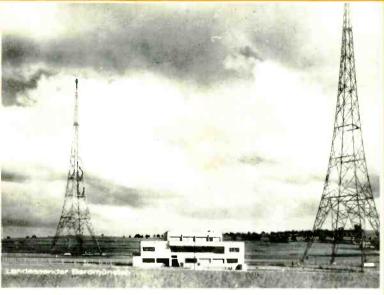


FEBRUARY -1937



100 Kilowatt Broadcaster—Radio Beromunster, Beromunster, Switzerland.

INTERNATIONAL DX'ERS ALLIANCE

AUSTRALASIAN EDITION

Our Midnight Marauders With Our Australian Members Australia-N. Z. Station List

History of the GRDXA-IDA Accurate Short-Wave List World Short-Wave Notes

The small BCP stations in the D. R. and Venezuela constitute CALL KC/S PWR LOCATION
HIX 800 1000 The control of excellent dx goals for BCB dx'ers. 1000 Trujillo City. HILV 850 25 San Francisco de-Trujillo City. HIG 900 ЬΟ HI1J 930 Lo San Francisco de-Macoria. Trujillo City. HITD 1010 50 Trujillo City. HIT 1050 100 HIL 1111 20 Trujillo City. HILM 1150 20 Trujillo City. Trujillo City. HI7P 1300 25 Trujillo City. HIZ 1370 100 (is HIH 1391 75 San Pedro de Macor-HI 6Y 1400 100 Santiago. HI1A 1410 75 Santiago. HI5N 1440 100 Santiago. NEW VENEZUELAN PANEL YV5RA 960 2500 "Radio Caracas" Owner: Almacen Americano, Caracas. "Ondas Populares" YV5RG 1100 100 Gonzalo Veloz Mencera, Caracas. YV5RE 1110 200 "Ecos del Avila" Santiago Martin Vegas, Caracas. YVIRF 1153 250 "Ondes del Lego" Valle Quintero, Maracaibo. YV1RE 1153 75 "Radio Maracaibo" Luis Mantellini Hijo, Maracaibo. YV5RG 1153 100 "Radio Maracay" Luis Croquer, Maracay. YV5RD 1200 1000 "Radio-difusora(as Venezuela, "Herman Degwitz, Carac-YVLRA 1350 500 "La Voz de Carabobo, " Herman Degwitz, Valencia. YV6RA 1400 250 "La Voz de Cuidad-Bolivar, Enrique Valenvia, Bolivar YVIRA 1500 100 "Ecos de Zulia" Nebot & Castro, Maracaibo. (Lyle Nelson)

DECEMBER TUNING IN ENGLAND Reception pretty good recently. The Brazilians seem to have had a re-allocation since those heard lately have been slightly off-frequency or on new channels. The 980 kC xmtr.is definitely PRER, "Radio Nacional de Rio de Janeiro." There is a new Rio xmtr. on 880 with slo gan that sounds like "Radio Consol idstion and call PR ?3. "Appears to use plenty of power. Am of Dec. 23 was VFB. CRCM was wonderful, quite blotting out XENT, which was logged after CRCM signed off. CRCK also re ported. NA's good except around 12 and last of month SA's fair, and ex cellent at last of month. Stations heard follow, with best heard marked by Asterisk: WEEI, WSM, WEAF, WLW, WOR*, WSB, WJZ*, LR5*, WABC*, WWL, LR6, CMQ, LR2. PRF4, LR3*, XEAW, PRE8*, LR4,

WBZ*,WHN,WTIC*,WBAL,LR1*,WTAM,WBT*
KMOX*,WPG*,LR?,WHAM,WCAU*,WOAI,LS2
LS?,WNAC*,WKAQ,WNEW,WNEL,WIOD,WDRC
WAAB,WJSV. Best catches logged by
R.T.Coales were: CKAC,WJR,WGY,XERA
WJAX,CRCM,XENT,WRVA,PRG3 and WCKY.
Best catches logged by R. