

SEPTEMBER, 1939

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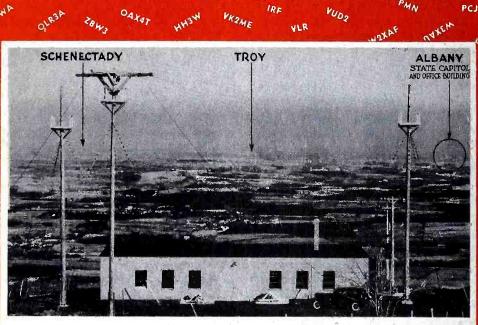
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The General-Electric Television Station in The Helderberg Mountains Near Schenectady, New York

In this issue

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COMPLETE SHORT-WAVE LIST-EASTERN STATES IDA CONVENTION—BROADCAST STATION NEWS—ULTRA-HIGH FREQUENCY DATA-SHORT-WAVE NOTES.

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INTERNATIONAL DX'ERS ALLIANCE

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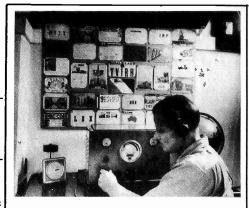
SHORT WAVE NOTES

Editor-in-Chief, Chas. A. Morrison; UHF Editor, Perry Ferrell Jr.; Frequency Checking Editors, John Larsen, R.B.Oxrieder; Ama-Touring Editors, Roger Legge, Roy Waite.

SEPT.10,17 & 24, 12-12:10am 14.04 YL2CD NOV.12 & 19, 10-10:10am EST 28.08 YL2CD SEPT.24, 9-10pm EST DEC.17, 1-2am EST 9.66 LRX 7.66 YNDG

SOUTH PACIFIC EXPEDITION

The National Geographic-University of Virginia expedition to the South Pacific Islands, will sail from San Francisco, on Sept.19, aboard the U.S. Coast Guard cut-



LOS ANGELES DX'ER LEONARD McNAMARA

ter, Hamilton. The exped. will study fundamental questions about the Pacific Ocean, magnetism and magnetic changes, and many small islands 5,000 miles south of Hawaii, will be charted more accurately than ever before NBC Field Engineer John M. Larson and a powerful short-wave xmtr. accompany the party. Broadcasts will be put on at frequent intervals both from the boat and from special bases on such remote islands as Pitcairn and Easter. The Expedition will be gone from nine months to a year.

FREQUENCY MODULATED RADIO BROADCASTING

The new type "frequency modulated" radio broadcasts will be filling the air in this country within a year. For the first time practically static gether with a new high fidelity in reproduction and low cost for transmitter installation will soon obselete the present "amplitude modulation". We venture to predict that within a few years all local broadcasting will be done on the ultra-high frequencies with the new system. This will leave the present broadcast band open to a few super-power stations that will replace the cumbersome, complicated and costly networks. "Frequency modulation will soon be used in connection with all short-wave stations operating on or above 40 mcs. This is the most tremendous development in radio transmission to date and will undoubtedly revolutionize the whole set-up. The General Electric Company is already manufacturing frequency modulation radio receivers which will be sold for the present in the East where several stations, are, or soon will be, using frequency modulation.

THE NEW 40 METER BROADCAST BAND

Short-Wave Broadcasting will, under certain conditions, be permitted in that portion of the 40 meter amateur band extending from 7.2 to 7.3 mcs., commencing with September 1. The following stations have already reserved frequencies and calls in the new band: CSW8 (7.26), DJI (7.29), DXJ (7.24), DXM (7.27), GSU (7.26), GSW (7.23), JIE (7.295), JLG (7.285), JVW (7.257), LLR (7.24), OZU (7.26), TPB11 (7.28), 2RO (7.24-7.27), Belgrade (7.24), India (7.21, 7.24, 7.27, 7.29) (***Legge-Kriebel)

We are pleased to admit to the IDA 100 CLUB, Bob Pybus of Manchester, En-

gland, VIC 103, and Ray Simpson of Concord West, Australia, VIC 110.

The next VIC/VAC lists will appear in the October G.C. Send your revisions in to your director at once. We think a VIC/VAC by chapters would be good sport. Will each chapter please figure up the aggregate VIC and VAC for its

entire group and send same to this office as soon as possible- Ed.

We intend to publish soon a new edition of our "World List of Countries",
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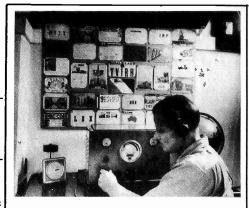
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PRESS SHEET, Sept.30; for OCTOBER AMA-TOURING, Sept.23 (For Ama-Touring, send your news items to Roger Legge, 20 Beethoven St., Binghamton, N.Y.) MAKE OUT YOUR SHORT-WAVE REPORTS AS FOLLOWS; Double space lines; use one side of page only; group items by continents, and state time used. Items in order of importance are: NEW stations; exact frequencies or frequency

changes; exact schedules, or addresses; identifying signals and unusual receptions. RUSH important items by fastest mail. FOUR STAR items denote exceptional merit. EACH FIVE STAR ITEM PAYS \$1.00 to the contributor.

NEW: Travelers Broadcasting Service Corp.Hartford, Conn (43.2), 1kW (Broadcast); W.G.H.Finch, New York City (42.18), 1kW (Broadcast); A.H.Belo Corp., Dallas, Texas (25.25), 1kW (facsimile); WOKO, Inc., Albany, N.Y. (25.05), 500w (facsimile)...GE xmtrs. W2XDA and W2XOY, will test with frequency modulation transmissions on 39.42, 39.46, 29.5 and 39.54 mcs...NEW: W2XWF (42.18), 1819 Broadway, N.Y.C., broadcasts afternoons until 4pm (Evanovsky)...W2XGH now oper ating on 42.06...W2XQO (25.50), verifies by letter...W2XUP now on 25.25 mcs. broadcasts facsimile after W2XJI signs-off (Evanovsky)...W8XUJ (26) is now testing from the Carew Tower, Cincinnati (Taglauer)...NEW: W8XUM, (25.5), 100w, WBNS, Inc., Columbus, Ohio (facsimile)...NEW: W9XER (42.46), 500w, Midland Broad casting Co., Inc., Kansas City, Mo...W9XPD, St. Louis, now on 25.9 mcs (Taglauer)

TELEVISION: Regular telecasts have been inaugurated by the EIAR in Rome....W2XBS now telecasts a studio show Tues/Thurs/Fri at 7:30pm and a feature film on Wed. at 7:30pm. W2XBS telecasts are being received regularly on Cape Cod,185 air-miles from N.Y.C. (NBC)...W2XH,television station of G.E., near Schenectady,N.Y.,will operate on the 288-294 mcs. band...W6XAO will move to Hollywood and use new freq. of 44-50 mcs...The following channels are allocated for assignment to television stations: (A)-1, 44-50; 2, 50-56 3, 66-72; 4-78-84; 5, 84-90; 6, 96-102; 7, 102-108. (B)-8, 156-162; 9,162 168; 10, 180-186; 11, 186-192; 12, 204-210; 13, 210-216; 14, 234-240; 15, 240-246; 16, 258-264; 17, 264-270; 18, 282-288; 19, 288-294 mcs. (FCC)

NORTH AND CENTRAL AMERICA

BERMUDA A powerful S.W. xmtr. is being installed at Smith's Hill, near Hamilton. News broadcasts will be made on Mon/Wed/Fri evenings (C.T.)

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CUBA NEW: COBS or COBF (7.8), Havana, is being heard evenings asking for reports (**RBO)...Amado Trinidad Velasco is installing a new 5kW xmtr. to operate on the 25 meter band, at Santa Clara (*Radio Guia)

DOM. REP. HILN (6.243), broadcasts First Evangelical Church services, with English announcements, Thursdays 7:40-8:40pm (Batson)...HI6H has moved to 6.89 (RBO)...HI9B (6.38), broadcasts Evangelical Church services from Puerto Plata, Sundays 7:25-8:40pm. Reports should be sent to Gospel Mission, Apartado 128, Puerto Plata (Batson)

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NICARAGUA YNIIP (7.284), Managua, broadcasts Sundays 10-llam and irreg.; also as a ham on 20 and 40 (**RBO)...YNDG (13.9), operates Saturday nights from 9:30-lopm or later.; also as an amateur YN3DG on 28.144 (YNDG via HS) U.S.A. The experimental status of short-wave broadcasting in the U.S. has been abolished. In accordance with this step the following NEW calls have been assigned: W1XK now becomes WBOS; W2XAD now becomes WGEA; W2XAF now becomes WGEO; W3XAU now becomes WCAB; W3XL now becomes WMBI and W3XAL becomes WRCA; W6XBE becomes KGEI; W8XAL becomes WLWO; W8XK becomes WPIT (***Ronecker, Balbi, Darlington, NBC, CBS, Taglauer, Larsen, Schubert, CAM, Batson)

... W1XAR has added the freq. 25.6 mcs... W2XE (17.83), is in use Mondays thru Fridays 7:15-9am, 12-5pm; Sat.7:15-11, 11:30am-5pm; Sun.7-11, 11:30am-5pm... WGEO is now believed to be testing irreg. with the new 100kW xmtr. (Pedersen)... KGEI (W6XBE) may remain on Treasure Island as a permanent location after the close of the Exposition... American Export Airlines Flying Boat (NC-18997), has a 100w xmtr. KHCIY aboard which operates on several-CW frequencies and on 3.105 mcs. on phone... Did anyone hear W2XGB broadcasting

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The revised schedule for S.W. station EIRE at Athlone follows: on 17.84 mcs, daily 7:30-9am; even days of the month 11:30am-3:30pm and 4:30-5pm; odd days of the month 11:30am-1:30pm, and on 9.595 mcs. odd days

1:30-3:30 and 4:30-5pm (**Butts)

TALY 2R06 (15.3), 2R04 (11.81), 2R03 (9.63) and IRF (9.83), all radiate the "American Hour" nightly from 7:30-9pm...2R012 (15.1), is being heard irreg. 4-5:30, 6-7:25 and 7:30-9pm (RBO,Balbi)...NEW: 2R016 (21.51), ITALY transmits daily 9-9:55am (**Balbi). The EIAR would like reports on 2R016. Reports on LYR (9.29) are very welcome. They should be sent to LITHUANIA Trumpu Bangu Stotis LRY, Kaunas, Lithuania (Callan)

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LUXEMBOURG "Radio Luxembourg's," short-wave transmitter is on the air and testing on frequencies of 6.09, 9.5275, 15.35 and 11.7825 mcs., according to the following complicated schedule: During September: on 6.09 mcs.:

Sept.1-2-3,6-7am; 4-5-6, 7-8am; 7-8-9, 8-9am; 10-11-12, 9-10am; 13-14-15, 10-11am; 16-17-18,11-12pm;19-20-21,12-1pm; 22-23-24, 1-2pm; 25-26-27, 2-3 pm; 28-29-30; 3-4pm; on 15.35 mcs.: Sept.1-2-3, 2-3pm; 4-5-6, 3-4pm; 7-8-9, 4-5pm; 10-11-12, 5-6pm; 13-14-15, 6-7pm; 16-17-18, 3-4am; 19-20-21, 4-5am; 22-23-24, 5-6am; 25-26-27, 6-7am; 28-29-30, 7-8am etc. Reports on these transmissions will be particularly appreciated and should be sent to Wireless Publicity Ltd., Electra House, Victoria Embankment, London, W.C.2, England. This firm are agents for Radio Luxembourg (****Peters). "Radio Luxembourg". (9.527) heard at 5am (Burton-England); heard at 10:30am (Pybus). NETHERLANDS See list for revised schedules for PCJ and PHI. LUXEMBOURG

NETHERLANDS See list for revised schedules for PCJ and PHI. ORWAY Optional frequencies for the Oslo xmtr. are: LLA (25.9), LLC (26.35), LLD (9.55), LLI (6.185), LLJ (6.195), LLK (11.85), LLM (15.175), on 15.17, daily 6:40am-5pm; on 11.735, 4:30-6:40am (Sun 2:30-6:40am (**Legge,Kriebel,Callan)

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LUXEMBOURG "Radio Luxembourg's," short-wave transmitter is on the air and testing on frequencies of 6.09, 9.5275, 15.35 and 11.7825 mcs., according to the following complicated schedule: During September: on 6.09 mcs.:

Sept.1-2-3,6-7am; 4-5-6, 7-8am; 7-8-9, 8-9am; 10-11-12, 9-10am; 13-14-15, 10-11am; 16-17-18,11-12pm;19-20-21,12-1pm; 22-23-24, 1-2pm; 25-26-27, 2-3 pm; 28-29-30; 3-4pm; on 15.35 mcs.: Sept.1-2-3, 2-3pm; 4-5-6, 3-4pm; 7-8-9, 4-5pm; 10-11-12, 5-6pm; 13-14-15, 6-7pm; 16-17-18, 3-4am; 19-20-21, 4-5am; 22-23-24, 5-6am; 25-26-27, 6-7am; 28-29-30, 7-8am etc. Reports on these transmissions will be particularly appreciated and should be sent to Wireless Publicity Ltd., Electra House, Victoria Embankment, London, W.C.2, England. This firm are agents for Radio Luxembourg (****Peters). "Radio Luxembourg". (9.527) heard at 5am (Burton-England); heard at 10:30am (Pybus). NETHERLANDS See list for revised schedules for PCJ and PHI. LUXEMBOURG

NETHERLANDS See list for revised schedules for PCJ and PHI. ORWAY Optional frequencies for the Oslo xmtr. are: LLA (25.9), LLC (26.35), LLD (9.55), LLI (6.185), LLJ (6.195), LLK (11.85), LLM (15.175), on 15.17, daily 6:40am-5pm; on 11.735, 4:30-6:40am (Sun 2:30-6:40am (**Legge,Kriebel,Callan)

OLAND SP19 (15.16) heard testing 8-9pm, and SP25 (11.74) heard testing 12:45-2am irreg. (Balbi)...SP19 (15.12) comes thru rotten to good depending on YV5RN's harmonic; SP25 (11.74) comes through well depend ing upon CB1174; SPD comes through well when not covered by CW; erally is the best of the lot (RBO)

Radio in Spain has been completely reorganized under the Dept. of Press and Propaganda. This agency lists the following active S.W. trans mitters: Radio-Nacional (7.5), operates daily 3-3:30, 8-9am and 1-5:45pm; Alcazarquivir (7.125); Ceuta (7.134); Cordova (7.117); Huelva (7.037); Jaca (7.117-14.115); Las Palmas (7.931-14.115); EAR (9.48) and EAQ (9.86), Madrid, operates 2:30-3:30 and 6:30-8:30pm; Malaga (7.22-14.44); Melilla (7.125); Table 2:30-3:30 and 6:30-8:30pm; Saint-Sabastien (7.2). Santander (7.190-7.151-7.184); Oviedo (7.135); Saint-Sebastien (7.2); Santander (7.16); Teneriffe (7.5); Tetuan (7.194); Tetuan-Rio-Martin (13.992-6.99) Valladolid (7.006); Villa Sanjurjo (7.147); Vitoria (11.991) (***E.Radio) SBT (15.155) and SBP (11.705), are good Wed/Sat 8-9pm; SBT be-

ing heard much better than SBP. SBT's carrier comes on the air about half an hour before 8pm with 12 notes repeated over & over again (as in the Ger man stations), then church bells are heard at 8pm and the station opens with "This is Sweden." (**Larsen, RBO, Bass, Balbi)
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Plans for a new station to start broadcasting about the end of ALGERIA

1940 are now being drawn up (R.P.S.) BELGIAN CONGO The new 250 watt transmitter at Leopoldville, operates option ally as either OQ2AA on 9.525, or OQ2AA on 15.17, from 5:25 to 7 am (Tuff) OLD COAST Preparatory to inaugurating a broadcasting service in 1940,experimental broadcasts are being made by ZD4AA(7.05), with 10 watts, at Acora. Programs of the Gold Coast Relay System are carried by ZD4AA (Legge-C.B.)

