

BROADCAST STATIONS IN THE U. S.

(Arranged by Frequency, Wavelength and Call Letters)

Compiled by William C. Dorf

550 kc., 545.5 m. KFUO, KFYR, KOAC, KSD, KTSA, WDEV, WGR, WKRC, WSVA.	890 kc., 337.1 m. KARK, KFNF, KFPY, KUSD, WBAA, WGST, WJAR, WMMN.	KWNO, WABI, WAIM, WAYX, WBBZ, WBHP, WBNO, WCAT, WCAX, WCLO, WCPO, WDSM, WEST, WFAM, WFTC, *WHBC, WHBY, WIBX, WIL, WJBC, WJBL, WJBW, WJNO, WJRD, WKBO, WLVA, WMFR, WMPC, WOLS, WRBL, WSAL, WTHT, WTOL, WWAE.
560 kc., 535.7 m. KFDM, KLZ, KSFO, KWTO, **WFIL, WIND, WIS, WQAM.	900 kc., 333.3 m. *KGBU, KHJ, KSEI, WBEN, WELI, WFMD, WJAX, WKY, WLBL, WTAD.	1210 kc., 247.9 m. *KALB, KANS, KASA, KDLR, KDON, KFJL, KFOR, KFPW, KFUS, KFXM, KGLO, KGY, KHBG, KIUL, KLAH, KOCA, KPFA, KPPC, KROY, KVSO, KWTN, WALR, WBAX, WBBL, WBLY, WBRB, WCOL, WCRW, WEBQ, WEDC, WFAS, WFOY, WGBB, WGCM, WGNY, WGRM, WHBF, WHBU, WIBU, WJBY, WJEJ, WJIM, WJTN, WJJ, WKOK, WLMU, WMFG, WOMT, WPAX, WSAY, WSBC, *WSIX, WSNJ, WSOC, WTAX.
570 kc., 526.3 m. KGKO, KVÍ, WKBN, WMCA, WNAX, WOSU, WSYR, WSYU, WWNC.	910 kc., 329.7 m. (Reserved for Canadian stations.)	1220 kc., 245.9 m. KFKU, KTMC, KTW, KWSC, WCAD, WCAC, WDAE, WREN.
580 kc., 517.2 m. KMJ, KSAC, WCHS, *WDBO, WIBW, WILL, WTAG.	920 kc., 326.1 m. KFEL, KOMO, KPRC, KVOD, WAFF, WORL, **WPEN, WRAX, WSPA, **WWJ.	1230 kc., 243.9 m. KGBX, KGGM, KYA, WFBM, WNAC.
590 kc., 508.5 m. KHQ, KMTR, WEEI, *WKZO, WOW.	930 kc., 322.6 m. KMA, KROW, *WBRC, WDBJ.	1240 kc., 241.9 m. KGCU, *KLPM, KTAT, **KTFI, WKAQ, WXYZ.
600 kc., 500.0 m. KFSD, WCAO, WICC, WMT, WREC.	940 kc., 319.2 m. KOIN, WAAT, WAVE, WCSH, WDAY, WHA, *WICA.	1250 kc., 240.0 m. *KFOX, KXOK, WAIR, *WCAL, WDSU, WHBI, *WLB, WNEW, WTCN.
610 kc., 491.8 m. KFRC, WCLE, WDAF, WIP.	950 kc., 315.8 m. KFWB, KMBC, WHAL, *WRC.	1260 kc., 238.1 m. KGVO, KHSL, KOIL, KPAC, KRGV, KUOA, KVOA, WHIO, **WNBX, *WTOC,
620 kc., 583.9 m. KGW, KTAR, WFLA, WHJB, WLBZ, WSUN, WTMJ.	960 kc., 312.5 m. (Reserved for Canadian stations.)	1270 kc., 236.2 m. KGCA, KOL, KVOR, KWLC, WASH, WFBR, *WJDX, WOOD.
630 kc., 476.2 m. KFRU, KGFX, WGBF, WMAL, WPRO.	970 kc., 309.3 m. KJR, WCFL, WIBG.	1280 kc., 234.4 m. KFBP, KLS, WCAM, WCAP, WDOD, WIBA, WORC, WRR, WTNJ.
640 kc., 468.7 m. KFI, WGAN, WHKC, WOI.	980 kc., 306.1 m. KDKA.	1290 kc., 232.6 m. *KDYL, KLCN, KTRH, WEBG, WJAS, WNBZ, WNEL.
650 kc., 461.5 m. **KIRO, WSM.	990 kc., 303.0 m. WBZ, WBZA.	1300 kc., 230.8 m. KALE, KFAC, KFH, WBBR, WEVD, WFAB, WFEC, WHAZ, WHBL, **WIOD—WMBF.
660 kc., 454.6 m. WAAW, WEAF.	1000 kc., 300.0 m. KFVD, **WHO.	1310 kc., 229.0 m. KAND, KARM, KCKN, *KCRJ, KFPL, KFXR, KFYD, KGEZ, KGFW, KHUB, *KINY, *KIT, KPDN, KRBA, KRMD, KROC, KRQA, KRRV, KSRO, KSUB, KTSM, KVOL, KVOX, KWOS, KXRO, WAML, WBEQ, WBOW, WBRE, WBRK, WCLS, WCMI, WDAH, WEVR, WEMP, WEXL, WFBG, WFDF, **WGH, WGTM, WHAT, WJAC, WLAK, WLBC, WLNH, *WMBO, WMFF, WNBH, *WOL, WRAW, WROL, WSJ, WSGN, WSJS, *WTAL, WTEL, WTJS, WTRC.
670 kc., 447.8 m. WMAQ.	1010 kc., 397.0 m. KFUL, KGFF, KQW, WHN, WNAD, WNOX.	1320 kc., 227.2 m. KGHF, KGMB, *KID, KRNT, WADC, WORK, *WSMB.
680 kc., 441.2 m. KFEQ, KPO, WLAW, WPTF.	1020 kc., 294.1 m. KYW, WDZ.	1330 kc., 225.6 m. KGB, KMO, KRIS, KSCJ, WDRC, WSAI, WTAQ.
690 kc., 434.8 m. (Reserved for Canadian stations.)	1030 kc., 291.3 m. (Reserved for Canadian stations.)	1340 kc., 223.9 m. KDTH, KGDY, KGIR, KGNO,
700 kc., 428.6 m. **WLW.	1040 kc., 288.5 m. KRLD, **KTHS, KYOS, **WESG, **WTIC.	
710 kc., 422.5 m. **KIRO, KMPG, WOR.	1050 kc., 285.7 m. KFBP, KNX, WEAU, WGVA.	
720 kc., 416.7 m. WGN.	1060 kc., 283.0 m. **KTHS, **KWJJ, **WBAL, WJAG, **WTIC.	
730 kc., 411.0 m. (Reserved for Canadian stations.)	1070 kc., 280.4 m. KJBS, WCAZ, WTAM.	
740 kc., 405.4 m. KMMJ, KTRB, WHEB, WSB.	1080 kc., 277.8 m. WBT, WCBD, WMBI.	
750 kc., 400.0 m. KGU, WJR.	1090 kc., 275.2 m. KMOX.	
760 kc., 394.7 m. KXA, WEW, WJZ.	1100 kc., 272.7 m. *KGDM, WBIL, WPG.	
770 kc., 389.6 m. KFAB, WBBM.	1110 kc., 270.3 m. KSOO, WRVA.	
780 kc., 384.6 m. KEAT, KFDY, KFQD, KGHL, KWLK, WEAN, WMG, WTAR.	1120 kc., 267.9 m. KFIO, KFSG, KRKD, KRSC, KTVC, WCOP, WDEL, WISN, WJBO, WTAW.	
790 kc., 379.7 m. KGO, KOAM, WGY.	1130 kc., 265.5 m. KSL, WJJD, WOV.	
800 kc., 375.0 m. WBAP, WFAA, WTBO.	1140 kc., 263.2 m. KVOO, WAPI, WSPR.	
810 kc., 370.4 m. WCCO, WNYC.	1150 kc., 260.9 m. WHAM.	
820 kc., 365.9 m. WHAS.	1160 kc., 258.6 m. WOWO, WWVA.	
830 kc., 361.4 m. KOA, WEEU, WHDH, WRUF.	1170 kc., 256.4 m. WCAU.	
840 kc., 357.1 m. (Reserved for Canadian stations.)	1180 kc., 254.2 m. KEX, KOB, WDGY, WINS, WMAZ.	
850 kc., 352.9 m. KIEV, **KWKH, WKAR, WWL.	1190 kc., 252.1 m. KTKC, *WATR, WOAI, WSAZ.	
860 kc., 348.8 m. WABC, WBOQ, WHB.	1200 kc., 250.0 m. KADA, KBTM, KDNC, KELO, KFJB, KFXD, KFXJ, KGCI, KGDE, KGEK, KGFJ, KGHI, KGVL, KMLB, KOOS, KSUN, KVCF, KVEC, KVOS, KWG,	
870 kc., 344.8 m. WENR, WLS.		
880 kc., 340.9 m. KFAK, KLX, KPOF, *WCOC, WGBI, WPHR, WQAN, WSUI.		

