1240 XHHB 960 XLIM 910 ZAD 1880 3GL 355 SMU 1450 RW51 794 SCV 1402 XHHB 1000 XLKB 1230 ZBE 1470 3HA 1010 5PI 1040 RW52 556 SCW 1402 XHHB 1000 XLKB 1230 ZBE 1470 3HA 1010 5PI 1040 RW52 556 SCW 1402 XHHB 1000 XLKB 1230 ZBE 1470 3HA 1010 5PI 1040 RW55 774 VUD 880 XHHP 1260 XMHB 980 ZGF 1210 3WV 580 6ML 1130 RW64 704 VUD 880 XHHP 1260 XHBB 980 ZGF 1210 3WV 580 6ML 1130 RW64 704 VUD 880 XHHB 1260 XMHB 980 ZGF 1210 3WV 580 6ML 1130 RW64 704 VUD 880 XHHB 1260 XMHB 980 ZGF 1210 3WV 580 6MR 560 RW65 774 VUD 880 XHHB 1260 XMHB 980 ZGF 1210 3WV 580 6MR 560 RW65 774 VUD 880 XHHB 1260 XMHB 980 ZGF 1210 3WV 580 6MR 560 RW75 1044 XDYF 1270 XHHB 1340 XMHB 700 ZGC GG 70 3SH 1080 GKF 720 XHHB 1340 XMHB 700 ZGC GG 70 3SH 1080	RW27	689	SCC	1086	XGON	930	XLHI	760	ZBW	845	2YB		
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RW31					XGOT			800	ZP4	1275	2ZF		
RW31 625 SCH 1402 XGOW 1010 XLHN 1120 ZP9 888 ZZJ 980 4YO 1140 RW32 635 SCI 1402 XGOX 1070 XLHO 1400 ZTB 790 ZZL 1240 4ZB 1010 ZC 1280 RW33 1050 SCJ 1530 XGOY 690 XLHQ 1440 ZTC 600 ZZM 1150 4ZC 1280 RW34 522 SCK 1312 XGOZ 1150 XLHA 1320 ZTD 750 ZZO 1400 4ZL 1220 RW35 598 SCL 1402 XGSA 610 XLHB 1370 ZTP 750 ZZO 1400 4ZL 1220 RW36 586 SCM 1402 XGSA 610 XLIB 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 662 SCN 1402 XGSA 610 XLIB 1370 ZTP 952 ZZR 920 4ZO 1010 RW38 662 SCN 1402 XGSM 840 XLIE 1170 ZUG 560 3AK 1500 4ZP 620 RW38 SCO 1312 XGTM 900 XLIF 1250 1YA 650 3AK 1500 4ZP 620 RW38 SCO 1312 XGTM 900 XLIF 1250 1YA 850 3AW 1280 SAD 1310 RW41 563 SCQ 1312 XHGS 730 XLIJ 790 1ZB 1900 3BA 1320 SCK 640 RW42 565 SCR 1402 XHHA 840 XLIK 1330 1ZM 1260 3BO 970 SCL 730 RW46 686.5 SCS 1402 XHHA 840 XLIK 870 1ZB 1900 3BA 1320 SCK 640 RW46 565 SCS 1402 XHHA 840 XLIK 870 1ZB 1420 3BD 1030 SDN 960 RW48 704 SCT 1402 XHHB 740 XLIL 870 1ZB 1420 3BD 1030 SDN 960 RW48 704 SCT 1402 XHHB 740 XLIL 870 1ZB 1420 3BD 1030 SDN 960 RW48 704 SCT 1402 XHHB 740 XLIL 870 1ZB 1420 3BD 1030 SDN 960 RW48 704 SCT 1402 XHHB 740 XLIL 870 1ZB 1420 3BD 1030 SDN 960 RW45 500 TUA 1275 XHHI 1060 XLIM 1390 2AY 1480 3GL 1350 SMU 1450 RW51 500 YUB 1850 XHHB 1000 XLIK 1230 ZBH 1330 3HS 1370 SRM 850 RW54 S80 SPTT 859 XHHH 1040 XLIR 1230 ZBH 1330 3HS 1370 SRM 850 RW54 S80 SPTT 859 XHHH 1040 XLIR 1230 ZBH 1330 3HS 1370 SRM 850 RW54 S80 VUB 855 XHHL 1140 XLIP 1220 ZGR 550 3TR 1240 6KG 1220 RW55 932 VPB 705 XHHJ 1080 XLKB 825 ZCH 1190 3MA 990 6GF 720 RW55 932 VPB 705 XHHJ 1080 XLKB 825 ZCH 1190 3MA 990 6GF 720 RW55 938 VUP 1500 XHHN 1200 XLKC 1210 2FC 610 3W S70 6KB 1130 RW64 740 VUB 880 XHHP 1260 XMHA 800 ZGR 550 3TR 1240 6KG 1210 RW66 573 VUM 770 XHHS 1100 XQHA 580 ZKA 1180 GAM 1300 ZAY 1420 GKG 1210 RW71 689 SKC YUB 1500 XHHV 1160 XQHA 580 ZKA 1180 GAM 1130 RW 1060 ZGR 988 VUP 1500 XHHV 1160 XQHA 580 ZKA 1160 3TL 1200 7TH 689 XGCK 990 XHHV 880 XQHB 850 ZKA 1160 3TL 1200 7TH 689 XGCK 990 XHHV 880 XQHB 850 ZKA 1160 3TL 1200 7TH 750 YUV 1460 RW75 1044 AY YUV 1460 XQHB 1360 ZVV 9						1220		1120	ZP5	1465	2ZH		
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RW56 640 VQ7LO 858 XHHK 620 XLKS 1490 2CO 670 35H 1080 61X 1240 RW57 1068 VUB 855 XHHL 1140 XLPH 1210 2CC 550 3TR 1240 6KG 1210 RW64 740 VUD 880 XHHP 1260 XMHA 600 2GB 870 3WR 1260 6ML 1130 RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 580 6WR 6WR 580 6WR 1400 880 XMHR 1300 2GB 1210 3WV 580 6WR 580 6WR 1400 3WV 580 6WR 580 6WR 580 6WA 560 580 580 6WR 560 580 6WR 560 6WR 580 6WR 560 6WR 560 6WR 56													
RW61 888 VUC 810 XHHK 1140 XLPH 1210 2CR 550 3TR 1240 6KG 1210 RW64 740 VUD 880 XHHK 1260 XMHA 600 2GB 870 3WR 1260 6PR 880 RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 580 6WA 560 RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 1420 6WA 560 RW67 708 VUF 1500 XHHK 1340 XMHC 700 2GR 1330 3XY 1420 6WF 690 880													
RW61 888 VÜC 810 XHHN 1200 XLTC 1210 2FC 610 3UZ 930 6ML 1130 RW64 740 VUD 880 XHHP 1260 XMHA 600 2GB 870 3WR 1260 6PR 880 RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 580 6WA 560 RW66 958 VUU 1700 XHHS 1100 XOCL 1500 2GZ 990 3YA 720 6WF 690 RW70 1040 XDYF 1270 XHHU 1160 XOL 1500 2GZ 2HD 1140 3YB 1060 6WF 690 RW71 689 XGCK 990 XHHV 1800 XOHB 850 2KA 1160 3YL 1200 7HU 1390 RW72 689 XGCK 990 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1240 6KG</td><td></td></td<>												1240 6KG	
RW64 740 VUD 880 XHHP 1260 XMHA 600 2GB 870 3WR 1260 6PR 880 RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 580 6WA 560 RW67 968 VUL 1200 XHHR 1340 XMHC 700 2GN 1390 3XY 720 6WA 560 RW68 577 VUM 770 XHHS 1100 XOCL 1500 2GC 990 3YA 720 6WF 690 RW70 1040 XDYF 1270 XHHU 1160 XQHA 580 2KA 1160 3YL 1200 7BU 1390 RW71 689 XGCK 990 XHHV 880 XQHB 850 2KO 1410 3ZM 1470 7HO 820 RW73 859 XGCZ 1340 XHHY <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
RW65 734 VUG 933 XHHQ 1280 XMHB 980 2GF 1210 3WV 580 FR 800 RW67 968 VUL 1200 XHHR 1340 XMC 700 2GN 1390 3XY 1420 6WA 560 RW68 557 VUM 770 XHHS 1100 XOCL 1500 2GZ 990 3YA 720 6WF 690 RW70 1040 XDYF 1270 XHHU 1500 XQHA 580 2LA 1160 3YL 1060 7BU 1390 RW71 689 XGCK 990 XHHV 880 XQHB 850 2LA 1160 3YL 1207 7HO 820 RW73 689 XGEZ 1470 XHHV 1240 XQHD 1360 2LV 1120 3ZR 940 7HL 1100 RW74 680 XGEZ 1340 XHHY												1000	
RW67 968 RW68 VUL 1200 XHHR 1340 XMHC 700 2GN 1390 3XY 1420 6WA 560 RW68 577 VUM 770 XHHS 1100 XOMO 1450 2HD 1140 3YR 1206 690 720 6WF 690 RW71 689 XGCK 990 XHHU 1160 XQHA 1500 2HA 1160 3YL 1200 7BU 1390 RW71 689 XGCK 990 XHHV 880 XQHB 850 2KA 1160 3YL 1200 7HO 820 RW73 859 XGDZ 1470 XHHV 290 XQHC 1300 2KV 1020 3ZR 940 7LA 1100 RW74 680 XGED 1340 XHHY 1240 XQHD 1360 2LV 980 4AK 1220 7NT 750 RW75 1095 XGF 833 X													880
RWSS 577 VUM 770 XHHS 1100 XOCL 1500 2GZ 990 3YA 720 6WF 690 8W70 1040 XDYF 1270 XHHT 1500 XOMO 1450 2HD 1140 3YB 1050 7BU 1390 RW71 689 XGCK 990 XHHV 880 XQHB 850 2KA 1160 3YL 1200 7HO 820 RW73 680 XGZ 1470 XHHV 880 XQHB 850 2KO 1410 3ZM 1470 7HO 820 RW73 680 XGZ 1470 XHHX 920 XQHC 1300 2KY 1400 3ZM 1470 7HZ 1100 RW75 1095 XGED 1340 XHHY 1240 XQHD 1360 2LV 980 4AK 1220 7LA 1100 RW75 1095 XGF 833 XHHZ 1180 XQHE 1460 2MO 1360 4AY 980 7UV 1460 7UV 1460													560
RWS9 988 VUP 1500 XHHT 1500 XOMO 1450 2HD 1140 3YB 1060 7BU 1390 XOMO 1450 2HD 1140 3YB 1060 7BU 1390 XOMO 1450 2HD 1140 3YL 1200 7HO 820 XOMO 1450 2HO 1410 3YL 1200 7HO 820 XOMO 1450 2HO 1410 3YL 1200 7HO 820 XOMO 1450 2HO 1450 2HO 1450 2HO 1450 2HO 1450 7HO 820 7HO 820 XOMO 1450 XOMO 1450 2HO 1450													690
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540 kcys	s. (555.2)		
CJRM ak	1000	F M	oose Jaw, Sask.	J. Richardsons & Sons, 311 Main St.
550 kcy	s. (545.1)		
CFNB ak KFUO ae KFYR ae KOAC ak KSD ak KTSA ak WDEV ae WGR ck WKRC ak WSVA ak	500 500 1000 1000 1000 1000 500 1000 500	2 (1) St N (5) Bi Co 2R (5) S C (5) Sa D W C Bi C Ci	edericton, N. B Louis, Mo. smarck, N. D. orvallis, Ore. t. Louis, Mo. n Antonio, Tex. aterbury, Vt. uffalo, N. Y. ncinnati, Ohio arrisonburg, Va.	 J. S. Neill & Sons, York St. Evangelical Lutheran Synod, 801 DeMun St. Meyer Brdcstg. Co., 320 Broadway State Agricultural College. St. Louis Post-Dispatch. Southwest Brdcstg. Co., Plaza Hotel. Mary M. Whitehill, Stowe St. Buffalo Brdcstg. Corp., Rand Bldg. WKRC, Inc., Hotel Alms Marion Gilliam, Main & Market Sts.
560 kcy	s. (535.4)		
KFDM ak KLZ ae KSFO ak	500 1000 1000	Č D	eaumont, Tex. enver, Colo. an Francisco, Cal.	-Sabine Brdcstg. Co., Box 2950 -Shirley-Savoy Hotel. -Russ Building.

NORTH AMERICAN B. C.	STATIONS BY FREQUENCIES
KWTO ak 5000 D Springfield, Mo. WFIL ak 1000 B Philadelphia, Pa. WIND ak 1000 (5) Gary, Ind. WIS ae 1000 N (5) Columbia, S. C. WOAM ae 1000 C Miami, Fla. XEAO ak 250 (.15) Mexicali, L. C. XEFC ak 100 Merida, Yuc.	 Ozarks Brdcstg, Co., St. Louis & Kimbrough WFIL Brdcstg, Co., 801 Market St. Johnson-Kennedy Corp., 504 Broadway Station WIS, Inc., Box 635 Miami Brdcstg, Co., 327 N. E. First Ave. Luis Castro, Altamirano 156 J. Molina Font., Calle 59, No. 517
570 kcys. (526.0)	
KGKO ak 250 C (1) Wichita Falls, Tex. KMTR ak 1000 Hollywood, Calif. KVI ak 1000 C Tacoma, Wash. WKBN ae 500 IC Youngstown, Ohio WMCA ak 1000 C(5) Yankton, S. D. WOSU ak 750 1 (1) Columbus, Ohio WSYR ak 250 BX Syracuse, N. Y. WWNC ak 1000 N Asheville, N. C.	 W. F. Brdcstg. Co., Ninth and Indiana. KMTR Radio Corp., 915 N. Formosa Ave. Puget Sound Brdcstg. Co., Rust Bldg. WKBN Brdcstg. Corp., 17 N. Champion St. Knickerbocker Brdcstg. Co., 1697 Broadway WNAX Brdcstg. Co., Second and Capitol Ohio State University 315 Starret-Syracuse Bldg. Citizen Brdcstg. Co., Inc., Flatiron Bldg.
580 kcys. (516.9)	
CFPR CHRC z 50 Prince Rupert, B.C. Quebec, Que. CHRC ak 100 F Quebec, Que. CJGX ae 100 F Yorkton, Sask. CKCL ae 100 F Toronto, Ont. CKUA ak 500 Edmonton, Alta. KSAC ak 500 2 (1) Manhattan, Kans. WCHS ak 500 (1) Charleston, W. Va. WDBO ae 1000 C Orlando, Fla. WIBW ak 1000 C2 (5) Topeka, Kans. WTAG ae 500 R Worcester, Mass.	Felix E. Batt, Box 79 CHRC, Ltd., Victoria Hotel 155 Royal Alexandra Hotel, Winnipeg, Man Dominion Battery Co., 444 University University of Alberta J. McClatchy Co., Van Ness and Calaveras State College of Agriculture WOBU, Inc., Ruffner Hotel Orlando Brdcstg. Co., Box 1097 11th and Topeka Blvd Worcester Telegram, 18 Franklin St.
590 kcys. (508.2)	
KHQ	 Louis Wasmer, Inc., Sprague & Post. Edison Electric Co., 182 Tremont. WKZO, Inc., Burdick Hotel Woodmen of the World, 4th and Farnam Piedras Negras Brdcstg. Co., Box 360
600 kcys. (499.7)	
CFCF ae 400 FN Montreal, Que. CJOR ak 500 Vancouver, B. C. CMW ak 1400 Havana, Cuba CRCW ak 500 F (1) Windsor, Ont. FON z 250 609 St. Pierre, Miq. KFSD ae 1000 B San Diego, Calif. WCAO ae 500 2 Storrs, Conn. WICC ae 500 2 (1) Bridgeport, Conn. WMTC ak 1000 B (2.5) Cedar Rapids, Ia. WREC ak 1000 C (2.5) Memphis, Tenn.	Canadian Marconi Co., Royal HotelG. C. Chandler, Hotel GrosvenorPaseo de Marti 105C. R. B. C., Guaranty Trust Bldg.,
610 kcys. (491.5)	
KFRC ck 1000 C (5) San Francisco, Cal. WDAF ak 1000 R (5) Kansas City, Mo. WIP ae 1000 Philadelphia, Pa. WJAY ae 500 D Cleveland, Ohio XFX ak 1000 Mexico City, D. F.	 Don Lee Brdcstg, Sys., 1000 Van Ness Ave. Kansas City Star, 1729 Grand Ave. Penn. Brdcstg, Corp., Gimbel Bldg. Cleveland Brdcstg, Corp., 1224 Huron Road Secretario de Educacion Publica.
620 kcys. (483.6)	
KGW ak 1000 R (5) Portland, Ore. KTAR ae 1000 N Phoenix, Ariz. WFLA ae 1000 Na (5) Clearwater, Fla. WHJB ak 250 D Greensburg, Pa. WLBZ ak 500 C (1) Bangor, Maine WSUN ae 1000 Na (5) St. Petersburg, Fla. WTMJ ae 1000 N5 (5) Milwaukee, Wis.	 Oregonian Pub. Co., 325 Adler St. KTAR Brdcstg. Corp., Heard Bldg. Chamber of Commerce, Box 119 Pittsburgh Radio Supply Co., 128 Penna. Ava. Maine Brdcstg. Co., 100 Main St. Chamber of Commerce, Recreation Pier The Journal Co., 333 W. State St.

	STATISTICS BY TREE COEFFICIES
630 kcys. (475.9)	
CFCO ak 100 F Chatham, Ont. CFCY ae 1000 F Charlottetown, P.E.1. CJRC ak 500 F(L.) Winnipeg, Man. CKOV ak 100 F Kelowna, B. C. KFRU ak 500 I (1) Columbia, Mo. KGFX ak 200 D Pierre, S. D. WGBF ak 500 I Evansville, Ind. WMAL ak 250 B (.5) Washington, D. C. WOS ak 500 ID Jefferson City, Mo. WPRO. ak 250 Providence, R. I. XEZ z 500 Merida, Yuc.	155 Royal Alexandra HotelOkanagan Brdesters., Box 243KFRU, Inc., Ninth and Elm StsDana McNeil, Box 573Evansville on the Air, 519 Vine StNBC, Inc., 712 - 11th St., N. W.
640 kcys. (468.5)	
CMBC dj 150 Havana, Cuba. KF1 ah 50000 R Los Angeles, Calif. WAIU ae 500 Columbus, Ohio WOI ae 5000 D Ames, Iowa XEOX ak 500 Saltillo, Coah.	 Maximo Gomez 139 Earle C. Anthony, Inc., 1000 S. Hope St. Deshler-Wallick Hotel lowa State College Antonio Garza C., Victoria 4 (altos)
650 kcys. (461.3)	
WSM ae 50000 N Nashville, Tenn.	-National Life and Accident, 301 Seventh St.
660 kcys. (454.3)	
WAAW ak 500 D Omaha, Neb. WEAF ak 50000 R New York, N. Y.	 Omaha Grain Exchange NBC, Inc., 30 Rockefellar Plaza
670 kcys. (447.5)	
WMAQ ak 50000 N Chicago, III.	NBC, Inc., Merchandise Mart
680 kcys. (440.9)	
CMCG ak 150 Havana, Cuba. KFEQ ak 2500 D St. Joseph, Mo. KPO ak 50000 R San Francisco, Cal. RDN z 500 San Salvador, E.S. VAS akn 2000 685 Glace Bay, N. S. VOWR ck 500 681 St. John's, Nfld. WPTF ae 5000 DnN Raleigh, N. C.	 La Onda, S. A., Calle Malecon 340 KFEO, Inc., Schneider Bldg. NBC, Inc., 111 Sutter St. Republic of El Salvador Canadian Marconi Co., Ltd. Wesley United Church, Box 157 WPTF Radio Co., 324 Fayetteville St.
690 kcys. (434.5)	
CFRB ak 10000 C Toronto, Ont. CJCJ aj 100 F Calgary, Alta. NAA akn 1000 Arlington, Va. XET ak 500 Monterrey, N. L.	 Rogers-Majestic Corp., 37 Bloor St. Albertan Pub. Co., New Albertan Bldg. United States Navy P. O. Box 203, Hidalgo.
700 kcys. (428.3)	
WLW ak 500000 N Cincinnati, Ohio	Crosley Radio Corp., 1329 Arlington St.
710 kcys. (422.3)	
KIRO ae 500 Seattle, Wash. KMPC ak 500 Beverly Hills, Cal. WOR ak 50000 Newark, N. J. XEN ak 1000 Mexico City, D. F.	 Tower Bldg. Bev. Hills Brdcstg. Corp., 9631 Wiltshire Bamberger Brdcstg. Sys., 147 Market St. G. de la Conde, Dolores No. 1
720 kcys. (416.4)	
WGN ak 50000 Chicago, III.	-WGN, Inc., 435 N. Michigan Ave.
730 kcys. (410.7)	
CFPL ak 100 F London, Ont. CJCA ah 1000 F Edmonton, Alta. CKAC ck 5000 C Montreal, Que. CMK ae 3000 Havana, Cuba	—London Free Press, Richmond St. —Edmonton Journal, 10122 - 100 A St. —La Presse Pub. Co., 980 St. Catherine St. —Cia. Nacional de Radio, Hotel Plaza

