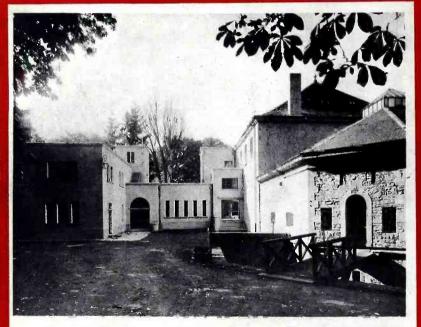


DECEMBER 1935



Studios of 200KW Long Wave Giant "Radio Luxembourg", Luxembourg.

ONE

DIME

INTERNATIONAL DX'ERS ALLIANCE

Here are Hearty Greetings For a Joyous Christmastide, And a New Year that is Happy And a Lucky one beside. *Charled Monus or*



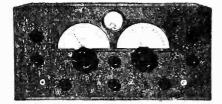
PATTERSON PR-16

Here she is — fellas! The talk of the air! Orders from all parts of the world, placed by radio enthusi-asts, are being filled! Universal confidence in the yearly advancement of the PR Models has again been expressed.

Every desire for improved all-wave reception has been anticipated by Patterson engineers. Every possible improvement over previous PR Models has been made. Every worth-while new development has been incorporated. Complete, absolutely nothing else to buy.

PR-16K Console less crystal \$125.70. Chassis also available. With crystal (PR-16CK) \$131.70.





The RME-69 Single Signal Super

A real instrument for the amateur and his communication requirements. The circuit of the RME-69 will give you the type of performance you are looking for. The set is designed to operate as well on controlled carrier as it does on steady signal.

Six band tuning Planetary-vernier dial mechanism
 Full
 electrical band spread
 Calibrated microvolt R meter tuning
 Built in monitor circuit
 Six volt tubes
 M Individual Dial
 operation
 I.f. transformer with fixed coupling.

The RME-69 Super Receiver, complete with crystal, set of tubes, Rola speaker housed in baffle. Nothing else to buy — \$134.90





THE NEW SUPER SKYRIDER

Nine metal tubes . . . DuoMicro-Vernier Band-spread . . . Iron Core IF's . . . Improved Grystal Circuit . . . Five Bands 7.4 to 550 meters . . , here-tofore unattainable sensitivity, selectivity and signal to noise ratio . . . Automatic volume control VI ave Bowel? control o noise ratio . . . A Low Boost'' control.

Acclaimed as the most popular short wave receiver of 1935, the Hallierafter's SUPER SKYRIDER left little to be desired. You can't go wrong.

SARGENT MODEL 10

A complete, self-con-tained Communication Type All-Wave Receiver.

Covers broadcast band M.C. Tuning dial calibrated in M.C. Adjustable, calibrated band spreader Coil switch for wave changing Doublet or regular antenna Supplied for any operating voltage any operating voltage.

Your cost model 10SA

15117 Cost modet 1555 15-550 meters. \$34,50 Your cost model 10MA 15-1500 meters. \$39,50

Also available in wavelength ranges from 15 to 17,000 meters.

SARGENTMODEL 20

 One stage pre-selection @ A.V.C. and Manual Volume Control 🌒 Adjustable calibrated band spreader 🌑 Coil :witching --- no plug-in coils 🛞 Fractional microvolt sensitivity 🛞 Razor edge selectivity.

Your cost model 208A 15-550 meters. \$59.50

Your cost model 20MA 15-1500 meters. \$67,50



		WORLD-W	IDE DX B		DCAST	CALEND	AR .	÷.	3
TIME	E.S.T.		KC/S	KW	LOCATI	<u>ON</u>		CLUB	
Dec. 1	Sum.	2-3am	1040	10 .	La Paz	,Bolivis	a RT	IDA&	СРЦ
	CPL . Cor	npania Radi	o Bolivi	ana .(Casilla	637, La	Paz,Bol:	Lvia.	æ.
bec. 2	Mon	1-2am	832	100	Moscow	. U. S. S. I	(. JD	TDA	_RW39
200- 2	R.Sigl:	in, All Unio	n Radio	Comm	ittee <u>,</u> P	etrovka	12, Mosc	⊃₩•	
bec. 3*	Tues.	12:45-1:15	am 545	120	<u>Budape</u>	<u>st, Hung</u>	<u>iry RT</u>		
Dec. 8	Sun.	2-3am	1250	.15	Hevana	, Cuba	AK	IDA	CMKC
	Radio I	Emisora CMK	C, Aparta	do 4	<u>66. Sant</u>	<u>iago de</u>	<u>Cuba,Cu</u>	08.	
Dec. 9*	Mon.	1:45-2:308	m 574	100	Stüttg	art,Gern	<u>nany RT</u>	<u>I DA</u>	
Dec.10*	Tues.	1:20-2:00a	m 785			g, German		IDA	
Dec.16*	Mon	1:30-2:308	m 941	12	<u>Algier</u>	s,Alger	la RT	IDA	
Dec.17	Tues.	1-2:30am	<u> 1095 </u>	10	Madrid		ER	IDA	EAJ7
Dec.17	Tues.	1:30-2:30a	m 601	25		Morocco	RT	IDA	CNR
	Directo	or of PTT,R	adio Mar	<u>oc</u> , <u>R</u>	<u>abat, Mo</u>	rocco, N.	Africa.		
Dec.18*		1-2am	<u>1195_</u>	_25_	Frankf	<u>urt, Gerr</u>	nany RT	IDA	
Dec.20	Fri.	1-2am	<u>904</u>			g, <u>Germa</u>		IDA	
Dec.20	Fri.	1:30-2:30a		10		<u>ki,Finl</u> a		IDA	A 1 111 A
Dec.22	Sun.	1-2am	1250	<u>.15</u>	Havana	, <u>Cuba</u>	AK	IDA	CMKC
Dec.22	Sun.	1:30-2:308	m 859	100	Strasb	ourg, Fra	ance RT	IDA	
	Radio 3	Strasbourg_	PTT,Stra	<u>sbou</u>	rg_ <u>#63</u> ,	Strasbou	urg, Fran	<u>ce.</u>	
Dec.23	Mon.	1:10-2:00a	<u>m 1031</u>	<u> 60 </u>	<u>Konigs</u>	berg, Ger	<u>rmany RT</u>		
Dec.24	Tues.	1:15-1:45ª	m 1140	7	Turin,		RT	IDA	ILTO
	Specia:	l Prógramín	ot on th	ie E.	I.A.R.	network.	•		
1944-200	Addres	s: E.I.A.R.	, via Ar	sena	<u>le 21,</u>	Torino,	<u>Italy.</u>		
Dec.28	Sat.	1-2:30am		7 ^{}_} _		ona, Spa:		IDA	EAJ1
Jan.26	Sun.	2-4am	1010	赱	Regina	,Sask,C	enada RJ	IDA	CHWC
خىر تەرىيە	Special	l for Austr	alia-N.Z	Z. sp	onsored	l by IDA	Regina	Jubile	9
	Chapt.	Announceme	<u>nts Spar</u>	<u>nish,</u>	<u>Japanes</u>	se.Chine	<u>se & Eng</u>	lish.	
(*-Tenta	ative)				ERIODS				
Weekly	Tues.	6:35-6:45p	m 9530	SW		etady,N			W2XAF
Weekly	Thurs.	11-11:15pm	1010	호		,Sask,C		TIPS	CKCK
Weekly	Sat.	12:30-lam	980	50	Pittsb	urgh, Pe	nn. JS	w8xk	
Weekly	Sun.	12 - 12:15	640	50		ugeles,C		TIPS	KFI
Weekly	Sun.	12:45-1am	1470_	5	Nashvi	<u>lle, Ten</u>	<u>n. CH</u>	TIPS	WLAC
FAD MEM		(RT)R. Tom]	inson (J	JD)J.	DeMyer	(ER)E.R	oberts (AK)Kir	igh orn
IDA MEMI		(ED)E.Darl	ington ((LW)L	.Westmc	preland	(JS)Jog	Stokes	3.
400 ma		(FA)Frank	Andrews	(<u>CH</u>)	Cappie_	Hadlêy	(RJ)Regi	na Jub	ilee.

NEW I. D. A. MEMBERS

Carl E.Crenshaw,Los Angeles,Calif. E.B.Williams, Mgr.of CHWC, Régina, Sask, CANADA.

Ernest Yardley,Calgary,Alta,CANADA James Matthews, Calgary, Alta, CANADA Stan Barrett, Invercargill, N. Z. R.Brown, Payncham, SOUTH AUSTRALIA. Lynn Holden,Los Angeles,California Ernest Flynn,Los Angeles,Calif. Albert Kovac, Los Angeles, Calif. Russell Du Cette,Seattle,Wash. Adam Sitter, Regina, Sask, CANADA. A.R. Johnson, Regina, Sask, CANADA. S.J.Barnetson, Calgary, Alta, CANADA. Irving R. Potts, Pres. of N. N. R. C., Newark, New Jersey. Frank Falkner,Ensley,Alabama. Orville Brown, Devil's Lake, N. D. H.L.Tanner,Romeo,Michigan. W.R.Williams,San Francisco,Calif. J.H.C.Houston, Viceroy, Sask, CANADA. J.F.Wheatley,Regina,Sask,CANADA. T.C.Steel, London W.C.2, ENGLAND. Wilfred Woods, Calgary, Alta, CANADA. St.P.Kinloch, Charleston, S. Carolina Herbert Crinklaw, Geraldine, Mont.

Kenneth Albrecht, Hartford, Conn. Wm. Dutton, Regina, Sask, CANADA. Frank J.Ritchie, Regina, Sask, CANADA Harry Hales, Regina, Sask, CANADA. S.R.Steele, Toledo, Ohio. Harold R.Blomquist; Providence, R.I. Fred Karpen, Johnstown, Pennsylvania K.L.Gouker, Nennah, Wisconsin. Joseph Lowing, Regina, Sask, CANADA. Robt.Ressler,Toledo,Ohio. Dr.Raymond Mixsell, Pasadena, Calif. Hugh Huntley, Santa Monica, Calif. Chester M. Outhouse, Tiverton, Nova-Scotia.CANADA.

APPOINTMENTS

FOREIGN REPRESENTATIVE. VENEZUELA-F.F. Anderson, Caracas. STATE MANAGERS. Conn. James Dunigan, New Britain. Floyd Hammond, Dexter. Maine Irving Goodeve,Kalamazoo. Mich. Calif. Earl DeHaven, Los Angeles, PUBLICITY (European Division) Europe, A. G. Ward, London, England. 7th Dist- J.H. Hyde, Elmwood, Conn. (N.E.7th Dist.IDA News) EDITORIAL S.W.Editor - Phil Robinson, N.S.

December 1935

Price, \$1 a year by subscription in the United States.



BLOOMINGTON, ILLINOIS, U. S. A.

Ax'ers Alliance

CHARLES A. MORRISON

VOLUME III

International Published Monthly Excepting July

EDITORIAL

CHRISTMAS with its tidings of good cheer has rolled around again We wish we could send each of you a personal message of Greetings, but inasmuch as this is not possible, we do wish to extend to each of you, the warm hand of fellowship. Best Wishes! to each of you for a pleasant Christmas, and a happy, healthy and prosperous year to come.

We are indeed grateful for your loyal support and co-operation, which has been instrumental in more than doubling our membership during the past year.

As a little Christmas gift to you, we are again presenting an enlarged Globe Circler containing many interesting features. We will appreciate your reciprocation in enlisting your friends in the IDA. What could be a better Christmas gift to a radio-interested person than a year's subscription to the Globe Circler (\$1.00 anywhere) or subscription and I.D.A. membership for \$1.25 anywhere. We WISH to enroll at least 100 members before WILL YOU HELP US? December.

ABOUT CONTESTS

We plan Broadcast and Short-Wave Contests for the near future. We plan to run these as individual District Contests and no handicaps. Prizes would go to any District having at least 20 entrants in its Contest. (Special qualifications living in isolated for those foreign countries, where our member ship is small). Instead of being dragged out for a long tiresome period, these would be short and snappy and brimful of peppy competition. At the close of the District Contests, we would plan to run an All-star International Handicap Contest, open only to winners in the District qualifying contests. These contests will be assur ed, if a sufficient number of you write us expressing your interest and willingness to enter such Contests.Any suggestions welcome.-Ed.