CR7AA (6.137) and CR7AB (3.49), operate daily except Sundays, MOZAMBIQUE from midnight to 1 a.m. CR7BD (15.24) and CR7BH (11.718), operate daily except Sundays, from 4:30 to 6:30, 9:30 to 11 a.m. and from noon to 4 p.m. The address is P.O.Box 594, Lourenco Marques, Mozambique (NNRC)

NO.RHODESIA VQ2CM (14.03,14.2) heard very well 4:30-6pm, has 100 watts power, rotary beam and RME-69 receiver. He is power man for the copper company, and located in the copper belt 250 miles south of Elizabeth (Ama-T) OUTH WEST AFRICA ZUN (7.25) used for the disposal of traffic to isolated SOUTH WEST AFRICA

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ASIA AND OCEANIA 9MI (6.055) has been testing near 5am EST (Breen) AUSTRALIA KF6QKH (14.21), 8w, operated by Chas. Stein Jr., on Baker Island, BAKER ISL. heard at 6-7am. Send reports C/o Lieut.Commander F.C.Kenner,Dept.of Interiro,Honolulu,Hawaii,marked "To go to Baker Island". Next mail will arrive in November (***May-Kriebel-Legge)

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DUTCH NEW GUINEA PK6XX has received a radiogram from the Dutch Government
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 All announcements English. Interval signal is chimes melody. Signs-off with National Anthem. MTCY (6.125), operates daily 4-9am or later. Send reports
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SHORT-WAVE BROADCASTING STATIONS

	JKI-V			
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quency cali	bration	s acco	rding to Oxrieder-II	DA Frequency Bureau; <u>J</u> - Stations frequency; <u>Y</u> - Does not verify;
persisting	in hopp	ing ab	out; <u>V</u> - Varying in 1	frequency; Y- Does not verify;
X- Does not	verily	direc	t; U- Frequency in	doubt; * See short-wave notes
DIAL METERS			STATION	TIME EASTERN STANDARD
13.87C		WRCA	New York City, N.Y.	
13.93C	21.54	WPIT	Pittsburgh, Pa.	5:30-8am. *
13.93Y	21.53	GSJ	Daventry, England	5:45-8:50,9am-noon. 9-9:55am
13.95N	21.51 21.50	WGEA	ROME, ITALY Schenectady, N.Y.	9-9:55am 7-10am.
13.96C 13.97Y	21.47	GSH	Daventry, England	5:45-8:50,9am-noon to Africa.
13.98C	21.46	WSLR	Boston, Mass.	Sun.9-11:30am & irreg. (13M)
13.99	21.45	DJS	Zeesen, Germany	12:05-7:55am to Asia.
15.77	19.02	HS6PJ		Mondays 8-10am.
16.26N	18.45	HBF	Geneva Switzerland	Fridays 8:45-10:45am *
16.81	17.85	TPB3	Paris, France	8:30-10am.
16.82	17.845		Zeesen, Germany	12:05-7:50,8-9,9-11am.
16.82S	17.84	EIRE	Athlone, Ireland	7:30-9; even dates 11:30am-3:30,
			•	4:30-5pm; odd daysll:30a-1:30pm
16.83 S	17.83	W2XE	New York City, N.Y.	7:15-9am, noon-5pm; Sat/Sun 7-11
			• •	am, 11:30am-5pm.
16.84S	17.82	2R08	Rome, Italy	5-8:45am, 6-7:25pm.
16.85Y	17.81	GSV	Daventry, England	5:45-8:50,9-11:15am.
16.85	17.80	OIH	Lahti, Finland	4-9am. (16M)
16.85S	17.80	XGOX	Chungking, China	9-10:30pm.
16.86Y	17.79	GSG	Daventry, England	5:45-8:50,9am-noon,12:25-4pm.
16.87S	17.785		Tokio, Japan	4:30-5:30, 8-9pm.
16.87C	17.78	WNBI	New York City, N.Y.	4-9pm to Latin America.
16.87C	17.78	WRCA	New York City, N.Y.	8am-5pm omnidirectionally *
16.89S	17.77	PHI2	Huizen, Holland	Sun. 6:40-10:05am; Mon/Th 7:40-9
1.c 00g	177 77C	ידד רד	Zanan Camuant	am; Tu/W/F/Sa 7:40-8:45am.
16.98S	17.76	DJE	Zeesen, Germany	12:05-8:45am,4:55-9pm,Sun 11:10
19.47S 19.52	15.41 15.37	HAS3	,U.S.S.R. Budapest,Hungary	8:30-llam,8:55-10:30(am-12:25pm Sundays 9-10am.
19.54N	15.35	TIAGO		URG Testing irreg. See notes.
19.56	15.34	DJR	Zeesen, Germany	4:55-10:50pm to C.A.
19.57C	15.33	WGEA	Schenectady, N.Y.	10:15am-5pm to Europe.
19.57C	15.33	KGEI	San Francisco, Calif	f. 6:30-11:15pm. (19M)
19.58	15.32	OZH	Skamlebak, Denmark	Sundays 8am-1:30pm.
19.60Y	15.31	GSP	Daventry, England	1:15-4, 4:20-6pm.
19.60	15.31	YDB	Soerabaja, Java	10:30pm-2am and Sat.7:30pm-2am.
19.61S	15.30	2R06	Rome, Italy	5:10-5:55am,10am-12:06,1:40-230
19.62	15.29	LRU	Buenos Aires, Argent	tina 7-9am. (3-5:30, 7:30-9pm.
19.62	15.29	VUD3	Delhi, India	1:30-3:30,7:30am-12:30,9:30-
19.63S	15.28	DJQ	Zeesen, Germany	12:05-2:30am,4:50-10:50(11:30pm
19.64	15.27	W2XE	New York City, N.Y.	5:30-7:30pm. (10:10pm)
19.64	15.27	HI3X	Trujillo City, D.R.	Sun.7:40-9:40am;Tu/Fri 8:10-
19.64	15.27	WCAB	Philadelphia, Pa.	10:45-11:45am,12:30-5:15,Sat.12
19.66YS		GSI	Daventry, England	1:30-3:45am,12:25-4pm. (-5:15p)
19.68	15.243		Pontoise, France	5-10am to Asia.
19.68N	15.24	YUG	BELGRADE, YUGOSLAVIA	A Mondays 6-7, 8-9pm for N.A. *
19.68N	15.24			OZAMBIQUE 4:30-6:30,9:30-llam,-
19.70S	15.23		Prague, Bohemia	6:55-9:15pm & ir. *(noon-4pm. *
19.71S	15.22	PCJ2	Huizen, Holland	Su/M/Th 7:40-9am; M/Tu/Wd/F/Sat-
10 700	15 01	MEDIU	Dittahungh Do	7:40-8:45am; Tu 1-2:30am; Wd 9:30
19.720	15.21 15.20	WPIT DJB	Pittsburgh, Pa.	8am-1pm. (-llam 12:05-llam,4:50-10:50pm,Sun-
	1.1.631	מטע	Zeesen, Germany	
19.74			Anlegno Punleou	5.30=7am (11.10am=19.95sm 1
19.74	15.195	TAQ	Ankara, Turkey	5:30-7am. (11:10am-12:25pm.
19.74 19.75	15.195 15.19	TAQ OIE	Lahti, Finland	1:05-4, 9am-5pm.
19.74 19.75 19.76S	15.195 15.19 15.185	TAQ OIE XGOX	Lahti, Finland Chungking, China	1:05-4, 9am-5pm. 8-9:30am.
19.74 19.75 19.76S 19.76S	15.195 15.19 15.185 15.18	TAQ OIE XGOX RV96	Lahti, Finland Chungking, China Moscow, U.S.S.R.	1:05-4, 9am-5pm. 8-9:30am. ** 11:55pm-2,3-4am,7-9pm. **
19.74 19.75 19.76S	15.195 15.19 15.185	TAQ OIE XGOX	Lahti, Finland Chungking, China Moscow, U.S.S.R. Daventry, England	1:05-4, 9am-5pm. 8-9:30am.

SHORT-WAVE BROADCASTING STATIONS

	JKI-V			
SYMBOLS: N-	NEW st	ations	; F- Frequency char	nges; S- Change in sked; B- Fre
quency cali	bration	s acco	rding to Oxrieder-II	DA Frequency Bureau; <u>J</u> - Stations frequency; <u>Y</u> - Does not verify;
persisting	in hopp	ing ab	out; <u>V</u> - Varying in 1	frequency; Y- Does not verify;
X- Does not	verily	direc	t; U- Frequency in	doubt; * See short-wave notes
DIAL METERS			STATION	TIME EASTERN STANDARD
13.87C		WRCA	New York City, N.Y.	
13.93C	21.54	WPIT	Pittsburgh, Pa.	5:30-8am. *
13.93Y	21.53	GSJ	Daventry, England	5:45-8:50,9am-noon. 9-9:55am
13.95N	21.51 21.50	WGEA	ROME, ITALY Schenectady, N.Y.	9-9:55am 7-10am.
13.96C 13.97Y	21.47	GSH	Daventry, England	5:45-8:50,9am-noon to Africa.
13.98C	21.46	WSLR	Boston, Mass.	Sun.9-11:30am & irreg. (13M)
13.99	21.45	DJS	Zeesen, Germany	12:05-7:55am to Asia.
15.77	19.02	HS6PJ		Mondays 8-10am.
16.26N	18.45	HBF	Geneva Switzerland	Fridays 8:45-10:45am *
16.81	17.85	TPB3	Paris, France	8:30-10am.
16.82	17.845		Zeesen, Germany	12:05-7:50,8-9,9-11am.
16.82S	17.84	EIRE	Athlone, Ireland	7:30-9; even dates 11:30am-3:30,
			•	4:30-5pm; odd daysll:30a-1:30pm
16.83 S	17.83	W2XE	New York City, N.Y.	7:15-9am, noon-5pm; Sat/Sun 7-11
			• •	am, 11:30am-5pm.
16.84S	17.82	2R08	Rome, Italy	5-8:45am, 6-7:25pm.
16.85Y	17.81	GSV	Daventry, England	5:45-8:50,9-11:15am.
16.85	17.80	OIH	Lahti, Finland	4-9am. (16M)
16.85S	17.80	XGOX	Chungking, China	9-10:30pm.
16.86Y	17.79	GSG	Daventry, England	5:45-8:50,9am-noon,12:25-4pm.
16.87S	17.785		Tokio, Japan	4:30-5:30, 8-9pm.
16.87C	17.78	WNBI	New York City, N.Y.	4-9pm to Latin America.
16.87C	17.78	WRCA	New York City, N.Y.	8am-5pm omnidirectionally *
16.89S	17.77	PHI2	Huizen, Holland	Sun. 6:40-10:05am; Mon/Th 7:40-9
1.c 00g	177 77C	ידד רד	Zanan Camuant	am; Tu/W/F/Sa 7:40-8:45am.
16.98S	17.76	DJE	Zeesen, Germany	12:05-8:45am,4:55-9pm,Sun 11:10
19.47S 19.52	15.41 15.37	HAS3	,U.S.S.R. Budapest,Hungary	8:30-llam,8:55-10:30(am-12:25pm Sundays 9-10am.
19.54N	15.35	TIAGO		URG Testing irreg. See notes.
19.56	15.34	DJR	Zeesen, Germany	4:55-10:50pm to C.A.
19.57C	15.33	WGEA	Schenectady, N.Y.	10:15am-5pm to Europe.
19.57C	15.33	KGEI	San Francisco, Calif	f. 6:30-11:15pm. (19M)
19.58	15.32	OZH	Skamlebak, Denmark	Sundays 8am-1:30pm.
19.60Y	15.31	GSP	Daventry, England	1:15-4, 4:20-6pm.
19.60	15.31	YDB	Soerabaja, Java	10:30pm-2am and Sat.7:30pm-2am.
19.61S	15.30	2R06	Rome, Italy	5:10-5:55am,10am-12:06,1:40-230
19.62	15.29	LRU	Buenos Aires, Argent	tina 7-9am. (3-5:30, 7:30-9pm.
19.62	15.29	VUD3	Delhi, India	1:30-3:30,7:30am-12:30,9:30-
19.63S	15.28	DJQ	Zeesen, Germany	12:05-2:30am,4:50-10:50(11:30pm
19.64	15.27	W2XE	New York City, N.Y.	5:30-7:30pm. (10:10pm)
19.64	15.27	HI3X	Trujillo City, D.R.	Sun.7:40-9:40am;Tu/Fri 8:10-
19.64	15.27	WCAB	Philadelphia, Pa.	10:45-11:45am,12:30-5:15,Sat.12
19.66YS		GSI	Daventry, England	1:30-3:45am,12:25-4pm. (-5:15p)
19.68	15.243		Pontoise, France	5-10am to Asia.
19.68N	15.24	YUG	BELGRADE, YUGOSLAVIA	A Mondays 6-7, 8-9pm for N.A. *
19.68N	15.24			OZAMBIQUE 4:30-6:30,9:30-llam,-
19.70S	15.23		Prague, Bohemia	6:55-9:15pm & ir. *(noon-4pm. *
19.71S	15.22	PCJ2	Huizen, Holland	Su/M/Th 7:40-9am; M/Tu/Wd/F/Sat-
10 700	15 01	MEDIU	Dittahungh Do	7:40-8:45am; Tu 1-2:30am; Wd 9:30
19.720	15.21 15.20	WPIT DJB	Pittsburgh, Pa.	8am-1pm. (-llam 12:05-llam,4:50-10:50pm,Sun-
	1.1.631	מטע	Zeesen, Germany	
19.74			Anlegno Punleou	5.30=7am (11.10am=19.95sm 1
19.74	15.195	TAQ	Ankara, Turkey	5:30-7am. (11:10am-12:25pm.
19.74 19.75	15.195 15.19	TAQ OIE	Lahti, Finland	1:05-4, 9am-5pm.
19.74 19.75 19.76S	15.195 15.19 15.185	TAQ OIE XGOX	Lahti, Finland Chungking, China	1:05-4, 9am-5pm. 8-9:30am.
19.74 19.75 19.76S 19.76S	15.195 15.19 15.185 15.18	TAQ OIE XGOX RV96	Lahti, Finland Chungking, China Moscow, U.S.S.R.	1:05-4, 9am-5pm. 8-9:30am. ** 11:55pm-2,3-4am,7-9pm. **
19.74 19.75 19.76S	15.195 15.19 15.185	TAQ OIE XGOX	Lahti, Finland Chungking, China Moscow, U.S.S.R. Daventry, England	1:05-4, 9am-5pm. 8-9:30am.

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8
     19.78S
              15.17
                     LKV
                            Oslo, Norway
                                                  6:40am-5pm.
     19.79S
              15.16
                      JZK
                                                  12-1:30,7-9:30am,2-3,8-9pm.
1-4:15pm, Wed/Sat 8-9pm.
                            Tokio, Japan
     19.80
              15.155 SBT
                            Motala, Sweden
     19.80S
              15.15
                     YDC
                            Bandoeng, Java
                                                  4:30-10:30am; 6-9pm ex.Sat;
                                                  10:30pm-2am; Sat.7pm-2am.
     19.82Y
             15.14
                     GSF
                            Daventry, England
                                                  5:45-8:50,9am-noon,4:20-6,6:20-
     19.83
             15.13
                     TPB6
                            Paris, France
    19.83
             15.13
                     WIXAR Boston, Mass.
                                                  2:30-5:30,9-10pm ex.Sat/Sun ir.
    19.84
             15.12
                     SP19 Warsaw, Poland
                                                  6-9 pm.
    19.84
             15.12
                     HVJ
                            Vatican City, Italy See notes.
    19.84
             15.12
                     CSW4
                            Lisbon, Portugal
                                                  6-8am.
    719.85
                     DJL Zeesen, Germany 2RO12 Rome, Italy
                                                 12:05-2,8-9,10:40am-4:25pm.
4-5:30,6-7:25.7:30-9pm irreg.
             15.11
    19.87S
             15.10
    19.95
             15.04
                     RKI
                            Moscow, U.S.S.R.
                                                 7-9pm in English.
             14.94
    20.08
                     PSE
                            Rio de Janeiro, Brazil 6-7pm; Wed.4-4:10pm; Thur
    [20.11S]
             14.92
                     KQH
                            Kahuku, Hawaii
                                                 Sat. 7:30-8pm; Sun. 9-9:30pm.
    20.28
             14.795 IQA
                            Rome, Italy
                                                 4:30-4:55am.
    20.64S
             14.535 HBJ
                            Geneva, Switzerland Wed. 6:45-8:15; 8:45-10:15pm.
    20.78
             14.44
                            Malaga, Spain
                                                 5:45-7:30pm.
                                                                        (pm ex.Mon.
    20.80
             14.42
                     HClJB Quito, Ecuador
                                                 7-8:15,11:30am-2:30,4:45-10:15-
    21.58
             13.90
                     YNDG
                            Leon, Nicaragua
                                                 Sat. 9:30-10pm or later.
    22.00
             13.635 SPW
                            Warsaw, Poland
                                                 6-9 pm.
    24.03
             12.486 HILN
                            Trujillo City, D.R.
                                                 6:40-10:40am,5:10-10:40pm.
    24.08
             12.46
                     HCJB
                            Quito, Ecuador
                                                 7-8:15,11:30am-2:30,5-10:30pm-
    24.53
             12.235 TFJ
                                                 Sundays 1:30-2:30pm. (ex.Mon.
                            Reykjavik, Iceland
    25.00
             12.00
                     RNE
                            Moscow, U.S.S.R.
                                                 6am-5:30pm inter.,9-10pm & irr.
    25.06
                     CB1180 Santiago, Chile HI2X Trujillo City, D.R.
             11.97
                                                 7-llpm.
    25.06
             11.97
                                                 Tues/Fri 8:10-10:10pm;Sun 7:40-
    25.13
             11.94
                     TI2XD San Jose, C.R.
                                                 7:30am-noon, 4-10pm.
    25.15V
             11.93
                            Chungking, China
                     XGOY
                                                 9:30-llam,2-3:20,4:30-6:20pm
    25.19
             11.91
                            Hanoi, F. Indo-China
                                                 3:45-4:15,7-9:30am.
    25.19
             11.91
                     CD1190 Valdivia, Chile
                           O Valdivia, Chile 10am-1, 3-6, 7-10pm.
Mexico D.F., Mexico 7:30pm-mid.; Sun.12:30-2pm.
    25.21
             11.90
                     XEWI
    25.23
             11.885 TPB11 Paris, France
11.885 TPB12 Paris, France
                                                 8:30-llpm beamed on No.America.
    25.23
                                                 6-8:15pm beamed on So.America
    25.25
             11.88
                     VLR3
                           Melbourne, Australia 3:30pm-mid.
    25.270
             11.87
                     WPIT
                           Pittsburgh, Pa.
                                                 1-10pm.
                                                                                   25M
    25.27
             11.87
                     VUM2
                           Madras, India
                                                 Mon/Wed/Fri 3:30-4am.
    25.30S
             11.855 DJP
                           Zeesen, Germany
                                                 12:05-2am, 4:50-10:50pm.
    25.30
             11.855 XMHA
                           Shanghai, China
                                                 5-10:30am approx.
    25.32
                    CB1185 Santiago, Chile
             11.85
                                                 Sat.6-llpm & irreg.
    25.36
                           New York City, N.Y. 8-10:30pm to S.A.
             11.83
                    W2XE
    25.37
             11.826 XEBR
                           Hermosillo, Mexico
                                                 9-11am, 8-10:30pm or later.
    25.37
             11.825 JVZ2
                           TOKIO, JAPAN
                                                 8-9 pm soon.
    25.38F
             11.82
                    XGOK
                           Canton, China
                                                 6-8:35am irreg.
    25.40S
                    2R04
                           Rome, Italy
             11.81
                                                 4:10-8:45,10am-3,6-9pm.
    25.41
             11.805 COGF
                           Matanzas, Cuba
                                                 6am-9pm.
    25.42
             11.801 DJZ
                                                 4:50-10:50pm to No.America.
                           Vienna, Germany
    25.42S
            11.80
                    JZJ
                           Tokio, Japan
                                                 7-9:30am, 2-4pm.
    25.45
                           Boston, Mass.
             11.79
                    WSLR
                                                 2:30-5:30pm ex.Sat/Sun irreg.
    25.47N
            11.782
                           LUXEMBOURG, LUXEMBOURG Testing irreg.
    25.47S
            11.78
                           Saigon, F. Indo-China 8:30-9:45am, 12:15-12:45am.
            11.78
   25.47
                    HP5G
                           Panama City, Panama Noon-1, 6-10pm.
   25.47
            11.78
                    OFE
                           Lahti, Finland
                                                 1:15am-12:05pm.
                           Hsinking, Manchoukuo 1:30-2:20am, to N.A.
Zeesen, Germany 11:30am-4:25, 4:50-10:50pm.
   25.48
            11.775 MTCY
   25.49
            11.77
                    DJD
   25.50
            11.76
                    XETA
                           Monterrey, Mexico
                                                 Does anyone hear?
   25.53YS 11.75
                    GSD Daventry, England CB1174 SANTIAGO, CHILE
                                                 1:30-3:45,12:25-4,4:20-6,6:20-
   25.55N
            11.74
                                                 Irreg.
                                                           * (9:15,9:40-11:30pm.
   25.55
            11.74
                    SP25
                                                 6-9pm.
                           Warsaw, Poland
   25.55
            11.74
                    HVJ
                           Vatican City, Italy See Notes.
   25.57V
            11.735 COCX
                           Havana, Cuba
                                                8am-12 mid.
   25.57S
            11.735 LKQ
                           Oslo, Norway
                                                4:30-6:40am; Sun 2:30-6:40am. *
   25.58
            11.73
                    WIXAR Boston, Mass.
                                                6:30-8:30,8:45-10pm;Sun.1:30-
                                                                           (5:30pm.
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8
     19.78S
              15.17
                     LKV
                            Oslo, Norway
                                                  6:40am-5pm.
     19.79S
              15.16
                      JZK
                                                  12-1:30,7-9:30am,2-3,8-9pm.
1-4:15pm, Wed/Sat 8-9pm.
                            Tokio, Japan
     19.80
              15.155 SBT
                            Motala, Sweden
     19.80S
              15.15
                     YDC
                            Bandoeng, Java
                                                  4:30-10:30am; 6-9pm ex.Sat;
                                                  10:30pm-2am; Sat.7pm-2am.
     19.82Y
             15.14
                     GSF
                            Daventry, England
                                                  5:45-8:50,9am-noon,4:20-6,6:20-
     19.83
             15.13
                     TPB6
                            Paris, France
    19.83
             15.13
                     WIXAR Boston, Mass.
                                                  2:30-5:30,9-10pm ex.Sat/Sun ir.
    19.84
             15.12
                     SP19 Warsaw, Poland
                                                  6-9 pm.
    19.84
             15.12
                     HVJ
                            Vatican City, Italy See notes.
    19.84
             15.12
                     CSW4
                            Lisbon, Portugal
                                                  6-8am.
    719.85
                     DJL Zeesen, Germany 2RO12 Rome, Italy
                                                 12:05-2,8-9,10:40am-4:25pm.
4-5:30,6-7:25.7:30-9pm irreg.
             15.11
    19.87S
             15.10
    19.95
             15.04
                     RKI
                            Moscow, U.S.S.R.
                                                 7-9pm in English.
             14.94
    20.08
                     PSE
                            Rio de Janeiro, Brazil 6-7pm; Wed.4-4:10pm; Thur
    [20.11S]
             14.92
                     KQH
                            Kahuku, Hawaii
                                                 Sat. 7:30-8pm; Sun. 9-9:30pm.
    20.28
             14.795 IQA
                            Rome, Italy
                                                 4:30-4:55am.
    20.64S
             14.535 HBJ
                            Geneva, Switzerland Wed. 6:45-8:15; 8:45-10:15pm.
    20.78
             14.44
                            Malaga, Spain
                                                 5:45-7:30pm.
                                                                        (pm ex.Mon.
    20.80
             14.42
                     HClJB Quito, Ecuador
                                                 7-8:15,11:30am-2:30,4:45-10:15-
    21.58
             13.90
                     YNDG
                            Leon, Nicaragua
                                                 Sat. 9:30-10pm or later.
    22.00
             13.635 SPW
                            Warsaw, Poland
                                                 6-9 pm.
    24.03
             12.486 HILN
                            Trujillo City, D.R.
                                                 6:40-10:40am,5:10-10:40pm.
    24.08
             12.46
                     HCJB
                            Quito, Ecuador
                                                 7-8:15,11:30am-2:30,5-10:30pm-
    24.53
             12.235 TFJ
                                                 Sundays 1:30-2:30pm. (ex.Mon.
                            Reykjavik, Iceland
    25.00
             12.00
                     RNE
                            Moscow, U.S.S.R.
                                                 6am-5:30pm inter.,9-10pm & irr.
    25.06
                     CB1180 Santiago, Chile HI2X Trujillo City, D.R.
             11.97
                                                 7-llpm.
    25.06
             11.97
                                                 Tues/Fri 8:10-10:10pm;Sun 7:40-
    25.13
             11.94
                     TI2XD San Jose, C.R.
                                                 7:30am-noon, 4-10pm.
    25.15V
             11.93
                            Chungking, China
                     XGOY
                                                 9:30-llam,2-3:20,4:30-6:20pm
    25.19
             11.91
                            Hanoi, F. Indo-China
                                                 3:45-4:15,7-9:30am.
    25.19
             11.91
                     CD1190 Valdivia, Chile
                           O Valdivia, Chile 10am-1, 3-6, 7-10pm.
Mexico D.F., Mexico 7:30pm-mid.; Sun.12:30-2pm.
    25.21
             11.90
                     XEWI
    25.23
             11.885 TPB11 Paris, France
11.885 TPB12 Paris, France
                                                 8:30-llpm beamed on No.America.
    25.23
                                                 6-8:15pm beamed on So.America
    25.25
             11.88
                     VLR3
                           Melbourne, Australia 3:30pm-mid.
    25.270
             11.87
                     WPIT
                           Pittsburgh, Pa.
                                                 1-10pm.
                                                                                   25M
    25.27
             11.87
                     VUM2
                           Madras, India
                                                 Mon/Wed/Fri 3:30-4am.
    25.30S
             11.855 DJP