TORTH MUERICAN B. C. C.	TATIONS BY TREQUERCES
740 kcys. (405.2)	
KMMJ ae 1000 D Clay Center, Neb. KTRB ak 250 D Modesto, Calif. WHEB ak 250 D Portsmouth, N. H. WSB ah 50000 N Atlanta, Ga.	—The M. M. Johnson Co. —McTammany & Bates, Box 405 —Granite State Brdcstg Corp., Box 522 —Atlanta Journal, 7 N. Forsyth St.
750 kcys. (399.8)	
CMCW dk 150 Havana, Cuba KGU aj 2500 N Honolulu, T. H. WJR ak 50000 C Detroit, Mich. XEAM z 7.5 Matamoros, Tams.	 —Radio Pilot, San Lazaro 113 —Advertiser Pub. Co., Kapiolani & South Sts. —WJR, Inc., Fisher Bldg. —Edificio Banco Longoria
760 keys. (394.5)	
CMHX ak 200 Cienfuegos, Cuba KXA ae 250 (.5) Seattle, Wash. WBAL ae 2500 BSy Baltimore, Md. WEW ae 1000 D St. Louis, Mo. WJZ ak 50000 BSy New York, N. Y. XEOK z 250 Tijuana, L. C.	 F. Chavarry, P. O. Box 205 American Radio Tel. Co., 312 Bigelow Bldg. American Radio News Corp., Lexington Bldg. St. Louis University, 221 N. Grand Blvd. NBC, Inc., 30 Rockefeller Plaza Carlos de la Sierra, Calle 5a, 312
770 kcys. (389.4)	
CMBS ak 150 Havana, Cuba KFAB ae 10000 CSy Lincoln, Neb. WBBM ae 50000 CSy Chicago, Ill.	—Calzada y "H" St., Vedado, Havana —KFAB Brdcstg. Co., Cornhusker Hotel —WBBM Brdcstg. Corp., 410 N. Michigan Ave.
780 kcys. (384.4)	
CHWK dk 1000 F Chilliwack, B. C. CKSO ak 1000 F Sudbury, Ont. CMJK ak 250 Camaguey, Cuba KELW ak 500 2 Burbank, Calif. KFOD ck 250 Anchorage, Alaska KGHL ak 1000 N (2.5) Billings, Mont. KTM ak 500 2 (1) Los Angeles, Calif. WEAN ae 500 C Providence, R. I. WMC ak 1000 N (5.) Memphis, Tenn. WTAR ae 500 N (1) Norfolk, Va. XEYZ z 10000 Mexico City, D. F.	Chilliwack Brdcstg. Co., Box 452W. E. Mason, Grand Theatre BldgCia Nacional de Radio, Finlay No. 3Magnolia Park Ltd., 3702 Magnolia Park BlvdSouth Dakota State College, Box LAnchorage Radio Club, 411 Fourth AveNorthwestern Auto Supply, 5th and Broadway214 So. Vermont StShepard Brdcstg. Serv., New Crown HotelWMC, Inc., Hotel Gayoso
790 kcys. (379.5)	
CMGH z 250 Matanzas, Cuba KGO ak 7500 B San Francisco, Cal. WGY ak 50000 R Schenectady, N. Y.	—"Rialto," E. Blanchet 25 —NBC, Inc., 111 Sutter St. —General Electric Co., 1 River Road
800 kcys. (374.8)	
HIX ak 700 Trujillo, D. R. WBAP ak 50000 Na Fort Worth. Tex. WFAA ak 50000 Na Dallas, Tex. WTBO ak 250 D Cumberland, Md.	 J. R. Saladin, Director General Ft. Worth Star-Telegram A. H. Belo Corp., Baker Hotel Associated Brdcstg. Corp., Box 794
810 kcys. (370.2)	
CMCF ak 600 Havana, Cuba WCCO ae 50000 C Minneapolis, Minn. WNYC ak 1000 D New York, N. Y. XFC z 350 Aguascalientes, Ags.	 Oscar Gutierrez, Paseo de Marti 9 Northwestern Brdcstg. Co., Nicollet Hotel City of N. Y., Centre & Duane Sts. Gobierno del Estado de Aguascalientes
820 kcys. (365.6)	
CMHW ak 100 Cienfuegos, Cuba. WHAS aj 50000 C Louisville, Ky. XEMZ z Coronado Isle, L. C.	—Ramon Gonzales. Box 226 —Courier-Journal, 300 W. Liberty St. —
830 kcys. (361.2)	
KOA ak 50000 N Denver, Colo. WEEU ak 1000 D Reading, Pa.	—NBC, Inc. —Berks Brdcstg. Co., 533 Pennsylvania

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES
WHDH ae 1000 Dn Boston, Mass. —Metheson Radio Co., 62 Boylston WRUF ae 5000 Dn Gainesville, Fla. —University of Florida
840 keys. (356.9)
CFQC ak 1000 F Saskatoon, Sask. CRCT ak 5000 FN Toronto, Ont. VOGY ak 400 St. John's, Nfld. XERA ck 250000 Villa Acuna, Coah. —Electric Shop, Ltd., 216 First Ave., No. —C. R. B. C., 805 Davenport Road —Newfoundland Hotel —Brinkley Hospital (Del Rio, Texas).
850 keys. (352.7)
CMBN z 150 Havana, Cuba KIEV ak 250 D Glendale, Calif. TIEP z 500 San Jose, C. R. WESG ak 1000 C Elmira, N. Y. WKAR ac 1000 C East Lansing, Mich. WWL ac 10000 C New Orleans, La. XEFE z 250 Nuevo Laredo —Calle Pozos Dulces 3, Rpt. Ensanche —Cannon System, Ltd., Glendale. —Eduardo Pinto H., Apartado 257 —Cornell University, Mark Twain Hotel —Michigan State College —Loyola University, Roosevelt Hotel —R. T. Carranza, Km. 4 Carretera Laredo Mt.
860 kcys. (348.6)
WABC ak 50000 C New York, N. Y. —Atlantic Brdcstg. Corp., 485 Madison Ave. WHB ak 1000 D Kansas City, Mo. XEMO ak 5000 Tijuana, L. C. —Box 202. San Diego, Calif.
870 kcys. (344.6)
WENR ak 50000 Na Chicago, Ill. —NBC, Inc., Merchandise Mart —Agricultural Brdcstg. Co 1230 Wash. Blvd.
880 kcys. (340.7)
CFJC ak 100 F Kamloops, B. C. CMO ak 500 Havana, Cuba CRCO ak 1000 F Ottawa, Ont. KFKA ak 500 2 (1) Greeley, Colo. KLX ae 1000 Oakland, Calif. KPOF ae 500 2 Denver, Colo. WCOC ae 500 (1) Meridian, Miss. WGBI ae 500 I Scranton, Pa. WPORN ak 500 D Petersburg, Va. WOAN ae 250 I Scranton, Pa. WSUI ae 500 (1) lowa City. Iowa WSUI ae 500 (1) lowa City. Iowa —Review Publishing Co Wilcox-Hall Bldg. —C. R. B. C., Chateau Laurier Hotel —Mid-Western Radio Corp., Box 735 —Tribune Tower —Pillar of Fire, 1845 Champa St. —Mississippi Brdestg. Co., Box 603 —Scranton Drdesters, Inc., 1000 Wyoming Ave. —Scranton Fines, 149 Penn Ave. —State University of Iowa
890 kcys. (336.9)
KARK ak 250 (.5) X Little Rock, Ark. KFNF ak 500 2 (1) Shenandoah, lowa KFPY ak 1000 C X Spokane, Wash. KUSD ae 500 2 Vermillion, S. D. WBAA ak 1000 C Atlanta, Ga. WILL ak 250 2 (1) Urbana, III. WJAR ae 500 R Providence, R. I. WMMN ak 500 C(1) Fairmount, W. Va XEW ak 5000 Mexico City, D. F. -N. S. L. Building -Henry Field, 407 Sycamore StSymons Brdcstg. Co., Symons BldgUniversity of South Dakota -Purdue University -Ga. School of Technology, Ansley Hotel -University of Illinois -Outlet Co., Weybossett StW. Va. Brdcstg Corp., 208 Main StCadena Radiodifusora Mexicana, Box 2516
900 keys. (333.1)
KGBU ak 500 Ketchikan, Alaska KHJ ae 1000 C (5) Los Angeles, Calif. KSEI ck 250 (.5) Pocatello, Idaho WBEN ak 1000 R (5) Buffalo, N. Y. WELI z 500 D New Haven, Conn. WFMD ah 500 D Frederick, Md. WJAX aeh 1000 N (5) Jacksonville, Fla. WKY WKY WLBL ak 2500 D Stevens Point, Wish Ak 500 D Stevens Point, Wish Ak 500 D Outline, Fla. WLBL ak 2500 D Stevens Point, Wish Ak 500 D Outline, Fla. WLBL ak 2500 D Outline, Fla. WLBL ak 2500 D Stevens Point, Wish Ak 500 D Guincy, III. — WKY Radiophone Co., Plaza Court Bldg. — State of Wisc., Fox Theater Bldg. — Illinois Brdcstg. Corp., State and 6th
910 kcys. (329.6)
CJAT ak 1000 F Trail, B. C. —Kootenay Brdcstg. Co., Box 1959

NORTH AMERICAN B. C.	STATIONS DT FREQUENCIES
CRCM ak 5000 F Montreal, Que. XENT ak 150000Nuevo Laredo, Tams.	-C. R. B. C., 1231 St. Catherines St., W. -P. O. Box 410, Laredo, Texas
920 kcys. (325.9)	
CMX ae 1000	 Eugene O'Fallon, Inc., Albany Hotel Fishers Blend Station, Inc., Skinner Bldg. Houston Printing Co., Lamar Hotel Colorado Radio Corp., Continental Oil Bldg. Drovers Journal Pub. Co., Palmer House Wm. Penn Brdcstg. Co., 22nd and Walnut St. WRAX Brdcstg. Co., 217 So. Broad St.
930 kcys. (322.4)	
CFAC ak 100 F Calgary, Alta. CFCH ak 100 F North Bay, Ont. CFLC ae 100 Prescott, Ont. CHNS ae 1000 F Halifax, N. S. CKPC ae 100 F Fort William, Ont. KCBZ ak 1000 2 (2.5) York, Neb. KMA ak 1000 2 (2.5) Shenandoah, Iowa KROW ak 1000 Oakland, Calif. TIRH z 50 San Jose, C. R. WBRC ak 1000 C Birmingham, Ala. WDBJ ae 1000 C (5) Roanoke, Va.	-Educational Brdcstg. Corp., 1803 Franklin St
XEBH z 500 Hermosillo, Sonora	Carlos Halderamma, Obregon 10
940 kcys. (319.0)	WORN You Now World was Winds
KOIN ak 1000 C (5) Portland, Ore. VOAS ak 100 St. John's, Nfld. WAAT ae 500 D Jersey City, N. J. WCSH ae 1000 R (2.5) Portland, Maine WDAY ae 1000 N (5) Fargo, N. D. WHA ak 2500 D Madison, Wis. XEFO ak 5000 (XFO) Mexico City, D. F.	KOIN, Inc., New Heathman Hotel Ayre and Sons, Ltd., Water St Bremer Brdcstg. Corp., 50 Journal Sq WAVE, Inc., 1525 Brown Hotel Congress Square Hotel Co WDAY, Inc., Black Bldg., 118 Broadway University of Wisconsin, Radio Hall Av. 5 de Mayo 19
950 kcys. (315.6)	
CJOC ak 100 F Lethbridge, Alta. CMCD ak 250 Havana, Cuba CRCS ak 100 F Chicoutimi, Que. KFWB ak 1000 (5) Hollywood, Calif. KHSL ak 250 D Chico, Calif. KMBC ae 1000 C (5) Kansas City, Mo. WRC ak 500 R (1) Washington, D. C. YNVA z 30 Managua, Nic.	 H. R. Carson, Ltd., Marquis Hotel Calle "G" y 25, Vedado, Havana C. R. B. C., 4 Rue Larouche Warner Bros. Motion Pictures, Inc. Golden Empire Brdcstg. Co. Midland Brdcstg. Co., Pickwick Hotel NBC, Inc., National Press Bldg.
960 kcys. (312.3)	
CKY ak 15000 F Winnipeg, Man. XEAW ck 50000 Reynosa, Tams.	 Manitoba Telephone System, Sherbrooke St. Cia. Int. Difurosa Reynosa, Aptdo. 6
970 kcys. (309.1)	
CMBY z 150 Havana, Cuba. KJR ak 5000 B Seattle, Wash. WGFL ae 5000 B Chicago, III. WIBG ak 100 D Glenside, Pa.	 Calle Infanta 132 Fishers Blend Station, Skinner Bldg. Chi. Fed. of Labor, 666 Lake Shore Drive Seaboard Radio Brdcstg. Corp.
980 kcys. (306.0)	•
KDKA ae 50000 B Pittsburgh, Pa. XEF z, 100 Juarez, Chih.	—Westinghouse Elec. & Mfg. Co., Grant Bldg.
990 kcys. (302.8)	-Westinghouse El. & Mfg. Co., Hotel Bradford

NORT	H AMERICAN B. C.	STATIONS BT TREQUENCIES
WBZA ak 1000 XEAF ak 500 XEK ak 100 XES dk 250	Nogales, Sonora Mexico City, D. F.	—Westinghouse El. & Mfg. Co., Hotel Kimball —Fransisco G. Elias, Hotel Central —Arturo Martinez. Jalapa No. 51 —Fernando Sada, Box 309
1000 kcys.	(299.8)	
CMBZ ak 150 KFVD ak 250 TIGH z 500 WHO ak 50000 XEBK z 100 XEY z 100	Dn Los Angeles, Calif. San Jose, C. R. Des Moines, Iowa Nuevo Laredo, Tams.	M. y G. Salas, San Rafael No. 14 E. L. Cord, 645 Mariposa Central Brdcstg. Co., 914 Walnut St Ramon Rubio, Calle 64, No. 568
1010 kcys.	(296.9)	•
CHML ak 100 CHWC ak 500 CKCD ak 100 CKCK ak 500 CKCO ak 100 CKIC ak 500 CKIC ak 500 CKWX ak 100 CMJA ak 500 KGGF ak 1000 TIGA z 300	3F Regina, Sask. : Vancouver, B. C. 3F Regina, Sask. F Ottawa, Ont. Wolfville, N. S. F Vancouver, B. C. Camaguey, Cuba Coffeyville, Kans. San Jose, Calif. 1014 Cartago, C. R.	Maple Leaf Radio Co., Pigott Bldg R. H. Williams & Sons, Kitchener Hotel Van. Daily Province, 142 Hastings St., W Leader-Post, Ltd., 1853 Hamilton St Dr. Geldert, 272 Somerset St., W Acadia University Western Brdcstg, Co., Hotel Georgia Rafael Valdez, P. O. Box 64 Powell & Platz, Coffeyville Journal Bldg 87 E. San Antonio St.
WHN ae 1000 WNAD ae 1000 WNOX ak 1000 XEU ak 250	Norman, Okla. C (2) Knoxville, Tenn.	—Marcus Loew Agency, 1540 Broadway —University of Oklahoma —Continental Brdcstg. Corp., Hotel Johnson —Fernando Pazos S., Independencia 98
1020 kcys.	(293.9)	
KYW ak 10000 WDZ ak 250 XEJ ak 1000	R Philadelphia, Pa. D Tuscola, Ill.	 Westinghouse Elec. Co., 1622 Chestnut St. WDZ Brdcstg. Co., Inc. Juan G. Buttner, P. O. Box 111
1030 kcys.	(291.1)	
CFCN ak 10000 CKLW ag 5000 CMCY ak 1000 XEB ak 10000	Calgary, Alta. Windsor, Ont. Havana, Cuba	-Grant & Love, Toronto Gen. Trust BldgGuaranty Trust Building -Manuel Outran, Calle "G" 215, Vedado -El Buen Tono, S. O., Aptdo. 79-44
1040 kcys.	(288.3)	
KRLD ae 10000 KWJJ ak 500 WTIC ah 50000	C Dallas, Texas	 KRLD Radio Corp., Adolphus Hotel KWJJ Brdcstg. Co., 622 Salmon St. Travelers Brdcstg. Co., 26 Grove St.
1050 kcys.	(285.5)	
CMKD ak 250 CRCK ak 1000 KFBI ak 50000 KNX ak 50000 TIFA z 75	Santiago, Cuba F Quebec, Que. Dn Abilene, Kans. Hollywood, Calif.	Radioemisora Oriental, Box 23 C. R. B. C., Chateau Frontenac Hotel Farmers and Bankers Life, Box 345 West. Brdcstg. Co., 1558 N. Vine St.
1060 kcys.	(282.8)	
CMBX ak 200 KTHS ae 10000 VOAC z 40 WBAL ak 10000 WJAG ak 500	Havana, Cuba. N Hot Springs, Ark. 1065 St. John's, Ntd. B Baltimore, Md. Norfolk, Neb.	Alberto Alvarez, San Miguel 194 Chamber of Commerce, Box 86
1070 kcys.	(280.2)	
CMHA z 50 KJBS ak 506 WCAZ ak 100 WTAM ak 50000	Sagua la Grande, C. Dn San Francisco, Cal. D Carthage, Ill.	-Abelardo Menocal, Carrillo No. 31 -Julius Brunton & Sons, 1380 Bush St. -Superior Brdcstg, Service, 97½ Adams -NBC, Inc., 1367 E. 6th St.

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1080	kcys.	(277.6)	
WBT WCBD WMBI	ak 50000 ak 5000 ak 5000	C Charlotte, N. C. 1Dn Waukegan, Ill. 1Dn Chicago, Ill.	—Station WBT, Inc., Wilder Bldg. —WCBD, Inc., Karcher Hotel —Moody Bible Institute, 153 Institute Place
1090	kcys.	(275.1)	
K MOX XEAQ	ak 50000 ak 1000	C St. Louis, Mo. Rosarito, L. C.	-Voice of St. Louis, 401 S. 12th St. -P. O. Box 32, Tijuana
1100	kcys.	(272.6)	/
CRCV KGDM KWKH WLWL WPG XEL	ak 500 ak 1000 ae 10000 ae 5000 ak 5000 z 250	F Vancouver, B. C. D Stockton, Calif. C Shreveport, La. 1 New York, N. Y. 1C Atlantic City, N. J Mexico City, D. F.	 C. R. B. C., 1150 Main St. E. F. Peffer, 42 S. California St. Times Pub. Co., Spring & Fannin Sts. 415 W. 59th St. City of Atlantic City, Convention Hall Plaza de San Juan 15
1110	kcys.	(270.1)	
CMCJ KSOO WRVA XELO	ak 500 ak 2500 ae 5000 z 10000	Dn Sioux Falls, S. D. N Richmond, Va. Piedras Negras, Co.	 Rafael Rodriguez, Estevez No. 4 Sioux Falls Brdcstg. Co., Carpenter Hotel Larus & Bros. Co., 22nd and Gary Sts. Piedras Negras Brdcstg. Co., Madero 53
1120	kcys.	(267.7)	
CHLP CHSJ CKOC CKX CMGF CMKM KFIO KFSG KRKD KRSC WCOP WDEL WISN WTAW	ak 100 ae 500 ak 100 ak 200 ag 500 ak 100 ak 500 ak 250 ak 250 ae 500	F Brandon, Man. Matanzas, Cuba Manzanillo, Cuba Spokane, Wash. a(2.5) Los Angeles, Calif. a (2.5) Los Angeles, Calif. D Seattle, Wash.	—La Patrie Pub. Co., Sun Life Bldg. —N. B. Brdestg. Co., Admiral Beatty Hotel —Westworth Brdestg. Co., Wentworth Bldg. —Manitoba Telephone System, City Hall Sq. —Calle Gnrl. Betancourt 51 —Merchan Figeredo, P. O. Box 4 —Spokane Brdestg. Corp., Zieglar Bldg. —Echo Park Assn., 1100 Glendale Blvd. —Radio Brdesters. Inc., 815 Spring Arcade —Radio Sales Corp., Wash. Athletic Club —Joseph M. Kirby, Hotel Copley-Plaza —WDÉL, Inc., 10th and King Sts. —Hearst Radio, Inc., 123 W. Michigan St. —Agricultural & Mechanical College
1130	kcys.	(265.3)	
CMJI KSL WJJD WOV	ak 50 ae 50000 ak 20000 ag 1000	Ciego de Avila, Cuba C Salt Lake City, Utah Chicago, III. New York, N. Y.	 Gilberto Gesse Lopez, Independencia 95 Radio Service Corp., Vermont Bldg. WJJD, Inc., 201 N. Wells St. International Brdcstg. Co., 132 W. 43rd St.
1140	kcys.	(263.0)	
CMBG KVOO WAPI WSPR	z 200 ak 25000 ae 5000 z 500	Havana, Cuba IN Tulsa, Okla. IN Birmingham, Ala. P Springfield, Mass.	 —John L. Stowers, Hospital No. 100 —Southwestern Sales Corp., Wright Blog. —WAPI Brdcstg. Corp., Protective Life Bldg. —Connecticut Valley Brdcstg. Co.
1150	kcys.	(260.7)	
CMJF WHAM XED XEFL XEH XEWZ	z 200 ae 50000 ak 2500 z 250 ak 250 ak 100	Camaguey, Cuba B Rochester, N. Y. 1155 Guadalajara, Jal. Tijuana, L. C. Monterrey, N. L. Mexico City, D. F.	—John L. Stowers, Republica No. 88 —Stromberg-Carlson Mfg. Co., 100 Carlson Rd. —Cia. Radiofonografica, Aptdo. 197 —P. O. Box 6, San Diego, Calif. —Tarnava y Cia., P. O. Box 147 —Jesus Valezzi E., P. O. Box 291
1160	kcys.	(258.5)	
CMHJ WOWO WWVA XEAS	ak 5000	Cienfuegos, Cuba	 Romualdo Ugalde, Sta. Elena 104 Main Auto Supply Co., 213 W. Main St. W. Va. Brdcstg. Corp., Hawley Bldg. "La Voz del Comercio en Saltillo."