TOLEDO ALPHA Chapter going strong again: Met at home of capable new chairman Robt.Ludwig, November 9th. New members, Ressler and Steele were welcomed. A singletoneliminator Contest will be run by the Chapter. Next meeting will be held at home of Sydney R.Steele, on December 14th.

I.D.A. CHAPTER NEWS

<u>NEW YORK BETA</u> Chapter met Nov.9, at home of Robt.Hough,New Rochelle N.Y. DX Programs and poor reception conditions were discussed.A DX Contest is being run by the Chapt. A vote in favor of publishing the 6th Dist.bulletin again was taken. Next meeting scheduled for Nov.30, at home of Edw.Goss, of Brooklyn.

<u>LANSING DELTA</u> Chapter met at the home of Mr.H. Hughes on Nov.5th.Con versation concerned report forms, District bulletin, and poor weather conditions. Chapt. Managership will be rotated among the members.

LONDON EPSILON Chapter had its 8th meeting Sept. 24th. Rules and prizes for the Chapter's S.W. Contest were agreed upon. Members reported BCB dx'ing improving. Mr. Fred R. Glade and Mr. Homer were present, and displayed some fine photographs of Sir Malcolm Campbell's Speed races near Salt Lake City, Utah. Mr. Glade reported KSL as having S.W.Xmtr.with call KNEF.

LOS ANGELES ETA Chapter have elected Mr. Earl DeHaven, Treasurer and Mr. Louis Chavez, Secretary, of the Chapt. Local Chapt.dues of \$1 per year will be in effect so that a permanent meeting place can be rented. Many new members are being enrolled, and regular reports of Chapt. activities are featured in the California Broadcaster. L.A. Chapt. is out to make their's the largest and best IDA Chapter:

RADIO FELLOWSHIP Chapter met at the home of Mr. Ryder in Beverly Hills, and a new plan for membership was outlined, with plans for carrying the campaign on over the air discussed. DX notes from Mr.F. Andrews, and the Chapter, will be sent in to the Globe Circler each month under heading of R.F.

NO. 11

REGINA JUBILEE CHAPTER met Nov. 3rd.at the usual rendezvous. There was a large turn-out.Copies of the new N.E. IDA News, and Calgary Report forms were commented upon. А vote was taken to make REGINA Jubilee Chapter the largest IDA Chapexistence by Apr. 1st, bar (Page L.A.ETA) J. Dickenson ter in none. Chapter Contest was appointed Judge. A report on QRM elimination campaign was read. Suggestions were tendered for IDA buttons and local News bulletin.Next meeting set for Nov.17th, same place. CALGARY FOOTHILLS Chapt. meeting

<u>CALGARY FOOTHILLS</u> Chapt. meeting for October showed marked improvement in attendance. New report forms meeting with enthusiasm. Mr. A.Cook gave an interesting talk on Amsteur activity in Calgary. Motion adopted that the Chapt. send in a collective list of new stations, best catches and notes each month. QRM subject dealt with extensively and plans made for eliminating it. Members showing keen interest in the local S.W. Contest.

the local S.W. Contest. <u>CELERY CITY</u> CHAPT. (Kalamazoo, Michigan) have formally petitioned for their Chapter under the above name, with Messrs. Phillips, Saville, Jonas, Harder and Goodeve, as Charter members. A meeting was scheduled for Nov. 9th at the home of Mr. Phillips.

GLOBE TROTTERS Chapter (Los-Angeles) has been granted a Charter with eight charter members. Club address will be 1624 S.Sycamore St Los Angeles, and tentative plans and radio call for newspaper publicity. More information later. The popular 2nd Dist."CIRCLETTE" will be published again very soon. order to pay for its public-Tn ation 75¢ a year subscription will be charged. A sample copy of the first Issue free to any IDA member by writing Wm.Ellis,1624 S.Sycam ore St, Los Angeles, California.

We suggest all members write in to Mr.F.C.Butler, of RADEX, Conneaut Ohio, and express their thanks for the IDA page which Mr. James T. Spalding, 2710 Alford St., Louisville, Ky, capable IDA Publicity Dir ector has been editing. --Pres.

IDA HQ is deeply appreciative of the spirit of friendliness which the N.N.R.C. has shown in meking Pres. Charles A.Morrison an honorary member of this DX Club.We sincerely trust that the new yr. will usher in a new era of cordiality and friendliness between all Clubs

DISTRICT DOINGS

Chairman E.G.Gaunt announced the following allotment of countries for the British FAD;-Wm. Warner, Norway and Sweden; D.C. Stent, France -A.G.Ward, Finland, Latvia, Estonia, Lithuania; Craft, Germany, Italy and Switzerland; Gaunt, U.S.A., U.S.S.R. <u>Dist.l</u> (Pacific N.W.) Director Wm

<u>Dist.1</u> (Pacific N.W.)Director Wm Ansell requests the cooperation of all members in beating Dist. 7 in membership Contest, and reaching goal of 150 members by April 30th. Dist.2 has also entered this Dist. race, making it a tri-angular competition.Starting date was Sept:1. Dist. 2 (California Area). Bill

Ellis, Dist. Director, promises 30 new members for district by Xmas.

Dist. 3 (Rocky Mt.States) will engage Dixie District 5 in a membership duel.So far the districts are running neck and neck.

<u>Dist.4</u> (Central States)Robt.Weber, Director, promises a District bulletin, if sufficient support is accorded.Tentative plans are being made for a Chicago Chapter.

<u>Dist.6</u> (East Central States) Director John DeMyer wishes to person ally congratulate Pete Peters, 7th Dist. Director, on the fine new bulletin, "North East I.D.A. News". <u>Dist.7</u> (N.E. Canada and New Eng-

<u>Dist.7</u> (N.E. Canada and New England States). All members of the IDA are invited to contribute to the "North East I.D.A. News". This is a newsy, 8 to 12 page type-set DX News bulletin, containing real DX Tips and notes, as well as Disttrict news. Reserve your copy for December by sending 5% in coin now to E.L.Peters, Westport, Nova Scotia

BEST CATCHES

Dist4 Herb Diedrich, Moline, Il	٦.
	W 00
) 22 , 2 , 2 , 2 , 3 , 3 , 3 , 1	00w
Dist 6 Clement Wyborski, Philad	el-
phia, Pennsylvania.	
Cracow, Poland 17	00w
Irwin Beitman,Elyria,Oh	10.
JOIK, Sapporo, Japan 100	W 00
England, W.K. Walton, Sennon P.O.,	
YV3RC, Caracas, Venezuela 30	W 00
	50w
CMCJ, Havana, Cuba 3	50w
Dist7 E.L. Peters, Westport, N.S.	•
PRF4, Rio de Janiero, Brazil 1	OkW

EXTRA SPECIAL RADIO NEWS OFFER Radio News Subscription for Bona fide IDA members, \$1.25 per year, or \$1.75 in foreign countries. Good only to March 31,1936. Send your subscriptions to Mr.S.G.Taylor, c/o TECK PUBLICATIONS, 461-8th Ave, N.Y. Be sure and give I.D.A. number.



CORRESPONDENCE CORNER

<u>Arthur Preece</u>, 61 Lipson St, Port Adelaide, South Australia, would like to correspond with any I.D.A. members. All letters will be answered. <u>Ernest M. Niven</u>, 4 Broughton St., Dunedin, New Zealand, would like to correspond with any I.D.A. members.

New National HRO going fine. Am getting a 15-watt amplifier, and special Wright De Coster speaker to go with it (<u>Twomey-Minn</u>)... Now have my ticket and am working phone on 1960kC until wee hours each morning, using call W2IXY (<u>Mrs.Dorothy</u> Hall-NY)... Acknowledging the 270 reports I have forwarded since Jan.1935, the following Aussies will put on Thank-You Programs-Dec.26, VK3ME, 6:45-7:15am EST; Dec.29, VK2ME, 6:45-7:15am; Dec 30, VK3LR, 6:45-7:15am (<u>Amlie-Fenn.</u>)...Sun, Nov.10, IDA HQ had the pleasure of having a FB talk with Robert Irwin of Chicago (<u>Morrison-IDA HQ</u>) ...Interesting initial literature on "The Stamp Window, Ltd, has reached us from Ralph Schofield, Pres., P.O. Box 237, Geraldine, Montana. Those who are interested in buying foreign stamps should write for information... .Since the closing date of the contest, a few more veri's have come in making a total of 103 for 1934-35 season (<u>W.K.Walton-Eng</u>)... Brother Ray Stockdale, 731 Elberon Ave., Zanesville, Ohio, is very ill and will appreciate letters from any I.D.A. members (DeMyer-Mich).

<u>MEMBERS DX REFORTS</u>....TP's not as good as usual this fall. 1YA best. 3YA,2BL also heard. 7NT and 3GI heard poorly (<u>Hoxie-Maine</u>)..TP reception weak and freakish this year. 3GI by far the best. 2CO,2BL,14QG,5CK, 3LO and 1YA heard poorly (<u>Diedrich-Ill</u>)..Just received my LRR verifor report of Oct.23,1934. Best catches on BCB are 7LA,300 watts, and 3DB, 600w (<u>Westmoreland-Sask</u>)...First hour of IDA BC from 4BC heard above terrific noise level. 3GI comes thru with a great sock. 7NT heard on their new frequency of 7lOkC. 4YA heard QSA/R7 testing their new 10 kW transmitter (<u>Ansell-Sask</u>)..BCB recept. far from good. 1YA best TP here. Nov.8th,was best South American BC reception heard yet.They were coming in before 5pm EST.PRB9 (1017)heard well.LR3 was an R9 from 7-8. LR4,LR5,LR6 and LS2 also heard. 81 new S.W.reports out since Sept.1st. (<u>DeMyer-Mich</u>)..Heard an Aussie this morning on 990kC. Think it was the new 2GZ (<u>Beitman-Ohio</u>)..1YA and 3YA best TP's here. LR3,LR4,LR6,LS2, and LS4 are providing fine reception from South America (<u>Ludwig-Ohio</u>). 1YA only TP heard here. Best South American catch is HJIABM,Cartagena, Colombia, 1154kC, and only 500 watts. YVIRC is fine (<u>Dunigan-Conn</u>)..No TA's or TP's as yet. LS2 coming in. Heard them sign off at 10:30pm EST (Hough-N.Y.)..European recept. erratic. Best ones are Lyons, Faris PTT, <u>P.F.</u>, Milano, Rome,Trieste,Beri,LN,WR,LR,Athlone,Mulacher,EAJ5,Fecamp



"Carl Whitehouse Aerial" of James Dickenson, of Regina, Caneda. (to the left) Fine Listening Post, and col-