*WCOA, WFEA, WSPD.

1350 kc., 222.2 m.

*KIDO, KWK, WAWZ, WBNX, WMBG.

1360 kc., 220.6 m.

KCRC, KGCR, WCSC, WFBL, WGES, WQBC, WSBT.

1370 kc., 219.0 m.

KAST, KCMO, KEEN, KELD, KERN, KFGQ, KFJC, KFRD, KGAR, KGFL, KGKL, KICA, KIUB, KLUF, KMAC, KOBH, KOKO, KONO, KRE, KRKO, KRCM, KSLM, KTEM, KTOK, KUJ, KVGB, KVRS, KWYO, *WABY, WAGF, WATL, WBLK, WBNY, WBTL, WCBM, WDAS, WDWS, WEOA, WFOR, *WGL, WGRC, WHBQ, WHDF, WHLB, WIBM, WLH, WMBR, WMFD, WMFO, WMIN, WOC, WPAY, WPRA, WRAK, WRDO, WRJN, WSAU, WSVS.

1380 kc., 217.4 m.

KOH, KOV, WALA, WKBH, *WNBC, WSMK.

1390 kc., 215.8 m.

KLRA, KOY, KRLC, WHK, WQDM.

1400 kc., 214.3 m.

KHBC, KLO, KTUL, WARD, WBBZ, WHDL, WIRE, WLTH, WVFW.

1410 kc., 212.8 m.

KFJM, KGNC, KMED, WAAB, WBCM, WHIS, WROK, WSFA.

1420 kc., 211.3 m.

KABC, KABR, KATE, KBPS, KCFC, KEUB, KFAM, KFIZ, KGFF, *KGGC, KGIW, KIDW, KIUN, KLB, KNET, KORE, KRBC, KRLH, KTRI, KUMA, KWBG, KXL, WACO, WAGM, WAPO, WAZL, *WCBS, WCHB, WEED, WELL, WGPC, WHFC, WILM, WJBR, WJMS, WLAP, WLEU, WMAS, WMBC, WMBH, WMBC, WMFJ, WMSD, WPAD, WPAR, WPRP.

1430 kc., 209.8 m.

KECA, KGNF, KSO, WBNS, WHEC, WHP, WMPS, WNBR, WOKO.

1440 kc., 208.3 m.

KDFN, KELA, KXYZ, WBIG, WCBA, WMBD, WSAN.

1450 kc., 206.9 m.

*KGCX, KIEM, KTBS, WAGA, WGAR, WHOM, WSAR.

1460 kc., 205.5 m.

KSTP, WJSV.

1470 kc., 204.1 m.

KGA, WLAC.

1480 kc., 202.7 m.

KOMA, WHIP, WKBW.

1490 kc., 201.3 m.

*KFBK, WCKY.

1500 kc., 200.0 m.