NORTH AMERICAN B. C.	STATIONS BY FREQUENCIES
XEC z 30 Tijuana, L. C. XESL z Tijuana, L. C.	-Luis F. Encisco, Teatro Zaragoza
1170 keys. (256.3)]
CMBD z 150 Havana, Cuba WCAU. ae 50000 C Philadelphia, Pa.	—Luis Perez G., Calle 17, 3, Vedado —WCAU Brdcstg. Corp., 1622 Chestnut St.
1180 kcys. (254.1)]
CMJO ak 50 Ciego de Avila, Cub KEX ak 5000 2B Portland. Ore. KOB ak 10000 2 Albuquerque, NM VE9EK ak 10 1185 Montmagny, Que. WDGY ak 1000 Dn (5) Minneapolis, Minn WINS ak 1000 New York, N. Y. WMAZ ak 1000 Macon, Ga. XEFA z 500 Mexico City, D. F.	- Oregonian Pub. Co., Oregonian Bldg Albuquerque Journal, Box 1319 - J. A. Marquis, Box 52 - Dr. Geo. W. Young, 909 W. Broadway - Hearst Radio, Inc., 114 E. 58th St Southeastern Brdcstg. Co., 211 Cotton Ave.
1190 kcys. (252.0)]
HIJ z 15 1195 Trujillo, D.R. VONF ak 500 1195 St. John's, Nfd. WATR ak 100 D Waterbury, Conn. WOAI ak 50000 N San Antonio, Tex. WSAZ ak 1000 Huntington, W. Va	—Tuto Baez, Hostos 34 —Dominion Brdestg. Co., Ltd., Box 135 —WATR, Inc., 47 Grand St. —Southland Industries; Inc., 1038 Navarro 1. —WSAZ, Inc., P. O. Box 729
1200 kcys. (249.9)]
CHAB ak 100 F Moose Jaw, Sask. CKNX ak 50 Wingham, Ont. CKTB ae 100 F St. Catherines, Ont. CKTB ae 100 D Jonesboro, Ark. 100 D Jonesboro, Ark. GKJB ak 100 (.25) Marshalltown, low KFXD ae 100 (.25) Marshalltown, low KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Fergus Falls, Minr KGEK ak 100 (.25) Fergus Falls, Minr KGEK ak 100 Los Angeles, Calit KGHI ak 100 (.25) Little Rock, Ark. KMLB ak 100 Lowell, Ariz. KVOS dk 100 Bellingham, Wast KWG ak 100 Bangor, Maine WAIM ak 100 Bangor, Maine WAIM ak 100 Anderson, S. C. WBBZ ak 100 Ponca City, Okla. WBNO ak 100 I New Orleans, La. WCAT ak 100 D Rapid City, S. D. WCAX ak 100 Janesville, Wis. WCPO ak 100 Janesville, Wis. WFAM ak 100 (.25) Cincinnati, Ohio WEST ae 100 3 (.25) Easton, Pa. WFAM ak 100 (.25) Cincinnati, Ohio WHBY ak 100 (.25) Cincinnati, Ohio WHBY ak 100 (.25) Cincinnati, Ohio WHBY ak 100 (.25) Cincinnati, Ohio WHBX aej 100 (.3) C Utica, N. Y. WIL ak 100 (.25) Cincinnati, Ohio WHBX aej 100 (.3) C Utica, N. Y. WIL ak 100 (.25) Cincinnati, Ohio WHBX aej 100 (.3) C Utica, N. Y. WIL ak 100 (.25) Bloomington, III. WRBU ak 100 (.25) Lynchburg, Pa. WLYA ak 100 (.25) Lynchburg, Pa. WMPRA ak 100 (.25) Lynchburg, Va. WMPRA ak 100 (.25) Lynchburg, Va. WMPRA ak 100 (.25) Newport, R. I. WRBL ak 100 Columbus, Ga. WTHT z 100 DP Hartford, Conn.	—Enrique Lasanta, Calle Oficios 116 —C. C. Morris —Jay P. Beard —Marshall Elec. Co., Inc., 1603 W. Main St. —Frank E. Hurt, 1024 Twelfth Ave., S. D. Western Slope Brdcstg. Co., Hillcrest Manor —C. L. Jaren —Elmer G. Beehler, 109 W. 2nd St. —Ben S. McGlashan, 1417 S. Figueroa —Arkansas Brdcstg. Co., Marion Hotel —Liners Brdcstg. Station, Francis Hotel —Copper Electrical Co., Drawer C 1. —KVOS, Inc., 115 W. Magnolia St. —Medico-Dental Building —Community Brdcstg. Service —Anderson College —C. L. Carrell, 407 W. South Ave. —Coliseum Baptist Church, Hotel New Orleans —South Dakota State School of Mines —Burlington Daily News. 203 College St. —Gazette Prtg. Co., 200 E. Milwaukee St. —Continental Radio Co., Hotel Sinton —Lancaster Broadcasting Service —South Bend Tribune, 225 W. Colfax Ave. —Edw. P. Graham, 319 Tuscola St., W. —WHBY, Inc., Bellin Bldg. —Wibx, Inc., First Nat'l Bank Bldg. —Missouri Brdcstg. Corp., Melbourne Hotel —Kaskaskia Brdcstg. Co. —Commodore Brdcstg. Co., Gushard Bldg. —C. C. Carlson, Godchaux Bldg.
z 100 Redding, Calif.	—Golden Empire Brdcstg. Co.
1210 kcys. (247.8)	M 1 1744 and 151 October 2
CJCS z 50 Stratford, Ont.	-M. I. Higgens, 151 Ontario St.

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Aklavik, N. W. T.
Prince Albert, Sask.
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Prince Albert Radio Club, Canada Bldg.
CKCH Brdcstg. Co., Standish Hall Hotel
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-Lavis y Paz, Independencia No. 34
-E. M. Woody, Casa Grande Hotel
-KDLR, Inc., 1025 Third St.
-Richard F. Lewis, 498 Washington St.
-KFJI Brdcsters, Inc., Willard Hotel
-Howard Shuman, Hotel Lincoln
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-Oscar C. Hirsch, Box 275
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Lee Bros. Brdcstg. Co., California Hotel
KGY, Inc., 11th and Capitol Way
Garden City Brdcstg. Co.
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-WALR Brdcstg. Corp., 1st Trust & Bank Bldg.
-John A. Stenger, Jr., 70 S. Main St.
-Grace Presb. Church, 1627 Monument Ave.
-Monmouth Brdcstg. Corp., 63 Broad St.
-WCOL, Inc., 33 N. High St.
-Clinton R. White, 2756 Pine Grove Ave.
-Harrisburg Brdcstg. Co., 100 E. Poplar
-Emil Denemark, 3850 Ogden Ave.
-Westchester Bdcstg. Corp., Hotel Roger Smith
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Red Bank, N. J.
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-WGCM, Inc.
-Peter Goelet (Orange County)
-Rock Island Brdcstg. Co., Hotel Harms
-Anderson Brdcstg. Corp., Box 816
-Wm. C. Forrest, R. F. D. No. 3
-Gadsen Brdcstg. Co., 112 N. 8th St.
-Hagerstown Brdcstg. Co., Lovely Dame Bldg.
-Capital City Brdcstg. Co., Lovely Dame Bldg.
-Capital City Brdcstg. Co., 1150 N. Front St.
-Hugh St. High St.
-Sunbury Brdcstg. Co., 1150 N. Front St.
-Havens & Martin, Inc., 914 W. Broad St.
-Head of the Lakes Brdcstg. Co.
-Attala Brdcstg. Corp., Box 180
-A. E. Newton, 840 N. Main St.
-Francis M. Kadow, Box 326
-H. Wimpy, 135 E. Jackson St.
-Brown Radio Service, 192 S. Goodman St.
-Gene T. Dyer, 1258 S. Michigan Ave.
-638 Tire and Vulcanizing Co.
-WSOC, Inc., 516 W. Trade St.
-WTAX, Inc., 416 E. Capitol Ave.
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1220 kcys. (245.8)
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Tampa Times Co., Tampa Terrace
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-Jose R. Lopez, Independencia 28
                                                     R(5) Pittsburgh, Pa. C(2.5) Tampa, Fla.
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1230 keys. (243.8)
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Springfield B'cst Co., St. Louis & Kimbrough
New Mexico Brdcstg. Co., KiMo Bidg.
Pacific Brdcstg. Corp., 988 Market St.
-307 N. Pennsylvania St.
Sheppard Brdcstg. Serv., 21 Brookline Ave.
Junco de la Vega, P. O. Box 186
                                                    ... Havana, Cuba
Springfield, Mo.
(.5) Albuquerque, N.M.
N San Francisco, Calif.
C(5) Indianapolis, Ind.
C(2.5) Boston, Mass.
Monterrey, N. L.
Managua, Nic.
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1240 kcys. (241.8)	
CJCB ak 1000 F Sydney, N. S. CMHB z 50 Sancti Spiritus, Cuba KGCU ak 250 1 Mandan, N. D. KTAT ak 1000 Fort Worth. Texas KTFI ae 1000 Twin Falls, Idaho WKAQ ae 1000 San Juan, P. R. WXYZ ak 1000 B Detroit, Mich. XEAC z 250 Tijuana, L. C.	 Mandan Radio Assn., 404 W. Main St. John P. Cooley, Box 707 Fort Worth National Bank Bldg. Radio Brdcstg. Corp., Box 521 Radio Corp. of Puerto Rico, Box 1414 Kunsky-Trendle Brdcstg. Corp.
XEAI z 100 Mexico City, D. F. XEKL z 500 Leon, Guan. XELA z 50 Saltillo, Coah. XEME z 15 Merida, Yuc.	—Carlos Conzales C., Insurgentes 366 —Cia. Radio del Bajio, 5 de Mayo 26 —
1250 kcys. (239.9)	
CMKC ak 150 Santiago, Cuba KFOX ae 1000 Long Beach, Calif. WCAL ah 1000 2(2.5) Northfield, Minn. WDSU ak 1000 New Orleans, La. WHBI ak 1000 2(2.5) Newark, N. J. WLB ak 1000 2 Minneapolis, Minn. WTCN ak 1000 2(5) Minneapolis, Minn	 J. A. Saco, P. O. Box 466 Nichols & Warinner, 220 E. Anaheim St. St. Olaf College WDSU, Inc., Hotel Monteleone May Brdestg. Corp., 100 Shipman St. University of Minnesota Wodaam Corp., 100 Shipman St. Minn, Brdestg. Corp., Wesley Temple Bldg.
1260 kcys. (238.0)	
CFRN ak 1000 F Edmonton, Alta. KGVO ak 1000 B(2.5) Council Bluffs, Ia. KPAC ak 500 D Port Arthur, Texas KUOA ak 1000 D Fayetteville, Ark. WHIO ae 1000 R Dayton, Ohio WNBX ak 1000 C Savannah, Ga.	 G. R. A. Rice, 109 C. P. R. Bldg. Mosby's, Inc., 240 N. Higgins Central States Brdcstg. Co. Port Arthur College KRGV, Inc. KUOA, Inc., Washington Hotel Ariz. Brdcstg. Co., Cons. Natl. Bank Bldg. Miami Valley Corp., 39 S. Ludlow St. WNBX Brdcstg. Corp., 39 Main St. Savannah Brdcstg. Co., DeSoto Hotel
1270 kcys. (236.1)	
CMHD dk 250	Manuel Alvarez M., Escobar 17 Chas. W. Greenley, 201 Water St Seattle Brdcstg. Co., Northern Life Tower S. H. Patterson, Antlers Hotel Luther College Kunsky-Trendle Brdcstg. Corp Baltimore Radio Show, 7 St. Paul St Lamar Life Insurance Co Kunsky-Trendle Brdcstg. Corp Juan C. Chavez, Av. Obregon 958 Gobiero del Estado de Veracruz
1280 keys. (234.2)	
KFBB ac WCAM ac WCAP ac Store wCAP ac wCAP ac Store wCAP ac wCAP ac Store wCAP ac wCAP	Buttrey Brdcstg, Co., P. O. Box 1817City of Camden, City HallRadio Industries, Inc., Convention HallWDOD Brdcstg, Corp., Hotel PattenBadger Brdcstg, Co., 111 King StAlf. E. Kleindienst, 60 Franklin StCity of Dallas, Southland Bldg,Trenton Brdcstg, Co., Stacy Trent HotelAlfonso T. Avales, Salamanca 87
1290 kcys. (232.4)	
KDYL ak 1000 NX Salt Lake City, Utah KLCN ak 100 D Blytheville, Ark. KTRH ak 1000 C(5) Houston, Texas WEBC ae 1000 N(5) Superior, Wis. WJAS ak 1000 C(2.5) Pittsburgh, Pa. WNBZ z 100 D Saranac Lake, N. Y. WNEL ak 1000 (2.5) San Juan, P. R.	—Intermountain Brdcstg. Corp. —C. L. Lintzenich, Main & Division Sts. —KTRH Brdcstg. Co., Rice Hotel —Spaulding Hotel, Duluth, Minn. —Chamber of Commerce Bldg. —Smith and Mace, 70 Broadway —Juan Piza, Box 1252

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1300 keys. (230.6)
                                                                                                               -KALE, Inc., New Heathman Hotel
-E. L. Cord, 645 So. Mariposa
-KFH, 124 ½ S. Market St.
-KFJR, Inc., 622 Lumberman's Bldg.
-People's Pulpit Assn., 124 Columbia Hts.
-Jewish Daily Forward, Hotel Claridge
-Sth Ave. Brdcstg. Corp., 154 W. 57th St.
-Greenville News-Piedmont Co., Imperial Hot.
-Rensselaer Polytechnic Institute, 8th Ave.
-Press Publishing Co., Press Bldg.
KALE
KFAC
KFH
                   ak
ak
ak
                                                           Portland, Ore.
Los Angeles, Calif.
Wichita, Kans.
Portland, Ore.
                               500
1000
                                             3C
                               1000
KFJR
                                 500
                   ag
                                                           Portland, Ore.
Brooklyn, N. Y.
New York, N. Y.
New York, N. Y.
Greenville, S. C.
Troy, N. Y.
Sheboygan, Wis.
Miami, Fla.
WBBR
                               1000
                   ae
                                1000
WEVD
                   ak
WFAB
WFBC
                   ae
                                1000
                                             (5)N
                   ak
                               1000
WHAZ
                   ae
                                  500
                                                                                                                -Press Publishing Co., Press Bldg.
-Isle of Dreams Brdcstg. Corp., Biscayne Blvd.
WHBL
                   ae
                                  500
                                1000
WIOD
                    ak
1310 keys. (228.9)
                                                                                                                Burke & Gesner, 36 Upper Hillsboro St.
-Northern Brdestg. Co., Ltd.
-Laurie L. Smith, Grand Hotel
-GKCV, Ltd., 142 St. John St.
-Chas. C. Robinson, Drawer D.
-C. C. Baxter, Box 176
-541 Hightower Bldg.
-Kirksey Bros. Hotel Lubbook
                                                  .. Charlottetown, P.E.I.
CHCK
                   ak
                   ak
ak
                                                         Kirkland Lake, Ont.
Yarmouth, N. S.
CJKL
CJLS
                               1000
                                  100
                                                          Quebec, Que.
Jerome, Ariz.
Dublin, Texas
CKCV
KCRJ
                   ak
                                  100
                                             Ď
                    ak
                                  100
                                             (.25)
(.25)
(.25)
(.25)
KFPL
                    dk
                                  100
                                                        Oklahoma City, Okl.
Lubbock, Texas
KFXR
                    ak
                                  100
                                                          Lubbock, Texas
Wolf Point, Mont.
Kalispell, Mont.
Kearney, Neb.
Juneau, Alaska
Yakima, Wash.
Santa Fe, N. Mex.
Medford, Ore.
Pampa, Texas
Shreveport, La.
Rochester, Minn,
El Paso, Texas
Lafayatte, La.
Aberdeen, Wash.
Laurel, Miss.
Marquette, Mich.
Terre Haute, Ind.
                                                                                                                 Kirksey Bros., Hotel Lubbock
E. E. Krebsbach
KFYO
                    dk
                                  100
KGCX
KGEZ
                   ak
                                  100
                                                                                                                 Donald C. Treloar, Box 1
Cent. Nebr. Brdcstg. Corp., 919 W. 27th
                   aj
ak
                                  100
KGFW
                                  100
                                                                                                                 Edwin A. Kraft
Carl E. Haymond, 109½ E. Yakima Ave.
KINY
KIT
                   ak
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                   ak
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                   ak
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KMED
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DP
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KPDN
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KRMD
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KROC
KTSM
KVOL
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WBEO
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                                                           Terre Haute, Ind.
Wilkes Barre, Pa.
                   ak
                                  100
WBRE
                                  100
                                                           Wilkes Barre, Pa.
Joliet, Ill.
Ashland, Ky.
El Paso, Texas
Buffalo, N. Y.
Milwaukee, Wis.
Royal Oak, Mich.
WCLS
WCMI
                   ak
                                  100
                                              . . . .
                                  100
                                                                                                                -Ashland Brdcstg. Co., Box 106
-Tri-State Brdcstg. Co., Box 1976
-Howell Brdcstg. Co., Inc., 23 North St.
-Milwaukee Brdcstg. Co., 212 W. 6th St.
-Gable Brdcstg. Co., 212 W. 6th St.
-Gable Brdcstg. Co., 12th Ave. & 13th St.
-Flint Brdcstg. Co., Union Industrial Bldg.
-Hampton Rds. Brdcstg. Co., 2813 Washington
-Independent B'cstg. Co., Public Ledger Bldg.
-WJAC, Inc., Locust St.
-Lake Region Brdcstg. Co.
-D. A. Burton, Anthony Bldg.
WDAH
                   ak
                                  100
                                             (.25)
D
WEBR
                                  100
                   aeh
WEMP
                                  100
WEXL
                   ak
                                                           Altoona, Pa.
Flint, Mich.
WFBG
                                  100
                   ae
WFDF
                   mk
                                  100
                                              (.25)
                                                           Newport, News, Va.
Philadelphia, Pa.
Johnstown, Pa.
Lakeland, Fla.
WGH
                                  100
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ak
WHAT
WJAC
WLAK
                                  100
                                  100
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                   \mathbf{z}
                                                                                                                -Lake Region Brdcstg. Co.

-D. A. Burton, Anthony Bldg.
-Northern Brdcstg. Co., 523 Main St.
-WMBO, Inc., Metcalf Bldg.
-Plattsburg Brdcstg. Corp., Hotel Cumberland
-E. Anthony & Sons, 251 Union St.
-American Brdcstg. Co., Annapolis Hotel
-Reading Brdcstg. Co., 533 Penn St.
-Stuart Brdcstg. Corp., 524 S. Gay St.
-Grove City College, 418 Poplar St.
-R. R. Broyles, Tutwiler Hotel
-Winston-Salem Journal Co., 416 N. Marshall
-Florida Capitol Brdcsters., Inc.
                                            P Lakeiand, Fia.
6(.25) Muncie, Ind.
... Laconia, N. H.
... Auburn, N. Y.
D Plattsburg, N. Y.
(.25) New Bedford, Mass.
... Washington, D. C.
WLBC
                   ak
                                  100
WLNH
                   ak
                                  100
WMBO
                   ak
                                  100
WMFF
                                  250
                   ak
                   ak
WNBH
                                  100
WOL
                    ak
                                  100
WRAW
                                              Reading, Pa.
(.25) Knoxville, Tenn.
Grove City, Pa.
                   ak
                                  100
WROL
                                  100
                   ak
WSAJ
                    ae
                                  100
                                              (.25) Birmingham, Ala.
C Winston-Salem, N.C.
WSGN
                   ak
                                  100
WSJS
                    ak
                                  100
                                                                                                                 Florida Capitol Brdesters., Inc.
Foulkrod Radio Eng. Co., 3701 N. Broad
Sun Publishing Co., Sun Bldg.
Truth Publishing Co., Hotel Elkhart
WTAL
                   ak
                                  100
                                                            Tallahassee, Fla.
WTEL
                                  100
                                                           Philadelphia, Pa.
                    ce
                                            6(.25) Elkhart, Ind.
Cordoba, Ver.
Mexico City, D. F.
Tampico, Tams.
Torreon, Coah.
WTJS
                   ak
                                  100
WTRC
                                  100
                   ak
XEAG
XECW
XEFW
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                                    10
10
                                                                                                                 -M. E. Bravo de Cordero, Av. Juarez 104
-J. E. Martinez, Salvador Diaz Miron 6
                                  250
                    ak
XETB
                    ak
                                  125
                                                                                                                 P. O. Box 225
\mathbf{X}\mathbf{E}\mathbf{X}
                    ak
                                  125
                                                            Monterrey, N. I
                                                                                                                 L. F. Petit Jean, P. O. Box 10
XFA
                                                ... Aguascalientes, Ags.
                                                                                                                 Apartado Postale 92
1320 kcys. (227.1)
CMOX ak
                                            .... Havana, Cuba
                                 250
                                                                                                            -10 entre 17 y 19, Vedado
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KGHF
                          500
                                                                                    -C. P. Ritchie, 113 Broadway
-Honolulu Brdcstg. Co., Box 2663
                                             Pueblo, Colo.
                                             Honolulu, T. H.
Idaho Falls, Idaho
Des Moines, Iowa
 KGMB
               ak
                        1000
 KID
                                                                                    KID Brdcstg. Co., Box 487
                         500
                                   (1)
                                  C(1) Des Montes,
C(2.5) Akron, Ohio
York, Pa.
 KRNT
               ak
                          500
 WADC
                        1000
                                                                                    Allen T. Simmons, P. O. Box 29
York Brdcstg, Co., 15 S. Beaver St.
WSMB, Inc., Maison Blanche Bldg.
               ae
 WORK
              ak
                        1000
 WSMB
               ak
                         500
                                             New Orleans, La.
 1330 keys. (225.4)
                                                                                   -Virgilio Villanueva, Calle Heredia 61
-Don Lee System, 1012 First Ave.
-KMO, Inc., Hotel Winthrop
CMHK
                         250
                                             Crucas, Cuba
                                  C(2.5) San Diego, Calif.
Tacoma, Wash.
1C(2.5) Sioux City, Iowa
C(5) Hartford, Conn.
KGB
KMO
               ag
ak
                        1000
                         250
 KSCJ
                        1000
               aj
                                                                                    Perkins Bros Co., 415 Douglas St.
 WDRC
              ae
                        1000
                                                                                   -WDRC, Inc., Corning Bldg., 11 Asylum St.
-Crosley Radio Corp., 1329 Arlington St.
-WHBY, Inc., Bellin Bldg.
                                  R(2.5) Cincinnati, Ohio
Green Bay, Wis.
 WSAI
                        1000
               ak
 WTAO
               ae
                        1000
1340 kcys. (223.7)
 CMJL
                           75
                                            Camaguey, Cuba
                                                                                 -M. Caymares, Republica 181
               7.
HRN
                           50
                                             Tegucigalpa, Hond.
KGDY
KGIR
KGNO
WCOA
                                  D Huron, S. D.
N(2.5) Butte, Mont.
Dodge City, Kans.
C Pensacola, Fla.
                                                                                   -Voice of S. Dak., Inc., 347 Dakota St.
-KGIR, Inc., 121 W. Broadway
-First National Bank Bldg.
-Pensacola Brdestg. Co., San Carlos Hotel
                         250
              ak
                        1000
               яk
                         250
              яk
                         500
               ak
                                  Č(1)
C(5)
                                                                                   New Hamp. Brdcstg. Co., Carpenter Hotel
Toledo Brdcstg. Co., 505 Jefferson
Gobierno Estado de Veracruz
 WFEA
               ae
                         500
                                             Manchester, N. H.
                                            Toledo, Ohio
Jalapa, Ver.
 WSPD
               ae
                        1000
XFD
                         350
               z
1350 kcys. (222.1)
                                                                                    Testar y Gonzales, Av. de Italia
Boise Brdcstg. Station, Hotel Boise
Thomas Patrick, Inc., Hotel Chase
CMCA
                         250
                                            Havana, Cuba
                                  (.25)
B(5)
KIDO
KWK
WAWZ
WBNX
                                            Boise, Idaho
St. Louis, Mo.
Zarephath, N. J.
New York, N. Y.
              ak
ak
                        1000
                        1000
                         500
250
                                                                                    Pillar of Fire
              ae
                                  1(1)
                                                                                    Standard Cahill Co., 260 E. 161st St.
              ae
                                (220.4)
 1360 kcys.
                                                                                   -Luis Marauri H., Castilla 37
-Enid Radiophone Co., Oxford Hotel
                         50
250
                                           Ciego de Avila, Cuba
Enid, Okla.
 CMJH
KCRC
KGER
WCSC
              ak
                                  . . . .
                                                                                   Consolidated Brdcstg. Co., 435 Pine St.
-S. C. Brdcstg. Corp., Francis Marion Hotel
-Onondaga Brdcstg. Co., Onondaga Hotel
                                            Long Beach, Calif.
Charleston, S. C.
Syracuse, N. Y.
              ak
                        1000
                                  (1)N
              ak
                         500
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WFBL
              ak
                        1000
                                                                                    Oak Leaves Brdcstg. Co., 4000 Washington
Delta Brdcstg. Corp., Hotel Vicksburg
South Bend Tribune, 225 W. Colfax Ave.
WGES
                         500
                                            Chicago, Ill.
              ae
 WQBC
              ak
                        1000
                                 D
                                            Vicksburg, Miss
                         500
WSBT
                                            South Bend, Ind.
1370 kcys. (218.8)
                                                                                   -Moncton Brdcstg. Co., K. of P. Hall
-Genaro Sebater. Av. Cespedes 180
-Abbes y Garcia, Calle Duarte 68
-Abraham Shapiro, 611 Commercial St.
                                            Moncton, N. B.
CKCW
CMGE
                         100
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              яk
                         150
                                            Cardenas, Cuba
Trujillo, D. R.
              ak
HIZ
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KAST
                                            Astoria, Ore.
              ak
                         100
KELD
                                            El Dorado, Ark
                         100
                                                                                    T. H. Barton
                                  . . . .
                                                                                    Station KERN, Elk's Club
Boone Biblical College, 924 W. 2nd St.
KERN
              ak
                         100
                                            Bakersfield, Calif.
                                  . . . .
                                            Boone, Iowa
Grand Forks, N. D.
Fort Worth, Texas
Longview, Texas
KFG0
KFJM
              ak
                         100
                                                                                    University of North Dakota
Ft. Worth Brdcsters., 502 Trinity Life
                                 (.25)
              ak
                         100
KFJZ
                         100
              96
KFRO
                                                                                    Voice of Longview, Box 86
                         100
              ak
                                                                                   -Voice of Longview, Box 86
-Tucson Motor Service, 142 S. 6th Ave.
-Oklahoma Brdcstg, Co., 1113 N. Broadway
-KGFL, Inc., 507 N. Main St.
-KGKL, Inc., St. Angelus Hotel
-Southwest Bracstg, Co.
-C. Guy Shepard, 2800 Main St.
-Geo, R. Clough, Buccaneer Hotel
                                    .25) Tucson, Ariz.
...Oklahoma City, Okla.
Roswell, N. M.
                                  (.25)
KGAR
KGFG
              ae
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KGFL
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                         100
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                                            San Angelo, Texas
Clovis, N. M.
KGKL
              ak
                         100
KICA
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KIUP
KLUF
              ak
                         100
                                            Durango, Colo.
                                 (.25)
5
                         100
                                            Galveston, Texas
              7
                                                                                   W. W. McAllister, Smith-Young Tower
Mission Brdestg. Co., Milam Bldg.
-First Cong. Church, 2337 Shattuck Ave.
-Lee Mudgett, 2814 Rucker Ave.
KMAC
KONO
                                            San Antonio, Tex.
San Antonio, Tex.
              ak
                         100
              ak
                         100
                                 5
                         100
                                  (.25)
                                            Berkeley, Calif.
Everett, Wash.
Salem, Ore.
Walla Walla, Wash.
KRE
              ak
KRKO
              ak
                           50
                                                                                   Oregon Radio, Inc.
KSLM
              ak
                         100
                                                                                   KUJ, Inc., Marcus Whitman Hotel
KVL, Inc., 2101 Smith Tower
KUJ
              ak
                         100
                         100
                                 1
                                            Seattle, Wash.
              ak
KWKC
                         100
                                            Kansas City, Mo.
                                                                                    W. Duncan Brdcstg. Co., 3915 Main St.
              ak
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KWYO
WABY
WAGF
WATL
WBNY
                                                                                                    Big Horn Brdcstg. Co.,
Adirondack Brdcstg. Co., Hotel Ten Eyck
Dothan Brdcstg. Co., Box 25
Atlanta Brdcstg. Co., Volunteer Life Bldg.
                                                     Sheridan, Wyo.
Albany, N. Y.
Dothan, Ala.
                               100
                 ak
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250
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                 aj
ak
                                        Dothan, Ala.
Atlanta, Ga.
2P(.25) Buffalo, N. Y.
(.25) Danville, Va.
(.25) Baltimore
                 ak
                               100
                              100
100
                                                                                                    -Roy L. Albertson
-Piedmont Brdcstg. Co., Miller Bldg.
-Balto. Brdcstg. Co., Keith Theater Bldg.
-WDAS Brdcstg. Co., 1211 Chestnut St.
-Evansville on the Air, Inc.
-F. C. Zieg, 213 W. Main St.
-WHBO, Inc., Hotel Claridge
-Upper Mich. Brdcstg. Co., Box 643
-Head of the Lakes Brdcstg. Co.
-WIBM, Inc., 306 W. Michigan Ave.
-Merrimac Brdcstg. Co., Box D
-Florida Brdcstg. Co.
                                                                                                     Roy L. Albertson
                 Z
WBTM
                 ak
WCBM
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P
WDAS
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                                                     Philadelphia, Pa.
WEOA
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                                                     Evansville, Ind.
WGL
WHBO
                               100
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                                                     Fort Wayne, Ind.
                                                     Memphis, Tenn.
Calumet, Mich.
Virginia, Minn.
Jackson, Mich.
Lowell, Mass.
                               100
                 ak
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P
WHDF
                               100
                 ak
WHLB
                               100
                                         (.25)
WIBM
                 ak
                               100
                                        (.25) Lowell, Mass.
C(.25) Jacksonville, Fla.
D Wilmington, N. C.
WLLH
                 ak
                               100
WMBR
                               100
                ak
WMFD
WMFO
                                                                                                     Richard A. Dunlea, Hotel Wilmington
                 ak
                               100
                                                                                                     James R. Doss, Jr.
                               100
                 ak
                                                     Decatur, Ala.
WOC
WPAY
WPFB
                                                                                                    Tri-City Broadcasting Co.
Veebee Corp.
                               100
                                        C(.25) Davenport, Iowa
.... Portsmouth, Ohio
                 ak
                 ak
                               100
                                                                                                    Veebee Corp.
Forest Brdcstg. Co., 512 Main St.
Regan & Bostwick, 42 N. Main St.
WRAK, Inc., 244 W. 4th St.
WRDO, Inc., Augusta House
Racine Brdcstg. Corp., Hotel Racine
Seneca High School, 666 E. Delevan Ave.
                                               Portsmouth, Ohio
Hattiesburg, Miss.
St. Albans, Vt.
Williamsport, Pa.
Augusta, Maine
Racine, Wis.
Buffalo, N. Y.
Mexico City, D. F.
Morelia, Mich.
San Luis Potosi, SLP.
Naw Albany, Usp.
                 ak
                               100
WODM
WRAK
                               100
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WRDO
                 ae
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WRJN
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WSVS
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                 ak
                                                                                                     Manuel Zetina, Calle de la Rosa 92
Carlos Gutierrez M., F. I. Madero 545
XEFZ
XEI
                               100
                 ak
                                         . . . .
                 ak
                               125
                                                                                                     Zeferino Jiminez, Zaragoza 32
XEZZ
                               100
                 7.
                               250
                                        DP
                                                     New Albany, Ind.
St. Paul, Minn.
                                                                                                     North Side Brdcstg. Corp.
                 \mathbf{z}
                                                                                                     Edward Hoffman
1380 keys. (217.3)
                                                                                                    -Aurelio Hernandez, Infanta 115
-The Bee, Inc., 440 N. Virginia St.
-K QV Brdcstg. Co., 1406 C. of C. Bldg.
-Pape Brdcstg. Co., P. O. Box 288
-WKBH, Inc., 409 Main St.
-Wm. J. Sanders, 147 Main St.
-WSMK, Inc., 121 N. Main St.
CMCR
                                                     Havana, Cuba.
Reno, Nev.
                                        \dot{\mathbf{c}}
KOH
KOV
WALA
                 ak
                              500
500
                                                     Pittsburgh, Pa.
                 ae
                               500
                 af
                                        C(1)
                                                     Mobile, Ala
WKBH
                            1000
250
200
                                                     LaCrosse, Wis
                 ae
WNBC
                                                     New Britain, Conn.
                 mk
WSMK
                                                     Dayton, Ohio
1390 keys. (215.7)
                                                                                                    -Felix Sanchez, Calle Cisneros y Gnrl. Gomez
-Domingo Dominguez
-Arkansas Brdcstg. Co., Box 550
                                        .... Camaguey, Cuba
1395 San Ped.de Macoris
CMJC
                 7.
                 ãk
                                15
HIH
                                        C(2.5) Little Rock, Ark.
D Marshfield, Ore.
KLRA
                            1000
                 ae
KOOS
                              250
                                                                                                    Pacific Radio Corp., Hall Bldg.
Nielson Co., P. O. Box 1323
Radio Air Corp., 1311 Terminal Tower
                 ae
                                        (1) Phoenix, Ariz.
C(2.5) Cleveland, Ohio
KOY
                              500
                 ae
WHK
                            1000
1400 kcys. (214.2)
                                                                                                    Oscar Mechoso, Independencia 56
Jaime Nadal, Calle "B," Maso alta 71
-Interstate Brdestg. Corp., 405 - 25th St.
-Tulsa Brdestg. Co., National Bank Bldg.
-Ministerio de Fomento
CMGC
                                                     Matanzas, Cuba
                                        .... Matanzas, Cuba
... Santiago, Cuba
N. Ogden, Utah
C(1) Tulsa, Okla
... Guatemala City, Gt.
2 Brooklyn, N. Y.
P Brooklyn, N. Y.
P Brooklyn, N. Y.
P(1) Indianapolis Ind
CMKR
                               100
                 \mathbf{z}
KLO
                 ak
                               500
KTUL
TGX
WARD
                              500
250
                 ak
                 ak
                                                                                                    U. S. Brdestg. Corp., 427 Fulton St.
Brooklyn Brdestg. Corp., 552-54 Atlantic
Brooklyn Daily Eagle
540 N. Meridian St.
                               500
                 ak
WBBC
                 ae
                               500
WEGL
                               500
                                                     Indianapolis, Ind.
Brooklyn, N. Y.
Brooklyn, N. Y.
WIRE
                 ak
                               500
                                        R(1)
 WLTH
                 ak
ak
                               500
                                                                                                    Voice of Brooklyn, 105 - 2nd Ave., N. Y. C.
Paramount Brdcstg. Co., 4 & 5 Court Sq.
                               500
WVFW
1410 kcys. (212.6)
                                                     New Carlisle, Que.
Vancouver, B. C.
                                                                                                    -Gaspesian Radio Brdcstg. Co.
-United Church of Canada, Hemlock & 12th
CHNC
                 ak
                               500
                                        F(1)
CKFC
                 ak
                                50
                                         5
                                                                                                    -United Church of Canada, Hemiock & 12t-
Sprott-Shaw Co., 1604 Bekins Bldg.
-Plains Radio Brdcstg. Co.
Bay State Brdcstg. Co., 21 Brookline Ave.
-James E. Davidson, Hotel Wenonah
-Daily Telegraph, Bland St.
-Rockford Brdcsters, Inc., 109 S. Water
                                                     Vancouver, B. C.
Amarillo, Texas
Boston, Mass.
CKMO
                               100
                                         5F
                 ag
KGNC
                 ae
                            1000
                                        (2.5)
C
WAAB
                 ak
                              500
                                                     Bay City, Mich.
Bluefield, W. Va.
Rockford, Ill.
WBCM
                              500
                ae
                                         (.5)
WHIS
                 ak
                               250
WROK
                               500
                 ak
                                        C(1)
WSFA
                 ak
                               500
                                                     Montgomery, Ala.
                                                                                                     Mont. Brdcstg. Co., Jefferson Davis Hotel
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1420 kcys. (211.1)
                                                       Timmins, Ont.
Havana, Cuba.
San Antonio, Texas
Aberdeen, S. Dak.
CKGB
                  ak
                                                                                                          R. H. Thompson, Press Bldg.
                                           F
                                                                                                          -Calle Vista Alegre 90, Vibora
-Alamo Brdcstg. Co., Texas Theater Bldg.
-Aberdeen Brdcstg. Co.
CMCO
KABC
                                           (.25)
                  ak
                                100
KABR
                  ak
                                100
                                                                                                          Aberdeen Brdcstg. Co.
Alexandria Brdcstg. Co.
Benson School, 546 N. E. 12th Ave.
No. Mississippi Brdcstg. Co., Box 865
Eastern Utab Brdcstg. Co.
Reporter Prtg. Co., 18 W. First St.
KGFF, Inc., 9th and Bell Sts.
Golden Gate Brdcstg. Co., 230 Eddy St.
Leonard E. Wilson, 326 N. Commercial
Honolulu Brdcstg. Co.
Lamar Brdcstg. Co., Box 688
J. H. Hawkins and B. H. Tubbs
Palestine Brdcstd. Association
KALB
                                100
                                                        Alexandria, La.
                  \mathbf{z}
KBPS
KCMC
KEUB
                                                        Portland, Ore.
                                100
                  aj
ak
                                          ....
                                                         Texarkana, Ark.
                                100
                                                        Price, Utah.
Fond du Lac, Wis.
                                100
KFIZ
                  ãk
                                100
                                                        Shawnee, Okla.
San Francisco, Cal.
                                           (.25)
KGFF
                                100
                  ak
KGGC
                                100
                  яk
                                                        Alamosa, Colo.
Hilo, T. H.
Lamar, Colo.
Pecos, Texas
                  ak
                                100
                                           χz
KHBC
                                100
KIDW
                  ãk
                                100
KIUN
KNET
                                          Ď...
                  ak
                                100
                                                                                                          Palestine Brdcstg. Association
Eugene Brdcstg. Sta., 733 Willamette St.
H. E. Studebaker, Lewis-Clarke Hotel
                                100
                                                        Palestine, Texas
KORE
                  ae
                                100
                                                         Eugene, Ore.
                                           . . . .
                                          Ď...
                                                        Lewiston, Idaho
Midland, Tex.
KRLC
                                100
                  ak
KRLH
                                100
                                                                                                          Clarence Scharbaur
                                                                                                          Dr. A. H. Schermann, Box 267
W. N. Greenwald
KUMA
                  ak
                                100
                                                        Yuma, Ariz.
Hutchinson, Kans.
KWBG
                  ak
                                100
                                                                                                          -W. N. Greenwald
-KXL Brdcsters., Multnomah Hotel
-Cent. Texas Brdcstg. Co., Amicable Bldg.
-Aroostook Brdcstg. Corp., Main St.
-Hazleton Brdcstg. Service, Inc.
-WCBS, Inc., 208½ S. 5th St.
-Community Brdcstg. Corp., Box 221
-Wm. Avera Wynne, Box 221
-WEHS, Inc., 6138 Cermak Road
-Enguirer News, 38 W. State St.
-American Brdcstg. Corp. Bylander Thea
                                           4(.25) Portland, Ore.
KXL
                  ak
                                100
WACO
                                100
                                                         Waco, Texas
                  ak
WAGM
WAZL
WCBS
                                100
                                                        Presque Isle, Maine
                  ae
                                          2 Hazleton, Pa.
... Springfield, Ill.
3(.25) Charlottesville, Va.
3 Rocky Mount, N. C.
                  ak
                                100
                  ak
                                100
WCHV
                  ak
                                100
WEED
                  ak
                                100
WEHS
                                                        Cicero, Ill.
Battle Creek, Mich.
                  ak
                                100
WELL
                                100
                                           . . . .
                                                                                                          Americus Brdestg. Corp., Rylander Theater
Tupper Lake Brdcstg. Co., Exchange Bank
WHFC, Inc., 6138 Cermak Road
Delaware Brdcstg. Corp., 920 King St.
Baton Rouge Brdcstg. Co., 334 Florida St.
                                                        Albany, Ga.
Olean, N. Y.
Cicero, Ill.
WGPC
                  ak
                                100
WHDL
                  ak
                                100
                                           Ď
WHFC
WILM
                                100
                  ae
                                                       Wilmington, Del.
Baton Rouge, La.
Gastonia, N. C.
Ironwood, Mich.
Cicero, Ill.
                                100
                  aj
ak
WJBO
                                100
                                                                                                         J. B. Roberts
-WJMS, Inc., St. James Hotel
-WKBI, Inc., 6138 Cermak Road
-American Brdcstg. Corp., Main & Esplanade
-WkBE, Oo., 901 N. 8th St.
-Leo J. Omelian, Commerce Bldg.
-WMAS, Inc., 70 Chestnut St.
-WMAS, Inc., 70 Chestnut St.
-Mich. Brdcstg. Co., 7310 Woodward Ave.
-Joplin Brdcstg. Co., 1334 Roosevelt St.
-W. W. Esch, 126 ½ Magnolia Ave.
-Muscle Shoals Brdcstg. Corp., Box 486
-Paducah Brdcstg. Co., 2201 Broadway
-Chancellor Hotel
-Julio M. Conesa
                                                                                                           J. B. Roberts
WJBR
                                100
WJMS
WKBI
                  ak
                                100
                  ak
                                100
WLAP
WLBF
WLEU
                                           (.25)
                                100
                                                       Lexington, Ky.
Kansas City, Kan.
                  ak
                  ak
ak
                                100
                                          (.25) Erie, Pa.
(C(.25) Springfield, Mass.
(.25) Detroit, Mich.
(.25) Joplin, Mo.
                                100
WMAS
WMBC
                  ak
                                100
                                100
                  ae
WMBH
                                100
                  ak
WMFJ
WMSD
                                                        Daytona Beach, Fla
Sheffield, Ala.
                  ak
                                100
                  ak
                                100
                                                        Paducah, Ky.
                                           (.25)
WPAD
WPAR
                  ak
                                100
                  ak
                                100
                                           Parkersburg, P(.25) Ponce, P. R.
WPRP
                                100
                                                                                                          Julio M. Conesa
Antonio Zavala, Paseo de la Presa 85
                                                        Guanajuato, Gto.
Monterrey, N. L.
XEAZ
                                                                                                          Jesus Quintanilla, Box 317
XEFB
                  ak
                                100
1430 kcys. (209.7)
                                                                                                         Cesar Canall, Gallejas No. 28
-E. C. Anthony, Inc., 1000 S. Hope St.
-Great Plains Brdcstg. Co., W. 12th St.
-lowa Brdcstg. Co., 715 Locust St.
-WBNS. Inc., 33 N. High St.
-WHEC, Inc., 40 Franklin St.
-WHP, Inc., 216 Locust St.
CMJP
                  ak
                                  75
                                           .... Camaguey, Cuba
(5) B Los Angeles, Calif.
D North Platte, Neb.
                              1000
KECA
                  ah
KGNF
KSO
                              1000
                  ak
                                          B (1)
C (1)
C (1)
                                500
                                                       Des Moines, Iowa
Columbus, Ohio
Rochester, N. Y.
                  ak
WBNS
                  ae
                                500
WHEC
                                500
                  ae
WHP
                                500
                                                       Harrisburg, Pa.
Memphis, Tenn.
                  ak
                                                                                                          -Memphis Brdcstg. Co., Hotel DeVoy
-WOKO, Inc., Hotel Ten Eyck
WNBR
                                500
                                          (1) Memphis, Ter C (1) Albany, N. Y.
                  ae
WOKO
1440 kcys. (208.2)
CMOA
                                150
                                                        Havana, Cuba
                                                                                                      —Juan Fernandez Duran, Aguilar 126, altos
HP50
                                  25
                                                        Colon, Panama
                                          Colon, Panama
Casper, Wyo.
D Oakland, Calif.
Houston, Texas
(1441) Cartago, C. R.
C (1) Greensboro, N. C.
Allentown, Pa.
                                           . . . .
                                                                                                          Donald L. Hatthaway, Box 930
Warner Bros., 2201 Telegraph Ave.
Harris County Brdcstg. Co., Gulf Bldg.
KDFN
                  ak
                                500
KLS
                  ag
ak
                                250
KXYZ
                              1000
TIFS
                                7.5
                  \mathbf{z}
                                                                                                          N. C. Brdcstg. Co., The O. Henry Hotel
-B. B. Musselman, 39-41 Tenth St.
-Peoria Brdcstg. Co., 11 N. Madison
WBIG
                                500
                  96
WCBA
                                500
                  aj
ak
                                          a Allentown,
C (1) Peoria, III.
WMBD
                                500
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WSAN
              aj
                        500
                                 a
                                           Allentown, Pa
                                                                                 WSAN, Inc., 39 Tenth St.
                        250
                                                                                 Feliciano Lopez Isles, Aptdo. 157
XEEL
                                           Chihuahua, Chih.
1450
             kcys.
                               (206.8)
                                                                                -Victoria Brdcstg. Assn., 620 View St.
-R. T. Holman, Ltd.; 190 Water St.
-Redwood Brdcstg. Co., Vance Hotel
-Tri-State Brdcstg. System, Box 17
-WGAR Brdcstg. Co., Hotel Statler
-N. J. Brdcstg. Corp., 2870 Hudson Blvd.
-Academy of Music Bldg.
-Liberty Brdcstg. Co., 133 E. Washington
                                \dot{\mathbf{F}}
                                           Victoria, B. C.
Summerside, P.E.I.
Eureka, Calif.
CHGS
                          50
              ae
KIEM
                        500
              ak
                                          Shreveport, La.
Cleveland, Ohio
KTBS
              ak
                       1000
                                 B (1)
WGAR
              ak
                        500
WHOM
WSAR
                        250
              ae
                                           Jersey City, N. J.
Fall River, Mass.
                       1000
              96
WTFI
                        500
                                           Athens, Ga.
1460 kcys.
                              (205.4)
                                                                                 -San Fransisco 13, Vibora.
-M. J. de Gongora, Libertad esq. Arias
-Natl. Battery Brdcstg. Co., St. Paul Hotel
CMCU
                        150
                                           Havana, Cuba.
              z
CMKF
KSTP
                          50
                                           Holguin, Cuba
St. Paul, Minn
              z
                                N
C
                     25000
                     10000
                                           Washington, D. C.
                                                                                 Old Dominion Brdcstg. Co., Earle Bldg.
1470 keys. (204.0)
CMOK
                        150
                                                                                 Rafael Valdez, Estrella 121
Louis Wasmer, 1023 W. Riverside Ave.
WLAC, Inc., 2421 West End Ave.
              7.
                                           Havana, Cuba
                       5000
                                B
KGA
WLAC
              ak
                                           Spokane, Wash.
Nashville, Tenn.
                       5000
              ak
1480 kcys.
                               (202.6)
KOMA ak
WKBW ck
                                C Oklahoma City, Okla
C Buffalo, N. Y.
                                                                                 Natl. Radio Mfg. Co., Biltmore Hotel
Buffalo Brdcstg. Corp., Rand Bldg.
                       5000
                       5000
1490 kcys. (201.2)
                                          Sacramento, Calif-
Covington, Ky.
KFBK
              ak
                                                                                 Sacramento Bee, 7th and I Sts.
WCKY
                       5000
                                                                                 L. B. Wilson, Inc., 6th and Madison
             ae
1500 kcys. (199.9)
CJIC
CMCX
KBIX
                        100
                                                                                 Hyland & Whitby, 678 Queen St., E.
                                 .... Sault Ste. Marie, Ont.
              ak
                                                                                 Calle Maceo 7, Guanabacoa, Habana
                        150
                                          Havana, Cuba
                        100
                                          Muskogee, Okla.
Santa Barbara, Cal
Corpus Christi, Tex
                                                                                 Muskogee Press
                                                                                 Muskogee Fress
Sta. Barbara Brdcsters., Ltd., 15-17 E. Haley
Eagle Brdcstg. Co., Box 1508
Red River Brdcstg. Co., Comstock Hotel
East Texas Brdcstg. Co., 115 S. College
Hilliard Co., 1517 ½ Broadway
KDB
                                Ċ
              ak
                        100
                                (.25)
Y
KGFI
KGFK
              ak
                        100
              ak
                        100
                                           Moorhead, Minn.
KGKB
KGKY
              ak
                        100
                                           Tyler, Texas
                                 (.25)
              ak
                        100
                                           Scottsbluff, Neb.
                                                                                 C. L. Burns
-KUT Brdcstg, Co., Norwood Bldg.
-Universal Brdcstg, Corp., Hotel Pines
-Calcasieu Brdcstg, Co., Majestic Hotel
-Westcoast Brdcstg, Co. KPQ Bldg, 20—2nd St.
-Oregon Publishing Co.
KNEL
                        100
                                           Brady, Texas
Austin, Texas
Pine Bluff, Ark.
              z ·
KNOW
              ak
                        100
                                \dot{\mathbf{D}}
KOTN
              ak
                        100
                                          Lake Charles, La.
Wenatchee, Wash.
Roseburg, Ore.
El Paso, Texas
Santa Ana, Calif.
                        100
KPLC
              ak
                                (.25)
D
KPQ
KRNR
              ak
                        100
                        100
              \mathbf{z}
KTEP
                         100
                                 P
                                                                                 -Dorrence D. Roderick
-The Voice of the Orange Empire, Ltd.
              ak
KVOE
                        100
                                El Centro, Calif.

1 (.25) Brooklyn, N. Y.
C Durham, N. C.
KXO
              ae
                        100
                                                                                 F. M. Bowles, Box 140
WCNW
                        100
                                                                                 Arthur Faske, 864-868 Flatbush Ave.
              ak
                                                                                 Durham Radio Corp., Wash'ton Duke Hotel
WGAL, Inc., 8 W. King St.
YMCA Building
WDNC
                        100
              ae
                                (.25)
D
WGAL
                        100
                                          Lancaster, Pa.
              ae
                        100
WHBB
              Z.
                                           Selma, Ala.
                                                                                 Attala Brdcstg. Corp., Box 631
Jas. F. Hopkins, Inc., 6559 Hamilton Ave.
Sanders Bros., Hotel Julian
                                          Kosciusko, Miss.
Detroit, Mich.
                                 (.25)
WHEF
              ak
                        100
WJBK
                        100
                                 (.25)
(.25)
              ae
WKBB
              ak
                        100
                                           E. Dubuque, Ill.
                                           Richmond, Ind.
Muskegon, Mich.
                                                                                 Knox Radio Corp., Box 308
Karl L. Ashbacker, Occidental Hotel
Station WKEU, 906 Hill St.
WKBV
              ak
                        100
                                 (.25)
WKBZ
              ak
                        100
                                           Griffin, Ga.
WKEU
              ak
                        100
                                 Ď
                                          Brooklyn, N. Y.
Boston, Mass.
                                                                                 Metropolitan Brdcstg. Corp., 95 Leonard
The Northern Corp., Hotel Manager
Howitt-Wood Co., Arlington Hotel
Radiophone Station WOPI, 22nd and State
WMBQ
                        100
100
              ae
WMEX
                                (.25)
C
              ak
                        100
WNBF
                                           Binghamton, N. Y.
Bristol, Tenn.
              ae
WOPI
                        100
              ae
                                                                                 Augusta Brdestg. Corp., 309 Eighth St.
Rome Brdestg. Corp., 10 Third Ave.
Philip Weiss Music Co., Box 328
Mississippi Valley Brdestg. Co.
WRDW
              ak
                        100
                                           Augusta, Ga.
                                Mome, Ga.

Rutland, Vt.

East St. Louis, Ill.

(.25) Woodside, N. Y.

(.25) Pittsburgh
WRGA
              ak
                        100
WSYB
              ak
                        100
WTMV
              ak
                        100
WWRL
              ak
                        100
                                                                                 Long Island Brdcstg. Corp., 41-30—58th St.
Walker & Downing Corp., Hotel Keystone
wwsw
             ae
                        100
```

1910	KC	ys. (1	198.	.6)	
CFRC CKCR	ak ak	100 . 100 .		Kingston, Ont. Waterloo, Ont.	—Queen's University, Fleming Hall —Mitchell & Liddle, 24 King St., So.
1530	kcy	ys. (1	196.	.0)	
W1XBS W9XBY				Waterbury, Conn. Kansas City, Mo.	—American Republican, Inc., 136 Grand St. —106 W. 14th St.
1550	kcy	/s. (1	193.	4)	
W2XR W6XAI	z ak	1000		Long Isl. City, N.Y. Bakersfield, Calif.	—Scientific Brdcstg. Serv., 41 Park Row, N. Y. —Pioneer Mercantile Co.

KEY TO SYMBOLS

As Shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wavelengths in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column.

Second Column Symbols Verifies reception for return postage. b Verifies only occasionally.

- Does not verify. Verification 10c: letter 25c. Sends Ekko stamp for 10c.
- Sends Ekko stamp for 5c. Sends Ekko stamp for postage. Sends own station stamp for
- 10c. Sends own station stamp for 5c. Sends own station stamp for postage.
- k Has no stamps.
- m Verifies for 5c. Weather or time only.
- n No information available.

Fourth Column Symbols National "Blue" network.

- Columbia network. C
- Day time only. Dn Day time with occasional evening hours.
- Canadian Radio Brdestg. Commission. National "Red" and "Blue"

- networks.
- Has construction permit only.
- R National "Red" network. Sunday only.
- Sy Synchronized.
- Has permit to increase power.
- Has permit to change location.
- Has permit to change frequency. a-b-c. Small letters show stations
- using same transmitter.
 1-2-3. Figures denote stations shar-
- ing time.
- No information.

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Frequency in kilocycles in second column. Night power in watts in third column. Net work affiliations in fourth column: C Columbia, R National Red, B National Blue, N National Red and Blue. F Canadian.

ALABAM.	Α	ARIZONA	KGHI 1200 100	KMTR 570 1000
			KLRA 1390 1000 C	KNX 1050 50000 C
Birmingham		Jerome	Pine Bluff	Long Beach
WAPI 1140	5000 N	KCRJ 1310 100	KOTN 1500 100	KFOX 1250 1000
WBRC 930	1000 C	Lowell	Texarkana	KGER 1360 1000
WSGN 1310	100	KSUN 1200 100	KCMC 1420 100	Los Angeles
Decatur		Phoenix		KECA 1430 1000 B
WMFO 1370	100	KOY 1390 500	CALIFORNIA	KFAC 1300 1000
	100	KTAR 620 1000 N		KFI 640 50000 R
Dothan		Tucson	Bakersfield	KFSG 1120 500
WAGF 1370	250	KGAR 1370 100	KERN 1370 100 C	KFVD 1000 250
Gadsden		KVOA 1260 500	W6XA1 1550 1000	KGFJ 1200 100
WJBY 1210	100	Yuma	Berkeley	KHJ 900 1000 C
	100	KUMA 1420 100	KRE 1370 100	KRKD 1120 500
Mobile	700 G	1001111 1420 100	Beverly Hills	KTM 780 500
WALA 1380	500 C	ARKANSAS	KMPC 710 500	Modesto
Montgomery 3		ARRANSAS	Burbank	KTRB 740 250
WSFA 1410	500 C	Blytheville	KELW 780 500	Oakland
Selma		KLCN 1290 100	Chico	
	100			
	100	El Dorado	KHSL 950 250	KLX 880 1000
Sheffield		KELD 1370 100	Del Monte	KROW 930 1000
WMSD 1420	100	Fayetteville	KDON 1210 100	Pasadena
		KUOA 1260 1000	El Centro	KPPC 1210 50
ALASKA		Fort Smith	KXO 1500 100	Redding
		KFPW 1210 100	Eureka	1200 100
Anchorage		Hot Springs	KIEM 1450 500	Sacramento
KFQD 780	250	KTHS 1060 10000 N	Fresno	KFBK 1490 5000 C
-	200		KMJ 580 1000 C	
Juneau	400	Jonesboro	Glendale	San Bernardino
KINY 1310	100	KBTM 1200 100	KIEV 850 250	KFXM 1210 100
Ketchikan		Little Rock	Hollywood	San Diego
KGBU 900	500	KARK 890 250	KFWB 950 1000	KFSD 600 1000 B
				300 2000

KGB 1330 1000 C	Daytona Beach	Carthage	West Lafayette
San Francisco	WMFJ 1420 100	WCAZ 1070 100	WBAA 890 1000
KFRC 610 100 C KGGC 1420 100	Gainesville WRUF 830 5000	Chicago WAAF 920 1000	IOWA
KGO 790 7500 B	Jacksonville	WBBM 770 50000 C	
KJBS 1070 500 KPO 680 50000 R	WJAX 900 1000 N WMBR 1370 100 C	WCFL 970 5000 B WCRW 1210 100	Ames WOI 640 5000
KSFO 560 1000	Lakeland	WEDC 1210 100	Boone
KYA 1230 1000 N San Jose	WLAK 1310 100	WENR 870 50000 N	KFGQ 1370 100
KOW 1010 1000	Miami WIOD 1300 1000 N	WGES 1360 500 WGN 720 50000	Cedar Rapids WMT 600 1000 B
Santa Ana KVOE 1500 100	WQAM 560 1000 C	WJJD 1130 20000	Council Bluffs
KVOE 1500 100 Santa Barbara	Orlando WDBO 580 1000 C	WLS 870 50000 N WMAQ 670 50000 N	KOIL 1260 1000 B Davenport
KDB 1500 100 C	Pensacola Foo G	WMBI 1080 5000	WOC 1370 100 C
Stockton KGDM 1100 1000	WCOA 1340 500 C St. Petersburg	WSBC 1210 100 Cicero	Decorah KGCA 1270 100
KWG 1200 100 C	WSUN 620 1000 N	WEHS 1420 100	KWLC 1270 100
COLORADO	Tallahassee WTAL 1310 100	WHFC 1420 100 WKBI 1420 100	Des Moines KRNT 1320 500 C
	Tampa	Decatur	KSO 1430 500 B
Alamosa KGIW 1420 100	WDAE 1220 1000 C West Palm Beach	WJBL 1200 100 East Dubuque	WHO 1000 50000R lowa City
Colorado Springs	WJNO 1200 100	WKBB 1500 100	WSUI 880 500
KVOR 1270 1000 C Denver	GEORGIA	East St. Louis WTMV 1500 100	Marshalltown KFJB 1200 100
KFEL 920 500		Harrisburg	Shenandoah
KLZ 560 1000 C KOA 830 50000 N	Albany WGPC 1420 100	WEBQ 1210 100 Joliet	KFNF 890 500 KMA 930 1000
KPOF 880 500	Athens	WCLS 1310 100	Sioux City
KVOD 920 500 Durango	WTFI 1450 500 Atlanta	Peoria WMBD 1440 500 C	KSCJ 1330 1000 C
KIUP 1370 100	WATL 1370 100	Quincy	KANSAS
Grand Junction KFXJ 1200 100	WGST 890 500 C WSB 740 50000 N	WTAD 900 500 Rockford	Abilene
Greeley	Augusta	WROK 1410 500	KFBI 1050 5000
KFKA 880 500 Lamar	WRDW 1500 100 Columbus	Rock Island WHBF 1210 100	Coffeyville KGGF 1010 1000
KIDW 1420 100	WRBL 1200 100	Springfield	Dodge City
Pueblo KGHF 1320 500	Griffin WKEU 1500 100	WCBS 1420 100 WTAX 1210 100	KGNO 1340 250 Garden City
Sterling	Macon	Tuscola	KIUL 1210 100
KGEK 1200 100	WMAZ 1180 1000 Rome	WDZ 1020 250 Urbana	Hutchinson KWBG 1420 100
CONNECTICUT	WRGA 1500 100	WILL 890 250	Kansas City
Bridgeport	Savannah WTOC 1260 1000 C	Waukegan WCBD 1080 5000	WLBF 1420 100 Lawrence
WICC 600 500 C Hartford	Thomasville		KFKU 1220 1000 WREN 1220 100 B
WDRC 1330 100 C	WPAX 1210 250	INDIANA	WREN 1220 100 B Manhattan
WTIC 1040 50000 R WTHT 1200 100	HAWAII	Anderson WHBU 1210 100	KSAC 580 500
New Britain		WHBU 1210 100 Elkhart	Topeka WIBW 580 1000 C
WNBC 1380 250 New Haven	Hilo KHBC 1420 100	WTRC 1310 100	Wichlta KFH 1300 1000 C
WELI 900 500	Honolulu	Evansville WEOA 1370 100	KFH 1300 1000 C
Storrs WCAC 600 500	KGMB 1320 1000 C	WGBF 630 500	KENTUCKY
Waterbury	KGU 750 2500 N	Fort Wayne WGL 1370 100 C	Ashland
WATR 1190 100	IDAHO	WOWO 1160 10000 C	WCMI 1310 100
W1XBS 1530 1000	Boise	Gary WIND 560 1000	Covington WCKY 1490 5000 B
DELAWARE	KIDO 1350 1000	Hammond	Lexington
Wilmington	Idaho Falls KID 1320 500	WWAE 1200 100 Indianapolis	WLAP 1420 100
WDEL 1120 250	Lewiston	WFBM 1230 1000 C	Louisville WAVE 940 1000 N
WILM 1420 100	KRLC 1420 100	WIRE 1400 500 R Muncie	WHAS 820 50000 C
DISTRICT OF	Nampa	WLBC 1310 100	Paducah
COLUMBIA. Washington	KFXD 1200 100	New Albany	WPAD 1420 100
Washington WJSV 1400 10000 C	Pocatello KSEI 900 250	1370 250	LOUISIANA
WMAL 630 250 B	Twin Falls	Richmond WKBV 1500 100	Alexandria
WOL 1310 100 WRC 950 500 R	KTFI 1240 1000	South Bend	KALB 1420 100
	ILLINOIS	WFAM 1200 100	Baton Rouge
FLORIDA Clearwater	Bloomington	WSBT 1360 500 C	WJBO 1420 100 Lafayette
WFLA 620 1000 N	WJBC 1200 100	WBOW 1310 100	KVOL 1310 100

Lake Charles	WMBC 1420 100	Kansas City	WHOM 1450 250
KPLC 1500 100	WWJ 920 1000 R	KMBC 950 1000 C	Newark
Monroe KMLB 1200 100	WXYZ 1240 1000 B East Lansing	KWKC 1370 100 WDAF 610 1000 R	WHBI 1250 1000 WNEW 1250 1000
KMLB 1200 100 New Orleans	WKAR 850 1000	WHB 860 1000	WOR 710 50000
WBNO 1200 100	Flint	W9XBY 1530 1000	Red Bank
WDSU 1250 1000	WFDF 1310 100 Grand Rapids	St. Joseph KFEO 680 2500	WBRB 1210 100 Trenton
WJBW 1200 100 WSMB 1320 500 N	WASH 1270 500 N	St. Louis	WTNJ 1280 500
WWL 850 10000 C	WOOD 1270 500 N	KFUO 550 500	Zarephath
Shreveport KRMD 1310 100	Ironwood WJMS 1420 100	KMOX 1090 50000 C KSD 550 1000 R	WAWZ 1350 500
KRMD 1310 100 KTBS 1450 1000 N	Jackson 100	KWK 1350 1000 B	NEW MEXICO
KWKH 1100 1000 C	WIBM 1370 100	WEW 760 1000	
	Kalamazoo WKZO 590 1000	WIL 1200 100 Springfield	Albuquerque KGGM 1230 250
MAINE	Lansing	KGBX 1230 500	KOB 1180 10000
Augusta	WJIM 1210 100	KWTO 560 5000	Clovis
WRDO 1370 100	Lapeer WMPC 1200 100	MONTANA	KICA 1370 100 Rosweii
Bangor WABI 1200 100	Marquette	MONTANA	KGFL 1370 .100
WLBZ 620 500 C	WBEO 1310 100	Billings	Santa Fe
Portland	Muskegon WKBZ 1500 100	KGHL 780 1000 N	KIUJ 1310 100
WCSH 940 1000 R Presque Isle	WKBZ 1500 100 Royal Oak	KGIR 1340 1000 N	NEW YORK
WAGM 1420 100	WEXL 1310 50	Great Falls	
	MINNESOTA	KFBB 1280 1000	Albany WABY 1370 100
MARYLAND	MINNESULA	Kalispell KGEZ 1310 100	WOKO 1430 500 C
Baltimore	Fergus Falls	Missoula	Auburn
WBAL 760 2500 B	KGDE 1200 100	KGVO 1260 1000 Wolf Point	WMBO 1310 100 Binghamton
WBAL 1060 10000 B WCAO 600 500 C	Hibbing WMFG 1210 100	KGCX 1310 100	WNBF 1500 100
WCBM 1370 100	Minneapolis		Brooklyn
WFBR 1270 500 R	WCCO 810 50000 C WDGY 1180 1000	· NEBRASKA	WARD 1400 500 WBBC 1400 500
Cumberland WTBO 800 250	WDGY 1180 1000 WLB 1250 1000	Clay Center	WBBR 1300 1000
Frederick	WTCN 1250 1000	KMMJ 740 1000	WCNW 1500 100
WFMD 900 500	Moorhead KGFK 1500 100	Kearney KGFW 1310 100	WEGL 1400 500 WLTH 1400 500
Hagerstown WJEJ 1210 100	KGFK 1500 100 Northfield	KGFW 1310 100	WMBO 1500 100
	WCAL 1250 1000	KFAB 770 10000 C	WVFW 1400 500
MASSACHUSETTS	Rochester KROC 1310 100	KFOR 1210 100 C Norfolk	Buffalo WBEN 900 1000 R
Boston	KROC 1310 100 St. Paul	WJAG 1060 1000	WEBR 1310 100
WAAB 1410 500 C	KSTP 1460 25000 N	North Platte	WGR 550 1000 C
WBZ 990 50000 B WCOP 1120 500	1370 100 Virginia	KGNF 1430 1000 Omaha	WKBW 1480 5000 C WSVS 1370 50
WEEI 590 1000 R	WHLB 1370 100	WAAW 660 500 -	WBNY 1370 100
WHDH 830 1000		WOW 590 5000 R	Canton WCAD 1220 500
WMEX 1500 100 WNAC 1230 1000 C	MISSISSIPPI	Scottsbluff KGKY 1500 100	Chester
Fall River	Clarksdale	York	WGNY 1210 100
WSAR 1450 1000	WMFN 1210 100	KGBZ 930 1000	Elmira WESG 850 1000 C
Lowell WLLH 1370 100	Gulfport WGCM 1210 100	NEVADA	Freeport
Needham	Hattiesburg		WGBB 1210 100
WORL 920 500	WPFB 1370 100 Jackson	Reno KOH 1380 500 C	Jamestown WOCL 1210 50
New Bedford WNBH 1310 100	WJDX 1270 1000 N		Long Island City
Springfield	Kosciusko	NEW HAMPSHIRE	W2XR 1550 1000
WBZA 990 1000 B WMAS 1420 100 C	WHEF 1500 100 Laurel	Laconia	New York WABC 860 50000 C
WMAS 1420 100 C WSPR 1140 500	WAML 1310 100	WLNH 1310 100	WBNX 1350 250
Worcester	Meridian	Manchester	WBOQ 860 50000
WORC 1280 500 C WTAG 580 500 R	WCOC 880 500 Vicksburg	WFEA 1340 500 C Portsmouth	WEAF 660 50000 R WEVD 1300 1000
W1AG 580 500 K	WOBC 1360 1000	WHEB 740 250	WFAB 1300 1000
MICHIGAN			WHN 1010 1000
Partite Ownerly	MISSOURI	NEW JERSEY	WINS 1180 1000 WJZ 760 50000 B
Battle Creek WELL 1420 100	Cape Girardeau	Asbury Park	WLWL 1100 5000
Bay City	KFVS 1210 100	WCAP 1280 500	WMCA 570 500
WBCM 1410 500	Columbia KFRU 630 500	Atlantic City WPG 1100 5000 C	WNYC 810 1000 WOV 1130 1000
Calumet		Camden	Olean
WHDF 1370 100	Jefferson City WOS 630 500	WCAM 1280 500	WHDL 1420 100 ·
Detroit WJBK 1500 100	Joplin 555	Jersey City	Plattsburg
WJR 750 50000 C	WMBH 1420 100	WAAT 940 500	WMFF 1310 250

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Rochester WHAM 1150 50000 B	WBNS 1430 500 C WCOL 1210 100	Erie WLEU 1420 100	SOUTH DAKOTA
WHEC 1430 5000 C	WOSU 570 750	Glenside	Aberdeen
WSAY 1210 100	Dayton 1340 1000 P	WIBG 970 100	KABR 1420 100
Saranac Lake WNBZ 1290 100	WHIO 1260 1000 R WSMK 1380 200 C	Greensburg WHJB 620 250	Brookings KFDY 780 1000
Schenectady	Portsmouth	Grove City	Huron
WGY 790 50000 R	WPAY 1370 100	WSAJ 1310 100	KGDY 1340 250
Syracuse WFBL 1360 1000 C	Toledo WSPD 1340 1000 C	Harrisburg WHP 1430 500 C	Pierre KGFX 630 200
WSYR 570 250 B	Youngstown	WKBO 1200 100	Rapid City
Troy	WKBN 570 500 C	Hazleton WAZL 1420 100	WCAT 1200 100
WHAZ 1300 500	Zanesville WALR 1210 100	WAZL 1420 100 Johnstown	Sioux Falls KSOO 1110 2500
WIBX 1200 100 C		WJAC 1310 100	Vermillion
White Plains WFAS 1210 100	OKLAHOMA	Lancaster WGAL 1500 100	KUSD 890 500
WFAS 1210 100 Woodside	Ada	Philadelphia	Watertown KWTN 1210 100
WWRL 1500 100	KADA 1210 100	KYW 1020 10000 R	Yankton
NORTH CAROLINA	Ardmore KVSO 1200 100	WCAU 1170 50000 C WDAS 1370 100	WNAX 570 1000 C
NORTH CARDEINA	Elk City	WFIL 560 1000 B	TENNESSEE
Asheville	KASA 1210 100	WHAT 1310 100 WIP 610 1000	B. d. d. d.
WWNC 570 1000 N Charlotte	Enid KCRC 1360 250	WIP 610 1000 WPEN 920 250	Bristol WOPI 1500 100
WBT 1080 50000 C	Muskogee	WRAX 920 250	Chattanooga
WSOC 1210 100 N	KBIX 1500 100	WTEL 1310 100 Pittsburgh	WDOD 1280 1000 C Jackson
Durham WDNC 1500 100 C	Norman WNAD 1010 1000	KDKA 980 50000 B	WTJS 1310 100
Gastonia	Oklahoma	KQV 1380 500	Knoxville
WJBR 1420 100 Greensboro	KFXR 1310 100 KGFG 1370 100	WCAE 1220 1000 R WJAS 1290 1000 C	WNOX 1010 1000 C WROL 1310 100
WBIG 1440 500 C	KOMA 1480 5000 C	WWSW 1500 100	Memphis
High Point WMFR 1200 100	WKY 900 1000 N Ponca City	Reading WEEU 830 1000	WHBQ 1370 100 WMC 780 1000 N
Raleigh	WBBZ 1200 100	WRAW 1310 100	WNBR 1430 500
WPTF 680 5000 N	Shawnee	Scranton	WREC 600 1000 C
Rocky Mount	KGFF 1420 100		Nashville WLAC 1470 5000 C
WEED 1420 100	Tulsa	WOAN 880 250	1 WEAC 14/0 3000 C
Wilmington	KTUL 1400 500 C	Sunbury	WSM 650 50000 N
Wilmington WMFD 1370 100		Sunbury WKOK 1210 100	WSM 650 50000 N Springfield
Wilmington	KTUL 1400 500 C	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100	WSM 650 50000 N Springfield WSIX 1210 100
Wilmington WMFD 1370 100 Winston-Salem	KTUL 1400 500 C KVOO 1140 25000 N OREGON	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C	KTUL 1400 500 C KVOO 1140 25000 N OREGON	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake	ASTOR 1400 500 C KVOO 1140 25000 N OREGON ASTORIA KAST 1370 100 Corvallis KOAC 550 1000 Eugene	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100	Corvallis Corp Corvallis Corp Corvallis Corp Corvallis Corp Corvallis Corp Corvallis Corvallis Corp Corvallis Corvallis	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N	ASTUL 1400 500 C	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks	Corvallis Corv	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan	STUL	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAO 1240 1000	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250	Corvallis Corv	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 Corpus Christi
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot	CTUL 1400 500 C	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAO 1240 1000	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christi KGFI 1500 100 Dallas
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N°	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 KGW 620 1000 R	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAO 1240 1000 RHODE ISLAND Newport WNRI 1200 100	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaument KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C	KTUL	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dalias KRLD 1040 10000 C WFAA 800 50000 N WRA 1280 500 Dublin KFPL 1310 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 KGW 620 1000 R	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dalias KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin KFPL 1310 100 El Paso KTEP 1420 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 C KBPS 1420 1000 R KJI 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100 Rosseburg	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRA 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 C KBPS 1420 1000 KEX 1180 5000 N° KFJR 1300 500 N° KFJR 1300 500 C KON 940 1000 C KWJJ 1040 500 KXL 1420 100 Rossoburg KNN 1500 100	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO Ponce WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 WDAH 1310 100 Fort Worth
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnatia WCPO 1200 100	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 C KBPS 1420 1000 R KJI 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100 Rosseburg	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christil KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRA 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 KTSM 1310 100 Fort Worth KFJZ 1370 100
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Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnatia WCPO 1200 100	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 KIamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 500 N° KFJIR 1300 500 N° KFJIR 1300 500 N° KFJIR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWIJ 1040 500 KXL 1420 100 Resoburg KRNR 1500 100 Salem	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 100 San Juan WKAQ 1240 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N Gaiveston
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnati WCPO 1200 100 Cincinnati WCPO 1200 100 Cincinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N WSAI 1330 1000 R Cleveland	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOACT 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 N° KFJR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KWJJ 1040 500 KWJJ 1040 500 KSL 1420 100 Rosoburg KRNR 1500 100 Salem KSLM 1370 100 PENNSYLVANIA	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston WCSC 1360 500 N	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christi KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 WDAH 1310 100 WDAH 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N Gaiveston KLUF 1370 100
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Canton WHBC 1200 100 Cinclinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N WSAI 1330 1000 R Cleveland WGAR 1450 500 B	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falis KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N KFJR 1300 500 C KBPS 1420 100 KEX 1180 5000 N KFJR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KWJJ 1040 500 KWJJ 1040 500 KXL 1420 100 Roseburg KNNR 1500 100 Salem KSLM 1370 100 PENNSYLVANIA	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 100 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston WGSC 1360 500 N Columbia	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christil KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRA 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 WDAH 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N Gaiveston KLUF 1370 100 Houston
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N WSAI 1330 1000 R Cleveland WGAR 1450 500 B WHK 1390 1000 C	KTUL	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston WCSC 1360 500 N Columbia WIS 560 1000 N Greenville	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 500000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 WDAH 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N Galveston KLUF 1370 100 Houston KTRH 1290 1000 C
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N WSAI 1330 1000 C Cleveland WGAR 1450 500 B WHK 1390 1000 C	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100 ROSEDURY KNR 1500 100 Salem KSLM 1370 100 PENNSYLVANIA Allentown WCBA 1440 500 WSAN 1440 500	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston WCSC 1360 500 N Columbia WIS 560 1000 N Greenville WFBC 1300 1000 N	WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N KTAT 1240 1000 WBAP 800 50000 N Gaiveston KLUF 1370 100 Houston KPRC 920 1000 N
Wilmington WMFD 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Canton WHBC 1200 100 Cincinnati WCPO 1200 100 Cincinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N WSAI 1330 1000 R Cleveland WGAR 1450 500 B WHK 1390 1000 C WJJAY 610 500	KTUL 1400 500 C KVOO 1140 25000 N OREGON Astoria KAST 1370 100 Corvallis KOACT 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1390 250 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 C KBPS 1420 100 KEX 1180 5000 N° KFJR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWIJ 1040 500 KWIJ 1040 500 KWIJ 1040 500 KSL 1420 100 Rosoburg KRNR 1500 100 Salem KSLM 1370 100 PENNSYLVANIA Allentown WCBA 1440 500 WAAN 1440 500 Altoona	Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1320 1000 PUERTO RICO PONCE WPRP 1420 1000 San Juan WKAQ 1240 1000 WNEL 1290 1000 RHODE ISLAND Newport WNRI 1200 100 Providence WEAN 780 500 C WJAR 890 500 R WPRO 630 250 SOUTH CAROLINA Anderson WAIM 1200 100 Charleston WCSC 1360 500 N Columbia WIS 560 1000 N Greenville	WSM 550 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGNC 1410 1000 Austin KNOW 1500 100 Beaumont KFDM 560 500 Brady KNEL 1500 100 College Station WTAW 1120 500 Corpus Christl KGFI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 500000 N WRR 1280 500 Dublin KFPL 1310 100 EI Paso KTEP 1420 100 KTSM 1310 100 WDAH 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N Galveston KLUF 1370 100 Houston KTRH 1290 1000 C

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Lubbock	Bellingham	WYOMING	Yarmouth
KFYO 1310 100	KVOS 1200 100		CJLS 1310 100
Midfand KRLH 1420 100	Everett KRKO 1370 50	Casper KDFN 1440 500	ONTARIO
KRLH 1420 100 Palestine	Olympia 30		
KNET 1420 100	KGY 1210 100	Sheridan KWYO 1370 100	Brantford
Pampa	Pullman	KW 10 1370 100	CKPC 930 100 F
KPDN 1310 100	KWSC 1220 1000	CANADA	Chatham
Pecos	Seattle	CANADA	CFCO 630 100 F
KIUN 1420 100	KIRO 710 500		Cobalt
Port Arthur	KJR 970 5000 B	ALBERTA	CKMC 12:10 50 Fort William
KPAC 1260 500	KOL 1270 1000 C KOMO 920 1000 R	0-1	CKPR 930 100 F
San Angelo KGKL 1370 100	KRSC 1120 100 K	Calgary CFAC 930 100 F	Hamilton
San Antonio	KTW 1220 1000	CFCN 1030 10000	CHML 1010 100 F
KABC 1420 100	KVL 1370 100	CJCJ 690 100 F	CKOC 1120 500 F
KMAC 1370 100	KXA 760 250	Edmonton	Kingston
KONO 1370 100	Spokane	CFRN 1260 100 F	CRFC 1510 100
KTSA 550 1000 C	KFIO 1120 100	CJCA 730 1000 F	Kirkland Lake CJKL 1310 100 F
WOAI 1190 50000 N Tyler	KFPY 890 1000 C KGA 1470 5000 B	CKUA 580 500 Lethridge	London
KGKB 1500 100	KHO 590 1000 R	CJOC 950 100 F	CFPL 730 100 F
Waco	Tacoma		North Bay
WACO 1420 100 C	KMO 1330 250	BRITISH COLUMBIA	CFCH 930 100 F
Weslaco	KVI 570 1000 C		Ottawa CKCO 1010 100 F
KRGV 1260 500	Walla Walla	Chilliwack	CKCO 1010 100 F CRCO 880 1000 F
Wichita Falls KGKO 570 250 C	KUJ 1370 100	CHWK 780 100 F	Prescott
KGKO 570 250 C	Wenatchee KPO 1500 100	Kamloops CFJC 880 100 F	CFLC 930 100
UTAH	Yakima	Kelowna	St. Catherines
	KIT 1310 100	CKOV 630 100 F	CKTB 1200 100 F
Ogden		Prince Rupert	Sault Ste. Marie
KLO 1400 500 N	WEST VIRGINIA	CFPR 580 50	CJIC 1500 100
Price KEUB 1420 100	Discontinual disco	Trail	Stratford CJCS 1210 50
KEUB 1420 100 Salt Lake City	Bluefield WHIS 1410 250	CJAT 910 1000 F	Sudbury
KDYL 1290 1000 N	Charleston 250	Vancouver	CKSO 780 1000 F
KSL 1130 50000 C	WCHS 580 500	CJOR 600 500 CKCD 1010 100	Timmins
	Fairmont	CKCD 1010 100 CKFC 1410 50	CKGB 1420 100 F
VERMONT	WMMN 890 500 C	CKMO 1410 100 F	Toronto
- · ·	Huntington	CKWX 1010 100 F	CFRB 690 10000 C CKCL 580 100 F
Burlington WCAX 1200 100	WSAZ 1190 1000	CRCV 1100 500 F	CKCL 580 100 F CRCT 840 5000N
WCAX 1200 100 Rutland	Parkersburg WPAR 1420 100	Victoria	Waterloo
WSYB 1500 100	Wheeling	CFCT 1450 75	CKCR 1510 100
St. Albans	WWVA 1160 5000 C		Windsor
WQDM 1370 100	_	MANITOBA	CKLW 1030 5000
Springfield	WISCONSIN	Brandon	CRCW 600 500 F Wingham
WNBX 1260 100 Waterbury	Fond du Lac	CKX 1120 100 F	CKNX 1200 50
WDEV 550 500	KFIZ 1420 100	Winnipeg	
	Green Bay	CJRC 630 500 F	PRINCE EDWARD
VIRGINIA	WHBY 1200 100	CKY 960 15000 F	ISLAND
Arlington	WTAQ 1330 1000		0111
NAA 690 1000	Janesville WCLO 1200 100	NEW BRUNSWICK	Charlottetown CFCY 630 1000 F
Charlottesville	WCLO 1200 100 LaCrosse	Fredericton	CHCK 1310 50
WCHV 1420 100 Danville	WKBH 1380 1000	CFNB 550 500 F	Summerside
WBTM 1370 100	Madison	Moncton	CHGS 1450 50 F
Harrisonburg	WHA 940 2500	CKCW 1370 100 F	
WSVA 550 ,500	WIBA 1280 1000 N	St. John	QUEBEC
Lynchburg	Manitowoc	CHSJ 1120 500 F	Chianniani
WLVA 1200 100	WOMT 1210 100	C1130 1120 000 I	Chicoutimi CRCS 950 100 F
Newport News	Milwaukee	N. W. TERRITORY	Hull
WGH 1310 100	WEMP 1310 100		CKCH 1210 100 F
WTAR 780 500 N	WISN 1120 250 C	Aklavik	Montmagny
Petersburg	WTMJ 620 1000 N	CJCU 1210 50	VE9EK 1185 10
WPHR 880 500	Poynette	NOVA SCOTIA	Montreal 400 N
Richmond	WIBU 1210 100	NOVA SCOTIA	CFCF 600 400 N
WBBL 1210 100	Racine	Glace Bay	CHLP 1120 100 F CKAC 730 5000 C
WMBG 1210 100 C	WRJN 1370 100	VAS 685 2000	CRCM 910 5000 F
WRVA 1110 5000 N	Sheboygan	Halifax	
Roanoke WDBJ 930 1000 C	WHBL 1300 500	CHNS 930 1000 F	New Carlisle CHNC 1410 500 F
	Stevens Point	Sydney	
WASHINGTON	WLBL 900 2500	CJCB 1240 1000 F	Quebec CHRC 580 100 F
Aberdeen	Superior	Wolfville	CKCV 1310 100 F
KXRO 1310 100	WEBC 1290 1000 N	CKIC 1010 50	CRCK 1050 1000 F

		CITITION BI BOC	21110110
SASKATCHEWAN	XFC 810 350	XEOK 760 250 XESL 1160	CMJK 780 250
Moose Jaw	CHIHUAHUA	XESL 1160	CMJL 1340 100 CMJP 1430 75
CHAB 1200 100 F	`	MICHOACAN	Cardenas
CJRM 540 1000 F Prince Albert	Chihuahua XEFI 1440 250		CMGE 1370 150
CKBI 1210 100 F	Hidalgo	Morelia XEI 1370 125	Ciego de Avila CMJH 1360 100
Regina	XEAT 1210 50	1370 123	CMJI 1300 50
CHWC 1010 500 F	Juarez	NUEVO LEON	CMJO 1180 50
CKCK 1010 500 F	XEFV 1210 100		Cienfuegos
Saskatoon CFOC 840 1000 F	XEF 980 100 XEJ 1020 1000	Monterrey	CMHJ 1160 100
	XEJ 1020 1000	XEFB 1420 100 XEFJ 1230 100	CMHW 820 100 CMHX 760 200
Yorkton CJGX 580 100 F	COAHUILA	XEH 1150 250	CMHX 760 200 Cruces
		XET 690 500	CMHK 1330 250
NEWFOUNDLAND `	Piedras Negras	XEX 1310 125	Havana
	XELO 1110 10000 XEPN 590 50000	PUEBLA	CMBC 640 150 CMBD 1170 150
St. John's VOAC 1065 40	Saltillo		CMBG 1140 200
VOAS 940 100	XEAS 1160 100	Puebla	CMBN 850 150
VOGY 840 400	XEOX 640 500	XETH 1210 100	CMBS 770 150
VONF 1195 500	Torreon		CMBX 1060 200
VOWR 681 500	XETB 1310 125 Villa Acuna	SAN LUIS POTOSI	CMBY 970 150
MIQUELON	XERA 840 250000	San Luis Potosi	CMBZ 1000 150 CMCA 1350 250
		XEZZ 1370 100	CMCB 1330 250
St. Pierre	D. F.		CMCD 950 250
FQN 609 250		SONORA	CMCF 810 600
OFNITTO	Mexico City XEAI 1240 100	Hermosillo	CMCG 680 150 CMCJ 1110 500
CENTRAL	XEB 1030 10000	XEBH 930 500	CMCJ 1110 500 CMCO 1200 150
AMERICA	XECW 1310 10	Nogales	CMCQ 1420 250
	XEFA 1180 500	XEAF 990 500	CMCR 1380 150
COSTA RICA	XEFO 940 5000 .		CMCU 1460 150
	XEFZ 1370 100 XEK 990 100	TAMAULIPAS	CMCW 750 150
Cartago TIFS 1441 7.5	XEK 990 100 XEL 1100 250	Matamoros	CMCX 1500 150 CMCY 1030 1000
TIGA 1014 30	XEMX 1280 12	XEAM 750 7.5	CMK 730 3000
San Jose	XEN 710 1000	Nuevo Laredo	CMOA 1440 150
TIEP 850 500	XEW 890 50000	XEBK 1000 100	CMOK 1470 150
TIFA 1050 75	XEWZ 1150 100 XEYZ 780 10000	XEFE 850 250 XENT 910 150000	CMOX 1320 200
TIGH 1000 500	XFX 610 1000		CMQ 880 500 CMW 600 1400
TIRH 930 50		Reynosa XEAW 960 50000	CMX 920 1000
GUATEMALA	DURANGO		Holguin
	Durango	Tampico XEFW 1310 250	CMKF 1460 250
Guatemala City	XEE 1210 50	XES 990 250	Manzanillo CMKM 1120 200
TGW 1210 10000 TGX 1400 250			Matanzas
107 1400 250	GUANAJUATO	VERACRUZ	CMGC 1400 100
HONDURAS	Guanajuato	Cordoba	CMGF 1120 150 CMGH 790 250
	XEAZ 1420 7	XEAG 1310 10	
Tegucigalpa HRN 1340 100	Leon	Jalapa	Sagua la Grande CMHA 1070 50
HKN 1340 100	XEKL 1240 500	XFB 1270 250	
NICARAGUA		XFD 1340 350	Sancti Spiritus CMHB 1240 50
	JALISCO	Veracruz	
Managua VNI E 1275 20	Guadalajara	XETF 1220 12 XEU 1010 250	Santa Clara CMHI 1210 150
YNLF 1275 20 YNOP 1230 100	XEA 10:0 500		Santiago
YNVA 950 30	XED 1155 2500	YUCATAN	
			CMKD' 1050 250
PANAMA	LOWER CALIFORNIA	Merida XEFC 560 100	CMKR 1400 100
Colon	Coronado Island	XEY 1000 10	CMKX 1190 75
HP50 1440 25	XEMZ 820	XEZ 630 500	DOMINICAN
1-	Ensenada		REPUBLIC
EL SALVADOR	XEG 1270 200	WEST INDIES	Sau Bodge de Baccede
San Salvador	Mexicali		San Pedro de Macoris HIH 1395 15
RDN 680 500	XEAA 920 200	CUBA	Trujillo
- 550	XEAO 560 250		HIJ 1195 15
MEXICO	Rosarito	Calbarien	HIX 800 700
11102/214/4	XEAQ 1090 1000	CMHD 1270 250	HIZ 1370 10
AGUASCALIENTES	Tijuana XEAC 1240 250	Camaguey CMJA 1010 50	
	XEC 1160 30	CMJC 1390 150	HAITI
Aguascalientes	XEFL 1150 250	CMJE 1220 50	Port-au-Prince
XFA 1310 5	XEMO 860 5000	CMJF 1150 200	HHK 920 1000

	CFAC 930 100 Calgary, Alta.		CJLS 1310 Yarmouth, N. S.	100		CMBS 770 Havana, Cuba	150
\vdash	CFCF 600 400		CJOC 950	100	\vdash	CMBX 1060	200
	Montreal, Que.		Lethbridge, Alta.			Havana, Cuba	
	CFCH 930 100 North Bay, Ont.		CJOR 600 Vancouver, B. C.	500		CMBY 970 Havana, Cuba	150
	CFCN 1030 10000		CJRC 630	500		CMBZ 1000	150
<u> </u>	Calgary, Alta.		Winnipeg, Man.			Havana, Cuba	
	CFCO 630 100 Chatham, Ont.		CJRM 540 Moose Jaw, Sask.	1000		CMCA 1350 Havana, Cuba	250
	CFCT 1450 75		CKAC 730	5000		CMCB 1230	150
\vdash	Victoria, B. C. CFCY 630 1000		Montreal, Que. CKBI 1210	100		Havana, Cuba CMCD 950	250
	Charlottetown, P.E.I		Prince Albert, Sask			Havana, Cuba	230
	CFJC 880 100		CKCD 1010	100		CMCF 810	600
	Kamloops, B. C. CFLC 930 100		Vancouver, B. C. CKCH 1210	100		Havana, Cuba CMCG 680	150
	CFLC 930 100 Prescott, Ont.		Hull, Que.	100		Havana, Cuba	150
	CFNB 550 500		CKCK 1010	500		CMCJ 1110 Havana, Cuba	500
	Fredericton, N. B. CFPL 730 100		Regina, Sask. CKCL 580	100	\vdash	CMCO 1200	150
	London, Ont.		Toronto, Ont.			Havana, Cuba	
	CFPR 580 50		CKCO 1010 Ottawa, Ont.	100		CMCQ 1420 Hayana, Cuba	250
	Prince Rupert B. C. CFQC 840 1000		CKCR 1510	100		CMCR 1380	150
	Saskatoon, Sask.		Waterloo, Ont.			Havana, Cuba	
	CFRB 690 10000 Toronto, Ont.		CKCV 1310 Quebec, Que.	100		CMCU 1460 Havana, Cuba	150
	CFRC 1510 100		CKCW 1370	100		CMCW 750	150
	Kingston, Ont.		Moncton, N. B.			Havana, Cuba	4
	CFRN 1260 100 Edmonton, Alta.		CKFC 1410 Vancouver, B. C.	50		CMCX 1500 Havana, Cuba	150
	CHAB 1200 100		CKGB 1420	100		CMCY 1030	1000
	Moose Jaw, Sask.		Timmins, Ont. CKIC 1010	50		Hayana, Cuba CMGC 1400	100
	CHCK 1310 50 Charlottetown, P.E.I.		Wolfville, N.S.	30		Matanzas, Cuba	100
	CHGS 1450 50		CKLW 1030	5000		CMGE 1370	150
	Summerside, P.E.I. CHLP 1120 100		Windsor, Ont. CKMC 1210	50		Cardenas, Cuba CMGF 1120	250
	Montreal, Que.		Cobalt, Ont.			Matanzas, Cuba	
	CHML 1010 100 Hamilton, Ont.		CKMO 1410 Vancouver, B. C.	100		CMGH 790 Matanzas, Cuba	250
	CHNC 1410 500		CKNX 1200	50	`	CMHA 1070	50
	New Carlisle, Que.		Wingham, Ont.			Sagua la Grande, C	
	CHNS 930 1000 Halifax, N. S.		CKOC 1120 Hamilton, Ont.	500		CMHB 1240 Sancti Spiritus, Cu	50 ba
	CHRC 580 100		CKOV 630	100		CMHD 1270	250
_	Quebec, Que.	<u> </u>	Kelowna, B. C. CKPC 930	100		Carbarien, Cuba CMHI 1210	150
	CHSJ 1120 500 St. John, N. B.		CKPC 930 Brantford, Ont.	100		Santa Clara, Cuba	130
	CHWC 1010 500		CKPR 930	100		CMHJ 1160	100
	Regina, Sask. CHWK 780 100	<u>'</u>	Fort William, Ont.	1000		Cienfuegos, Cuba CMHK 1330	250
	Chilliwack, B. C.		Sudbury, Ont.			Cruces, Cuba	
	CJAT 919 1000		CKTB 1200 St. Catherines, On	100		CMHW 820 Cienfuegos, Cuba	100
	Trail, B. C. CJCA 730 1000		CKUA 580	500		CMHX 760	200
	Edmonton, Alta.		Edmonton, Alta.			Cienfuegos, Cuba	
	CJCB 1240 1000 Sydney, N. S.		CKWX 1010 Vancouver, B. C.	100		CMJA 1010 Camaguey, Cuba	50
	CJCJ 690 100		CKX 1120	100		CMJC 1390	150
	Calgary, Alta.		Brandon, Man.			Camaguey, Cuba	
	CJCS 1210 50 Stratford, Ont.		CKY 960 Winnipeg, Man.	15000		CMJE 1220 Camaguey, Cuba	50
	CJCU 1210 50		CMBC 640	150		CMJF 1150	200
	Aklavik, N. W. T.		Havana, Cuba	4		Camaguey, Cuba	100
	CJGX 580 100 Yorkton, Sask.		CMBD 1170 Havana, Cuba	150		CMJH 1360 Ciego de Avila, Cu	
	CJIC 1500 100		CMBG 1140	200		CMJI 1130	
	S. Ste. Marie, Ont.		Havana, Cuba	150		Ciego de Avila, Cu	ba 250 -
	CJKL 1310 100 Kirkland Lake, Ont.		CMBN 850 Havana, Cuba	150		CMJK 780 Camaguey, Cuba	25U

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	CMJL 1340 100 Camaguey, Cuba	'	KARK 890 250 Little Rock, Ark.		KFJI 1210 10 Klamath Falls, Ore.)0
	CMJO 1180 50		KASA 1210 100		KFJM 1370 10)0
	Ciego de Avila, Cuba CMJP 1430 75		Elk City, Okla. KAST 1370 100		Grand Forks, N. D. KFJR 1300 50	00
	Camaguey, Cuba CMK 730 3000		Astoria, Ore. KBIX 1500 100		Portland, Ore. KFJZ 1370 10	nn
	Havana, Cuba		Muskogee, Okla.		Fort Worth, Texas	-
	CMKC 1250 150 Santiago, Cuba	'	KBPS 1420 100 Portland, Ore.		KFKA 880 50 Greeley, Colo.	10
	CMKD 1050 250		KBTM 1200 100		KFKU 1220 100)0
	Santiago, Cuba CMKF 1460 256		Jonesboro, Ark. KCMC 1420 100		Lawrence, Kans. KFNF 890 50	00
<u> </u>	Holguin, Cuba CMKM 1120 200		Texarkana, Ark. KCRC 1360 250	_	Shenandoah, Iowa KFOR 1210 10	10
	Manzanillo, Cuba		Enid, Okla.		Lincoln, Neb.	
	CMKR 1400 100 Santiago, Cuba		KCRJ 1310 100 Jerome, Ariz.		KFOX 1250 100 Long Beach, Calif.)0
	CMKX 1190 75		KDB 1500 100		KFPL 1310 10 Dublin, Texas	10
	Santiago, Cuba CMOA 1440 150		Santa Barbara, Calif. KDFN 1440 500		KFPW 1210 10	00
-	Havana, Cuba CMOK 1470 150		Casper, Wyo. KDKA 980 50000		Fort Smith, Ark. KFPY 890 100	10
	Havana, Cuba		Pittsburgh, Pa.		Spokane, Wash.	
	CMOX 1320 200 Havana, Cuba		KDLR 1210 100 Devils Lake, N. D.		KFQD 780 25 Anchorage, Alaska	
	CMQ 880 500 Havana, Cuba	•	KDON 1210 100 Del Monte, Calif.		KFRC 610 100 San Francisco, Calif.	10
	CMW 600 1400		KDYL 1290 1000		KFRO 1370 10	0
	Havana, Cuba CMX 920 1000		Salt Lake City, Utah KECA 1430 1000		Longview, Texas KFRU 630 . 50	10
1	Havana, Cuba		Los Angeles, Calif.		Columbia, Mo.	
	CRCK 1050 1000 Quebec, Que.		KELD 1370 100 El Dorado, Ark.		KFSD 600 100 San Diego, Calif.	10
	CRCM 910 5000 Montreal, Que.		KELW 780 500 Burbank, Calif.	,	KFSD 1120 50 Los Angeles, Calif.	10
	CRCO 880 1000		KERN 1370 100		KFUO 550 50	10
	Ottawa, Ont. CRCS 950 100	-	Bakersfield, Calif. KEUB 1420 100	· ·	St. Louis, Mo. KFVD 1009 25	60
	Chicoutimi, Que. CRCT 840 5000		Price, Utah KEX 1180 5000		Los Angeles, Calif. KFVS 1210 10	nn
	Toronto, Ont.		Portland, Ore.		Cape Girardeau, Mo.	
1	CRCV 1100 500 Vancouver, B. C.		KFAB 770 10000 Lincoln, Neb.		KFWB 950 100 Hollywood, Calif.)0
, ·	CRCW 600 500		KFAC 1300 1000 Los Angeles, Calif.		KFXD 1200 10 Nampa, Idaho	10
	Windsor, Ont. FQN 609 250		KFBB 1280 1000		KFXJ 1200 10)0
	St. Pierre, Miq. HHK 920 1000		Great Falls, Mont.	-	Grand Junction, Colo. KFXM 1210 10	10
	Port-au-Prinex, Haiti		Abilene, Kans.		San Bernardino, Calif.	
	HIH 1395 15 San Pedro de M., D.R.		KFBK 1490 5000 Sacramento, Calif.		KFXR 1310 10 Oklahoma City, Okla.)0
The same of the sa	HIJ 1195 15 Trujillo, D. R.		KFDM 560 500 Beaumont, Texas		KFYO 1310 10 Lubbock, Texas	10
	HIX 800 700	-	KFDY 780 1000		KFYR 550 100)0
	Trujillo, D. R. HIZ 1370 10		Brookings, S. D. KFEL 920 500		Bismarck, N. D. KGA 1470 500	00
	Trujillo, D. R.		Denver, Colo.		Spokane, Wash.	
	HP50 1440 25 Colon, Panama	-	KFEQ 680 2500 St. Joseph, Mo.		KGAR 1370 10 Tueson, Ariz.)0
	HRN 1340 100		KFGQ 1370 100		KGB 1330 100 San Diego, Calif.)0
-	Tegucigalpa, Hond. KABC 1420 100		Boone, Iowa KFH 1300 1000	-	KGBU 900 50	00
	San Antonio, Texas KABR 1420 100		Wichita, Kans. KFI 640 50000	—	Ketchikan, Alaska KGBX 1230 56	00
	Aberdeen, S. Dak.		Los Angeles, Calif.		Springfield, Mo.	-0-
	KADA 1200 100 Ada, Okla.		KFIO 1120 100 Spokane, Wash.		KGBZ 930 100 York, Neb.	
	KALB 1420 100 Alexandria, La.		KFIZ 1420 100 Fond du Lac, Wis.			00
	KALE 1300 500		KFJB 1200 100		KGCU 1240 25	50
	Portland, Ore.		Marshalltown, Iowa		Mandan, N. D.	

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	KGCX 1310 100 Wolf Point, Mont.		KHBC 1420 100 Hilo, T. H.		KMPC 710 500 Beverly Hills, Calif.
	KGDE 1200 100		KHJ 900 1000		KMTR 570 1000 Hollywood, Calif.
	Fergus Falls, Minn. KGDM 1100 1000		Los Angeles, Calif. KHQ 590 1000		KNEL 1500 100
	Stockton, Calif.		Spokane, Wash. KHSL 950 250		Brady, Texas KNET 1420 100
	KGDY 1340 250 Huron, S. D.		Chico, Calif.		Palestine, Texas
	KGEK 1200 100 Sterling, Colo.	1	KICA 1370 100 Clovis, N. M.		KNOW 1500 100 Austin, Texas
	KGER 1360 1000		KID 1320 500		KNX 1050 50000
	Long Beach, Calif. KGEZ 1310 100		Idaho Falls, Idaho KIDO 1350 1000		Hollywood, Calif. KOA 830 50000
	Kalispell, Mont.		Boise, Idaho	-	Denver, Colo.
	KGFF 1420 100 Shawnee, Okla.		KIDW 1420 100 Lamar, Colo.		KOAC 550 1000 Corvallis, Ore.
	KGFG 1370 100		KIEM 1450 500		KOB 1180 10000
	Oklahoma City, Okla. KGFl 1500 100		Eureka, Calif. KIEV 850 250		Albuquerque, N. M. KOH 1380 500
	Corpus Christi, Texas		Glendale, Calif.		Reno, Nev.
	KGFJ 1200 100 Los Angeles, Calif.		KINY 1310 100 Juneau, Alaska		KOIL 1260 1000 Council Bluffs, Iowa
	KGFK 1500 100		KIRO 710 500		KOIN 940 1000 Portland, Ore.
	Moorhead, Minn. KGFL 1370 100		Seattle, Wash. KIT 1310 100		KOL 1270 1000
	Roswell, N. M.		Yakima, Wash.		Seattle, Wash. KOMA 1480 5000
1	KGFW 1310 100 Kearney, Neb.		KIUJ 1310 100 Santa Fe, N. Mex.		Oklahoma City, Okla.
	KGFX 630 200		KIUL 1210 100 Garden City, Kans.		KOMO 920 1000 Seattle, Wash.
	Pierre, S. D. KGGC 1420 100		KIUN 1420 100		KONO 1370 100
	San Francisco, Calif.		Pecos, Texas KIUP 1370 100		San Antonio, Texas KOOS 1390 250
	KGGF 1010 1000 Coffeyville, Kans.		Durango, Colo.		Marshfield, Ore.
	KGGM 1230 250 Albuquerque, N. M.	1	KJBS 1070 500 San Francisco, Calif.		KORE 1420 100 Eugene, Ore.
	KGHF 1320 500		KJR 970 5000		KOTN 1500 100
	Pueblo, Colo. KGHI 1200 100		Seattle, Wash. KLCN 1290 100		Pine Bluffs, Ark. KOY 1390 500
	Little Rock, Ark.	<u> </u>	Blytheville, Ark.	-	Phoenix, Ariz. KPAC 1260 500
	KGHL 780 1000 Billings, Mont.		Ogden, Utah		Port Arthur, Texas
	KGIR 1340 1000		KLPM 1240 250 Minot. N. D.		KPDN 1310 100 Pampa, Texas
	Butte, Mont. KGIW 1420 100		KLRA 1390 1000		KPLC 1500 100
	Alamosa, Colo. KGKB 1500 100	<u> </u>	Little Rock, Ark. KLS 1440 250		Lake Charles, La.
	Tyler, Texas		Oakland, Calif.		San Francisco, Callf.
	KGKL 1370 100 San Angelo, Texas		KLUF 1370 100 Galveston, Texas		KPOF 880 500 Denver, Colo.
	KGKO 570 250		KLX 880 1000		KPPC 1210 50 Pasadena, Calif.
	Wichita Falls, Texas KGKY 1500 100		Oakland, Calif. KLZ 560 1000		KPQ 1500 100
	Scottsbluff, Neb.		Denver, Colo. KMA 930 1000		Wenatchee, Wash.
1	KGMB 1320 1000 Honolulu, T. H.		Shenandoah, Iowa		Houston, Texas
	KGNC 1410 1000 Amarillo, Texas	1	San Antonio, Texas		KQV 1380 500 Pittsburgh, Pa.
	KGNF 1430 1000		KMBC 950 1000		KQW 1010 1000
	North Platte, Neb.		Kansas City, Mo. KMED 1310 100		San Jose, Calif. KRE 1370 100
	Dodge City, Kans.		Medford, Ore.		Berkeley, Calif.
	KGO 790 7500 San Francisco, Calif.		KMJ 580 1000 Fresno, Calif.		Weslaco, Texas
_	KGU 750 2500		KMLB 1200 100		KRKD 1120 500
	Honolulu, T. H. KGVO 1260 1000		Monroe, La. KMMJ 740 1000		Los Angeles, Calif. KRKO 1370 50
	Missoula, Mont.		Clay Center, Neb.		Everett, Wash.
	KGW 620 1000 Portland, Ore.		KMO 1330 250 Tacoma, Wash.		KRLC 1420 100 Lewiston, Idaho
	KGY 1210 100		KMOX 1090 50000		KRLD 1040 10000
	Olympia, Wash.		St. Louis, Mo. *		Dallas, Texas

			1	444		TIDII 020	50
1 1	KRLH 1420 100 Midland, Texas		KVL 1370 Seattle, Wash.	100	l i	TIRH 930 San Jose, C. R.	50
	KRMD 1310 100		KVOA 1260	500		VAS 685	2000
	Shreveport, La. KRNR 1500 100		Tucson, Ariz.	500		Glace Bay, N. S. VE9EK 1185	10
	Roseburg, Ore.		Denver, Colo.	,		Montmagny, Que.	40
	KRNT 1320 500 Des Moines, Iowa		KVOE 1500 Santa Ana, Calif.	100		VOAC 1065 St. John's, Nfld.	40
	KROC 1310 100		KVOL 1310	100		VOAS 940	100
	Rdchester, Minn. KROW 930 1009		Lafayette, La.	25000		St. John's, Nfid. VOGY 840	400
	Oakland, Calif.		Tulsa, Okla.			St. John's, Nfld.	
	KRŞC 1120 100 Seattle, Wash.		KVOR 1270 Colorado Spgs., C	1000 olo.		VONF 1195 St. John's, Nfid.	500
	KSAC 580 500		KVOS 1200 °	100		VOWR 681 St. John's, Nfld.	500
-	Manhattan, Kans. KSCJ 1330 1000		Bellingham, Wash KVSO 1210	100		WAAB 1410	500
	Sioux City, Iowa		Ardmore, Okla.			Boston, Mass.	4000
'	KSD 550 1000 St. Louis, Mo.		KWBG 1420 Hutchinson, Kans	100		WAAF 920 Chicago, Ill.	1000
	KSEI 900 250		KWG 1200	100		WAAT 940 Jersey City, N. J.	500
	Pocatello, Idaho KSFO 560 1000		Stockton, Calif.	500		WAAW 660	500
	San Francisco, Calif. KSL 1130 50000		Portland, Ore.	4000		Omaha, Neb. WABC 860	50000
	Salt Lake City, Utah		KWK 1350 St. Louis, Mo.	1000		New York, N. Y.	30000
	KSLM 1370 100 Salem, Ore.		KWKC 1370 Kansas City, Mo.	100		WABI 1200 Bangor, Maine	100
	KSO 1430 500		KWKH 1100	10000		WABY 1370	100
	Des Moines, Iowa KSOO 1110 2500		Shreveport, La. KWLC 1270	100		Albany, N. Y. WACO 1420	100
,	Sioux Falls, S. D.		Decorah, Iowa	100		Waco, Texas	
	KSTP 1460 25000 St. Paul, Minn.		KWSC 1220 Pullman, Wash.	1000		WADC 1320 Akron, Ohio	1000
	KSUN 1200 100		KWTN 1210	100		WAGF 1370	250
	Lowell, Ariz. KTAR 620 1000		Watertown, S. D. KWTO 560	5000		Dothan, Ala. WAGM 1426	100
	Phoenix, Ariz.		Springfield, Mo.			Presque Isle, Me.	400
	Fort Worth, Texas		KWYO 1370 Sheridan, Wyo.	100		WAIM 1200 Anderson, S. C.	100
	KTBS 1450 1000 Shreveport, La.		KXA 760 Seattle, Wash.	250	í l	WAIU 640 Columbus, Ohio	5 00
,	KTEP 1500 100		KXL 1420	100 .		WALA 1380	500
	El Paso, Texas KTFI 1240 1000		Portland, Ore. KXO 1500	100		Mobile, Ala. WALR 1210	100
	Twin Falls, Idaho		El Centro, Calif.			Zanesville, Ohio	
	KTHS 1060 10000 Hot Springs, Ark.		KXRO 1310 Aberdeen, Wash.	100		WAML 1310 Laurel, Miss.	100
	KTM 780 500		KXYZ 1440	1000		WAPI 1140	500¢
	Los Angeles, Calif. KTRB 740 250		Houston, Texas KYA 1230	1000		Birmingham, Ala. WARD 1480	500
	Modesto, Calif.		San Francisco, Ca	lif.		Brooklyn, N. Y.	
	KTRH 1290 1000 Houston, Texas		KYW 1020 Philadelphia, Pa.	10000		WASH 1270 Grand Rapids, Mic	500 h.
	KTSA 550 1000		NAA 690	1000		WATL 1370	100
	San Antonio, Texas KTSM 1310 100	-	Arlington, Va.	500		Atlanta, Ga. WATR 1190	100
	El Paso, Texas		San Salvador, E. S	3.		Waterbury, Conn.	
٠.	KTUL 1400 500 Tulsa, Okla.		TGW 1210 Guatemala, Gua.	10000		WAVE 940 Louisville, Ky.	1600
	KTW 1220 , 1000		TGX 1400	250		WAWZ 1350	5 00
	Seattle, Wash. KUJ 1370 100		Guatemala City TIEP 850	500	\Box	Zarephath, N. J. WAZL 1420	100
	Walla Walla, Wash. KUMA 1420 100	_	San Jose, C. R. TIFA 1050	75		Hazleton, Pa. WBAA 890	1000
	Yuma, Ariz.		San Jose, C. R.			West Lafayette, In	ıd.
	KUOA 1260 1000 Fayetteville, Ark.		TIFS 1441 Cartago, C. R.	7.5		WBAL 760 Baltimore, Md.	2500
	KUSD 890 500		TIGA 1014	30		WBAL 1060	10000
	Vermillion, S. D. KVI 570 1000	-	Cartago, C. R.	500		Baltimore, Md. WBAP 800	5000 ©
	Tacoma, Wash.	1	San Jose, C. R.	,	1 1	Fort Worth, Texas	

	WBAX 1210 100 Wilkes-Barre, Pa.		WCBM 1370 10 Baltimore, Md.	00	WEBC 1290 1000 Superior, Wis.
	WBBC 1400 500		WCBS 1420 10	00	WEBQ 1210 100
	Brooklyn, N. Y. WBBL 1210 100		Springfield, Ill. WCCO 810 5000	00	Harrisburg, Ill. WEBR 1310 100
	Richmond, Va. WBBM 770 50000		Minneapolis, Minn. WCFL 970 500	no ———	Buffalo, N. Y. WEDC 1210 100
	Chicago, Ill.		Chicago, Ill.		Chicago, Ill.
	WBBR 1300 1000 Brooklyn, N. Y.		WCHS 580 50 Charleston, W. Va.	00	WEED 1420 160 Rocky Mount, N. C.
	WBBZ 1200 100 Ponca City, Okla.		WCHV 1420 10 Charlottesville, Va.	30	WEEI 590 1000 Boston, Mass.
	WBCM 1410 500		WCKY 1490 500	00	WEEU 830 1000
	Bay City, Mich. WBEN 900 1000		Covington, Ky. WCLO 1200 10	00	Reading, Pa. WEGL 1400 500
	Buffalo, N. Y. WBEO 1310 100		Janesville, Wis.	, —	Brooklyn, N. Y. WEHS 1420 100
	Marquette, Mich.		Joliet, Ill.		Cicero, Ill.
	WBIG 1440 500 Greensboro, N. C.		WCMI 1310 10 Ashland, Ky.	90	WELI 900 500 New Haven, Conn.
	WBNO 1200 100 New Orleans, La.		WCNW 1500 10 Brooklyn, N. Y.	00	WELL 1420 100 Battle Creek, Mich.
	WBNS 1430 500		WCOA 1340 50	30	WEMP 1310 100
	Columbus, Ohio WBNX 1350 250		Pensacola, Fla.	30	Milwaukee, Wis. WENR 870 50000
	New York, N. Y.		Meridian, Miss.		Chicago, Ill.
	Buffalo, N. Y.		WCOL 1210 10 Columbus, Ohio		WEOA 1370 100 Evansville, Ind.
	WBOQ 860 50000 New York, N. Y.	'	WCOP 1120 50 Boston, Mass.	00	WESG 850 1000 Elmira, N. Y.
	WBOW 1310 100 Terre Haute, Ind.		WCPO 1200 10 Cincinnati, Ohio	00	WEST 1200 100 Easton, Pa.
	WBRB 1210 100		WCRW 1210 10	00	WEVD 1300 1000
	Red Bank, N. J. WBRC 930 1000		Chicago, Ill. WCSC 1360 50	00	New York, N. Y. WEW 760 1000
	Birmingham, Ala.		Charleston, S. C.		St. Louis, Mo.
	WBRE 1310 100 Wilkes-Barre, Pa.		WCSH 940 100 Portland, Me.	00	WEXL 1310 50 Royal Oak, Mich.
	WBT 1080 50000 Charlotte, N. C.		WDAE 1220 100 Tampa, Fla.	00	WFAA 800 50000 Dallas, Texas
	WBTM 1370 100 Danville, Va.		WDAF 610 100	00	WFAB 1300 1000 New York, N. Y.
	WBZ 990 50000		Kansas City, Mo. WDAH 1310 10	00	WFAM 1200 100
<u> </u>	Boston, Mass. WBZA 990 1000	, 	El Paso, Texas WDAS 1370 10	00	South Bend, Ind. WFAS 1210 100
	Springfield, Mass. WCAC 600 500		Philadelphia, Pa. WDAY 940 100		White Plains, N. Y. WFBC 1300 1000
	Storrs, Conn.		Fargo, N. D.		Greenville, S. C.
	WCAD 1220 500 Canton, N. Y.		WDBJ 930 100 Roanoke, Va.	00 .	WFBG 1310 100 Altoona, Pa.
	WCAE 1220 1000 Pittsburgh, Pa.	· [WDBO 580 100 Orlando, Fla.	00	WFBL 1360 1000 Syracuse, N. Y.
	WCAL 1250 1000		WDEL 1120 25	50	WFBM 1230 1000
	Northfield, Minn. WCAM 1280 500			00	Indianapolis, Ind. WFBR 1270 500
<u> </u>	Camden, N. J. , WCAO 600 500		Waterbury, Vt. WDGY 1180 100	nn ——	Baltimore, Md. WFDF 1310 100
	Baltimore, Md.		Minneapolis, Minn.		Flint. Mich.
	WCAP 1280 500 Asbury Park, N. J.		WDNC 1500 10 Durham, N. C.	00	WFEA 1340 500 Manchester, N. H.
	WCAT 1200 100		WDOD 1280 100	00	WFIL 560 1000
	Rapid City, S. D. WCAU 1170 50000		Chattanooga, Tenn. WDRC 1330 100	00	Philadelphia, Pa. WFLA 620 1000
	Philadelphia, Pa. WCAX 1200 100		Hartford, Conn. WDSU 1250 100	00 -	Clearwater, Fla. WFMD 900 500
	Burlington, Vt.		New Orleans, La.		Frederick, Md.
	WCAZ 1070 100 Carthage, Ill.		WDZ 1020 29 Tuscola, Ill.	50	WGAL 1500 100 Lancaster, Pa.
	WCBA 1440 500 Allentown, Pa.		WEAF 660 5000 New York, N. Y.	00	WGAR 1450 500 Cleveland, Ohio
	WCBD 1080 5000		WEAN 780 50	00	WGBB 1210 100
	Waukegan, III.		Providence, R. I.	L	Freeport, N. Y.

	WGBF 630 Evansville, Ind.	500	WHK 1390 Cleveland, Ohio	1000		WJDX 1270 Jackson, Miss.	1000
	WGBI 880	500	WHLB 1370	100		WJEJ 1210	100
	Scranton, Pa. WGCM 1210	100	Virginia, Minn. WHN 1010	1000		Hagerstown, Md. WJIM 1210	100
	Gulfport, Miss.		New York, N. Y.	50000		Lansing, Mich. WJJD 1130	20000
	WGES 1360 Chicago, Ill.	500	WHO 1000 Des Moines, Iowa	50000		Chicago, Ill.	
	WGH 1310 Newport News, Va.	100	WHOM 1450 \ Jersey City, N. J.	250		WJMS 1420 Ironwood, Mich.	100
	WGL 1370	100	WHP 1430	500	,	WJNO 1200	100
	Fort Wayne, Ind. WGN 720 50	0000	Harrisburg, Pa. WIBA 1280	1000		W. Palm Beach, Fla WJR 750	ն. 50000
	Chicago, Ill.		Madison, Wis.			Detroit, Mich.	
·	WGNY 1210 Chester, N. Y.	100	WIBG 970 Glenside, Pa.	100		WJSV 1460 Washington, D. C.	10000
	WGPC 1420	100	WIBM 1370	100		WJW 1210 Akron, Ohio	100
	Albany, N. Y. WGR 550 1	.000	Jackson, Mich. WIBU 1210	100		WJZ 760	50000
	Buffalo, N. Y.		Poynette, Wis.			New York, N. Y. WKAQ 1240	1000
	WGST 890 1 Atlanta, Ga.	.000	WIBW 580 Topeka, Kans.	1000		San Juan, P. R.	
	WGY 790 50 Schenectady, N. Y.	0000	WIBX 1200 Utica, N. Y.	100		WKAR 850 East Lansing, Mich	1000
	WHA 940 2	500	WICC 600'	500		WKBB 1500	100
l	Madison, Wis. WHAM 1150 50	000	Bridgeport, Conn. WIL 1200	100		East Dubuque, Ill.	1000
	Rochester, N. Y.		St. Louis, Mo.			LaCrosse, Wis. WKBI 1420	100
	WHAS 820 50 Louisville, Ky.	000	WILL 890 Urbana, Ill.	250		Cicero, Ill.	100
	WHAT 1310 Philadelphia, Pa.	100	WILM 1420	100		WKBN 570 Youngstown, Ohio	500
	WHAZ 1300	500	Wilmington, Del. WIND 560	1000		WKBO 1200	100
	Troy, N. Y.	.000	Gary, Ind.	1000		Harrisburg, Pa. WKBV 1500	100
	Kansas City, Mo.	.000	New York, N. Y.	1000		Richmond, Ind.	
1	WHBB 1500 Selma, Alabama	100	WIOD 1300 Miami, Fla.	1000		WKBW 1480 Buf falo, N. Y.	5000
	WHBC 1200	100	WIP 610	1000		WKBZ 1500 Muskegon, Mich.	100
	Canton, Ohio WHBF 1210	100	Philadelphia, Pa. WIRE 1400	500		WKEU 1500	100
	Rock Island, Ill.	.000	Indianapolis, Ind.	1000		Griffin, Ga. WKOK 1210	100
	Newark, N. J.		Columbia, S. C.		<u> </u>	Sunbury, Pa. WKRC 550	1000
	WHBL 1300 Sheboygan, Wis.	500	WISN 1120 Milwaukee, Wis.	250		Cincinnati, Ohio	1000
	WHBQ 1370	100	WJAC 1310	100		WKY 900 Oklahoma City, Okl	1000
-	Memphis, Tenn. WHBU 1210	100	Johnstown, Pa. WJAG 1060	1000		WKZO 590	1000
	Anderson, Ind.	100	Norfolk, Neb.	500		Kalamazoo, Mich. WLAC 1470	5000
	Green Bay, Wis.	100	Providence, R. I.			Nashville, Tenn.	
	WHDF 1370 Calumet, Mich.	100	WJAS 1290 Pittsburgh, Pa.	1000		WLAK 1310 Lakeland, Fla.	100
	WHDH 830 1	.000	WJAX 900	1000		WLAP 1420 Lexington, Ky.	100
	Boston, Mass. WHDL 1420	100	Jacksonville, Fla. WJAY 610	500		WLB 1250	1000
	Olean, N. Y. WHEB 740	250	Cleveland, Ohio	100		Minneapolis, Minn. WLBC 1310	100
	Portsmouth, N. H.	250	Bloomington, Ill.	100		Muncie, Ind.	
	WHEC 1430 Rochester, N. Y.	500	WJBK 1500	100		WLBF 1420 Kansas City, Kans.	100
	WHEF 1500	100	Detroit, Mich. WJBL 1200	100		WLBL 900	2500
	Kosciusko, Miss. WHFC 1420	100	Decatur, Ill.	100	·	Stevens Point, Wis. WLBZ 620	500
	Cicero, Ill.		Baton Rouge, La.			Bangor, Me. WLEU 1420	100
	WHIO 1260 1 Dayton, Ohio	.000	WJBR 1420 Gastonia, N. C.	100		Erie, Pa.	
/.	WHIS 1410 Bluefield, W. Va.	250	WJBW 1200 New Orleans, La.	100		WLLH 1370 Lowell, Mass.	100
	WHJB 620	250	WJBY 1210	100 、		WLNH 1310	100
	Greensburg, Pa.		Gadsden, Ala.			Laconia, N. H.	

WILS ST0 S0000 WIRH 1310 WPRF 1220 100 WRW 1200 100 WRW 1310 WPRF 1420 100 WRW 1310 WRW						l	
WILTH 1400 S00		WLS 870 50000 Chicago, III.		WNBH 1310 100 New Bedford, Mass.		WPRP 1420 Ponce, P. R.	100
WILVA 1208		WLTH 1400 500		WNBR 1430 500		WPTF 680	5000
Lynchburg, Va. WW To			,		$\overline{}$		1000
WILW 100 S0000					<u> </u>		1000
WILL 1109 5000 WREL 1290 1000 WQRC 1360 1000 VREP 1360 1000 VREP 1360 1000 VREP 1360 1000 VREP 1360 VREP		WLW 700 500000					250
New York, N. Y. San Juan, P. R. Vicksburg, Miss. Wold 1370 100 Newark, N. J. Wold 1370 100 New York, N. Y. Williamsport, Pa. Wil							1000
Washington, D. C.							
WMAQ 670 50000							100
Chicago, III. WMAS 1429 100 New Port, R. I. WRAW 1310 100 New Port, R. I. WRAW 202 250 Philadelphia, Pa. WRAX 1120 100 WREC 400							100
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WMAZ 1180 1000 MNYC 810 1000 WRAX 920 250 Magnon, Ga. WMSC 1420 100 San Antonio, Texas WRBL 1420 100 Detroit, Mich. WO							100
Macon, Ga. New York, N. Y. Philladelphia, Pa. WRB. 1200 100							250
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	WSMB 1320 500 New Orleans, La.	WWNC 570 1000 Asheville, N. C.	XEFL 1150 250 Tijuana, L. C.
	WSMK 1380 200	WWRL 1500 100	XEFO 940 5000
	Dayton, Ohio WSOC 1210 100	Woodside, N. Y. WWSW 1500 100	Mexico City, D. F. XEFV 1210 100
	Charlotte, N. C.	Pittsburgh, Pa.	Juarez, Chih.
	WSPA 920 1000 Spartanburg, S. C.	WWVA 1160 5000 Wheeling, W. Va.	XEFW 1310 250
	WSPD 1340 1000	WXYZ 1240 1000	Tampico, Tams. XEFZ 1370 100
<u> </u>	Toledo, Ohio	Detroit, Mich.	Mexico City, D. F.
	WSPR 1140 500 Springfield, Mass.	W1XBS 1530 1000 Waterbury, Conn.	XEG 1270 200 Ensenada, B. C.
	WSUI 880 500	W2XR 1550 1000	XEH 1150 250
-	Iowa City, Iowa WSUN 620 1000	Long Island City, N. Y.	Monterrey, N. L.
	St. Petersburg, Fla.	W6XAI 1550 1000 Bakersfield, Calif.	XEI 1370 125 Morelia, Mich.
	WSVA 550 500	W9XBY 1530 1000	XEJ 1020 1000
-	Harrisonburg, Va. WSVS 1370 50	Kansas City, Mo. XEA 1060 500	Juarez, Chih.
	Buffalo, N. Y.	Guadalajara, Jal.	Mexico City, D. F.
	WSYB 1500 100	XEAA 920 200	XEKL 1240 500
	Rutland, Vt. WSYR 570 250	Mexicali, B. C. XEAC 1240 250	Leon, Guan. XEL 1100 250
	Syracuse, N. Y.	Tijuana, L. C.	Mexico City, D. F.
	WTAD 900 500 Quincy, Ill.	XEAF 990 500 Nogales, Son.	XELO 1110 10000 Piedras Negras, Coah.
	WTAG 580 500	XEAG 1310 10	XEMO 860 5000
	Worcester, Mass. WTAL 1310 100	Cordoba, Ver. XEAI 1240 100	Tijuana, L. C.
	Tallahassee, Fla.	Mexico City, D. F.	XEMX 1280 12 Mexico City, D. F.
	WTAM 1070 50000	XEAM 750 7.5	XEMZ 820
	Cleveland, Ohio WTAQ 1330 1000	Matamoros, Tams. XEAO 560 250	Coronado Isl., L. C. XEN 710 1000
	Green Bay, Wis.	Mexicali, B. C.	Mexico City, D. F.
	WTAR 780 500 Norfolk, Va.	XEAQ 1090 1000 Rosarito, L. C.	XENT 910 150000 Nuevo Laredo, Tams.
	WTAW 1120 500	XEAS 1160 100	XEOK 760 250
	College Station, Tex.	Saltillo, Coah. XEAT 1210 50	Tijuana, L. C. XEOX 640 500
	Springfield, Ill.	Hidalgo, Chih.	Saltillo, Coah.
	WTBO 800 250 Cumberland, Md.	XEAW 960 50000 Reynosa, Tams.	XEPN 590 50000 Piedras Negras, Coah.
	WTCN 1250 1000	XEAZ 1420 7	XERA 840 250000
	Minneapolis, Minn. WTEL 1310 100	Guanajuato, Gto. XEB 1030 10000	Villa Acuna, Coah.
	Philadelphia, Pa.	Mexico City, D. F.	XES 990 250 Tampico, Tams.
<u> </u>	WTFI 1450 500	XEBH 930 500	XESL 1160
	Athens, Ga. WTHT 1200 100	Hermosillo, Sonora XEBK 1000 100	Tijuana, L. C. XET 690 500
	Hartford, Conn.	Nuevo Laredo, Tams.	Monterrey, N. L.
	WTIC 1040 50000 Hartford, Conn.	XEC 1160 30 Tijuana, L. C.	XETB 1310 125
	WTJS 1310 100	XECW 1310 10	Torreon, Coah.
	Jqckson, Tenn. WTMJ 620 1000	Mexico City, D. F.	Veracruz, Ver.
	WTMJ 620 1000 Milwaukee, Wis.	XED 1155 2500 Guadalajara, Jal.	XETH 1210 100 Puebla, Pue.
	WTMV 1500 100	XEE 1210 50	XEU 1010 250
-	East St. Louis, Ill. WTNJ 1280 500	Durango, Dgo. XEF 980 100	Veracruz, Ver.
	Trenton, N. J.	Juarez, Chih.	XEW 890 50000 Mexico City, D. F.
	WTOC 1260 1000	XEFA 1180 500	XEWZ 1150 100
-	Savannah, Ga. WTRC 1310 100	Mexico City, D. F. XEFB 1420 100	Mexico City, D. F. XEX 1310 125
	Elkhart, Ind.	Monterrey, N. L.	Monterrey, N. L.
	WVFW 1400 500 Brooklyn, N. Y.	XEFC 560 100 Merida, Yuc.	XEY 1000 10 Merida, Yuc.
	WWAE 1200 100	XEFE 850 250	XEYZ 780 10000
-	Hammond, Ind. WWJ 920 1000	Laredo, Tams. XEFI 1440 250	Mexico City, D. F. XEZ 630 500
	Detroit, Mich.	Chihuahua, Chih.	XEZ 630 500 Merida, Yuc.
	WWL 850 10000	XEFJ 1230 100	Continued on
	New Orleans, La.	Monterrey, N. L.	Page 112

	Pontoise, 11.720	YV10RSC, S. Crsbl, 5.720	YV6RV, Valencia, 6.520	YV5RMO, Marc'bo, 5.850	YV4RC, Caracas, 6.375	YV3RC, Caracas, 6.150	YV2RC, Caracas, 5.800	YVQ, Maracay, 6.672	XEVI, Mexico Cy., 5.980	XEDQ, Guadlja., 9.520	XECR, Mexico Cy., 7.380	XEBT, Mexico Cy., 6.000	W9XF, Chicago, 6.100	WSXK, Pittsbgh., 15.210	W8XK, Pittsbgh., 11.870	W8XK, Pittsbrugh, 6.140	W8XAL, Cincin'ti., 6.060	W4XB, Mlami, 6.040	W4XB, Miami, 6.040	W3XAU, Phila., 9.590	W3XAU, Phila., 6.060	W2XE, Wayne, 17.760	W2XE, Wayne, 15.270	W2XE, Wayne, 11.830	W2XE, Wayne, 6.120	W2XAF, Sch'tdy, 9.530	Eastern Time P. M.
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Hints on Tuning the Short Waves

Pontolse, 11.880

between the transmitter and the receiver. Transmitters working between about 8 and 10 megacycles are best when the station is in a night-time area and the receiver in daylight, so tuners should try for Europeans in this band in the early evening and for Australians near dawn. Below 10 megacycles the difficulty in tuning increases; here the path of the transmission should be as nearly as possible completely in daylight. It has been noted that shortwave reception follows certain definite trends. Stations between 5 and 7 megacycles favor darkness

At night tune for South America between 5 and 10 megs. Europeans are good in the early evening and some of the higher powered Europeans are good all night. In the early morning tune for Australia and Asia between 6 and 10 megs. During the daytime tune for Europe, Africa and South America below 10 megacycles.

W2XAD, Sch'tdy, 15.330	W2XAD, Sch'tdy, 15.330	W1XK, Millis, 9.570	W1XAL, Boston, 11.790	W1XAL, Boston, 6.040	VK3LR, Melb'rne, 9.580	TI8WS, Punt'rnas, 7.550	TI5HH, San Ramon, 5.520	TIRCC, San Jose, 6.550	TIPG, San Jose, 6.385	TIGPH, San Jose, 5.820	TIEP, San Jose, 6.710	TG2X, Gtmla. Cy., 5.940	TG1X, Gtmla. Cy., 9.450	TGWA, Gtmla. Cy., 6.000	RV59, Moscow, 5.996	PRF5, Rio de Jan., 9.505	Prado, Riobamba, 6.620	ORK, Brussels, 10.330	OAX4G, Lima, 6.230	OAX4D, Lima, 5.780	12RO, Rome, 11.810	12RO, Rome, 9.635	HRN, Tegucigalpa, 5.910	HP5J, Panama Cy., 9.590	HP5B, Panama Cy., 6.030	HJ5ABD, Call, 6.490	HJ5ABC, Call, 6.150	HJ4ABE, Medellin, 5.900	HJ4ABD, Medellin, 6.060	HJ4ABA, Medellin, 11.720	HJ3ABH, Bogota, 6.012	HJ3ABH. Bogota, 6.012	HJ3ABF, Bogota, 6.200	HJ2ABD, Bucar'ga, 5.980	HJ1ABJ, S'ta M'ta, 6.006	HJ1ABG, Bar'q'lla, 6.042	Eastern Time P. M.
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Bill Smith Ought to be Ashamed of his Ignorance

Bill has been tuning a radio set for years and yet he knows nothing about happens in his set when he turns the dials.

How can a man be content to remain in ignorance of such a fascinating thing as Radio?

Bill ought to read the BEGIN-NER'S STORY \mathbf{OF} RADIO by B. Francis Dashiell. Technical Editor of RADEX

is book of 96 pages crammed full of information about the elements of Radio. written in simple words and profusely illustrated.

Bound in beautiful leatherette, the price is

Only 50c postpaid

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RADEX Publications

HE one who enjoys Radio naturally desires to know something about its seemingly miraculous character. Practically all of the books on Radio are very technical in language and description. RADEX, therefore, commissioned its Technical Editor, B. Francis Dashiell, to write "The Beginners' Story of Radio" in the simplest possible words and terms. This we have published in book form. There are 96 pages profusely illustrated with simple pictures and diagrams, bound in handsome leatherette.

"The Beginners' Story of Radio" takes you on a tour through your own radio set, pointing out in language a young boy can understand, just what each part does and just what happens when you turn the dial. With this book available, no one can be excused for

an ignorance of the elements of Radio.

Send for it today.

Price 50 cents postpaid.

THE RADEX Radio Map of the World, eleven by twenty-two inches in size, portrays the countries and principal cities of the world and shows their time zones. On the front cover is a dial marked with the hours of the day. You simply turn this dial to the hour in your zone and instantly the corresponding times for the whole world are shown. The hours where twilight, darkness and dawn occur are graphically shown. The dial also indicates where the time is yesterday, today or tomorrow. Thus if you set the dial for 3:00 a. m. in the Eastern Standard zone, the time is shown in Hawaii as 9:30 p. m. YESTERDAY. If set for 9:00 a. m. EST, the time in New Zealand is shown as 1:30 a. m. TOMORROW.

If you desire to hear a program in Germany which occurs at **6:00** a. m. their time, the dial shows that you must listen at midnight, EST. There are no mental calculations to make—no adding

nor subtracting—the dial does it all.

The price of the Map of the World with Time-Converting Dial is only 25 cents postpaid.

T IS so easy to forget to tune in a favorite program that we have prepared what we call the RADEX Radio "Slate." It consists of four pages of heavy Bristol board on which pencil entries may easily be made and erased. The eight columns are ruled into fifteen-minute periods with space for the program, the station and the dial number. All of the evening hours and those of Sunday afternoon are provided for. You merely enter the names of the programs you wish to hear, the station over which you receive it best and the dial number. The "Slate" then reminds you in the most convenient way possible, when and where to tune for the programs you do not want to miss.

Price, 10 cents each, two for 15 cents or four for 25 cents.

THE RADEX PRESS INC. CONNEAUT, OHIO



Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against me. But I am surely making good money now. Maybe my story will show you the way to larger earnings also.

I THOUGHT RADIO WAS A PLAYTHING

But Now My Eyes Are Opened, and I'm Making Over \$40.00 a Week!

\$40 a week! Man alive, a year ago I thought anyone making so much was just plain lucky.

Twelve months ago I was just barely getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that twelve months later I would be making \$40 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of my story—let me tell you how it all started. I was hard up a year ago because I had been kidding myself—that's all—not because I had to be. I thought a fellow either had to be lucky or have a string of college degrees to make good money.

One day I picked up a magazine and an ad attracted me because it seemed to fit my case. It said "I will show you how to start a spare time or full time Radio service business of your own WITHOUT CAPITAL."

"They're trying to kid somebody," I thought, "but I'll find out what it's all about."

I wrote in and within a few days received a 64-page book telling about the opportunities in Radio, how I could prepare right at home in my spare time, and how they would show me how to start making money in my neighborhood selling and repairing Radio sets. It would have sounded too good to be true if the promises had not been backed up by nearly 100 letters from fellows who had taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream. I started to take their course and soon I was ready to start making money in my neighborhood—as much as \$5 and \$15 a week. It wasn't long until I had saved enough money to start a little business of my own.

That business has since grown to the point where I am clearing an average of \$40 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train me for other lines. Broadcasting Stations, Radio Manufacturers, Operating on Board Ship, Servicing Sets, Aviation Radio, Television, Short Wave, Automobile and Police Radio, Loud Speaker Systems are other fields their training covers. And to think, until the day I wrote for that book, I'd been wailing, "I never had a chance and will never have one because I have no pull or a good education!"

Friend—you may not be as bad off as I was—

but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

Take my tip—write for their book, "Rich Rewards in Radio." It won't cost you anything except a postage stamp. It shows you a lot of things which I don't believe you know now about Radio—a lot of facts and figures on the opportunities in this new, fast-growing field. Where the jobs are, what they pay, how to get ready for them. Beginners as well as experienced men are making as much as \$500 to \$1,500 a year more as a result of N.R.I. training. And at the same time they send the book "Rich Rewards in Radio" they'll send you, without any cost or obligation, a Free Lesson to prove that their training is easy, practical, fascinating. The lesson they send "Radio Receiving Troubles—the Cause and Remedy" is valuable. And when you see how simple this lesson is to understand you'll know why many fellows with less than a grammar school education have mastered N.R.I. training and are now making good money as Radio Experts.

You are not placing yourself under any obligation by writing for this material as they will gladly send it to anyone who is ambitious and wants to get ahead. Mail the coupon in an envelope or paste it on a 1c postcard. Just address Mr. J. E. Smith, President, National Radio Institute, Dept. 6EO, Washington, D. C.

J. E. SMITH, President, National Radio Institute Dept. 6EO, Washington, D. C.

Dear Mr. Smith:

Without obligation, send me the sample lesson and your free book about spare time and full time Radio opportunities, and how I can train for them at home in spare time. (Please print plainly)

Name Malland Locknes, Age 02

Address & & Bailey St.

City Land Amer. | State Mass.