Fost, and collection of verifications, of Robert Base, of Baltimore, Md. (to the right)



and Toulouse (<u>Grant-N.S.) Only</u> a few of the new Brazilian High power stations appear to be in operation, although PRF4 is certainly using their listed power. LRL testing is elso fine. 65 reports of last season brought 58 veri's. WCAU, WTIC, WPG, WNAC, WAAB and WBT best US stations now.Best, VONF, WOR, WABC and WBZ also heard.Best SA's are PRF4, LR3,5,6,LS2. Next best LR1,2,4,8,9 and 10. LS4,8,9,LT1,3,CX26,CP4 and LV1, also being heard (<u>Stansfield</u>-England)...Europeans being heard now are Prague, Milan,Berlin, Hamburg, Radio Toulouse, Breslau,Bratislava, Konigsberg, Bari, Madona, Turin and Lille PTT; KSL, heard Oct. 19, 10: 30-11pm J.S.T.QSA3/R6. KSL is my first U.S. catch. It is best station heard here. Mystery, French speaking station being heard on approx.1380kC. Is this in Indo-China or Shanghai? New veri's, XQHC and XMHA (Saito-Japan) Mystery French station heard on 1020kC, at 2am EST. Could this be Radio Rennes? (Wyborski-Penn.)..4ZW, Dunedin, N.Z., my best catch this year (Hammond-Maine)... New French station being heard FB sometimes to 10pm EST on 1185kC. 3GI and 2GZ heard testing.1YA,2BL and 4QG being heard poorly. Fecamp, Toulouse and PP good from 5:30-7pm EST. I think the contest was well supported and the results fair and square LR4 back of WBZ and (Reichardt-Mass)...LS2 being heard back of WOAI. YVIRC, amidst heavy QRM in the evening. LR5 heard once. HHK heard once. (Swenson-Ill) ... Heard 29 South American stations on Oct. 20th, between (Swellson-111)...hoerd 27 South American stations on oct.20th, between 8:30-llpm EST.Heard LRI. What a signal. He was as good as WTAM (Birch-Mass)...My prize veri' just received. None other than PRF4, and their first report from N.A. They reprinted it in their Newspaper. Mystery S.A. being heard on 1055kC? Nov.9th, the TA's were back again. The best ones heard were Bordeaux, Rennes, P.P., Fecamp, Toulouse, Lille, Radio Cite, EAJ1, EAJ15, EAJ7 and West Regional (Peters-N.S.)... Toulouse PTT, 776kC, testing nightly 8-9:30pm EST.Radio Nice, 1185kC testing nightly 7:30-10 pm EST. Bordeaux testing frequently 8:30-10:30pm EST. Nice, 1185kC, has same program as Rennes and Bordeaux. Signs off between 6-6:30pm, with the tune, "I'm cuckoo and You're cuckoo" (words in English). When testing plays English, Spanish, French and Brazilian records. Varies speeds. Spenish and Italian stations are best heard around 6:30pm EST. French stations best heard 5-6pm EST. Rebet and Algiers best heard at about 5pm EST. British stations heard best from 6:30-7pm EST (Walsh-Newfoundland)... The new Scott 23 is fine. OKR copied for 50 mins Sat, Nov. 9th. Toulouse, 913kC, heard 8-9pm on special test, Nov.8. Fecamp, Bor-deaux and Rennes heard with good volume on the 10th, with 6 foot of wire for aeriel. On the South Americans, I have reports out to PRG3, PRB9, CX16, CX34, CX8, CE26. LR5 almost as loud as WJZ. LR3 a nightly visitor. TP's are poor. 3GI a good signal, but 1YA still best. after my first Jap (<u>Tomlińson</u>-N.Y.).

STATI	ONS IN	N FINI	JAND
(A.G.We		tish	FAD.)
Lahti	166kC	40kW	1807.2meter 696
Oulu Viipuri	431 527	10	569.3
Pori	749	1	400.5
Sortavala	749	.2	400.5
Helsinki	895	10	335•2
Tampere	1420	•7	211•3
Turku	1429	• 6	209•9
	1500	• 25	200•00
Pietarsaari	T-000	• ~)	200-00

Lahti will be testing with 220kW soon and the power of Turku & oulu will be increased next year. Vaasa is to have a new transmitter. The stations are owned and controlled by "O.Y.Suomen Yleisradio A.B.".

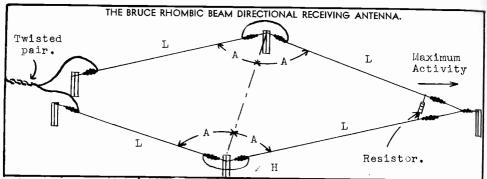
STATIONS IN ESTONIA (A.G.Ward,British FAD.) Tallin 731 10 410.4 Tartu 517.5.5 517.5 A new Long-Wave station of 60kW is planned. Times of operation are 7-1/29 and 16,15-23 E.Europe time

STATIONS IN POLAND (Clement Wyborski, Philadelphia) 223kC 536 758 120kw 224 Warsaw 559. Wilno 16 395.8 16 Katowice 795 868 16 377-4 Lwow 345.6 16 Poznan 1.7 304.3 986 Cracow 1.65 224 Lodz 1339

Emilio Defillo Remirez, of Mayaguez, Puerto Rico, has applied for a construction permit for a new station to operate with 100w,1370kC

Experimental Japanese station J2JE,590kC, 50kW, went off the air in October. No future schedule has been given.

Australian Class A Stations will become known as Perth National, Adelaide National,Adelaide Regional,etc,following the British example,instead of using Call Letters.



The Rhombic Beam Antenna is a horizontal diamond-shaped aerial. In reality it comprises two "inverted-V" aerials erected horizontally.

The Rhombic Aerial, if properly constructed, will- (1) Reduce noise and fading- (2) increase signal strength enormously on those stations within the confines of the aerial's beam.

The Aeriel has four equal sides. Each side is designated as "L" in the drawing. Each side is from one, to four wave-lengths long, depending upon the amount of space at your disposal. The height of this horizontal aeriel above the ground, or roof top, is designated as "H" in the drawing. The GAIN of this antenna is directly proportional to the length and height factors of the antenna. Theoretically, the height of the antenna should be, at least, as high in feet as the length of the highest wave-length for which it is to be used. As such high antennas are usually impossible, the length should be as great as possible for any given height (See table below). Bear in mind that the length of a side should always be one, two, three or four wave lengths long. (Any wave length can be quickly converted into feet by bearing in mind that a meter is 39.37 inches long). The greater the length, the greater the GAIN, and the more pronounced are the aerial's BEAM characteristics.

The third factor of this aerial is its "Tilt Angle". This is the angle designated as "TA" in the drawing. The Tilt Angle has nothing to do with the length or height of the aerial. This is determined by the approximate distance of your set from that country, or countries, which you wish to receive. In other words, the angle at which the reflected Short Wave signal strikes your aerial, influences this factor. The farther the station from you, naturally the more obtuse the angle; the closer the station to you, the more acute the angle. For example, those living in the vicinity of New York would set this angle at about 72° for the reception of Europe. For reception of Asia, it would be about 80°. Try different tilt angles until you get the best signal.

The front, or beam end of your aerial, should include carbon resistances as shown in the lower right hand drawing. This reduces static. It is very important that your aerial should be pointed exactly in the direction from which you wish to receive. True directions cannot be accurately determined from a flat map. By looking at a Globe, or a great Circle Map, it will be found that actual directions are deceiving If the Latitude and Longitude of a place is found, and then your aerial is pointed in that exact direction, using a compass to determine true directions, you will be about right.

Below Aerial dimensions are given for the ordinary Short-Wave bands. For further details, we refer you to articles of James S. Carver in the Aug.24 and Sept.14 issues of the "New York Sun", October-November issue of "Short Wave Listener", and October 11 issue of "World Radio".

	DIMENS.	IONS 1	FOR I	RHON	BIC	REC	CEIV	ENG	ANTI	ENNAS	A	J. B
1	Wave-le	angth]	Dime	nsi	ons	in 1	lee'	t			
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L	19.6	65	260	54	195	45	130	39	75	32		A. 100 Olema
	16.7	55	220	46	165	38	1Í0	<u>32</u>	65	27 I		
	25.5 19.6			70 54 46	ź52	59 45 38		50 39		42 32 27	(Carbon Resist A B	A = 100 Ohms B = 50 Ohms.

AROUND THE WORLD WITH THE BROADCASTERS

1. Contract 1. Con	AKOU	
		$(\underline{N \in W})$
TIDOPE	Finland	Lahti, 166kC, 220kW testing new transmitter.
FOLOIF	1 1 11 1 1 1 1 1	
		Vasa to have a new lokw transmitter by spring. Vasa to have a new lokw transmitter on 12/9kC. Will be
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1	<u>doi na n</u> y	
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	France	T
4	riando	Lyons, (La Doua) 648kC, now using 90kW.
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AGTA	India	
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	Tenen	Verschime (Hogokvokii) 1050k0.3kW Startood 0000 Source
1	Japan	
	Avetrelie	
		Gippsiand Regionar, hongroup, and a started Oct. 31st. 2GZ
LASIA		
		Bega (N.S.W.),1470kC, 100 watts testing. 2BE 2QN
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		Renmark (S.Aust), 850kC, on the air. North Regional, Clevedon, 600kC, 10kW end of Dec. 4QN
		North Regional, Clevelon, Conception, Dorth Regional, Lawrence, 700kC in Dec. 2NR Northern Rivers Regional, Lawrence, 700kC in December/LGY
		Northern Rivers Regional, Lawrence, fork in December4GY Gympie (Qsld), 1430kC, 50 watts on air in December4GY
		Gympie (Qsld), 1450kC, 50 water on sin in December JBU
ł.		
Ľ,		Armidele (N.S.W.), 1080kC, to be built in 1936 2AD
		Armidale (N.S.W.), 100kC, to be built in 1936 2LV
6		Armidale (N.S.W.), 10/000, to be built in 1936 2LV Inverell (N.S.W.), 980kC, to be built during 1936 4CA Cairns (Qsld), 1470kC, to be built during 1936 4CA
	<u>N.Z.</u>	Tegucigalpa, 1270kC, 100 watts relayed by HRN-SW. HRN Tegucigalpa, 1270kC, 100 watts relayed bours WJBR
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N.A.	<u>U.S.A</u> .	
l		Nochester (N.1.), 1210k, Head of Lakes Bdctg. Co. Virginia (Minn), 1370kC, Head of Lakes Bdctg. WELI
2		Virginia (Minn), 19 joko, nord vetts. WELI
ai 40		New Haven (Conn), 900kC, 500 watts. WELI Rochester (Minn), 1310kC, 100 watts. KROC
		Rochester (Min), 1900k, 100 kitchink KHBC
	<u>ifawaii</u>	Hilo, 1420kC, 100 watts.
		(C H A N G E S)
EUROF	E Switzer]	Land- Sottens (Suisse Romande) 677kC, now 100kW.
Longe	Germany	Heilsberg, 1031kC, using Anti-fading aerial, 100kW.
		Heilsberg, 1051ko, using Anti-feding aerial, 120kW. Leipzig, 785kC, using Anti-feding aerial, 120kW.
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1	<u>Canada</u>	Sault Ste. Marle, (ont), 100, 10, 100 Sault Ste. Marle, (ont), 100 Watts, 565 to 1210kC TGW
C.A.	Guatema	La Guatemala City, 10,000 watts, 565 to 1210kC
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SHORT WAVE NEWS

SPECIAL S.W. FEATURES ST EST Tues. Dec. 17, 8:30-9pm, YV2RC, 5. 8mc Arranged by C.A. Morrison, S.W. Editor of Radio Guide for RADIO GUIDE. Thur, Dec. 19, 8-11pm, TIRCC, 6.55mc Dedicated to the I.D.A. Address re ports to Sr. Amando Cespedes Marin. Chief Engineer of TIRCC, San Jose, Costa Rica. (FAD member Guy Bigbee)

Mon, Dec.23,9-10pm, YNGU, 9.3mc Dedicated to I.D.A. & C.D.X.R. Address reports to Matilde Haydee Official I.D.A.Relay Station, ZSIC Diaz, Radioemisora YBGU, "Alma Nica"Eric Ireland, Wynberg, Cape, S. Africa Managua, Nicaragua (FAD-Guy Bigbee).

WE URGE every S.W. I.D.A. member to send us a monthly Short-Wave report, which should arrive in this office not later than the 17th. Write legibly on One side of the paper only, double space, and please divide items into Continents. Always state time used. New stations. your changes in frequency, location or schedule are important, as are unusual receptions and tips. Suggestions for improving this dept. are welcome. M. Mickelson, of Minneapolis, Minnesota, and Edwin Hatch, Philadelphia, Penn. have been admitted into the distinguished ranks of the D.S.W. Importance of S.W. notes may be guaged by the number of STARS prefacing that item. See who can send in the most four-star (****) items.

E.S.T.

NORTH AMERICA

E.S.T. <u>Alaska</u> WXH, Ketchikan, 2.604mc, heard nightly 10:30pm phoning other Alaskans (Walcott) ** K7DVF, F.V.Barnes, Box 297, Wrangell, heard on 7 phone band almost nightly near 2am (J. Moore).

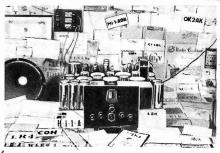
Bermuda VP90,14144kC, Gilbert Ottaway, H. M. S. 'Scarborough', c/o F. D. 0.,Bermuda, uses 40 watts of power (Murray).