                           Zeesen, Germany
                                                 12:05-2am, 4:50-10:50pm.
    25.30
             11.855 XMHA
                           Shanghai, China
                                                 5-10:30am approx.
    25.32
                    CB1185 Santiago, Chile
             11.85
                                                 Sat.6-llpm & irreg.
    25.36
                           New York City, N.Y. 8-10:30pm to S.A.
             11.83
                    W2XE
    25.37
             11.826 XEBR
                           Hermosillo, Mexico
                                                 9-11am, 8-10:30pm or later.
    25.37
             11.825 JVZ2
                           TOKIO, JAPAN
                                                 8-9 pm soon.
    25.38F
             11.82
                    XGOK
                           Canton, China
                                                 6-8:35am irreg.
    25.40S
                    2R04
                           Rome, Italy
             11.81
                                                 4:10-8:45,10am-3,6-9pm.
    25.41
             11.805 COGF
                           Matanzas, Cuba
                                                 6am-9pm.
    25.42
             11.801 DJZ
                                                 4:50-10:50pm to No.America.
                           Vienna, Germany
    25.42S
            11.80
                    JZJ
                           Tokio, Japan
                                                 7-9:30am, 2-4pm.
    25.45
                           Boston, Mass.
             11.79
                    WSLR
                                                 2:30-5:30pm ex.Sat/Sun irreg.
    25.47N
            11.782
                           LUXEMBOURG, LUXEMBOURG Testing irreg.
    25.47S
            11.78
                           Saigon, F. Indo-China 8:30-9:45am, 12:15-12:45am.
            11.78
   25.47
                    HP5G
                           Panama City, Panama Noon-1, 6-10pm.
   25.47
            11.78
                    OFE
                           Lahti, Finland
                                                 1:15am-12:05pm.
                           Hsinking, Manchoukuo 1:30-2:20am, to N.A.
Zeesen, Germany 11:30am-4:25, 4:50-10:50pm.
   25.48
            11.775 MTCY
   25.49
            11.77
                    DJD
   25.50
            11.76
                    XETA
                           Monterrey, Mexico
                                                 Does anyone hear?
   25.53YS 11.75
                    GSD Daventry, England CB1174 SANTIAGO, CHILE
                                                 1:30-3:45,12:25-4,4:20-6,6:20-
   25.55N
            11.74
                                                 Irreg.
                                                           * (9:15,9:40-11:30pm.
   25.55
            11.74
                    SP25
                                                 6-9pm.
                           Warsaw, Poland
   25.55
            11.74
                    HVJ
                           Vatican City, Italy See Notes.
   25.57V
            11.735 COCX
                           Havana, Cuba
                                                8am-12 mid.
   25.57S
            11.735 LKQ
                           Oslo, Norway
                                                4:30-6:40am; Sun 2:30-6:40am. *
   25.58
            11.73
                    WIXAR Boston, Mass.
                                                6:30-8:30,8:45-10pm;Sun.1:30-
                                                                           (5:30pm.
```

25 50	33 805	TOTAL	mulation Toward	0.4.4.9
25.59	11.725		Tokio, Japan	2-4, 4-8am irreg.
25.60	11.72	CJRX	Winnipeg, Canada	Sat.6pm-Sun.4am. (6pm
25.60	11.72	ZPl4	Villarica, Paraguay	Mon.thru Fri.5-8pm; Sa/Su llam-
25.60	11,718	CR7BH	Lourenco Marques,	4:30-6:30,9-11am, Noon-4pm, Sun.
			Mozambique	4-7, 10am-2pm.
25.61	11.713	TPA4	Pontoise, France	6-8:15, 8:30-llpm to N.A.
25.62	11.71	YSM	San Salvador, El Sal	
25.62	11.71	1011	Saigon, F. Indo-China	7:30-9:45am. (8-9pm
	11.705	GBD .	Motala, Sweden	1-4:15pm;Sun.3am-4:15pm;Wed/Sa
25.63			Domana City Danama	
25.64	11.70	HP5A	Panama City, Panama	7-8:30am,10am-1,5-10pm;Su.6-10p
25.64	11,70		Santiago, Chile	10am-2, 3:30-llpm.
25.74	11.67	IQY	Rome, Italy	5:20-5:40am,12:06-12:56,1:50-
26.01	11.535	SPD	Warsaw, Poland	6-9pm. (2:30pm
26.32S	11.402	HBO	Geneva, Switzerland	Mon.6:45-8:15,8:45-10:15; Tues
				12:45-2:45pm;1st Sun.12:45-230a
27.17	11.04	CSW5	Lisbon, Portugal	llam-4:30pm; Sun.10am-4:30pm.
27.27S	11.00	PLP	Bandoeng, Java	4:30-10:30am,6-9,10:30pm-2am.
28.48	10.535		Taihoku, Taiwan	Relays JFAK 9-9:55am.
28.55V	10.40	YSP		Lvador 1-3, 6:30-11pm.
				3-4:30,5-7,7:45-8:45,9-10pm.
28.96	10.36	EAJ43	Tenerife, Canarias	1.20 2 to Deleter Comes (Cum
29.04	10.33	ORK		1:30-3pm to Belgian Congo. (Sun
29.24	10.26	PMN	Bandoeng, Java	4:30-10:30am,6-9,10:30pm-2am ex.
29.35	10.22	PSH		il 6-7pm; Mon.8-8:30pm; Fri.7-
29.85	10.05	TIEM	San Jose, C.R.	4:30-8pm. (7:30pm.
30.05V	9.985	COBC	Havana, Cuba	6am-mid.
30.23	9.925	JDY	Darien, Manchoukuo	7-8am.
30.45S	9.855	EAQ	Madrid, Spain	5-7:30pm; Sat.1-3pm, 5-7:30pm.
30.52	9.83	ĪŖĔ	Rome, Italy	5:30-5:40,12-12:25,12:40-1,1:50-
	0.50	1101	Tomo, Town,	2:30-,6-9pm.
90 E7T	0 015	COCM	Hayrana Cuba	
30.57J	9.815	COCM	Havana, Cuba	8am-12:30am; irreg. to 2am.
30.71F	9.77	HH3W	Port-au-Prince, Hait	
30.77	9.752	ZRO	Durban,So.Africa	11:45pm-12:50,3:30-7:30,9-11:15-
				am; Sun.5:30-7, 9-11:15am.
30.80	9.74	CSW7	Lisbon, Portugal	6-9pm.
30.90N	9.71	DXB	ZEESEN, GERMANY	8-11pm, 12:05-2am. *
30.93	9.70		Fort-de-France, Mart	tinique 6-8:10 or 9:30pm.
30.95	9.695	TIE2	Tyureki, Taiwan	9:05-10:20am. (am; Sun. 2:30-4am.
30.95	9.693		Tananarive Madagaso	ear 12:30-12:45,3:30-4:30,10-11-
30.96	9.69	TT4NRI	Heredia Costa Rica	Tu/Th/Sat.9-10pm; Sun.7-8am.
30.96	9.69	LRAI	Ruonos Aines Argen	Mon. to Th. 6-9pm; Fri. 4-9pm, Sat/
	0.00	TIMT	Duellos Kires Krigeli	
00 001	0.00	arr.	a: a a	Sun 7-9pm. (Sun 5:40-9:40am.
30.96V	9.69	ZHP	Singapore, S.S.	4:40-9:40am; Wed/Sat 12:40-1:40am
30.98	9.685	TGWA		a 10-11:30pm ex.Sun;Sun 7pm-mid.
30.98	9.683	HNF	Baghdad, Iraq	Heard on West coast 8-9:30am. *
31.01	9.675	DJX	Vienna, Germany	10:40am-4:25pm to Africa.
31.01	9.675		Saigon, F. Indo-China	a 7:30-9:45am.
31.02C	9.67	WRCA	New York City, N.Y.	5pm-mid.
31.03	9.67	2R09	Rome, Italy	12:40-5:30,6-6:30pm.
31.06	9.66	LRX	Buenos Aires Argen.	.6-6:45am, 9:15am-10pm.
31.06	9.66	HVJ	Vatican City, Italy	See notes
			Addia Ababa T E A	3.55-4.05 4.15-4.45 11om-noon
31.09	9.65	IABA	Addis Abeba, I.E.A.	3:55-4:05,4:15-4:45,1lam-noon,
07 70	0.64	CTT A C	d 3 . II	1-3pm; Sun. 3:30-3:55am.
31.12	9.64	CXA8	Colonia, Uruguay	5am-10:45 or 11pm; Sat. to lam.
31.15	9.63	2R03	Rome, Italy	12:07-2:55,5:30-9pm.
31.15	9.63	JFO	Taihoku,Taiwan	4-10:30am.
31.19	9.625	CXA6	Montevideo, Uruguay	
31.21J	9.615	\mathtt{TIPG}	San Jose, C.R.	7-9:30am,12-2,8-11:30pm.
31.22F	9.61	ZRL	Capetown.So.Africa	11:45pm-12:50am ex.Sat;3:30-7:20
				-9-11:45am;Sun.3:30-11:45am int.
31.22J	9.61	HP5J	Panama City, Panama	Noon-1:30, 6:30-10:30pm.
31.24	9.604	XEYU	Mexico D.F., Mexico	
31.25	9.60	RAN	Moscow, U.S.S.R.	6-7, 7-9, 9-10pm.
31.25	9.60		Santiago, Chile	8-11:30pm.
31.27	u blib	-B. L H. B.	Athlone, Ireland	LIDD DOTAG I SKILLKSKI / SKILLLAND JA [
	9.595	EIRE		Odd dates 1:30-3:30,4:30-5pm.,*
31.28	9.59	PCJ	Huizen, Holland	Sun 1:40-3,7:15-9:50pm;Tu 1:45-

25 50	33 805	TOTAL	mulating Tables	0.4.4.9
25.59	11.725		Tokio, Japan	2-4, 4-8am irreg.
25.60	11.72	CJRX	Winnipeg, Canada	Sat.6pm-Sun.4am. (6pm
25.60	11.72	ZPl4	Villarica, Paraguay	Mon.thru Fri.5-8pm; Sa/Su llam-
25.60	11,718	CR7BH	Lourenco Marques,	4:30-6:30,9-11am, Noon-4pm, Sun.
			Mozambique	4-7, 10am-2pm.
25.61	11.713	TPA4	Pontoise, France	6-8:15, 8:30-llpm to N.A.
25.62	11.71	YSM	San Salvador, El Sal	
25.62	11.71	1011	Saigon, F. Indo-China	7:30-9:45am. (8-9pm
	11.705	GBD .	Motala, Sweden	1-4:15pm;Sun.3am-4:15pm;Wed/Sa
25.63			Domana City Danama	
25.64	11.70	HP5A	Panama City, Panama	7-8:30am,10am-1,5-10pm;Su.6-10p
25.64	11,70		Santiago, Chile	10am-2, 3:30-llpm.
25.74	11.67	IQY	Rome, Italy	5:20-5:40am,12:06-12:56,1:50-
26.01	11.535	SPD	Warsaw, Poland	6-9pm. (2:30pm
26.32S	11.402	HBO	Geneva, Switzerland	Mon.6:45-8:15,8:45-10:15; Tues
				12:45-2:45pm;1st Sun.12:45-230a
27.17	11.04	CSW5	Lisbon, Portugal	llam-4:30pm; Sun.10am-4:30pm.
27.27S	11.00	PLP	Bandoeng, Java	4:30-10:30am,6-9,10:30pm-2am.
28.48	10.535		Taihoku, Taiwan	Relays JFAK 9-9:55am.
28.55V	10.40	YSP		Lvador 1-3, 6:30-11pm.
				3-4:30,5-7,7:45-8:45,9-10pm.
28.96	10.36	EAJ43	Tenerife, Canarias	1.20 2 to Deleter Comes (Cum
29.04	10.33	ORK		1:30-3pm to Belgian Congo. (Sun
29.24	10.26	PMN	Bandoeng, Java	4:30-10:30am,6-9,10:30pm-2am ex.
29.35	10.22	PSH		il 6-7pm; Mon.8-8:30pm; Fri.7-
29.85	10.05	TIEM	San Jose, C.R.	4:30-8pm. (7:30pm.
30.05V	9.985	COBC	Havana, Cuba	6am-mid.
30.23	9.925	JDY	Darien, Manchoukuo	7-8am.
30.45S	9.855	EAQ	Madrid, Spain	5-7:30pm; Sat.1-3pm, 5-7:30pm.
30.52	9.83	ĪŖĔ	Rome, Italy	5:30-5:40,12-12:25,12:40-1,1:50-
	0.50	1101	Tomo, Town,	2:30-,6-9pm.
90 E7T	0 015	COCM	Hayrana Cuba	
30.57J	9.815	COCM	Havana, Cuba	8am-12:30am; irreg. to 2am.
30.71F	9.77	HH3W	Port-au-Prince, Hait	
30.77	9.752	ZRO	Durban,So.Africa	11:45pm-12:50,3:30-7:30,9-11:15-
				am; Sun.5:30-7, 9-11:15am.
30.80	9.74	CSW7	Lisbon, Portugal	6-9pm.
30.90N	9.71	DXB	ZEESEN, GERMANY	8-11pm, 12:05-2am. *
30.93	9.70		Fort-de-France, Mart	tinique 6-8:10 or 9:30pm.
30.95	9.695	TIE2	Tyureki, Taiwan	9:05-10:20am. (am; Sun. 2:30-4am.
30.95	9.693		Tananarive Madagaso	ear 12:30-12:45,3:30-4:30,10-11-
30.96	9.69	TT4NRI	Heredia Costa Rica	Tu/Th/Sat.9-10pm; Sun.7-8am.
30.96	9.69	LRAI	Ruonos Aines Argen	Mon. to Th. 6-9pm; Fri. 4-9pm, Sat/
	0.00	TIMT	Duellos Kires Krigeli.	
00 001	0.00	arr.	a: a a	Sun 7-9pm. (Sun 5:40-9:40am.
30.96V	9.69	ZHP	Singapore, S.S.	4:40-9:40am; Wed/Sat 12:40-1:40am
30.98	9.685	TGWA		a 10-11:30pm ex.Sun;Sun 7pm-mid.
30.98	9.683	HNF	Baghdad, Iraq	Heard on West coast 8-9:30am. *
31.01	9.675	DJX	Vienna, Germany	10:40am-4:25pm to Africa.
31.01	9.675		Saigon, F. Indo-China	a 7:30-9:45am.
31.02C	9.67	WRCA	New York City, N.Y.	5pm-mid.
31.03	9.67	2R09	Rome, Italy	12:40-5:30,6-6:30pm.
31.06	9.66	LRX	Buenos Aires Argen.	.6-6:45am, 9:15am-10pm.
31.06	9.66	HVJ	Vatican City, Italy	See notes
			Addia Ababa T E A	3.55-4.05 4.15-4.45 11om-noon
31.09	9.65	IABA	Addis Abeba, I.E.A.	3:55-4:05,4:15-4:45,1lam-noon,
07 70	0.64	CTT A C	d 3 . II	1-3pm; Sun. 3:30-3:55am.
31.12	9.64	CXA8	Colonia, Uruguay	5am-10:45 or 11pm; Sat. to lam.
31.15	9.63	2R03	Rome, Italy	12:07-2:55,5:30-9pm.
31.15	9.63	JFO	Taihoku,Taiwan	4-10:30am.
31.19	9.625	CXA6	Montevideo, Uruguay	
31.21J	9.615	\mathtt{TIPG}	San Jose, C.R.	7-9:30am,12-2,8-11:30pm.
31.22F	9.61	ZRL	Capetown.So.Africa	11:45pm-12:50am ex.Sat;3:30-7:20
				-9-11:45am; Sun.3:30-11:45am int.
31.22J	9.61	HP5J	Panama City, Panama	Noon-1:30, 6:30-10:30pm.
31.24	9.604	XEYU	Mexico D.F., Mexico	
31.25	9.60	RAN	Moscow, U.S.S.R.	6-7, 7-9, 9-10pm.
31.25	9.60		Santiago, Chile	8-11:30pm.
31.27	u blib	-B. L H. B.	Athlone, Ireland	LIDD DOTAG I SKILLKSKI / SKILLLAND JA [
	9.595	EIRE		Odd dates 1:30-3:30,4:30-5pm.,*
31.28	9.59	PCJ	Huizen, Holland	Sun 1:40-3,7:15-9:50pm;Tu 1:45-

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3:30pm,7-10:15pm;Wd 7:15-8:40pm.
 31.28
         9.59
                 VK6ME Perth, W. Australia
                                            Weekdays 6-8am.
                                                                    (Fri.8-9pm.
 31.28
          9.59
                 VK2ME Sydney, Australia
                                            Sun.12-2,4:30-8:30,10:30am-12:30
 31.28SC 9.59
                 WCAB
                       Philadelphia, Pa.
                                            Mon/Thu 5:30-6:15,5:30-10:30 (pm
                                            pm; Sat 5:30-6,6:30-10:30pm.
 31.28
         9.59
                 VUD2
                       Delhi, India
                                            1:30-3:30,7am-12:30,9:30-11:30pm
 31.30
         9.585
                 KZHS
                       Manila, Philippines Daily from 6am on.
                                                                       (11:30pm
 31.32YS 9.58
                 GSC
                       Daventry, England
                                            1:30-4,4:20-6,6:25-9:20,9:40-
 31.32
         9.58
                 VLR
                       Melbourne, Australia Weekdays 12 mid. -8:30am, Sun 12
31.35C
         9.57
                 WBOS
                       Boston, Mass.
                                            8am-lam.
                                                                      -7:30am
31.35
         9.57
                 KZRM
                       Manila, Philippines Weekdays 4:30-6pm; Mon.to Fri.
                                            5-9am; Sat 5-10am; Sun.4-10am.
31.35
         9.57
                 CXA2
                       Montevideo, Uruguay
                                            5:30-10:30pm.
31.38
         9.556
                 OAX4T Lima, Peru
                                            lľ:30am-1:30pm.
                                                                             31M
31.38
         9.56
                 XGAP
                       Peking, China
                                            4-9am.
31.38
         9.56
                 DJA
                                            6:30-10:50pm to C.A.
                       Zeesen, Germany
         9.55
31.40
                 YDB
                       Soerabaja, Java
                                            4:30-10:30am; 6-9,10:30pm-2am ex
                                            Sat; Sat. 7pm-2am.
31.40
         9.55
                 VUD2
                       Bombay, India
                                            1:30-3:30,5-6am,9:30-10:30pm.
31.410
         9.55
                 WGEA
                       Schenectady, N.Y.
                                            5:15-8:15pm to S.A.
31.41
         9.55
                 XEFT
                       Veracruz, Mexico
                                            7:30pm-midnight.
31.45
         9.54
                 DJN
                       Zeesen, Germany
Suva, Fiji's
                                            12:0\bar{5}-2:30,9:30-11am, 4:55-10:50
31.46
         9.538
                 VPD2
                                            5:30-7am ex. Sundays.
31.47
         9.535
                 SBU
                       Motala, Sweden
                                            4:15-5:05pm.
31.47
         9.535
                 JZI
                       Tokio, Japan
                                            4:30-5:30pm.
31.48C
         9.53
                 KGEI
                       San Francisco, Calif. 7am-noon, 12 mid-3am to Asia.
31.480
         9.53
                 WGEO
                       Schenectady, N.Y.
                                            3-5, 5-11pm to S.A.
31.48
         9.528
                 VUC2
                       Calcutta, India
                                            2-4am, 10pm-2am.
31.48N
         9.527
                       LUXEMBOURG, LUXEMBOURG Testing here irreg.
31.50
         9.525
                 ZBW3
                       Hong Kong, Hong King 5-10am, 11:30pm-1:15am; Sun 5-
31.50
         9.525
                OQ2AA Leopoldville, Bel. Congo 5:25-7am. (9:30am; Sa 9pm on
31.50
         9.525
                SP31
                                            2:35-5:30pm.
                       Warsaw, Poland
31.50
         9.523
                       Pretoria, So. Africa 5-7am; Sundays 5:30-7am.
                ZRG
31.51
         9.52
                                            8-9:30, 9:30-11pm.
1-3, 4-7pm & irreg.
                OZF
                       Skamlebak, Denmark
         9.52
31.51
                RV96
                       Moscow, U.S.S.R.
31.52F
         9.517
                       Guadalajara, Mexico Noon-4:30,7pm-mid.
                XEDQ
31.55Y
         9.51
                GSB
                       Daventry, England
                                            1:30-3:45am, 6:20-9:15,9:40-11:30
31.55
                                            7-10am except Mondays.
         9.51
                HS8PJ Bangkok, Thai
31.57
         9.503
                XEWW
                       Mexico D.F., Mexico 7:45am-12:30am.
31.58
         9.501
                PRF5
                       Rio de Janeiro, Brazil 4:45-5:55pm ex. Sundays.
31.58
         9.50
                OFD
                       Lahti, Finland
                                            12:15-5pm.
31.58
         9.50
                VK3ME Melbourne, Australia 4-7am except Sundays.
31.58
         9.50
                XGOY
                       Chungking, China
                                           6:30-7:40pm irreg.
31.60V
                KZIB
         9.492
                                           6-9:05am; 8:30pm-2:40am irreg.*
                       Manila, P.I.
31.70
         9.465
                TAP
                       Ankara, Turkey
                                           11:30am-5pm.
31.77
         9.445
                HCODA Guayaquil, Ecuador
                                           8:15-10:15pm ex.Sundays.
31.797
         9.436
                COCH
                      Havana, Cuba
                                           8am-11pm; Sun.8am-10pm.
31.95
        9.39
                OAX5C Ica, Peru
                                           7-11:30pm.
                HCIETC Quito, Ecuador
32.070
        9.354
                                           Saturdays 8-11pm.
32.12
        9.34
                OAX4J Lima, Peru
                                           Noon-3, and 5pm-mid.
32.28
        9.295
                XTC
                       Shanghai, China
                                           8-9am in Chinese
                                                                      (4:40pm
        9.295
32.28
                HI2G
                      Trujillo City, D.R.
                                           6:40-8:40,11:40am-2:10,3:40-
32.34
        9.285
                LYR
                                           12-1pm and 12 mid.-lam.
                      Kaunas, Lithuania
32.56
        9.205
                                           8am-11:30pm.
                COBX
                      Havana, Cuba
32.61
        9.20
                      Sofia, Bulgaria
                                           Near 1:45am and Sun.at 8:15am.
32.64
        9.19
                HC2ET Guayaquil, Ecuador
                                           8-10pm; Sun 8:30-10:30pm.
Mon/Wed/Sat 9-9:55pm.
32.72
        9.17
                HClGQ Quito, Ecuador
32.88
        9.125
                HAT4
                                           7-8pm; Sat.6-7pm.
                      Budapest, Hungary
32.89J
        9.12
                HC2CW Guayaquil, Ecuador
                                           llam-l, 7-llpm.
32.97V
        9.10
                COCA
                                           Noon-1:15am; till 3am irreg.
                      Havana, Cuba
33.00
        9.091
                PJCl
                      Curacao, D.W.I.
                                           6:36-8:36pm; Su.10:36am-12:36pm.
33.24
        9.025
                COBZ
                      Havana, Cuba
                                           7:45am-1:15am.
33.48
        8.96
                                           5-6, 9:30-10:30pm.
Tuesdays 12:30-1:30pm.
                COKG
                      Santiago, Cuba
33.48
        8.96
                TPZ2
                      Algiers, Algeria
33.90J
        8.85
                COCQ
                      Havana, Cuba
                                           5:55am-12 mid.
```

```
3:30pm,7-10:15pm;Wd 7:15-8:40pm.
 31.28
         9.59
                 VK6ME Perth, W. Australia
                                            Weekdays 6-8am.
                                                                    (Fri.8-9pm.
 31.28
          9.59
                 VK2ME Sydney, Australia
                                            Sun.12-2,4:30-8:30,10:30am-12:30
 31.28SC 9.59
                 WCAB
                       Philadelphia, Pa.
                                            Mon/Thu 5:30-6:15,5:30-10:30 (pm
                                            pm; Sat 5:30-6,6:30-10:30pm.
 31.28
         9.59
                 VUD2
                       Delhi, India
                                            1:30-3:30,7am-12:30,9:30-11:30pm
 31.30
         9.585
                 KZHS
                       Manila, Philippines Daily from 6am on.
                                                                       (11:30pm
 31.32YS 9.58
                 GSC
                       Daventry, England
                                            1:30-4,4:20-6,6:25-9:20,9:40-
 31.32
         9.58
                 VLR
                       Melbourne, Australia Weekdays 12 mid. -8:30am, Sun 12
31.35C
         9.57
                 WBOS
                       Boston, Mass.
                                            8am-lam.
                                                                      -7:30am
31.35
         9.57
                 KZRM
                       Manila, Philippines Weekdays 4:30-6pm; Mon.to Fri.
                                            5-9am; Sat 5-10am; Sun.4-10am.
31.35
         9.57
                 CXA2
                       Montevideo, Uruguay
                                            5:30-10:30pm.
31.38
         9.556
                 OAX4T Lima, Peru
                                            lľ:30am-1:30pm.
                                                                             31M
31.38
         9.56
                 XGAP
                       Peking, China
                                            4-9am.
31.38
         9.56
                 DJA
                                            6:30-10:50pm to C.A.
                       Zeesen, Germany
         9.55
31.40
                 YDB
                       Soerabaja, Java
                                            4:30-10:30am; 6-9,10:30pm-2am ex
                                            Sat; Sat. 7pm-2am.
31.40
         9.55
                 VUD2
                       Bombay, India
                                            1:30-3:30,5-6am,9:30-10:30pm.
31.410
         9.55
                 WGEA
                       Schenectady, N.Y.
                                            5:15-8:15pm to S.A.
31.41
         9.55
                 XEFT
                       Veracruz, Mexico
                                            7:30pm-midnight.
31.45
         9.54
                 DJN
                       Zeesen, Germany
Suva, Fiji's
                                            12:0\bar{5}-2:30,9:30-11am, 4:55-10:50
31.46
         9.538
                 VPD2
                                            5:30-7am ex. Sundays.
31.47
         9.535
                 SBU
                       Motala, Sweden
                                            4:15-5:05pm.
31.47
         9.535
                 JZI
                       Tokio, Japan
                                            4:30-5:30pm.
31.48C
         9.53
                 KGEI
                       San Francisco, Calif. 7am-noon, 12 mid-3am to Asia.
31.480
         9.53
                 WGEO
                       Schenectady, N.Y.
                                            3-5, 5-11pm to S.A.
31.48
         9.528
                 VUC2
                       Calcutta, India
                                            2-4am, 10pm-2am.
31.48N
         9.527
                       LUXEMBOURG, LUXEMBOURG Testing here irreg.
31.50
         9.525
                 ZBW3
                       Hong Kong, Hong King 5-10am, 11:30pm-1:15am; Sun 5-
31.50
         9.525
                OQ2AA Leopoldville, Bel. Congo 5:25-7am. (9:30am; Sa 9pm on
31.50
         9.525
                SP31
                                            2:35-5:30pm.
                       Warsaw, Poland
31.50
         9.523
                       Pretoria, So. Africa 5-7am; Sundays 5:30-7am.
                ZRG
31.51
         9.52
                                            8-9:30, 9:30-11pm.
1-3, 4-7pm & irreg.
                OZF
                       Skamlebak, Denmark
         9.52
31.51
                RV96
                       Moscow, U.S.S.R.
31.52F
         9.517
                       Guadalajara, Mexico Noon-4:30,7pm-mid.
                XEDQ
31.55Y
         9.51
                GSB
                       Daventry, England
                                            1:30-3:45am, 6:20-9:15,9:40-11:30
31.55
                                            7-10am except Mondays.
         9.51
                HS8PJ Bangkok, Thai
31.57
         9.503
                XEWW
                       Mexico D.F., Mexico 7:45am-12:30am.
31.58
         9.501
                PRF5
                       Rio de Janeiro, Brazil 4:45-5:55pm ex. Sundays.
31.58
         9.50
                OFD
                       Lahti, Finland
                                            12:15-5pm.
31.58
         9.50
                VK3ME Melbourne, Australia 4-7am except Sundays.
31.58
         9.50
                XGOY
                       Chungking, China
                                           6:30-7:40pm irreg.
31.60V
                KZIB
         9.492
                                           6-9:05am; 8:30pm-2:40am irreg.*
                       Manila, P.I.
31.70
         9.465
                TAP
                       Ankara, Turkey
                                           11:30am-5pm.
31.77
         9.445
                HCODA Guayaquil, Ecuador
                                           8:15-10:15pm ex.Sundays.
31.797
         9.436
                COCH
                      Havana, Cuba
                                           8am-11pm; Sun.8am-10pm.
31.95
        9.39
                OAX5C Ica, Peru
                                           7-11:30pm.
                HCIETC Quito, Ecuador
32.070
        9.354
                                           Saturdays 8-11pm.
32.12
        9.34
                OAX4J Lima, Peru
                                           Noon-3, and 5pm-mid.
32.28
        9.295
                XTC
                       Shanghai, China
                                           8-9am in Chinese
                                                                      (4:40pm
        9.295
32.28
                HI2G
                      Trujillo City, D.R.
                                           6:40-8:40,11:40am-2:10,3:40-
32.34
        9.285
                LYR
                                           12-1pm and 12 mid.-lam.
                      Kaunas, Lithuania
32.56
        9.205
                                           8am-11:30pm.
                COBX
                      Havana, Cuba
32.61
        9.20
                      Sofia, Bulgaria
                                           Near 1:45am and Sun.at 8:15am.
32.64
        9.19
                HC2ET Guayaquil, Ecuador
                                           8-10pm; Sun 8:30-10:30pm.
Mon/Wed/Sat 9-9:55pm.
32.72
        9.17
                HClGQ Quito, Ecuador
32.88
        9.125
                HAT4
                                           7-8pm; Sat.6-7pm.
                      Budapest, Hungary
32.89J
        9.12
                HC2CW Guayaquil, Ecuador
                                           llam-l, 7-llpm.
32.97V
        9.10
                COCA
                                           Noon-1:15am; till 3am irreg.
                      Havana, Cuba
33.00
        9.091
                PJCl
                      Curacao, D.W.I.
                                           6:36-8:36pm; Su.10:36am-12:36pm.
33.24
        9.025
                COBZ
                      Havana, Cuba
                                           7:45am-1:15am.
33.48
        8.96
                                           5-6, 9:30-10:30pm.
Tuesdays 12:30-1:30pm.
                COKG
                      Santiago, Cuba
33.48
        8.96
                TPZ2
                      Algiers, Algeria
33.90J
        8.85
                COCQ
                      Havana, Cuba
                                           5:55am-12 mid.
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					11
34.50F	8.695	COCO	Havana, Cuba	7:55am-12 mld.	
34.68J	8.65	COJK	Camaguey, Cuba	11:30am-12:30,3:30-6,8-8:30pm.	
34.97	8.58	YNPR	Managua, Nicaragua	12:45-2:15,6:45-10:15pm.	
35.02	8.572	5	Bucharest Roumania	8:15-10:30am, 4-7pm.	
37.64N	7.97	XHH-	China	4am-12:30pm.	**
		YSD	San Salvador, El Sal		
 38.00	7.894				
38.02S	7.89	ZAA	Tirana, Albania	6:30-8:30am.	
38.12	7.87	HCTKR	Quito, Ecuador	8:30-11:30pm.	
38.20	7.854	HC2JSI	3 Guayaquil, Ecuador	llam-2, 4-11pm.	
38.46N	7.80	COBS	HAVANA, CUBA	Evenings.	36
39.16	7.66	YNDG		8:30-9:30pm.	
 39.89	7.614		Lobito, Angola	Mon/Wed/Sat 2:30-4:30pm.	
39.89S	7.52	KKH	Kahuku, Hawaii	Sun.9-9:30pm, Sat. 7:30-8pm.	
40.05S	7.49	EAJ43	Tenerife, Canarias	7-7:45pm; 8-9:30pm irreg.	
40.27	7.45	TIZRS	San Jose, C.R.	7-11pm.	
 40.32	7.44	FG8AH	Pointe-a-Pitre,Guad	leloupe, 6-7:10pm.	
40.65	7.38	XECR	Mexico D.F., Mexico	Sundays 6-7pm.	
41.01S	7.31	VIG	Port Moresby, Papua	Sent.9/23. 3-5am.	
41.13	7.295		Tyureki, Taiwan	9:05-10:20am.	
					*
41.19N	7.284		MANAGUA, NICARAGUA	Sundays 10-llam.	
41.21	7.28		Paris, France	10:15am-12:45,1-5:15pm.	
41.32	7.26	CSW8	Lisbon, Portugal	Tues/Thurs/Sat 4:05-5pm.	41M)
41.34	7.257	JVW	Tokio, Japan	2-4pm.	
41.38	7.25	YDA	Bandoeng, Java	10:30pm-2am; Sat.7:30pm-2am.	1964
41.55	7.22	1221	Malaga, Spain	3:30-5:40pm.	
		TT)V			
41.55	7.22	YDX	Medan, Sumatra	5:30-7:45am,10pm-1:30am.	
41.78	7.18	EAGAL	Melilla, Span. Moroco	co Sat.9-10pm.	
 42.25	7.10	FO8AA	Papeete, Tahiti	Sat.12:01-3:30am.	
 42.55	7.05	ZD4AA	Acora, Gold Coast	Tests irreg.	16
42.80	7.01		Kweiyang, China	5:30-llam.	
43.54F	6.89	HI6H	Trujillo City, D.R.	7:40-8:40pm.	
 40.04r	6.05				
43.80FV		XOJD	Hankow, China	6-8:35am	
44.12	6.80	PZH		Mon/Wed/Fri 5:41-8:41pm.	
 44.25	6.78	${\tt HIH}$	San Pedro, D.R.	7-9:40pm; Sun.5:20-6:40pm.	
 44.38	6.76	HI7P	Trujillo City, D.R.	7:10-8:40pm; Sun.9:40-10:40pm.	
44.38	6.76	YNRF	Managua, Nicaragua	6:45-10:15 or 11pm.	
44.51	6.74	ערן ייי	Quito, Ecuador	Sundays 5-7pm.	
44.58	6.73	HI3C	La Romana, D.R.	To 8:20pm.	
44.64	6.72	PMH	Bandoeng, Java	4:30-llam; Sun.8:30pm-1:30am.	
 44.81	6.695	TIEP	San Jose, C.R.	7pm-midnight.	
45.06	6.66	HI5G		To 8:40pm.	
45.22	6.635	HC2RL	Guavaguil Ecuador S	Sun.5:45-7:45 & Tues 9:15-11:15	5
45.25	6.63	HIT	Truitial o City D B	12:10-1:40,4:40-8:40pm. (pm.	
 45.29	6.625		Riobamba, Ecuador	Thursdayso 9-11pm.	
45.397	6.61	YNLG	Managua, Nicaragua	1:30-2:30, 6-10:15pm.	
 45.70	6.565	HI5P	Puerto Plata, D.R.	5:40-7:40,9:40-11:40am.	
 45.80	6.55		San Jose, C.R.	Tu/Th/Sat 6-7pm; Sun.8-10pm.	
45.87	6.54		Managua, Nicaragua	1-2:30,8-10pm ex.Sundays.	1 2
46.15	6.50	HIL	Truillo City D.R.	12:30-2,6-8 or 9pm ex. Sundays.	
			Guetemale Guetemals	7:45-9,12:45-3:45,7:30pm-12:	5
 46.25	6.486	TGWB	чиа сещата, чиа сещата		ro I
10.55			~	am; Sun.10:30am-5:15,7pm-mid.	
46.26	6.485	\mathtt{HIlL}	Santiago, d.l.c., DR	Weekdays 5:30-9:30pm.	
 46.44	6.455	$\mathtt{HI4V}$	S.F.de Macoris, D.R.	. 5:10-7:40pm; to lopm irreg.	
 46.66	6.428	HILS	Santiago, D.R.	5:40-7:35 or 9pm ex.Sundays.	7, =
46.88	6.40	TGQA	Quezaltenango Gueta	emala 8-11pm; Sat 8pm-lam, Sun	A N
				5-8.45pm innor (7.20om 2n	
46.97V	6.388	HI9B	Santiago, D.R.	5-8:45pm irreg. (7:30am-3p	
46.99	6.384	ZIZ		s 4-4:45pm; Wed. 7-7:30pm.	494. at
47.02	6.38	TIWS	Puntarenas, C.R.	5-7, 7:30-10pm; Sun.5-6pm.	14 14 14 14 14 14 14 14 14 14 14 14 14 1
47.20	6.357	\mathtt{HRPl}	San Pedro Sula, Hono	duras 6-7:30am,2-4; irreg.to 10) [
47.32	6.34	$\mathtt{HIl} \mathbf{X}$	Trujillo City.D.R.	8:10-10:10pm; Sun.7:40-9:40am.	
 47.36	6.334		Chiclayo, Peru	8-11pm.	
47.39				6:55am-lam; Sun.9:55am-l0pm.	
	6.33	COCW	Havana, Cuba		
717 [7			THE CONTRACT OF THE STATE OF TH	11:40am-12:40pm;5:10-7:40pm ex	X. I
47.51	6.315	HILZ	Titalitic orogeness.		
 47.66	6.295	OAX4G	Lima, Peru	6 or 7pm to mid. (Sur	
			Lima, Peru		
 47.66	6.295	OAX4G	Lima, Peru	6 or 7pm to mid. (Sur	n

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1 1	

					11
34.50F	8.695	COCO	Havana, Cuba	7:55am-12 mld.	
34.68J	8.65	COJK	Camaguey, Cuba	11:30am-12:30,3:30-6,8-8:30pm.	
34.97	8.58	YNPR	Managua, Nicaragua	12:45-2:15,6:45-10:15pm.	
35.02	8.572	5	Bucharest Roumania	8:15-10:30am, 4-7pm.	
37.64N	7.97	XHH-	China	4am-12:30pm.	**
		YSD	San Salvador, El Sal		
 38.00	7.894				
38.02S	7.89	ZAA	Tirana, Albania	6:30-8:30am.	
38.12	7.87	HCTKR	Quito, Ecuador	8:30-11:30pm.	
38.20	7.854	HC2JSI	3 Guayaquil, Ecuador	llam-2, 4-11pm.	
38.46N	7.80	COBS	HAVANA, CUBA	Evenings.	36
39.16	7.66	YNDG		8:30-9:30pm.	
 39.89	7.614		Lobito, Angola	Mon/Wed/Sat 2:30-4:30pm.	
39.89S	7.52	KKH	Kahuku, Hawaii	Sun.9-9:30pm, Sat. 7:30-8pm.	
40.05S	7.49	EAJ43	Tenerife, Canarias	7-7:45pm; 8-9:30pm irreg.	
40.27	7.45	TIZRS	San Jose, C.R.	7-11pm.	
 40.32	7.44	FG8AH	Pointe-a-Pitre,Guad	leloupe, 6-7:10pm.	
40.65	7.38	XECR	Mexico D.F., Mexico	Sundays 6-7pm.	
41.01S	7.31	VIG	Port Moresby, Papua	Sent.9/23. 3-5am.	
41.13	7.295		Tyureki, Taiwan	9:05-10:20am.	
					*
41.19N	7.284		MANAGUA, NICARAGUA	Sundays 10-llam.	
41.21	7.28		Paris, France	10:15am-12:45,1-5:15pm.	
41.32	7.26	CSW8	Lisbon, Portugal	Tues/Thurs/Sat 4:05-5pm.	41M)
41.34	7.257	JVW	Tokio, Japan	2-4pm.	
41.38	7.25	YDA	Bandoeng, Java	10:30pm-2am; Sat.7:30pm-2am.	1963
41.55	7.22	1221	Malaga, Spain	3:30-5:40pm.	
		TT)V			
41.55	7.22	YDX	Medan, Sumatra	5:30-7:45am,10pm-1:30am.	
41.78	7.18	EAGAL	Melilla, Span. Moroco	co Sat.9-10pm.	
 42.25	7.10	FO8AA	Papeete, Tahiti	Sat.12:01-3:30am.	
 42.55	7.05	ZD4AA	Acora, Gold Coast	Tests irreg.	16
42.80	7.01		Kweiyang, China	5:30-llam.	
43.54F	6.89	HI6H	Trujillo City, D.R.	7:40-8:40pm.	
 40.04r	6.05				
43.80FV		XOJD	Hankow, China	6-8:35am	
44.12	6.80	PZH		Mon/Wed/Fri 5:41-8:41pm.	
 44.25	6.78	${\tt HIH}$	San Pedro, D.R.	7-9:40pm; Sun.5:20-6:40pm.	
 44.38	6.76	HI7P	Trujillo City, D.R.	7:10-8:40pm; Sun.9:40-10:40pm.	
44.38	6.76	YNRF	Managua, Nicaragua	6:45-10:15 or 11pm.	
44.51	6.74	ערן ייי	Quito, Ecuador	Sundays 5-7pm.	
44.58	6.73	HI3C	La Romana, D.R.	To 8:20pm.	
44.64	6.72	PMH	Bandoeng, Java	4:30-llam; Sun.8:30pm-1:30am.	
 44.81	6.695	TIEP	San Jose, C.R.	7pm-midnight.	
45.06	6.66	HI5G		To 8:40pm.	
45.22	6.635	HC2RL	Guavaguil Ecuador S	Sun.5:45-7:45 & Tues 9:15-11:15	5
45.25	6.63	HIT	Truitial o City D B	12:10-1:40,4:40-8:40pm. (pm.	
 45.29	6.625		Riobamba, Ecuador	Thursdayso 9-11pm.	
45.397	6.61	YNLG	Managua, Nicaragua	1:30-2:30, 6-10:15pm.	
 45.70	6.565	HI5P	Puerto Plata, D.R.	5:40-7:40,9:40-11:40am.	
 45.80	6.55		San Jose, C.R.	Tu/Th/Sat 6-7pm; Sun.8-10pm.	
45.87	6.54		Managua, Nicaragua	1-2:30,8-10pm ex.Sundays.	1 2
46.15	6.50	HIL	Truillo City D.R.	12:30-2,6-8 or 9pm ex. Sundays.	
			Guetemale Guetemals	7:45-9,12:45-3:45,7:30pm-12:	5
 46.25	6.486	TGWB	чиа сещата, чиа сещата		ro I
10.55			~	am; Sun.10:30am-5:15,7pm-mid.	
46.26	6.485	\mathtt{HIlL}	Santiago, d.l.c., DR	Weekdays 5:30-9:30pm.	
 46.44	6.455	$\mathtt{HI4V}$	S.F.de Macoris, D.R.	. 5:10-7:40pm; to lopm irreg.	
 46.66	6.428	HILS	Santiago, D.R.	5:40-7:35 or 9pm ex.Sundays.	7, =
46.88	6.40	TGQA	Quezaltenango Gueta	emala 8-11pm; Sat 8pm-lam, Sun	A N
				5-8.45pm innog (7.20om 2n	
46.97V	6.388	HI9B	Santiago, D.R.	5-8:45pm irreg. (7:30am-3p	
46.99	6.384	ZIZ		s 4-4:45pm; Wed. 7-7:30pm.	494. at
47.02	6.38	TIWS	Puntarenas, C.R.	5-7, 7:30-10pm; Sun.5-6pm.	14 14 14 14 14 14 14 14 14 14 14 14 14 1
47.20	6.357	\mathtt{HRPl}	San Pedro Sula, Hono	duras 6-7:30am,2-4; irreg.to 10) [
47.32	6.34	$\mathtt{HIl} \mathbf{X}$	Trujillo City.D.R.	8:10-10:10pm; Sun.7:40-9:40am.	
 47.36	6.334		Chiclayo, Peru	8-11pm.	
47.39				6:55am-lam; Sun.9:55am-l0pm.	
	6.33	COCW	Havana, Cuba		
717 [7			THE CONTRACT OF THE STATE OF TH	11:40am-12:40pm;5:10-7:40pm ex	X. I
47.51	6.315	HILZ	Titalitic orogeness.		
 47.66	6.295	OAX4G	Lima, Peru	6 or 7pm to mid. (Sur	
			Lima, Peru		
 47.66	6.295	OAX4G	Lima, Peru	6 or 7pm to mid. (Sur	n

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12
   47.96
             6.255
                    CP12
                           La Paz Bolivia
                                                7-9 \text{pm}.
    48.05
             6.243
                    HILN
                           Trujillo City, D.R. 5:10-10:40pm or later.
    48.11
             6.235
                    HRD
                           La Ceiba, Honduras 8-11pm; Sun. 4-6pm.
    48.27
             6.215
                           Saigon, F. Indo-China 7:30-9:45am, 11:45pm-lam.
    48.43
             6.195
                    TG2
                           Guatemala, Guatemala 7:30-10am, 6-11:30pm, Sat 6pm-3
                                               am, Sun. 3-8pm. For IDA Sun. 2-2:30
    48.43
             6.195
                    HI2D
                           Trujillo City, D.R. 5:10-7:10pm.
    48.47
             6.l9
                    HVJ
                           Vatican City, Italy See notes.
             6.19
    48.47
                    HILA
                           Santiago, D.R.
                                                10:40am-1:40,6:40-9:40pm.
    48.54N
            6.18
                           Buenos Aires, Argen 5:30-9pm ex.Sun; Sat/Sun 7-9pm Mexico D.F., Mexico 8-llam, 2:30-4, 7:30pm-12:45am; San Jose, C.R. Noon-2:30pm, 6-llpm.
                    LRA2
    48.58
             6.175
                    XEXA
    48.66
                    TILS
             6.165
                                                Noon-2:30pm,6-11pm.
    48.78
             6.15
                    HJ4DAE Medellin, Colombia 9:30am-lpm, 5-11:30pm.
    48.815
             6.147
                    ZTD
                           Durban, So. Africa
                                                11:20am-3:45pm; Sun.11:30-3:20p
    48.81
             6.147
                    CJRO
                           Winnipeg, Canada
                                                Sat.6pm-Sun.4am.
    48.86
             6.14
                    WPIT
                           Pittsburgh, Pa.
                                                10pm-mid.
    48.86N
            6.14
                    KZEG
                           MANILA, PHILIPPINES 5-10am.
   48.86
                    OQ2AA Leopoldville, Belgian Congo Sundays 5:35-7am.
            6.14
    48.86
            6.14
                    SP48
                          Warsaw, Poland
                                               2:25-5:30pm.
   48.88
            6.138
                    COCD
                          Havana, Cuba
                                               10am-11pm; Sun.10am-9pm.
   48.88S
            6.137
                    CR7AA Lourenco, Mozambique 12-lam ex. Sun. (noon-11:15pm.
    48.93
                          Halifax, N.S., Canada 7am-11:15pm; Sat 8am-11pm; Sun
            6.132
                    CHNX
   48.93
            6.132
                    TGXA
                           Guatemala, Guatemala Heard irreg.
   48.94
            6.13
                    VP3BG Georgetown, B. Guiana 10:15-11:15am, 3:45-7:45pm ex.
   48.94
            6.13
                    LKJ
                           Jeloy,Norway
                                               Noon-6pm irreg.
   48.94N
                          MANILA, PHILIPPINES 6-9am.
            6.13
                    KZRM
   48.98
            6.125
                    MTCY
                          Hsinking, Manchoukuo 4-9am.
                                                                                 *
   49.00
            6.122
                    FK8AA Noumea, New Caledonia Wed/Sat 2:30-3:30am.
   49.00V
            6.122
                    HP5H
                          Panama City, Panama 6-10:30pm; to mid. irreg.
                                                                                 49M
   49.00
            6,12
                    W2XE
                          New York City, N.Y. 11pm-mid.
   49.04
            6.117
                          Mexico D.F., Mexico 9am-1, 7pm-2am.
                    XEUZ
                          Saigon, F. Indo-China 6-8:30am, 6:45-7:15, 11:45pm-
   49.05S
            6.116
   49.18V
                          Belgrade, Yugoslavia 12:43-3,6:30-8:30am, 12-6:30pm.
            6.10
                    YUA
   49.18
            6,10
                          New York City, N.Y. 9pm mid. to SO. America.
                    WNBI
   49.18S
            6.10
                    KZRH
                          Manila, Philippines Testing from 5 to 10am.
   49.18F
            6.10
                    ZHJ
                          Penang, S.S.
                                               6:40-8:40am ex.Sun & irreg.
   49.20
                    ZRK
            6.097
                          Capetown, So. Africa 12-4pm; Sun. 12-3:20pm.
   49.20
            6.097
                    ZRJ
                           Johannesburg, S. Afr 11:45pm-11:30am inter.ex.Sat.
   49.24
            6.093
                    HP5F
                                               7-9pm.
                          Colon, Panama
   49.25
            6.09
                    ZNS
                          Nassau, Bahamas
                                               1:30-2,6:20-10pm.
                          LUXEMBOURG, LUXEMBOURG Testing irreg. See notes.
   49.25N
            6.09
            6.09
   49.25
                    XEBF
                                               Irreg. in evenings.
                          Jalapa, Mexico
   49.30S
            6.085
                    ZAA
                          Tirana, Albania
                                               12:2Q-6pm.
   49.32
            6.083
                    VQ7LO Nairobi, Kenya
                                               5:30-6,11:15am-2:15pm;Tu/Th 815
   49.34
            6.08
                    CRY9
                          Macao, Macao
                                               Mon. 8:30-10am.
                                                                         (-9:15am
   49.34N
           6.08
                    CFKX
                          VANCOUVER, CANADA
                                               1-3am ex.Mondays.
   49.34
            6.08
                    XEQQ
                          Mexico D.F., Mexico 6-11pm.
   49.37
            6.077
                    OAX4Z Lima, Peru
                                               7am-1:30am.
   49.42
            6.07
                    CFRX
                          Toronto,Canada
                                               7am-12:30am; Sun.10am-11pm.
   49.46
            6.065
                   SBO
                          Motala, Sweden
                                               4:15-5pm.
                          Tananarive, Madagascar 12:30-12:45,10-11am, Sun. 230
   49.48
            6.063
   49.50C
            6.06
                                               Tu/Wd/F 5:30-6:15,6:30-11pm;Sat
                    WCAB
                          Philadelphia, Pa.
                                               llpm-mid; Sun.6:30-11pm.
   49.500
            6.06
                   WLWO
                          Cincinnati, Ohio
                                               Sun.8am-6:30pm; M/Th 5:40-2am
                                               Tu/Wed/Fri 5:45am-5:30pm;Sat 545 $
   49.56
            6.054
                          M/V Kanimbla
                   9MI
                                               6:45-7:30am 2 or 3 times a week
   49.63
            6.045
                   XETW
                          Tampico, Mexico
                                               7-11pm.
   49.67
                                               6:30-9pm ex.Sat/Sun; Su 1:30-6
            6.04
                   WSLR
                          Boston, Mass.
   49.67N
           6.04
                   KZIB
                          Manila, Philippines
                                               7-9am.
  49.67
           6.04
                   W4XB
                          Miami,Florida
                                               1-3, 9pm-2am; Sun. 4-6pm.
   49.73
           6.033
                          Panama City, Panama 10:30am-2, 6-10pm.
                   HP5B
  49.75
           6.03
                   CFVP
                          Calgary, Alta., Canada 10am-2am.
  49.75
                   RV96
           6.03
                          Moscow, U.S.S.R.
                                               1-3, 4-7pm.
  49.81
           6.023
                   XEUW
                          Veracruz, Mexico
                                               10pm-lam.
   49.83
           6.02
                   DJC
                          Zeesen, Germany
                                               11:30am-4:25pm to Africa.
```

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12
   47.96
             6.255
                    CP12
                           La Paz Bolivia
                                                7-9 \text{pm}.
    48.05
             6.243
                    HILN
                           Trujillo City, D.R. 5:10-10:40pm or later.
    48.11
             6.235
                    HRD
                           La Ceiba, Honduras 8-11pm; Sun. 4-6pm.
    48.27
             6.215
                           Saigon, F. Indo-China 7:30-9:45am, 11:45pm-lam.
    48.43
             6.195
                    TG2
                           Guatemala, Guatemala 7:30-10am, 6-11:30pm, Sat 6pm-3
                                               am, Sun. 3-8pm. For IDA Sun. 2-2:30
    48.43
             6.195
                    HI2D
                           Trujillo City, D.R. 5:10-7:10pm.
    48.47
             6.l9
                    HVJ
                           Vatican City, Italy See notes.
             6.19
    48.47
                    HILA
                           Santiago, D.R.
                                                10:40am-1:40,6:40-9:40pm.
    48.54N
            6.18
                           Buenos Aires, Argen 5:30-9pm ex.Sun; Sat/Sun 7-9pm Mexico D.F., Mexico 8-llam, 2:30-4, 7:30pm-12:45am; San Jose, C.R. Noon-2:30pm, 6-llpm.
                    LRA2
    48.58
             6.175
                    XEXA
    48.66
                    TILS
             6.165
                                                Noon-2:30pm,6-11pm.
    48.78
             6.15
                    HJ4DAE Medellin, Colombia 9:30am-lpm, 5-11:30pm.
    48.815
             6.147
                    ZTD
                           Durban, So. Africa
                                                11:20am-3:45pm; Sun.11:30-3:20p
    48.81
             6.147
                    CJRO
                           Winnipeg, Canada
                                                Sat.6pm-Sun.4am.
    48.86
             6.14
                    WPIT
                           Pittsburgh, Pa.
                                                10pm-mid.
    48.86N
            6.14
                    KZEG
                           MANILA, PHILIPPINES 5-10am.
   48.86
                    OQ2AA Leopoldville, Belgian Congo Sundays 5:35-7am.
            6.14
    48.86
            6.14
                    SP48
                          Warsaw, Poland
                                               2:25-5:30pm.
   48.88
            6.138
                    COCD
                          Havana, Cuba
                                               10am-11pm; Sun.10am-9pm.
   48.88S
            6.137
                    CR7AA Lourenco, Mozambique 12-lam ex. Sun. (noon-11:15pm.
    48.93
                          Halifax, N.S., Canada 7am-11:15pm; Sat 8am-11pm; Sun
            6.132
                    CHNX
   48.93
            6.132
                    TGXA
                           Guatemala, Guatemala Heard irreg.
   48.94
            6.13
                    VP3BG Georgetown, B. Guiana 10:15-11:15am, 3:45-7:45pm ex.
   48.94
            6.13
                    LKJ
                           Jeloy,Norway
                                               Noon-6pm irreg.
   48.94N
                          MANILA, PHILIPPINES 6-9am.
            6.13
                    KZRM
   48.98
            6.125
                    MTCY
                          Hsinking, Manchoukuo 4-9am.
                                                                                 *
   49.00
            6.122
                    FK8AA Noumea, New Caledonia Wed/Sat 2:30-3:30am.
   49.00V
            6.122
                    HP5H
                          Panama City, Panama 6-10:30pm; to mid. irreg.
                                                                                 49M
   49.00
            6,12
                    W2XE
                          New York City, N.Y. 11pm-mid.
   49.04
            6.117
                          Mexico D.F., Mexico 9am-1, 7pm-2am.
                    XEUZ
                          Saigon, F. Indo-China 6-8:30am, 6:45-7:15, 11:45pm-
   49.05S
            6.116
   49.18V
                          Belgrade, Yugoslavia 12:43-3,6:30-8:30am, 12-6:30pm.
            6.10
                    YUA
   49.18
            6,10
                          New York City, N.Y. 9pm mid. to SO. America.
                    WNBI
   49.18S
            6.10
                    KZRH
                          Manila, Philippines Testing from 5 to 10am.
   49.18F
            6.10
                    ZHJ
                          Penang, S.S.
                                               6:40-8:40am ex.Sun & irreg.
   49.20
                    ZRK
            6.097
                          Capetown, So. Africa 12-4pm; Sun. 12-3:20pm.
   49.20
            6.097
                    ZRJ
                           Johannesburg, S. Afr 11:45pm-11:30am inter.ex.Sat.
   49.24
            6.093
                    HP5F
                                               7-9pm.
                          Colon, Panama
   49.25
            6.09
                    ZNS
                          Nassau, Bahamas
                                               1:30-2,6:20-10pm.
                          LUXEMBOURG, LUXEMBOURG Testing irreg. See notes.
   49.25N
            6.09
            6.09
   49.25
                    XEBF
                                               Irreg. in evenings.
                          Jalapa, Mexico
   49.30S
            6.085
                    ZAA
                          Tirana, Albania
                                               12:2Q-6pm.
   49.32
            6.083
                    VQ7LO Nairobi, Kenya
                                               5:30-6,11:15am-2:15pm;Tu/Th 815
   49.34
            6.08
                    CRY9
                          Macao, Macao
                                               Mon. 8:30-10am.
                                                                         (-9:15am
   49.34N
           6.08
                    CFKX
                          VANCOUVER, CANADA
                                               1-3am ex.Mondays.
   49.34
            6.08
                    XEQQ
                          Mexico D.F., Mexico 6-11pm.
   49.37
            6.077
                    OAX4Z Lima, Peru
                                               7am-1:30am.
   49.42
            6.07
                    CFRX
                          Toronto,Canada
                                               7am-12:30am; Sun.10am-11pm.
   49.46
            6.065
                   SBO
                          Motala, Sweden
                                               4:15-5pm.
                          Tananarive, Madagascar 12:30-12:45,10-11am, Sun. 230
   49.48
            6.063
   49.50C
            6.06
                                               Tu/Wd/F 5:30-6:15,6:30-11pm;Sat
                    WCAB
                          Philadelphia, Pa.
                                               llpm-mid; Sun.6:30-11pm.
   49.500
            6.06
                   WLWO
                          Cincinnati, Ohio
                                               Sun.8am-6:30pm; M/Th 5:40-2am
                                               Tu/Wed/Fri 5:45am-5:30pm;Sat 545 $
   49.56
            6.054
                          M/V Kanimbla
                   9MI
                                               6:45-7:30am 2 or 3 times a week
   49.63
            6.045
                   XETW
                          Tampico, Mexico
                                               7-11pm.
   49.67
                                               6:30-9pm ex.Sat/Sun; Su 1:30-6
            6.04
                   WSLR
                          Boston, Mass.
   49.67N
           6.04
                   KZIB
                          Manila, Philippines
                                               7-9am.
  49.67
           6.04
                   W4XB
                          Miami,Florida
                                               1-3, 9pm-2am; Sun. 4-6pm.
   49.73
           6.033
                          Panama City, Panama 10:30am-2, 6-10pm.
                   HP5B
  49.75
           6.03
                   CFVP
                          Calgary, Alta., Canada 10am-2am.
  49.75
                   RV96
           6.03
                          Moscow, U.S.S.R.
                                               1-3, 4-7pm.
  49.81
           6.023
                   XEUW
                          Veracruz, Mexico
                                               10pm-lam.
   49.83
           6.02
                   DJC
                          Zeesen, Germany
                                               11:30am-4:25pm to Africa.
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6.01
                 PRA8
                       Pernambuco, Brazil 4-9pm.
 49.92
                       Sydney, Nova Scotia 7am-1:30,4-8:30pm.
 49.92
         6.01
                 CJCX
                                                                          (pm.
                                            6:30-10am,9-11pm;Sat 9:30-11:30
         6.007
                 XYZ
                       Rangoon, Burma
 49.94
                       Pretoria, S. Africa
                                            11:45-12:45am ex.Sat, 9:30am-330
         6.007
                 ZRH
 49.94
                                            pm; Sun.9:40am-noon,12:15-3:15p
                                            7:45am-lam; Sun.9am-11:15pm.
                 CFCX
                       Montreal, Canada
 49.94V
         6.005
                                            7-9am,12-1,6-11pm.
         6.000
 50.00V
                 HP5K
                       Colon, Panama
                       Mexico D.F., Mexico 10am-1:45am.
         6,00
                 XEBT
 50.00
         5.987
                       Port-au-Prince, Haiti 6:30-9 or 10pm.
                 HH2S
 50.11
                 VONG
                       St. John's, Newfoundland 8:30am-12:30,1:30-9:30pm.
         5.98
 50.17
                 OAX4P Huancayo, Peru
                                                                           mid
-50.21
         5.975
                                            9-11pm.
                        Guatemala, Guatemala Mon/Thurs 9-11:30pm; sat 10pm-
 50.51
         5.94
                 TG2X
         5.94
                                            Tues/Thurs/Sat/Sun 7-10pm.
                 OAX2A Trujillo, Peru
 50.51
                 HIlJ
                       San Pedro, D.R.
                                            11:40am-1:40,6:10-8:30pm.
 50.74
         5.913
                       Mafeking, Bechuanaland 1-2:30pm; 6-7am ex. Sun.
                 ZNB
         5.90
 50.85
                       Tegucigalpa, Honduras 6-11pm.
         5.875
 51.07
                 HRN
                 TIGPH San Jose, C.R.
                                            7-10 \, \text{pm}.
 51.46
         5.83
                                            10-llpm.
Noon-2, 7-llpm ex.Sundays.
         5.83
                 TIXGP3 San Jose, C.R.
 51.46
 51.50
         5.825
                 TIGPH2 San Jose, C.R.
                        Tegucigalpa, Honduras Nightly to 11pm.
         5.795
 51.77
                 HRK
                                            8-9:30pm; Sundays 2-3pm.
 52.12J
         5,755
                 YNOP
                       Managua, Nicaragua
         5.725
                                            Sundays 9-11pm.
                 HC1PM Quito, Ecuador
 52.40
                             ,U.S.S.R.
         5.72
                                            Heard mornings near 8am.
 52.45N
 55.97J
         5.36
                        Quito, Ecuador
                                            Evenings irreg.
                 HCK
         5.30
                 ZIK3
                        Belize, Brit. Honduras Tu/Th/Sa 1:30-2,8:30-9pm.
 56.60
                                            Heard early evenings.
                 YVA
 57.42
          5.225
                        Caracas, Venezuela
                                                                           -10
                                             5:30am-noon.
         5.14
                 PMY
                        Bandoeng,Java
 58.31
                                             4-11:30pm;Sun 8:30-11:30am,3:30
 59.25
          5.04
                 YV5RN Caracas, Venezuela
 59.76
         5.02
                 YV4RQ Puerto Cabello, Venez. Broadcasting nightly.
         5.01
                 YV5RM Caracas, Venezuela
                                             3:30-10pm; Sun.8am-10:30pm.
 59.88
         4.99
                 YV3RX Barquisimeto, Venez. 10am-11pm.
 60.12
                                            Signs off at 9:25pm.
         4.975
 60.31
                 YVlRJ Coro, Venezuela
         4.96
 60.48
                 VUD2
                       Delhi, India
                                             7:30am-12:30pm.
         4.96
                 YV5RS Caracas, Venezuela
                                             4:30-9:30pm or later.
 60.48
         4.95
                 YV4RO Valencia, Venezuela Noon-1, 6-10pm.
 60.61
                                             Signs at 10pm.
         4.94
                 YV5RO Caracas, Venezuela
 60.73
                 YV4RP Valencia, Venezuela 5-9:30pm.
         4.93
 60.85
                        Cartagena, Colombia 9am-1:30,7-10:15pm ex. Sunday.
 60.92
         4.924
                 HJAP
                 YV5RH Caracas, Venezuela 5-9:30pm (Sun. to 10:30pm.)
VUM2 Madras, India 6:30am-noon.
 60.98
         4.92
          4.92
 60.98
                                                                             62M
          4.915
                 HJFC
                        Pereira, Colombia
 61.04
                                             6:30-9:30pm ex.Sundays.
 61.10
          4.91
                 YV1RY Coro, Venezuela
 61.16
          4.905
                 HJAG
                        Barranquilla, Colom. llam-llpm; Sun.llam-8pm.
                                             Signs-off at 9:30pm.
 61.22
          4.90
                 YV6RT Bolivar, Venezuela
                        Bogota, Colombia
 61.29
          4.895
                 HJCH
                                             11:30am-2, 6-11pm.
                                             10:30am-1:30,4:30-10:30pm.
                 YVIRX Maracaibo, Venez.
 61.35V
          4.89
                                             8am-2, 6-11pm.
          4.885
                 _{
m HJDP}
                        Medellin, Colombia
 61.42
                                             7:30am-12:30pm.
 61.48
          4.88
                 VUB2
                        Bombay, India
                                             8-llam, 6-10pm.
          4.875
                        Armenia, Colombia
 61.54
                 HJFH
          4.87
                 YV2RN San Cristobal, Venez. 11:30am-12:30pm, 6-9pm ex.Sun
 61.60
                        Santa Marta, Colom. 5:30-10:30pm.
 61.67
          4.865
                 HJBJ
 61.73
          4.86
                 YVIRL Maracaibo, Venez.
                                             llam-lpm, 4:30-10:30pm.
                 HJCF
                                             7pm-mid. ex.Sundays.
 61.80
          4.855
                        Bogota, Colombia
                 YVlRZ Valera, Venezuela
                                             11:30am-1, 5:45-8:45pm.
 61.88
          4.85
                        Bogota, Colombia
 61.92
          4.845
                 HJCD
                                             6-11:30pm.
          4.84
                 VUC2
                        Calcutta, India
                                             6:30am-noon.
 61.98
                        Cartagena, Colombia 7am-6, 7-11pm.
Carcas, Venezuela 6:30-7:30,10:30am-1,3:30-10pm.
          4.835
                 HJAE
 62.05
          4.83
                 YV5RU Carcas, Venezuela
 62.11
                                             7-llpm ex.Sundays.
          4.825
                 HJED
                        Cali,Colombia
 62.17
                 YV3RN Barquisimeto, Venez 11:30am-1:30, 5:30-9:30pm.
 62.24
          4.82
          4.815
 62.31
                 HJBB
                        Cucuta, Colombia.
 62.38
          4,81
                 YV1RU Maracaibo, Venezuela 10:45am-12:45,4:30-10:30pm.
                                            7-10pm ex. Sundays.
 62.44
          4.805
                 HJDU
                        Medellin, Colombia
                 YVIRV Maracaibo, Venezuela 10:45am-12:40,4:30-10:30pm.
 62.50
          4.80
 62.57
          4.795
                 HJFI
                        Ibague, Colombia
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6.01
                 PRA8
                       Pernambuco, Brazil 4-9pm.
 49.92
                       Sydney, Nova Scotia 7am-1:30,4-8:30pm.
 49.92
         6.01
                 CJCX
                                                                          (pm.
                                            6:30-10am,9-11pm;Sat 9:30-11:30
         6.007
                 XYZ
                       Rangoon, Burma
 49.94
                       Pretoria, S. Africa
                                            11:45-12:45am ex.Sat, 9:30am-330
         6.007
                 ZRH
 49.94
                                            pm; Sun.9:40am-noon,12:15-3:15p
                                            7:45am-lam; Sun.9am-11:15pm.
                 CFCX
                       Montreal, Canada
 49.94V
         6.005
                                            7-9am,12-1,6-11pm.
         6.000
 50.00V
                 HP5K
                       Colon, Panama
                       Mexico D.F., Mexico 10am-1:45am.
         6,00
                 XEBT
 50.00
         5.987
                       Port-au-Prince, Haiti 6:30-9 or 10pm.
                 HH2S
 50.11
                 VONG
                       St. John's, Newfoundland 8:30am-12:30,1:30-9:30pm.
         5.98
 50.17
                 OAX4P Huancayo, Peru
                                                                           mid
-50.21
         5.975
                                            9-11pm.
                        Guatemala, Guatemala Mon/Thurs 9-11:30pm; sat 10pm-
 50.51
         5.94
                 TG2X
         5.94
                                            Tues/Thurs/Sat/Sun 7-10pm.
                 OAX2A Trujillo, Peru
 50.51
                 HIlJ
                       San Pedro, D.R.
                                            11:40am-1:40,6:10-8:30pm.
 50.74
         5.913
                       Mafeking, Bechuanaland 1-2:30pm; 6-7am ex. Sun.
                 ZNB
         5.90
 50.85
                       Tegucigalpa, Honduras 6-11pm.
         5.875
 51.07
                 HRN
                 TIGPH San Jose, C.R.
                                            7-10 \, \text{pm}.
 51.46
         5.83
                                            10-llpm.
Noon-2, 7-llpm ex.Sundays.
         5.83
                 TIXGP3 San Jose, C.R.
 51.46
 51.50
         5.825
                 TIGPH2 San Jose, C.R.
                        Tegucigalpa, Honduras Nightly to 11pm.
         5.795
 51.77
                 HRK
                                            8-9:30pm; Sundays 2-3pm.
 52.12J
         5,755
                 YNOP
                       Managua, Nicaragua
         5.725
                                            Sundays 9-11pm.
                 HC1PM Quito, Ecuador
 52.40
                             ,U.S.S.R.
         5.72
                                            Heard mornings near 8am.
 52.45N
 55.97J
         5.36
                        Quito, Ecuador
                                            Evenings irreg.
                 HCK
         5.30
                 ZIK3
                        Belize, Brit. Honduras Tu/Th/Sa 1:30-2,8:30-9pm.
 56.60
                                            Heard early evenings.
                 YVA
 57.42
          5.225
                        Caracas, Venezuela
                                                                           -10
                                             5:30am-noon.
         5.14
                 PMY
                        Bandoeng,Java
 58.31
                                             4-11:30pm;Sun 8:30-11:30am,3:30
 59.25
          5.04
                 YV5RN Caracas, Venezuela
 59.76
         5.02
                 YV4RQ Puerto Cabello, Venez. Broadcasting nightly.
         5.01
                 YV5RM Caracas, Venezuela
                                             3:30-10pm; Sun.8am-10:30pm.
 59.88
         4.99
                 YV3RX Barquisimeto, Venez. 10am-11pm.
 60.12
                                            Signs off at 9:25pm.
         4.975
 60.31
                 YVlRJ Coro, Venezuela
         4.96
 60.48
                 VUD2
                       Delhi, India
                                             7:30am-12:30pm.
         4.96
                 YV5RS Caracas, Venezuela
                                             4:30-9:30pm or later.
 60.48
         4.95
                 YV4RO Valencia, Venezuela Noon-1, 6-10pm.
 60.61
                                             Signs at 10pm.
         4.94
                 YV5RO Caracas, Venezuela
 60.73
                 YV4RP Valencia, Venezuela 5-9:30pm.
         4.93
 60.85
                        Cartagena, Colombia 9am-1:30,7-10:15pm ex. Sunday.
 60.92
         4.924
                 HJAP
                 YV5RH Caracas, Venezuela 5-9:30pm (Sun. to 10:30pm.)
VUM2 Madras, India 6:30am-noon.
 60.98
         4.92
          4.92
 60.98
                                                                             62M
          4.915
                 HJFC
                        Pereira, Colombia
 61.04
                                             6:30-9:30pm ex.Sundays.
 61.10
          4.91
                 YV1RY Coro, Venezuela
 61.16
          4.905
                 HJAG
                        Barranquilla, Colom. llam-llpm; Sun.llam-8pm.
                                             Signs-off at 9:30pm.
 61.22
          4.90
                 YV6RT Bolivar, Venezuela
                        Bogota, Colombia
 61.29
          4.895
                 HJCH
                                             11:30am-2, 6-11pm.
                                             10:30am-1:30,4:30-10:30pm.
                 YVIRX Maracaibo, Venez.
 61.35V
          4.89
                                             8am-2, 6-11pm.
          4.885
                 _{
m HJDP}
                        Medellin, Colombia
 61.42
                                             7:30am-12:30pm.
 61.48
          4.88
                 VUB2
                        Bombay, India
                                             8-llam, 6-10pm.
          4.875
                        Armenia, Colombia
 61.54
                 HJFH
          4.87
                 YV2RN San Cristobal, Venez. 11:30am-12:30pm, 6-9pm ex.Sun
 61.60
                        Santa Marta, Colom. 5:30-10:30pm.
 61.67
          4.865
                 HJBJ
 61.73
          4.86
                 YVIRL Maracaibo, Venez.
                                             llam-lpm, 4:30-10:30pm.
                 HJCF
                                             7pm-mid. ex.Sundays.
 61.80
          4.855
                        Bogota, Colombia
                 YVlRZ Valera, Venezuela
                                             11:30am-1, 5:45-8:45pm.
 61.88
          4.85
                        Bogota, Colombia
 61.92
          4.845
                 HJCD
                                             6-11:30pm.
          4.84
                 VUC2
                        Calcutta, India
                                             6:30am-noon.
 61.98
                        Cartagena, Colombia 7am-6, 7-11pm.
Carcas, Venezuela 6:30-7:30,10:30am-1,3:30-10pm.
          4.835
                 HJAE
 62.05
          4.83
                 YV5RU Carcas, Venezuela
 62.11
                                             7-llpm ex.Sundays.
          4.825
                 HJED
                        Cali,Colombia
 62.17
                 YV3RN Barquisimeto, Venez 11:30am-1:30, 5:30-9:30pm.
 62.24
          4.82
          4.815
 62.31
                 HJBB
                        Cucuta, Colombia.
 62.38
          4,81
                 YV1RU Maracaibo, Venezuela 10:45am-12:45,4:30-10:30pm.
                                            7-10pm ex. Sundays.
 62.44
          4.805
                 HJDU
                        Medellin, Colombia
                 YVIRV Maracaibo, Venezuela 10:45am-12:40,4:30-10:30pm.
 62.50
          4.80
 62.57
          4.795
                 HJFI
                        Ibague, Colombia
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International

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Ax'ers Alliance

CHARLES A. MORRISON

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Out of town members included Roger Legge, editor of Ama-Touring, Binghamton, N.Y.; Norm Kriebel, Ambler, Penna.; W.Stark, Milwaukee, Wisc.; Ev. Payette, Monroe, Mich; Jos. Voisich & H. Lueth, Detroit, Mich; Irv. Goodeve, Kalamazoo, Mich, and IDA Pres. Charles Morrison, Bloomington, Ill.

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The Mid-States Convention will be an annual event and next year we hope to have many more dx'ers from other states represented.



Leo Herz of Chicago, Chairman of the successful Mid-States IDA Convention, recently held at home of F.Grey, Downers Grove, Ill.

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SO.JERSEY (Philadelphia area):
Meetings this year will be held on
the 2nd floor of the Camden, N.J.,
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DATE: SUNDAY, SEPT. 17... PLACE: Home of Lem Cavileer, 1223 Keswick Ave., Haddon Heights, New Jer sey... SPECIAL GAMES AND RADIO ACTIVITIES are planned, eats and refreshments will be featured indicated by advance reports. On the afternoon of

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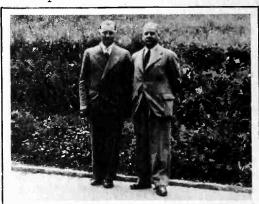
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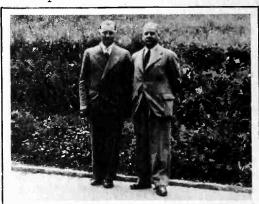
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BROADCAST STATION NEWS

KINY (1430), Juneau, has been increased in power to 1000 watts. AUSTRALIA 6TZ (1340),500w, under construction...POWER: 3AR, Melbourne, to 10 kW; 6PM to 500w, 3MA to 200w; 3GL to 500w; 2CK to 300w; 4CA, to 300w. The Govt. is considering the installation of a BCB. station here. "Radio Educadora de Natal" (REN), is constructing a powerful long BARBADOS BRAZIL wave station at Natal to serve the entire state of Rio Grande do Norte. CHINA XOJB (1400), Dah Shang Hai, Hardoon Building, Nanking Road, Shanghai, has increased power to lokw. Other powerful stations in China are: XGOA (1200), Chungking, lokw; XGOG (560), Chengtu, lokw; XGOC (1130), Nanchang, 3kw, and XGOE (1290), Nanking, lkw (Breen, Yoshimura). CHINA UBA CMCX (1470), Guanabacoa, is off the air...POWER: CMKW (770), Santiago, to lkW; CMHB (1240), Sancti Spiritus, to 200w; CMX (1260), Havana, to 10 CUBA kW; CMBL (750), Havana, to 2kW (Radio Guia*)

"RANCE" "Radio National", at Allouis, (180kC), 450kW, inaugurated on July-FRANCE FR.INDO-CHINA "Radio Saigon", Saigon, operates on 849kC; is relayed on the short-wave on 6.116 and 11.78 mcs.

GT.BRITAIN On June 14, Start Point (1050), 100kW, and Clevedon (1474), Clevedon -20kW, were officially inaugurated (Jones, BBC) The Govt. may move the present 15kW Athens xmtr. to Salonika, purchase a new 50kW xmtr. for Athens, and add a 5kW xmtr.in the Corfu district HAWAII KGMB, Honolulu, now on 590kC, with day power of 5kW (Com. Bul.) INDIA VUT (758), Trichinopoly, 5kW, was officially inaugurated on May 15.. A 5kW xmtr. will be installed in the State of Baroda... A 10kW xmtr. may be installed at Willingdon Island, Cochin, and a 5kW xmtr. at Patna...A 5kW station, frequency 730kC, has been opened near Hyderbad (Com. Bul)...VUA, Allahabad, has moved to 1465kC (ADXC, NZDXRA) New stations to be established this year: JOTG (1050, Aomori-shi, near Hirosaki, 100w; JOFP (820), Fukushima-shi, near Sendai, 100w; JOCP (570), Koriyama-shi, near Sendai, 300w; JODP (860), Onomichi, near Hiroshima, 500w; JOUG (860), Bofu-shi, near Kokura, 500w; JOVG (950), Matsuyama-shi, near Kouchi; JOAP (1000), Naha-shi, Roo Chu Island, 1000w; JOIP (700), Ouita, -shi, near Kuma moto ,500w, and one on 620kC, at Toyohara....JOBK1 (690), and JOLK (910), will increase power to 100kW each (Saito, Yoshimura). -plant (Ronecker) XENT will be off the air for a while due to explosion of power-MANCHUOKUO The following xmtrs. are operating in Manchoukuo: MTCY2 (180), 100kW, Shinkyo; MTCY1 (560), 10kW, Shinkyo; MTCY1 (575), 100w, Kinken; MTNY (615), 50w, Chamusu; MTFY (674), 3kW, Harbin; JQAK1 (760), 1kW, Dairen; MTKY (785), Enkichi, 200w; JQBK (805), 50w, Anto; MTLY (835), Chichihar, 50w; MTBY1 (890), Hoten, 1kW; MTHY (915), 50w, Shotoku; MTCY2 (955), 100w, Kinken; MTGY (1015), Botanko, 50w; MTPY1 (1025), 50w, Eiko; JQAK2 (1065), 1kW, Dairen; MTSY (1100), 100w, Kokura; MTBY2 (1250), 1kW, Hoten; MTRY (1260), 100w, Hairar; MTPY2 (1270). 50w. Eiko (Saito) (1270),50w, Eiko (Śaito) NETHERLANDS On March 1,1940,2 new xmtrs. at Jaarsvel, to be known as Hilver sum I (726), and Hilversum II (843), 120kW each, will be opened (Com. Bul.) NORWAY Stavanger is now operating on 850kC, with 100kW power (Tuff). OAX4A, Radio Nacional, Lima, operates on 854kC, daily from 11:30am to 1:30, and from 7 to 11:30pm EST (Gardner)
OLAND The power of "Polskie Radio", Warsaw 1, will be increased to 300kW. PERU FIS (616), St. Denis, has a power of 160 watts. REUNION SIAM A 100kW station is under construction at Nondaburi, near Bangkok. SPAIN Radio broadcasting is to be reorganized and the following tions will be installed: at Madrid, a 120kW; at Madrid, a 5kW; at Barcelona, a 50kW; at Saragossa, a 30kW, and at Seville, a 7kW xmtr. J.S.A. Construction permits granted: Greenville, N.C. (1500), 250w day; Ft.Lauderdale, Fla (1370), 100/250w; Plainview, Tex (1200), 100w day; Ft.Dodge Iowa (1370),100/250w; Mansfield, Ohio (1370),250w day; Brunswick, Ga. (1500), 100/250w; Victoria, Tex (1310), 100/250w; Greenville, Miss (1310), 100/250w; Cookeville, Tenn (1370), 100/250w; Herrin, Ill (1310), 100/250w; Sault Ste. Marie, Mich. (1200), 100/250w; WCNC (1370), Elizabeth, N.C., 100/250w; WKIN (1500), Kingston, N.Y.; WLBJ (1310), Bowling Green, Pa., 100/250w; WNAM, Marinette, Wis, 250w; Panama City, Fla (1200), 250w; Salem, Mass (1200), 100w; KXOX (1210), 250w day; KDRO (1500), Sedalia, Mo., 100/250w; KOVO (1210), Provo, Utah; WBOX (1370), St. Petersburg, Fla, 100/250w; WSKB (1200), McComb, Miss, 100w.

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AUSTRALIA 6TZ (1340), 500w, under construction... POWER: 3AR, Melbourne, to 10

RW; 6PM to 500w, 3MA to 200w; 3GL to 500w; 2CK to 300w; 4CA, to 300w. The Govt. is considering the installation of a BCB. station here. "Radio Educadora de Natal" (REN), is constructing a powerful long BARBADOS BRAZIL wave station at Natal to serve the entire state of Rio Grande do Norte. CHINA XOJB (1400), Dah Shang Hai, Hardoon Building, Nanking Road, Shanghai, has increased power to lokw. Other powerful stations in China are: XGOA (1200), Chungking, lokw; XGOG (560), Chengtu, lokw; XGOC (1130), Nanchang, 3kw, and XGOE (1290), Nanking, 1kw (Breen, Yoshimura). UBA CMCX (1470), Guanabacoa, is off the air...POWER: CMKW (770), Santiago, to lkW; CMHB (1240), Sancti Spiritus, to 200w; CMX (1260), Havana, to 10 CUBA kW; CMBL (750), Havana, to 2kW (Radio Guia*)

"RANCE "Radio National", at Allouis, (180kC), 450kW, inaugurated on July-FRANCE "Radio Saigon", Saigon, operates on 849kC; is relayed on the FR. INDO-CHINA short-wave on 6.116 and 11.78 mcs. GT.BRITAIN On June 14, Start Point (1050), 100kW, and Clevedon (1474), Clevedon -20kW, were officially inaugurated (Jones, BBC) The Govt. may move the present 15kW Athens xmtr. to Salonika, purchase a new 50kW xmtr. for Athens, and add a 5kW xmtr.in the Corfu district HAWAII KGMB, Honolulu, now on 590kC, with day power of 5kW (Com. Bul.) VUT (758), Trichinopoly, 5kW, was officially inaugurated on May 15.. INDIA A 5kW xmtr. will be installed in the State of Baroda... A 10kW xmtr. may be installed at Willingdon Island, Cochin, and a 5kW xmtr. at Patna... A 5kW station, frequency 730kC, has been opened near Hyderbad (Com. Bul)... VUA, Allahabad, has moved to 1465kC (ADXC, NZDXRA) New stations to be established this year: JOTG (1050, Aomori-shi, near Hirosaki, 100w; JOFP (820), Fukushima-shi, near Sendai, 100w; JOCP (570), Koriyama-shi, near Sendai, 300w; JODP (860), Onomichi, near Hiroshima, 500w; JOUG (860), Bofu-shi, near Kokura, 500w; JOVG (950), Matsuyama-shi, near Kouchi; JOAP (1000), Naha-shi, Roo Chu Island, 1000w; JOIP (700), Ouita, -shi, near Kuma moto ,500w, and one on 620kC, at Toyohara....JOBK1 (690), and JOLK (910), will increase power to 100kW each (Saito, Yoshimura). -plant (Ronecker) XENT will be off the air for a while due to explosion of power-MANCHUOKUO The following xmtrs. are operating in Manchoukuo: MTCY2 (180), 100kW, Shinkyo; MTCY1 (560), 10kW, Shinkyo; MTCY1 (575), 100w, Kinken; MTNY (615), 50w, Chamusu; MTFY (674), 3kW, Harbin; JQAK1 (760), 1kW, Dairen; MTKY (785), Enkichi, 200w; JQBK (805), 50w, Anto; MTLY (835), Chichihar, 50w; MTBY1 (890), Hoten, 1kW; MTHY (915), 50w, Shotoku; MTOY2 (955), 100w, Kinken; MTGY (1015), Botanko, 50w; MTPY1 (1025), 50w, Eiko; JQAK2 (1065), 1kW, Dairen; MTSY (1100), 100w, Kokura; MTBY2 (1250), 1kW, Hoten; MTRY (1260), 100w, Hairar; MTPY2 (1270), 50w, Eiko (Saito) (1270),50w, Eiko (Saito) NETHERLANDS On March 1,1940,2 new xmtrs. at Jaarsvel, to be known as Hilver sum I (726), and Hilversum II (843),120kW each, will be opened (Com. Bul.) Stavanger is now operating on 850kC, with 100kW power (Tuff). NORWAY OAX4A, Radio Nacional, Lima, operates on 854kC, daily from 11:30am to 1:30, and from 7 to 11:30pm EST (Gardner)

OLAND The power of "Polskie Radio", Warsaw 1, will be increased to 300kW.

EUNION FIS (616), St. Denis, has a power of 160 wats. PERU POLAND REUNION SIAM A 100kW station is under construction at Nondaburi, near Bangkok. SPAIN Radio broadcasting is to be reorganized and the following tions will be installed: at Madrid, a 120kW; at Madrid, a 5kW; at Barcelona, a 50kW; at Saragossa, a 30kW, and at Seville, a 7kW xmtr. J.S.A. Construction permits granted: Greenville, N.C. (1500), 250w day; Ft.Lauderdale, Fla (1370), 100/250w; Plainview, Tex (1200), 100w day; Ft.Dodge Iowa (1370),100/250w; Mansfield,Ohio (1370),250w day; Brunswick,Ga. (1500), 100/250w; Victoria,Tex (1310),100/250w; Greenville,Miss (1310),100/250w; Cookeville, Tenn (1370), 100/250w; Herrin, Ill (1310), 100/250w; Sault Ste. Marie, Mich. (1200), 100/250w; WCNC (1370), Elizabeth, N.C., 100/250w; WKIN (1500), Kingston, N.Y.; WLBJ (1310), Bowling Green, Pa., 100/250w; WNAM, Marinette, Wis, 250w; Panama City, Fla (1200), 250w; Salem, Mass (1200), 100w; KXOX (1210), 250w day; KDRO (1500), Sedalia, Mo., 100/250w; KOVO (1210), Provo, Utah; WBOX (1370), St. Petersburg, Fla, 100/250w; WSKB (1200), McComb, Miss, 100w.