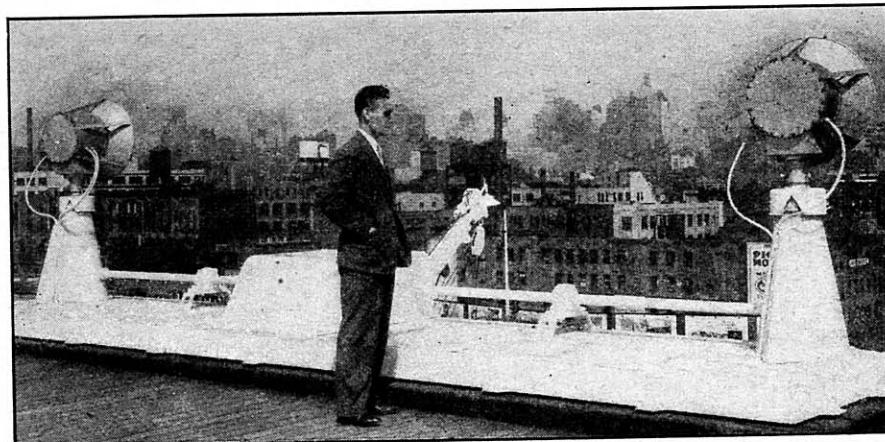
KAWM, KBIX, KBST, KDAL, KDB, KGFI, KGKB, KGKY, KNEL, KNOW, KOTN, *KOV, KPLC, KPLT, KPQ, KRRN, KROD, KSAL, KUTA, KVOE, KXO, WCNW, WDNC, WGAL, WHBB, WHEF, WJBK, WKAT, WKBZ, WKBW, WKBZ, WKEU, WMBQ, WMEX, WNBF, WNLC, WOMI, WOPI, WRDW, WRGA, WRTD, WSYB, WTMV, WWRL, WWSW.

1530 kc., 196.1 m.

KXBY, WBRY.

1550 kc., 193.6 m.

KPMC, WQXR.



Testing Out An Obstacle Detector for Marine Use

By Perry M. Jones

HIgh atop the *S.S. Normandie* there are two huge klaxon-shaped instruments pointed toward the bow. The two units, almost identical in appearance, are located on the roof of the ship's bridge and, taking into consideration the fact that this French liner vies with the *S.S. Queen Mary* for the distinction of being the "world's biggest ship," you'll realize that this spot is even higher than many New York rooftops.

At a perfunctory glance, you might guess that the instruments are searchlights or warning sirens. But they're not. Or rather, they are an electronic approximation of both! Using ultra-short waves instead of light, the device designed by the Société Française Radio-Electrique is said to detect obstacles in the ship's path and sound a warning to the bridge.

Here is an invention that may bring new laurels to radio as a preserver of lives at sea. Much is still secret about the new device's application and results. French Line officials assert that the new installation is being used experimentally on this season's crossings. When the writer visited the liner, the ship's officers permitted an inspection of the equipment but refused to answer questions about it aside from admitting that the system employed micro-waves. However, they declared that the new system was operating along the same lines as the earlier SFR equipment tested previously. And available data

MICRO-WAVE "EARS" FOR FOG-BOUND SHIPS

The new experimental obstacle detector being tested out on the *S.S. Normandie*. In the two "klaxon"-shaped objects are a directive micro-wave transmitter and a directive micro-wave receiving set. One of these "klaxons" sends out a wave which reflects from an object in the path of the ship and is picked up again by the receiver in the other "klaxon." A study of triangles is supposed to give the obstacle's location.

on the previous year's experiments yield an outline of the present principles.

The peculiarity of micro-waves, in that they are reflected by solid objects, makes the device at least theoretically workable. This is especially invaluable to a radio "feeling" device as the tiny waves are reflected by any objects—whether or not they're partly insulators or conductors.

Hence, one of the klaxon-shaped instruments is a micro-wave transmitter; the other a receiver. The transmitter sends out a directional signal and, if there is no obstacle in its path, there is no reflection and, of course, no reception on the bridge deck. Like the transmitter, the receiver too is directional. The units are far enough apart to eliminate any direct reception; only reflected signals will reach the special receiver.

By using a wave in the neighborhood of 16 centimeters, a sufficiently narrow beam is provided which is designed to "feel out" an obstacle in the liner's path and permit the ship's officers to mathematically compute its exact location ahead.

After determining the angle at which strongest reflected signals are received, the line between the receiver and transmitter is regarded as a base in forming a triangle, the point of which corresponds to the distance of the obstacle from the liner.

The received signals are carried through amplifiers to a telephone headset or a visual indicator on the bridge. It is interesting to note the robot properties of the system which dispenses with human attention until

(Turn to page 563)

*Construction permit.

**By special authorization.