<u>Canada</u> <u>CFU</u>, Rossland, B.C., gives their frequency as 5.705mc on veri. (Calgary Foothills) .. Who is <u>CJCX</u> on 5.66mc working OFU? (Hodge) .. $\overline{VE9BK}$,Radio Sales Service,2190 W.LA Av,Vancouver,L.795mc,heard contact ing CFU at 8:15pm, and broadcasting to Victoria Radio Show (Cox) * VE-905, United Church of Canada, Vancouver, B.C. 6.07mc, 23 watts power sked. is daily 6-7:30pm, Sundays 1:45pm to iam Monday (Cox-Pollard) .*. VE-9DN, Drummondville, P.Q., 2000w, Messenger Service to 'Far North', Sat-"rdsy nights llpm-Midnight. Also over CJRO, CJRX and CRCX (Clough-Calgary Foothills)

<u>Hawaii</u> K6LJB, Honolulu Amateur, 14.24mc, very loud almost nightly at 9pm (Calgary Foothills) ** <u>KKH</u>, Kahuku, 7.52mc, relays program from <u>KGU</u> to CBS every Tuesday 12:30-lam (Moore) .. <u>KIO</u>, Kahuku, 11.68mc, heard sending Hawaiian program to U. S. Oct.26,1:15-2pm (Twomey) *** New S.W. relay station of KGU will broadcast regularly on 11.85mc, and

15.23mc with a power of 2000 watts. <u>Mexico</u> XAM, Merida, 11.187mc, calls "Bueno Mexico" and puts on beat signal preparatory to contacting XDC, Mexico City, 9.4mc, every afternoon 5-7pm (L.Miller-J.Miller-Morrison) * XDA, Chapultepec, 9.375mc heard working phone 6-7pm, Nov.2 (L.Miller) ** XEVI, Mexico D.F. "Voice of the World", 5.97mc uses a turkey call as an interval signal, and of the World", 5.97mc uses a turkey call as an interval signal, and announces as 'Radio-Mex! Sked. R-12pm. Program for U.S. on Thurs A-9pm. Address P.O. Box 2874 (Shanks, Butcher, Andrews-KFI, Celgary Foothills) ** <u>XEJT</u> (Japan, Toledo) another new Mexican on approx. 27m signs off at 7:15pm daily (Stokes) ** <u>XEFT</u>, "La Voz De Veracruz, "El Primer Puerto de Mexico, Ave, Independencia 28, Veracruz, Veracruz, 6.120mc (seems to be on about 6.135mc lately) relays <u>XETF</u>, 1220kC, from llam-4pm, and 7:30pm to Midnight (Shanks, Johnson) ** <u>XEUU</u> (Or XEWU) Veracruz, relays <u>XEU</u> of Veracruz, 6.025mc, on irregularly. Sometimes use bugle cell and chimes (J. Moore-Shanks-L.A.Chept) . <u>XBJQ</u>, Mexico D.F. llmc, broedcesting ex-perimentally on irregular schedules daily with lkW (Shanks-Leul) perimentally on irregular schedules daily with lkW (Shanks-Laul)

U.S.A. WNFT, S.S. Zimaie, owned by S.W. Donogh, granted telephone license, to communicate with coastal Harbor stations on 2.126mc .. W3XK. will relay KYW, Philadelphia, shortly. W9XBS, 6.425mc now relaying WMAQ.



Tregularly with strong signal (Hodge) .. <u>KKQ</u>, Bolines, Calif; 11.95mc, relays "one Men's family", NBC to Hawaii at Spm Thurs (Cox) * <u>KER</u>, Belin es, Calif, 10.39mc, heard calling Menila at 2pm (Calgary Foothills) *** Record breaking STRATOSPHERE flight of 74,000 feet, starting 9am and record breaking Lith bound perfectly over Condols transmitten ending 5:12pm, November 11th, heard perfectly over Gondola transmitter WIOXFH, 13.05mc (Bills-Cox-DeHaven-Hodges- McMenamy-Morrison) Stratosphere Cue stations for 'Full talk circuit', were WIOXF, 6.35mc; W9XF and WXXL (Cox-Morrison) **** CHINA CLIPPER, KHAGV, owned by Pan-American Air-Lines, and first regularly scheduled Trans-Pacific Air ship will transmit on 1.638mc, 2.986mc, and main frequency of 5.165mc (Emergency frequency of R.220mc) Broadcasts will be mostly in coded C. W. groups. First flight to China should start Nov.22, 6:30pm. Ground stations are Los Angeles <u>KNBE</u>, Alameda, <u>KNBD</u>, Honolulu <u>KNBF</u>, Midway <u>KNBH</u>, Wake <u>KNBI</u>, Guam <u>KNBG</u>, Manila <u>KZBQ</u>. (Andrews-KFI) Bolinas stations, <u>KEE</u>, 7.715mc, <u>KES</u> 9. <u>LAme</u> and <u>KET</u>, 10. <u>Lime</u>, will furnish contact control service with CHINA CLIPPER. The N.B.C. transmitter, WOEH, aboard the CHINA CLIPPER may use frequency of 12.862mc (Morrison).

W.I. <u>CO9JQ</u>, 8.665mc (but generally on about 8.2mc) on daily from 7-9pm. Power 150 watts, and address Rafael Grimany, General Gomez No.4, Camaguey, Cuba. (Laul) * <u>VRR</u>, Stoney Hill, Jamaica, 11.595mc contacts <u>WNC</u>, Hialeah, Florida (Messer-Morrison) * <u>VP2CD</u>, Clement E. de Silvia, 33 <u>WNC</u>, Hialeah, Florida (Messer-Morrison) * <u>VP2CD</u>, Clement E. de Silvia, 33 Nevis St., St. Johns, Antigua, amateur with 60 watts power, heard on 20m Nevis St., St. Johns, Antigua, amateur with 60 watts power, heard on 20m band sround 9em (Petch) * <u>VP2AT</u>, A. Tibbits, Box 43, St. Johns, Antigue, on spprox.l4.lmc, heard at 7pm (J. Miller) ** <u>HIZ</u>, Santo Domingo, D.R. now on 6.31mc nightly, but irregular hours. Generally signs off at 10pm (Shanks) * <u>HILJ</u>, San Pedro de Macoris, D.R., 5.965mc, owned by Fausto M. Donastorg, Calle Anacaona Moscosco 3, P.O.Box 204, San Pedro de Macoris. Power is 40 watts. Schedule is 12:10-1:40pm, and 6:10-8:40pm daily. Sign off with "All I do is dream of You". (Shanks).

CENTRAL AMERICA <u>Costa Rice.</u> <u>TIPG</u>, owned by Perry Girton, San Jose, (6.41) broadcasts on 625, or 1000kC with 1kW, as well as SW.Sked.5:30-11pm(Shanks-Twomey) . <u>TIRCC</u>, Apartado 1064, San Jose, on deily from 6-7pm, Sat/Sun to 11pm., operates on 6.55mc with 4kW power, also on 1210kC. (Swenson) ** <u>TI4AC</u>, amateur, son of A.Cespedes Marin, writes that <u>TI4NRH</u> will soon return to the air on 9.67mc (Stokes) ** <u>TI4NRH</u>, 9.67mc, Heredia, C.R., now on every afternoon, 5:30-6:30pm, Sundays to 7pm, power 150 watts, 5 color veritcard (NZSWC) ** New station, <u>TI5HH</u>, owned by Sr.Herrera Hermanos, San Ramon, 5.5mc.heard recently (P.Tavlor) 5.5mc, heard recently (P. Taylor)

TGX, Gustemals City, heard on both 5.95 and 5.73mc. Works Guatemala.

irregularly, 6-midnight (Shanks) HRN, "Voice of Honduras", Tegucigalpa, 5.87mc, on daily from 6:30-8,8:30-lopm, and English hour Sundays, 9:30-llpm. HRN also on the broadcast band on 1450kC. (Shanks) ** HRF, Tegucigalpa, works WNC on Honduras", San Pedro Sula, (6.04) (CSWRC)

Niceragua. The new Niceraguan on approx. 8.6mc, nightly from 7-10 pm is "Ruben Dario", YNVA, but has also been called YNBA, YNDA and YN2BA (Messer-Stokes-CDXR-Morrison) CSWRC reports it is owned by ino Arguello of Managua, and uses a power of 100 watts .. <u>YNE</u>, Puerto Cabezas, heard calling <u>HRBW</u> on 6.34mc,6:1/5am,Nov.11 (Morrison) ** <u>YNGU</u> "Alma Nica", Apartado 295, Managua, broadcasts 12:45-2:15pm, 6:15-7:15pm, with a power of 30 watts (Diaz-YNGU) Frequency of YNGU is 9.3mc.

Panama. HP5B, Panama City, 6.03mc, heard Oct.17, 10:15-10:15pm with DX program (Clough) ** HP5F, "La Voz de Colon", Colon, 6.08mc, and a the air Oct.l4th; Sked.is ll:15am to sister station of HP5J went on 1:15pm, and 7 to 10:30pm (CSWRC)

SOUTH AMERICA

Argentina. The Official Relay Stations of LR1, "El Mundo", Buenos Aires will be LRX,9.58mc, and LRU,15.29mc. These stations will have a power of 5-7 tww and will start a regular schedule soon (***** IDA HQ) power of 7-(EKW and will start a regular schedule soon (New IDA HQ) ** New station LSL, 10.25mc owned by Compania Internacional de Radio, Buenos Aires was heard relaying LR1, Nov 6,4-7pm (Miller-Messer-Kosch-midder, Whitehouse) ... LSY, Buenos Aires, 18.115mc, heard calling N.Y. on Monday at 2;48pm, and sending music to WQO (J. Miller)

Brezil. PRG6, Sao Paulo, 15mc, reported testing ** PRA8, Pernam-buco, on 6.05mc, now until about 7:30 or 8:30pm irregularly (Shanks).

7:30pm. <u>KAZ</u>, Manila, 9.99mc, heard working <u>KER</u>, Bolinas, 10.39mc at 2:09pm (Calgary Chapter) <u>KAX</u>, 19.98, and <u>KAY</u>, 14.98mc, testing around A:00pm(IDA)

Siberia. RV15, Khabarovsk, L.25mc, being heard well from lipm on FST and from L-6am EST on the Atlantic coast. (Shanks-Shassetz-Sholin) ** <u>RV15</u> positively can not be verified through Inna Marr of Moscow, U.S.S. R., according to a letter written to John DeMyer, Lansing, Michigan.

AUSTRALASIA

Australia. VK2DL, experimental Amateur station, owned by Mr.W. Phelps, 14 Watkin St., Canterbury, Sydney, NSW, Schedule Mon/Wed 4-6am, on 7.4 Amc. Reports solicited. VK2IL, Ex. Amateur station, owned by R.W. Tute, 154 Paramatta Rd., Frankton Junction, NSW, on daily 5:30-6pm, and 4:15-6am on 7.5mc. Transmits music and voice. Reports solicited (*** NZSWO) * <u>VK-2RB</u>, R.A. Brown, Auburn, NSW, 20meter Ham, with 25 watts, heard (Calgary Foothills) * Record of Greetings of Radio Fellowship broadcast over <u>VK3ME</u>, Melbourne, on mail beg program Wednesday 6am (Radio Fellowship) * Sked. of <u>VK2ME</u>, Sydney, 9.59mc, for Dec.is Sun.1-3, 5-9, 9-11am. <u>D.E.I.</u> Daily schedules of the N.I.R.O.M. Govt., owned Javenese

<u>D.E.I.</u> Daily schedules of the N.I.R.O.M. Govt., owned Javenese Network are 3:45-4:45pm, 10:30pm-lam, 6am-llam.(Jackson) * <u>PLV</u>, 9.415mc open their Tues/Thur lOam trans.with a series of chimes (Calgery Foothills) * <u>PLV</u> seems to have dropped their Tues/Thur broadcast schedule temporarily, but are calling <u>KWV</u>, 10.84mc, at these hours (J.Moore) * <u>PMA</u> Bandoeng, 19:35mc, calls Amsterdam daily 9-lOam (Stokes) * <u>PMN,10.26mc</u>, and <u>PLP</u>, llmc, seem to be relaying the NIROM only on Sundays 6-llam now. (Walker-Aust.) * <u>PMY</u>, Bandoeng, 5.14mc, private station, owned by Bandoeng Radio Vereeniging, broadcasts daily 5:40pm-2:10am, 4:40-10:40am, Sat. to 12:40pm(H.Jackson) **'NEW Javanese station being heard on 9.58 or 9.59mc daily to 10am, Sat. to 11:30am. Signs off with "When you come to the end of a Perfect Day", <u>YDA</u>'s old sign-off song. This may be commercial station <u>PMH</u>, 9.58mc, or <u>YDA</u> on a new frequency, or some new station entirely (L.A.Chapt-Moore-Sholin-Shanks) .. <u>YCP</u>, is New commercial station on 8.575mc, at Balikpapan (H.Jackson)

AFRICA

Belgian Congo. OPL, Leopoldville, 20.04mc, being heard at 9:45am on Sundays (** Goodeve) *** OPM, Leopoldville, 10.143mc, absolute definite schedule 2-4:15am, and 3:45-4:15pm (African Radio Announcer) * OPM, was heard Nov.5th, 2:10-2:36am QSA/R5 working Belgium. Carrier wave on at 2:05am (Bills)

Egypt. SUZ, Cairo, 13. A3mc, heard working <u>GBB</u>, 13. 59mc, Nov. 10, 9:4Al0:10am, QSA3/R7 (Bills) * <u>SUZ</u> heard Sun.at 9:47am. Said "S-U-Zed signing" (Ballard-J.Miller) * <u>SUV</u>, Cairo, 10.055mc, heard phoning near 9am. (Calgary Foothills) Address Egyptian State Broadcasting, Radio House, Sharia Elwi, Cairo, Egypt. (Sholin) corrected frequency of <u>SUICH</u>, Amateur is 14.01mc (J.Miller)

is 14.01mc (J.M111er) <u>Ethiopia</u>. <u>VERIFICATIONS RECEIVED FROM ADDIS ABABA</u> by Mrs. Dorothy Hall, New York City, and Guy Bigbee, Ft.Benning, Georgia, give AUTHENTIC data on XMTRS: 3kW transmitter located at Akaki near Addis Ababa works as <u>ETA</u>, 18.27mc, <u>ETB</u>, 11.955mc, <u>ETD</u>, 7.62mc, <u>ETG</u>, 5.88mc. <u>ETA</u> works CW lam to 2pm, and <u>ETB</u> works CW 2-6:30pm. Telephone tests irregular, but are usually on <u>ETA</u> 12:30-1pm, on <u>ETB</u> 5-5:15pm, 5-6:30pm. Address reports to F.Hammar, Chief Engineer, P.O.Box 283, Addis Ababa. (**** D.Hall-G.Bigbee) * <u>ETA</u> and <u>ETD</u> neard (DeMyer) * <u>ETB</u> heard (Butcher, Taaffe, Kinloch, Morrison, Koschmidder, J.Miller)

Kenya. VQ7LÓ, Nairobi, 6.06mc (Actually 6.08mc) 600watts, schedule 5:45-6:15am Ex. Sat/Sun-- 11:30-2:30pm; Tues/Thur 8:30-9:30am; Sat. 11:30am-3pm; Sun.llam-2pm. (A. R. A.) VQ7LO being heard around 5:30am (Calgary Foothills)

Morocco. CNR, Rabat, 12.83mc, being heard Sundays 9:07-9:20am broadcasting, and phoning Paris. Always put tone whistle on their carrier just before speech. Also heard on Wednesday 6-7am with special broadcast of funeral of some French General (J.Miller-DeMyer)

Mozambique. <u>CR7AA</u>, Laurenco Marques, 6.135mc, putting on experimental broadcasts Saturdays, Sundays 6-10em irregularly.

South Africa: ZTJ, Johannesburg, 6.099mc, daily sked. is l1:45pm-12:30am, 3:30am-7am, 9-11:30am, 12-4pm, Sat. to 4:15pm (Afr. Radio Announcer) ** ZTJ heard 3-3:45pm (Shanks) *** ZEIJR, 14.01mc, Amateur Experimental station, owned by J.M.Davidson, P.O.Box 870, Salisbury, Southern Rhodesia on with musical program, and testing between 12-5am approx imately on Sundays (ARA) ** ZEIJR, and ZT6AC heard Atlantic coast.

SHORT-WAVE BROADCASTING STATIONS

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5	15.93	18.82	PLE	Canava	Switzerland.	Typerim	ental.		
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	16.86	17.79	GSG		rook,N.J.	9am-5pm	1 .		16
	-16.87	17.78	W3XAL	Zeesen	Germany	8-11:30	am to So.	America	1.
	- <u>16.89</u>	17.76	DJE	Bangko	k,Siam.	Works .	JVG around	1 4:30an	n.
	-16.91	17.74	HSP VWY		India.	Phones	Rugby 2-0	Jam.	
	-17.10	17.53			Germany.	Phon es	S.America	a mornin	ngs
	-17.11	17.52	DFB	Ocean,	Gate, N.J.	Works	ships.		•
	-17.51 -18.48	17.12	MDV MOO	Lawren	ceville,N.J.	Phones	Rugby da	ys.	0
	18.48	16.27	KTO	Monila	,Phillipines.	JVB 6:	30-7 pm, KW	0 (130-0	Opm
	-18.47	16.24		Seigon	,F.Indo-China	Works	Paris irr	egular 1;	у.
	18.50	16.21	FZR3 IRY	Rome,I			Asmara 5:	30-1:50	am.
	-18.61	16.12	KKP	Kehuku	,Hawaii	Phones	KWU-GMBJ	1-(pm.	
_	-18.71	16.03	FTK	St Ass	ise, France.	Works	FZR3_morn	ing.	
	-18.89	15.88		Nozeki	Japan.	Works	PLE 7:30p	m etc.	
	-19.16	15.66	JVE	Nozaki	Japan.	Works	KWU 7:30p	m irreg	
	-19.21	15.62 15.42	XMO XMO	Dixon.	California.	Phones	Kahuku, M	anila e	to.
	<u>-19.45</u>	17.42	HAS3	Budane	st, Hungary.	Sunday	9-10am.		
	- <u>19.52</u> -19.53 -19.56	15.37	KWU	Dixon	California.	Works	JVF KKP,K	TO etc.	•
	<u> </u>	15.35	DJR	Zeeser	,Germany.	Experi	mental. (-4pm.	
	19.55	15.34	NOVAT	Schen	ectady, N.Y.	2-3mm.	Sat 1-3pm	1.Sun 10):30
		15.33 15.29	LRU	BUENOS	S AIRES, ARGEN	Relay	of LR1 or	air so	on,
	19.62	15 28	DJQ		Germany.	12:30-	2:15am		
	-19.63	15.28		Wayne	New Jersey.	11am-6	nm.		
	-19.64	15.27		Daven	ry,England.	9 am-N	n irr,12	15-2pm	• 19
	<u> </u>	15.26	WIXA		n,Mass.	9:50an	n-12:30pm.	•	
	19.67	15.25 15.25	RIM	Tashk	ent,U.S.S.R.	Heard	testing I	10:30am	•
	<u>19.67</u>	15.24	113-34		ise,France.	7-llar	n to Indo-	-China	am
	-19.68	15 22	PCJ	Eindh	oven,Holland.	Wed 7.	-11a,S/Su	8:30-1	112
	-19.71	15.22 15.21			burgh, Penna.	Q om _/ 1	pm. (-11:	30am to	ູບຮ
	-19.72	15 20		Zeese	n,Germany.		7:15,8-10	:30am,10	0:3
	- 19.74	15.20 15.14		Daven	try, England.	6 8 :4'	5am, (10:	15am.	
	19.82			Vatic	an City Italy	7. 10.30.	-10:45am.	Sat 10	
	19.84	15.12		Tashk	ent, U.S.S.R.	9:30-	10:30am 1	rregula	rly
	19.85	15.10		Mosco	w.U.S.S.R.	Morni	ngs irreg	ularly.	
	19.88	15.09	*	Hiale	ah,Florida.	Works	C.A. & S	.A. Xmt	rs.
	19.92			Bocky	Point, N.Y.	Exper	imental.		
	19.95	5 15.04	· · · /	Seo P	aulo,Brazil.	Mav b	e on air	shortly	•
	20.00	15.00	KAY	Manil	a,Phillipine		with Bol	inas 8p	m 1
	20.07	14.98 3 14.92	z uta	Bogot	a,Colombia.	Works	WNC.		
	20.08	$\frac{14}{2}$ $\frac{92}{14}$	3 HJB L JVG	Nezek	i,Japan.	Works	JIA irre	gularly	` 9
	20.12		WQV		Point, N.Y.	Exper	imental.		
	20.27	7 <u>14</u> .80		Magge	ua,Eritrea.	Works	, JVH 5-78	m irreg	s
	20.3	5 4.7	IRG		Italy.	Works	s JVH 6-78	m.	
	20.3		32 IQA		Germany.	Works	3 JVH 2am	irreg,	
_	20.4	5 14.60	65 DFD	Rugh	,England.	Phone	. (-2-3pn	ı to Eur	op
>	20.4	8 14.6	53 GBL	Nozal	ri Japan.	5:20-	llpm rela	ays JOAF	٢٦,
	20.5	5 14.6	O JVH	Gonor	va,Switzerlan	d. Exper	imental.	-	
	20.6	4 4.5	35 HBJ			Works	WNC.		
_	20.6	9 4.5	O TIU		ago, C.K. ng Panama.		s WNC.		
	20.6	9 4.5	O HPF	rana)	na,Panama. emala City,Gu	at Works	S WNC.		
	20.6					Work	s JVG aron	and 4:30	Jam
	20.7	2 14.4	8 HSJ	Bang.	kok,Siam.				. '

				Street and the store
20.72	14.48	YNA	Managua, Nicaragua.	Womles MUC
20.78	14.44	GBW	Puchr England	Works WNC
			Rugby, England.	Phones U.S.A. daytime.
20.82	14.41	DIP	Zeesen,Germany.	Exp.to Africa.
20.83	14.40	нв9в	Bern,Switzerland.	Experimental, to N.A.
21,25	14.10	HJ5AB	E Cali,Colombia.	7-10pm.
21.37	14.04	ZEÌJR	Salisbury.S.Rhodesi	a Sunday 12-5am approx.
21.57	13.90	WQP	Rocky Point, N.Y.	Experimental.
21.71	13.827		Tomioi Tolno Honduno	a Wanta BNO
	17 807	0117	Tegucigalpa, Hondura	S WOLKS WING.
21.71	13.827		Cairo, Egypt.	Works GBB around 9:45am.
21.81	13.745	CGA2	Drummondville,Que.	Phone.
22.00	13.635	SPW	Warsaw,Poland.	11:30am-12:30pm irreg.
22.08	13.585	GBB	Rugby, England.	Works SUZ, and CGA2.
22.39	13.39	WMA	Lawrenceville, N.J.	Works London.
22.48	13.35	YVQ	Maracay, Venezuela.	Works WNC etc.
22.58	13.28	CGA3		Morks and edd.
			Drummondville, Que.	Works ships and England.
22.94	.13.08	VPD	Suva,Fiji's.	12:35-1:35am.Works VLK 12
23.30	12.84	W00	Ocean Gate,N.J.	Works ships days.
23.36	12.83	CNR	Rabat,Morocco.	Sunday 7:30-9,9-9:20am.
23.45	12.80	IAC	Coltano, Italy.	Works ships mornings.
23.47	12.78	GBC	Rugby, England.	Works ships. (1-2:15pm.
24.20	12,396		Parede, Portugal.	Sup $10-11.5$ C $1-2.1$ C 10
24.21	12.40	DAF		Sun 10-11:30am, T/Th/F -
	10 075		Norden, Germany.	Works ships daytime.
24.52	12.235		Reykjavik, Iceland.	Sun 1:40-2pm.GBC 6am d'ly
24.49	12.25	TYB	Paris,France.	Tues/Thur/Sat 7-8am.
25.00	12.00	RNE	Moscow, U.S.S.R.	2-6pm, Sun 6-7, 10-11am, Wed
25.02	11.99	FZS2		Works Paris mornings.
25.09	11,955	ETB	Addis Ababa Ethioni	a 5-5:15pm irregularly.
92.25.08	11.950	KKQ	Bolings Colifornia	Bolome Who (130 30
76, 20,000		wwa -	Bolinas, California.	
25.23	11.88	WOrre	Pontoise, France.	11:15a-2:15pm, 3-6pm.
10625.27	11.87	W8XK	Pittsburgh, Penna.	5-9pm.
25.29	11.86	GSE	Daventry, England.	6-8:45am,9-Noon.
25.33 <u>/</u> 25.36	11.845		Paris, France.	New Radio Coloniale_Xmtr.
7 25.36	11.83	W2XE	Wayne, New Jersey.	6-8pm. (12:30pm
25.40	11.81	2R0	Rome, Italy.	8:15-9,9:15-11am,11:30am-
25.42			Romo J Cary.	OFTOTTTAMPITTOTTAMPITTODAM
		L'HUMB		1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	11.80	DIO	Sancti Spiritus, Cuba	a irregular.
25.43	11.795	DJO	Zeesen,Germany.	Experimental.
25•43 25•45	11.795 11.79	DJO Wlxal	Zeesen,Germany. Boston,Mass	Experimental. Tu/Th*7:15pm.Sun 5pm. 25
25•43 25•45 25•51	11.795 11.79 11.77	DJO W1XAL DJD	Zeesen,Germany. Boston,Mass. Zeesen,Germany.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa.
25•43 25•45 25•51	11.795 11.79 11.77 11.77	DJO Wlxal	Zeesen,Germany. Boston,Mass. Zeesen,Germany.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa.
25•43 25•45 25•51	11.795 11.79 11.77 11.75 11.75	DJO W1XAL DJD	Zeesen,Germany. Boston,Mass. Zeesen,Germany. Daventry,England.	Experimental. Tu/Th [*] 7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm.
25.43 25.45 25.51 25.53 25.57 25.60	11.795 11.79 11.77 11.75 11.75	DJO W1XAL DJD GSD PHI	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed-
25.43 25.45 25.51 25.53 25.57 25.60	11.795 11.79 11.77 11.75 11.75 11.73 11.72	DJO W1XAL DJD GSD PHI CJRX	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am.Sun 5pm-
25.43 25.45 25.51 25.53 25.57 25.60	11.795 11.79 11.77 11.75 11.75 11.73 11.72 11.71	DJO W1XAL DJD GSD PHI CJRX	Zeesen, Germany. Boston, Mass. -Zeesen, Germany. Daventry, England. Huizen, Holland. Winn peg, Canada. Pontoise, France.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10bm.llpm-lam.
25.43 25.45 25.51 25.53 25.57 25.60	11.795 11.79 11.77 11.75 11.75 11.73 11.72 11.71 11.70	DJO W1XAL DJD GSD PHI CJRX HJ4ABA	Zeesen, Germany. Boston, Mass. -Zeesen, Germany. Daventry, England. Huizen, Holland. Winn peg, Canada. Pontoise, France. Medellin, Colombia.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10pm,11pm-lam. .6:30-10:30pm.
$ \begin{array}{c} 25.43\\ 25.51\\ 25.53\\ 25.57\\ 25.63\\ 25.63\\ 25.68\\ 2$	11.795 11.79 11.77 11.75 11.75 11.73 11.72 11.71 11.70 11.68	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winntpeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawait.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10pm,l1pm-lam. 6:30-10:30pm. Works KK0.and GMBJ.
25.43 25.545 25.55 25.57 25.57 25.60 25.63 25.65 25.65 25.87	11.795 11.79 11.77 11.75 11.75 11.73 11.72 11.71 11.70 11.68	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ.
25.43 25.51 25.51 25.57 25.60 25.63 25.65 25.68 25.68 25.68 25.68	11.795 11.79 11.77 11.75 11.75 11.72 11.71 11.68' 11.595 11.495	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR VIZ3	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ.
25.43 25.51 25.55 25.55 25.60 25.63 25.65 25.68 25.68 25.68 25.68 25.68 25.68 25.68 25.68	11.795 11.79 11.77 11.75 11.72 11.72 11.72 11.70 11.595 11.495 11.39	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR VIZ3 HBO	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental.
$ \begin{array}{c} 25.43\\ 25.51\\ 25.53\\ 25.56\\ 25.60\\ 25.60\\ 25.65\\ 25.68\\ 25.68\\ 25.68\\ 26.11\\ 26.34\\ 26.34\\ 26.80\\ \end{array} $	11.795 11.79 11.77 11.75 11.75 11.72 11.71 11.68' 11.595 11.495	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR VIZ3	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental.
$ \begin{array}{c} 25.43\\ 25.51\\ 25.53\\ 25.56\\ 25.60\\ 25.60\\ 25.65\\ 25.68\\ 25.68\\ 25.68\\ 26.11\\ 26.34\\ 26.34\\ 26.80\\ \end{array} $	11.795 11.79 11.77 11.75 11.72 11.72 11.72 11.70 11.595 11.495 11.39	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR VIZ3 HBO XAM	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill, Jamaica Fiskville, Australia Geneva, Switzerland. Merida, Yuc, Mexico.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg.
$ \begin{array}{c} 25.43\\ 25.51\\ 25.53\\ 25.57\\ 25.60\\ 25.63\\ 25.68\\ 25.68\\ 25.68\\ 25.87\\ 26.11\\ 26.34\\ 26.80\\ 26.91\\ \end{array} $	11.795 11.79 11.77 11.75 11.73 11.72 11.71 11.70 11.68 11.5955 11.495 11.39 11.39 11.187 11.15	DJO W1XAL DJD GSD PHI CJRX HJ4ABA KIO VRR VIZ3 HBO XAM CTY	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winn Ipeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill, Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10pm,11pm-lam. 6:30-10:30pm. Works KKQ,and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily.
25.43 25.51 25.53 25.57 25.60 25.63 25.68 25.68 25.87 26.11 26.80 26.91 26.91 27.27	11.795 11.79 11.77 11.75 11.73 11.72 11.71 11.70 11.68 11.5955 11.495 11.495 11.495 11.495 11.595 11.595 11.500	DJO W1XAL DJD GSD PHI CJRX HJLABJ KIO VRR VIZ3 HBO XAM/ CTY XBJQ	Zeesen, Germany. Boston, Mass. -Zeesen, Germany. Daventry, England. Huizen, Holland. Winn fpeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10pm,11pm-lam. 6:30-10:30pm. Works KKQ, and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily.
25.43 25.51 25.53 25.53 25.60 25.63 25.68 25.68 25.87 26.11 26.80 26.91 27.27 27.27	11.795 11.79 11.77 11.75 11.75 11.72 11.72 11.70 11.68 11.595 11.495 11.495 11.495 11.495 11.495 11.595 11.60 11.00	DJO W1XAL DJD GSD/ PHI CJRX HJLAB/ KIO VRR VIZ3 HBO XAM/ CTV XBJQ PLP	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winn fpeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-lam,Sun 5pm- 7-10pm,11pm-lam. 6:30-10:30pm. Works KKQ, and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p
25.43 25.51 25.53 25.53 25.60 25.63 25.68 25.68 25.87 26.11 26.80 26.91 27.27 27.27	11.795 11.79 11.77 11.75 11.75 11.72 11.72 11.70 11.68 11.595 11.495 11.495 11.495 11.495 11.495 11.595 11.60 11.00	DJO W1XAL DJD GSD PHI CJRX HJ4AB/ KIO VIR VIZ3 HBO XAM/ CTV XBJQ PIP ZIT	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneva, Switżerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.K. Bandoeng, Java. Wellington, N.Z.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg.
25.43 25.51 25.55 25.55 25.60 25.63 25.68 25.68 25.68 25.68 25.68 26.11 26.34 26.34 26.34 27.27 27.30 27.68	11.795 11.79 11.77 11.75 11.72 11.72 11.72 11.72 11.72 11.595 11.68 11.595 11.495 11.39 11.187 11.187 11.187 11.19 11.00 10.99 10.84	DJO W1XAL DJD GSD HJ CJRX HJ4AB/ KIO VRR VIZ3 HBO XAM/ CTV XBJQ PI/P ZLT KWV	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneva, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java. Wellington, N.Z. Dixon, California.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works KKQ,and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawait days irreg.
$\begin{array}{c} 25.43 \\ 25.51 \\ 25.53 \\ 25.53 \\ 25.60 \\ 25.63 \\ 25.68 \\$	11.795 11.79 11.77 11.75 11.73 11.72 11.72 11.71 11.70 11.68 11.5955 11.495 11.495 11.39 11.15 11.00 10.99 10.84 10.77	DJO W1XAL DJD GSD PHI CJRX HJ4AB/ KIO VRR VIZ3 HBO XAM/ CTV XBJQ PI/P ZLT KWV GBP-	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneva, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java. Wellington, N.Z. Dixon, Califorpia. Rugby, England.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ, and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawaii days irreg. Works-VLK 12-2am & later.
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25.43 25.53 25.55 25.55 25.60 25.63 25.65 25.68 25.87 26.34 26.34 26.89 27.27 27.27 27.27 27.68 27.68 27.88 27.93 28.12	11.795 11.79 11.77 11.75 11.73 11.72 11.72 11.71 11.70 11.68 11.5955 11.495 11.39 11.15 11.00 10.00	DJO W1XAL DJD GSD CJRX HJ4ABJ KIO VRR VIZ3 HBO XAW CTV XBJQ PIJP Z1T KWV GBP- JVM CEC	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill, Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.K. Bandoeng, Java. Wellington, N.Z. Dixon, Californta. Rugby, England. Nazaki, Japan. Santiago, Chile.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawait days irreg. Works VLK 12-2am & later. Mon/Thur 4-5pm,Fri 2-3pm. 7-8pm, Thur/Sun 8:30-9pm.
25.43 25.53 25.55 25.55 25.60 25.63 25.63 25.68 25.68 225.68 225.68 225.68 225.68 225.68 225.88 226.11 226.34 227.27 27.27 27.27 27.68 227.86 228.11	11.795 11.79 11.77 11.75 11.73 11.72 11.71 11.70 11.68 11.5955 11.495 11.39 11.5955 11.395 11.39 11.15 11.00 10.00 10	DJO W1XAL DJD GSD PHI CJRX HJ4AB4 KIO VRR VIZ3 HBO VRR VIZ3 HBO CTV XBJQ PIP ZLT KWV GBP CEC JVN	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Lisbon, Portugal. Mexico D.K. Bandoeng, Java. Wellington, N.Z. Dixon, Califorpia. Rugby, England. Nazaki, Japan. Santiago, Chile. Nazaki, Japan.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ, and GMBJ. Works KKQ, and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawaii days irreg. Works VLJ 12pm irreg. Phones Hawaii days irreg. Works VLX 12-2am & later. Mon/Thur 4-5pm,Fri 2-3pm. 12-1am, 4-7:40am,& irreg.
$\begin{array}{c} 25.43 \\ 25.45 \\ 25.51 \\ 25.57 \\ 25.57 \\ 25.60 \\ 25.63 \\ 25.68 \\ 25.68 \\ 25.68 \\ 26.11 \\ 26.34 \\ 26.34 \\ 26.91 \\ 27.27 \\ 27.68 \\ 27.86 \\ 27.86 \\ 27.86 \\ 27.86 \\ 27.86 \\ 28.14 \\ 28.28 \\ 28.14 \\ 28.28 \\$	11.795 11.79 11.77 11.75 11.72 11.72 11.72 11.72 11.70 11.68 11.59 11.495 11.39 11.187 11.58 11.00 11.00 10.99 10.84 10.77 10.66 10.61	DJO WIXAL DJD GSD PHI CJRX HJ4AB4 KIO VIR VIZ3 HBO XAW CTV XBJQ PHP ZIT KWV GBP ZIT KWV GBP ZIT KWV GBP ZIT KWV GBC	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switżerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java. Wellington, N.Z. Dixon, California. Rugby, England. Nazaki, Japan. Rocky Point, N.Y.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works KKQ,and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawait days irreg. Works VLJ 12pm fri 2-3pm. 7-8pm, Thur/Sun 8:30-9pm. 12-1am, 4-7:40am,& irreg. Experimental with Europe.
$\begin{array}{c} 25.43 \\ 25.45 \\ 25.51 \\ 25.57 \\ 25.60 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 26.11 \\ 26.34 \\ 26.34 \\ 26.34 \\ 26.34 \\ 26.34 \\ 27.27 \\ 27.30 \\ 27.88 \\ 27.86 \\ 27.93 \\ 28.12 \\ 28.12 \\ 28.12 \\ 28.28 \\ 28.48 \\$	11.795 11.79 11.77 11.75 11.72 11.72 11.72 11.72 11.70 11.595 11.495 11.495 11.495 11.495 11.495 11.495 11.68 11.59 11.187 11.59 11.68 10.68 10.68 10.64 10.54	DJO W1XAL DJD GSD PHI CJRX HJ4AB/ KIO VIZ3 HBO XAW/ CTV XBJQ ZLT KWV GBP- JVM CEC CTV XBJQ JIB	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java. Wellington, N.Z. Dixon, California. Rugby, England. Nazaki, Japan. Santiago, Chile. Nazaki, Japan. Rocky Point, N.Y. Taihoku, Taiwan.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ,and GMBJ. Works KKQ,and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawaii days irreg. Works VLK 12-2am & later. Mon/Thur 4-5pm,Fri 2-3pm. 7-8pm, Thur/Sun 8:30-9pm. 12-1am, 4-7:40am,& irreg. Works JVL 3am and 9am.
$\begin{array}{c} 25.43 \\ 25.45 \\ 25.51 \\ 25.57 \\ 25.60 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 25.68 \\ 26.11 \\ 26.34 \\ 26.34 \\ 26.34 \\ 26.34 \\ 26.34 \\ 27.27 \\ 27.30 \\ 27.88 \\ 27.86 \\ 27.93 \\ 28.12 \\ 28.12 \\ 28.12 \\ 28.28 \\ 28.48 \\$	$11.795 \\ 11.79 \\ 11.77 \\ 11.75 \\ 11.73 \\ 11.72 \\ 11.71 \\ 11.70 \\ 11.68 \\ 11.5955 \\ 11.495 \\ 11.495 \\ 11.495 \\ 11.495 \\ 11.495 \\ 11.15 \\ 11.00 \\ 10.99 \\ 10.84 \\ 10.77 \\ 10.66 \\ 10.61 \\ 10.54 \\ 10.53 \\ 10.5$	DJO W1XAL DJD GSD PHI CJRX HJ4AB/ KIO VRR VIZ3 HBO XAW/ CTV XBJQ PI/P ZLT KWV GBP JVN CEC CTV XBJQ JVN WEA JIB VLK	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D. R. Bandoeng, Java. Wellington, N.Z. Dixon, Califorpia. Rugby, England. Nazaki, Japan. Santiago, Chile. Nazaki, Japan. Rocky Point, N.Y. Taihoku, Taiwan. Sydney, Australia.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KQ,and GMBJ. Works WNC. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawait days irreg. Phones Hawait days irreg. Works-VLK 12-2am & later. Mon/Thur 4-5pm,Fri 2-3pm. 7-8pm, Thur/Sun 8:30-9pm. 12-1am, 4-7:40am,& irreg. Experimental with Europe. Works GBP 12-2am,VPD 12am
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25.43 25.53 25.55 25.55 25.60 225.63 25.68 225.68 225.68 225.68 226.11 226.34 226.34 227.27 227.27 227.68 227.27 227.68 227.86 227.86 227.93 228.14 228.28 228.14 228.28 228.14 228.76 228.76 228.76	11.795 11.79 11.77 11.75 11.73 11.72 11.72 11.70 11.68 11.595 11.495 11.39 11.39 11.39 11.39 11.00 11.00 11.00 11.00 11.595 11.39 10.87 10.66 10.543 10.39	DJO W1XAL DJD GSD PHI CJRX HJ4AB4 KIO VRR VIZ3 HBO VRR VIZ3 HBO CTV XBJQ PIP ZLT KWV GBP CTV XBJQ PIP ZLT KWV GBP CEC JVN WEA JIB VLK YEG KER	Zeesen, Germany. Boston, Mass. Zeesen, Germany. Daventry, England. Huizen, Holland. Winnipeg, Canada. Pontoise, France. A Medellin, Colombia. Kahuku, Hawaii. Stoney Hill/Jamaica Fiskville, Australia Geneya, Switzerland. Merida, Yuc, Mexico. Lisbon, Portugal. Mexico D.R. Bandoeng, Java. Wellington, N.Z. Dixon, Califorpia. Rugby, England. Nazaki, Japan. Santiago, Chile. Nazaki, Japan. Santiago, Chile. Nazaki, Japan. Rocky Point, N.Y. Taihoku, Taiwan. Sydney, Australia. Bedinas, California.	Experimental. Tu/Th*7:15pm,Sun 5pm. Noon-4:30pm for Africa. 3-5am,12:15-3:45pm. 8:30-11:30am Ex.Tu/Wed- 7-12pm,S-4pm-1am,Sun 5pm- 7-10pm,11pm-1am. 6:30-10:30pm. Works KKQ, and GMBJ. Works KKQ, and GMBJ. Works CGA4 Tues 7-8am. Experimental. Works CGA4 Tues 7-8am. Experimental. Works CGA4 Tues 7-8am. Experimental. Works XDC 5-7pm irreg. Testing 2-2:10pm daily. Testing daily irreg. Sun 6-11am,Sat 2:30-8:30p Works VLJ 12pm irreg. Phones Hawaii days irreg. Works VLJ 12pm irreg. Phones Hawaii days irreg. Mon/Thur 4-5pm,Fri 2-3pm. 7-8pm, Thur/Sun 8:30-9pm. 12-1am, 4-7:40am,& irreg. Experimental with Europe. Works JVL 3am and 9am. Works GBP 12-2am,VPD 12am Works Java 4:30am & 8:30p Works Manila days irreg.
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29.24 29.27 29.50 29.59 29.81 29.81 29.81 29.81 29.81 29.87 30.32 30.40	0.12 RIO Bakou, U.S.S.R. Calls Mosc 0.117 RIO Bakou, U.S.S.R. Calls Mosc 0.113 OPM Leopoldville, Congo 2-4:15am, 0.065 JZB Kanjoshi, Mańchukuo Works JVO 0.055 SUV Abou Zabal, Egypt GAA 3:30pm 0.012 DJJ Zeesen, Germany 2-4pm. 9.99 KAZ Manila, Phillipines Tests wit 9.89 LSN3 Buenos Aires, Argen Relays IR 9.87 WON Lawrenceville, N.J. Works GCW	evenings irreg. ow 11-12pm & irr 3:45-4:15pm. in mornings. n, DGU 4:30pm & 9am n Dixon 10-10:45a 1 evenings irreg. afternoons, pm; Sat N'n-2pm.
77 30.43 30.50 30.59	9.83 IRM Rome, Italy. Phones af	afternoons.
30.75	9.76 VLJ-VLK Sydney, Adstralla LL a 9.68 TILINRH Heredia, C.R. Sunday 5: 7.68 TILINRH Heredia, C.R. Sunday 5:	A 5-7pm.
6 31.09 31.10 31.13	9.64 CT1AA Lisbon, Portugal. Tues/Thur 9.635 2R0 Rome, Italy. 12:45-1:4 6-7.30pm	s/Sat 4:00-(pm. 5,2-5:15pm,M/W/F .T/Th/S 7:30-9pm
31.19 31.27 31.28 31.28 31.28 31.28 31.32 31.32 31.32 31.32 31.32 31.32 31.32 31.32 31.32 31.35	9.62 DGU Nauen, Germany. Phones St 9.595 HBL Geneva, Switzerland Sat 5:30- 9.59 HP5J Panama City, Panama 7-10:30pm 9.59 VK2ME Sydney, Australia. Sun 1-3,5 9.59 W3XAU Philadelphia, Penna Noon to 8 9.58 LRX BUFNOS AIRES, ARGEN Relay of 9.58 Java Hystery Xmtr. 6-10am, Sa 9.58 GSC Daventry, England. 4:15-5:44 9.58 VK3LR Melbourne, Austral. 3:15-7:33 9.57 W1XK Springfield, Mass. Sun 8:300 9.565 VUB Bombay, India. Sun 8:300 12:30-2:	V, and OSA IFFeg. -6:15pm, Mon 3:15am -9,9-11am. bpm. LR1 on air soon. at to 11:30am-PMH? 5, 6-8, 10-11pm. 31 Dam Ex.Sunday. Sun 7am-12pm.(30a -10:30am, W, T, S 11: 15am.8-11:30am,
31.38 31.45 31.48 <i>48</i> 31.48 31.51 31.51 31.54 31.55	9.56 DJA Zeesen, Germany. 9.54 DJN Zeesen, Germany. 9.54 DJN Zeesen, Germany. 9.53 LKJI Jeloy, Norway. 9.53 W2XAF Schenectady, N.Y. 9.52 OXY Skamlebak, Denmark. 9.518 VK3ME Melbourne, Austral. 9.51 GSB Daventry, England. 9.51 Market Schenectady, N.Y. 9.52 OXY Skamlebak, Denmark. 9.51 GSB Daventry, England. 9.51 Market Schenectady, N.Y. 9.52 OXY Skamlebak, Denmark. 9.51 Market Schenectady, N.Y. 9.51 Market Schenectady, N	m.(30am,5-10:45pm. 15,3:45-7:15,8-11: lam-6pm.(12pm. a 1-12pm,Sun 4:15- , also heard 2pm. cept Sunday. m-Noon,12:15-4pm,
31.58 31.65 31.68 31.70	9.48 KET Bolinas, California Experime 9.47 WET Rocky Point, N.Y. Experime 9.46 ICK Tripoli, Tripolitania works	ntal
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	9.45 TGLX Guatemala, Guatemala, 9.43 COCH Havana, Cuba. 10am-N'N 9.43 COCH Havana, Cuba. 10am-N'N 9.415 PLV Bandoeng, Java. Tues/Thu 9.40 XDC Mexico D.F. Works X 9.30 YNGU Managua, Nicaragua. 12:45-2 9.28 GCB Rugby, England. Phones 1 9.17 WNA Lawrenceville, N.J. Phones 1 9.15 YVR Maracay, Venezuela. Relays 1 9.15 HAT4 Budapest, Hungary. Sunday 9.05 TFK Reykjavik, Iceland. Phones 9.02 GCS Rugby, England. Phones 9.01 KEJ Bolinas, California Tests w 8.90 WVD Seattle, Washington Calls W 8.40 HKV Bogota, Colombia. Thur/Tu 8.77 PNI Macassar, Celebes. Phones 8.75 ZBW Hong Kong, China. 11:30pm 8.63 HC2CW Guayaquil, Ecuador. 8-11pm.	V2RC Sat G=C:90pm. 6-7pm. 5. Eritain daily. U.S. evenings. ith KKH,Kahuku. Eng.early mornings. XY,WXE near llpm. es/Sat 8-10pm irreg Bandoeng 4-5am. -1:15am,4-10am.

38.31 38.46 38.86 7.83 HC2JSB Guayaquil, Ecuador. 7:20-11:20pm except Sunday 7.80 HBP Geneva, Switzerland Sat 5:30-6:15pm & irreg. 7.715 KEE Bolinas, California Phones Kahuku evenings. 39.28 ZHJ Penang, F.M.S. 7-9am except Sunday. 7.62 39 •37 39 •42 39 •70 Addis Ababa, Ethiopia tests 5-5:30pm irregular ETD 7.61 KWX. Phones Kahuku nights. Dixon, California. 7.56 EA8AB Tenerife, Canarias 7.52 39.87 KKH Kahuku, Hawaii. Works KWX evenings. (Europe 39.92 JVP Nazaki, Japan. Mon/Thur 4-5pm and works-40.00 VK2IL Frankton Junct, Aust. 5:30-6pm, and 4:15-6am. Canterbury, NSW, Aust. Mon/Wed 4-6am. Bogota, Colombia. 7-11pm Ex.Sun (1kW soon) 40.11 VK2DL 40.54 40.54 40.60 HJ3ABD Bogota,Colombia. WEM Rocky Point,N.Y. Works Rugby. Wellington, N.Z. ZLT Phones Sydney. 40.65 41.21 XECR Mexico, D.F. Sunday 6-7pm. HJ1ABD Cartagena, Colombia 7:30-9:30pm except Sunday. 41.80 CR6AA Lobito, Angola, Afr. 2:45-4:45pm. HJ5ABG Cali, Colombia. Will be on air shortly. 42.08 PZH Paramaribo, D. Guiana until 5pm on Mondays. 7.12 42.16 Mon/Thur/Fri 3-5pm. HB9B Bern, Switzerland. 42.25 HKE Bogota,Colombia. Tues/Sat 8-9pm. 7.08 VP3MR VP5MK Georgetown, B. Guiana Mon/Wed/Sat 6:45-7:45pm. 42.74 42.74 43.23 44.03 44.12 44.12 Kingston, Jamaica. Saturday 5-5:30pm. Caulfield, Austral. Sundays 12:30-2am. 7.00 VK3 6.935 WEB 6.81 HIH VK3ZX Rocky Point, N.Y. Works Paris. San Pedro, D.R. 6:30-12pm irr;Sun 3-4:30am 6.80 HCETC 8:30-10:30pm. 4-7:40am. Quito, Ecuador. 6.75 JVT 6.725 WQO Nazaki, Japan. Rocky Point, N.Y. 44.57 44.71 Experimental. 6.62 PRAI TIEP 7-12pm except Sunday. San Jose, C.R. <u>44.96</u> Maracay, Venezuela Sat 8-9pm & irrleg.(11:15pm Guayaquil, Ecuador. Sun 5:45-7:45, Tu 9:20-El Riobamba, Ecuador 9:20-11:40pm Thursday. HC2RL PRADO 6.62 PRADU EL RIODAMDA, LOUE
6.59 HI4D Santo Domingo, D.
6.55 TIRCC San Jose, C.R.
6.52 YV6RV Valencia, Venezue
6.49 HJ5ABD Cali, Colombia.
6.451 HJ4ABC Ibague, Colombia.
6.444 HJ1ABB Barranquilla, Col
6.425 W9XBS Chicago, Illinois
6.425 VE9AS Fredericton, N.B:
6.425 W3XD Boundbrook, N.J. Santo Domingo, D.R. 4:40-7:40pm_except Sunday. 6-7pm; Sun/Thur 6-10pm. 97 Valencia, Venezuela 4:40-9:30pm. Cali, Colombia. 7-10pm Ex.Sunday. HJ4ABC Ibague, Colombia. 7-10pm. HJ1ABE Barranquilla, Colom 6-10pm Ex. Sun; Sat to 12pm. 117 Chicago, Illinois. Relays WMAQ irregularly. Thur 10:30pm-1:30am & irr 6.425 W3XL 6.41 / TIPG 46.69 Boundbrook, N.J. Ex.Cue station for N.B.C. 105 46.80 TIPG' San Jose, C.R. 5:30-11pm. 6.37 6.33 6.31 6.23 47.06 11-1:30pm,5-10pm Ex.Sunday YV4RC Caracas, Venezuela. YVIAC Caracas, Venezuela On the air shortly. HIZ Santo Domingo, D.R. 5-6pm, and sometimes to 10p OAX4G Lima, Peru. 9-11pm; 9-12pm on Saturday 47.39 47.50 6.22 HJ2ABA Tunja, Colombia. 8-10pm. 6.198 CT1GO 48.40 7:20-8:30pm;Sun 11:30am-1p Parede, Portugal. 48.50 48.62 6**.1**9 6**.**17 HILA Santo Domingo, D.R. 6:40-9:40pm except Sunday. HJ3ABF Bogota, Colombia. 7-11pm except Sunday. 48.70 48.78 48.78 6.16? Colombo, Ceylon. 7:30-9:30am irregularly 6.15 YV3RC Caracas,Venezu 6.15 CSL Lisbon,Portuga 6.15 C09GC Santiago,Cuba. 6.145 HJ5ABC Cali,Colombia. Caracas, Venezuela. Lisbon, Portugal. 48.78 48.82 48.83 6.144 CJRO Winnipeg, Canada. 48.86 6.140 W8XK Pittsburg, Penna. 9pm-lam. 48.90 48.90 48.90 48.94 48.94 48.94 6.135 HJIABH Cienaga, Colombia. 6.135 CR7AA Laurenco, Mozambiq 6.13 ZGE Kuala Lumpur, FMS 6.13 COCD Havana, Cuba. Heard 10-11:30pm. Laurenco, Mozambique Sat/Sun 6-10am irreg. Kuala Lumpur, FMS Sun/Tues/Fri 6:40-8:40am. Havana, Cuba. 6-12pm. Guatemala, Guat. 6-12pm irreg (New Freq.) Bulawayo, S. Rhodesia Tues/Fri 1:15-3:15pm. 6.13 TGX 49.02 87 49.02 ZEB 6.12 W2XE Wayne, New Jersey. 6-11pm. 49.02 49.02 Vera Cruz, Mexico. llam-4pm, 7pm-12pm. /.Alor Star, Kedah, FMS reported on the air.(-pm. 6.12 XEFT 6.12 ZGR 6.117 HJLABE Cartagena, Colombia 7-9pm, Monday DX 11:10-1210 49.05

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10 10 10 6 11	wal upp Mental an Colombia	Tues/Fri 8-10pm & irreg.
49.10 0.11	HJ4ABB-Manizales, Colombia	2:15-4,4:15-5:45,10-11pm
49.10- 6.11	GSL Daventry, England.	M.8:05-9:05a;Wd 10:35am
49.10 6.11	VUC Calcutta, India.	M.0.05-9.05a, wu 10.5 Jam
49.18 6.10	W3XAL Boundbrook, N.J.	Mon/Wed/Sat 6pm-lam
7049.18 6.10	W9XF Chicago, Illinois.	Sun/Tues/Thur/Fri 9pm-2am
<u> </u>	ZTJ Johannesburg, S.Afr	11:45pm-12:30am,3:30-7,9-
4/0=0 0000000000000000000000000000000000		11:30am, N'n-4pm, Sa to 445
94 49.26 6.09	CRCX Bowmanville, Ont	5:30-11:30pm, Sun 1-9pm.
49.31 6.083	VQ7LO Nairobi,Kenya,Afr	5:45-6:15am Ex.Sat, Sun etc
49.34 6.08	HP5F Colon, Panama.	11:45am-1:15pm,7-10:30pm.
<u> </u>	HJ4ABC Pereira, Colombia.	Heard around 9-9:30pm.
<u> </u>		8-9:30pm.
49.34 6.08		Sun llam-9pm.
4934 6.08	W9XAA Chicago, Illinois.	9am-5pm, Sat 9am-6pm.
<u> </u>	OER2 Vienna, Austria.	
<u> </u>	HJN Bogota, Colombia.	6-9:30pm
19.42 6.07	VE9CS Vancouver, B.C. (2w)	6-7:30pm, Sun 1:45pm-lam.
49.46 6.065	HJ4ABH Manizales, Colombia	a 6-7:45pm.
<u>49.50</u> 6.06	HJ4ABD Medellin,Colombia.	7:30-llpm irreg.
<u> </u>	OXY Skamlabeck, Denmark	1-7pm, Sun llam-7pm.
103 49.50 6.06	W3XAU Philadelphia, Penna	9-11pm.(8pm,Sat 11pm-3amSu
49.50 6.06	W8XAL Cincinnati, Ohio.	6:30am-8pm,11pm-2am,Sun 8-
49.50 6.06	HJ4ABL Manizales, Colombia	a 7-10pm.
<u>706</u> 49.59 6.05	GSA Daventry, England.	6-8pm.
19.60 6.048	PRA8 Pernambuco, Brazil.	3-7:30.or 8pm irreg.
49.67 6.04	HRP1 San Pedro Sula, Hor	
49.67 6.04		Sun 5-7pm,Tu/Th 7:30-9:30p
70949.67 6.04		N'n-2pm, 5:30-12pm.
49.67 6.04	W4XB Miami,Florida.	
49.67 6.04	HJIABG Barranquilla, Color	
49.(5 6.03	HP5B Panama City, Panama	a 7-10:30pm.(pm.
49.75 6.03	VE9CA Calgary, Alta, Can.	9am-12pm, Th-2am, Sun N'n-12
49.78 6.025	XEUW Vera Cruz, Mexico.	7-12pm relaying XEU.
19.83 5.02	CQN Macao, China.	Mon/Fri 3-5am.
115 49.83 6.02	DJC Zeesen, Germany.	N'n-4:30pm, 5-10:45pm.
49.88 6.015	HJJABH Bogota, Colombia.	4-11, Sun 4-9pm. (pm-12:15am
118 49.92 6.01	COCO Havana, Cuba.	9:30am-1pm,4-7pm,Sat 11:30
49.90 6.01	ZHI Singapore, S.S.	Mon/Wed/Thur 6-8:30a,Sat
4/•/•		10:40pm-12:10am.
49.95 6.005	VE9DN Drummondville,Que	
49.95 6.005	HJIABJ Santa Marta, Colom	• 7-9pm.
		10am-1:15am next day.
50.00 6.00	XEBT Mexico, D.F.	sia Tues/Fri 1:15-3:15pm.
	ZEC Salisbury, S. Rhode	Sia iues/fii i.i./-y.i./pm.
50.00 6.00		1.Testing near midnight.
50.04 5.995	Tananarive, Madaga	scar 3-3:45am, Sun 2:30-4am.
50.04 5.995	WXE Anchorage, Alaska.	
50.1 5.90	HJ2ABD Bucaramanga,Colom	• 7:30-9:30pm irr.Hams 11pm-
50.17 5.98	HIX Santo Domingo, D.R	. Tues/Fri 8:10-10:10pm.
50.25 5.97	XEVI Mexico D.F.	8-12pm.
	TG2X Guatemala, Guatema	1.4-10:30pm.
26 50 59 5.93	HJ4ABE Medellin,Colombia	
26 50.59 5.93 50.93 5.89 51.02 5.88 51.11 5.87	JIC Taihoku, Taiwan.	Works JVV around 8:15am.
51.02 5.88	YV8RB Barquisimeto, Vene	z 5:30-9:30pm.(9:45-11pm.
51.11 5.87	HRN Tegucigalpa, Hondu	ras 6:30-8,8:30-10pm, Sun-
51.11 5.87	HJ2ABC Cucuta,Colombia.	6:30-9pm except Sunday.
	HILJ San Pedro, D.R.	12:10-1:40pm, 6:10-8:40pm.
<u>51.15</u> 5.865 <u>51.28</u> 5.85	WOP Townersoutille N T	
51.28 5.85	WOB Lawrenceville, N.J	
779 51.28 5.85	YV5RMO Maracaibo, Venez.	5:15-10pm except Sundays.
51.37 5.84	HCK Quito, Ecuador.	Evenings irregular.
36 51.46 5.83	TIGPH San Jose, C.R.	7-10pm except Sundays.
51.46 5.83		o Works JVU Tokyo
60 51.72 5.80	YV2RC Caracas, Venezuela	• 5:15-9:30pm.
51.81 5.79	JVU Nazaki,Japan. /	Works JZC (12pm.
51.90 5.78-	OAX4D Lima,Peru.	Wed/Sat 9-11:30pm, Sat to -
	JVV Nazaki, Japan.	Works JIC around 9am.
80 52.45 5.72	YV10RSC Tachira, Venezuel	a 5:30-12pm irreg.
52.58 5.705	CFU /Rossland,B.C.	Works CFO, VE9BK, CJCX etc.
80 52.45 5.72 52.58 5.705 54.55 5.50 55.22 4.60		8-10:30pm irreg (CSWRC)
	TI5HH / San Ramon, C.R.	Wed/Sat/9:30-10. John
55.22 4.60	HC2ET Guayaquil, Ecuador	. Wed/Sat/9:30-10:45pm.
70.65 4.25		. Wed/Sat/9:30-10:45pm.





PATTERSON SCORES AGAIN ···

L. A. Radio Operators Hear 'Strato' Fliers From Sky

It was a Patterson PR-10 that succeeded in receiving signals from the Stratos-phere balloon piloted by Commander Settle in Nov, 1933 after other operators had com pletely lost the contact.

It was the NEW PATTERSON PR-16 that succeeded in receiving the entire transmissions from WlOXFH tiny 8 watt transmit ter aboard "Explorer II" as it climbed to a New Record altitude of 74,000 feet on of 74,000 feet on November 11th, 1935.

This remarkable reception was achieved at the Reception Post of I.D.A. Member Walter McMenamy, (DX Radio Sales Co.), of Los Angeles, California. The "Los Angeles Evening Herald and Ex-

The "Los Angeles Eventue prominence to press" in giving feature prominence to prominence to in particularly clear at McMenamy's Post Conversations between Stevens, and Ander son in the Gondola could be heard even when they were talking in an under-tone and not directly into the microphone.

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> > WRITE ADDRESS BELOW FOR PARTICULARS.





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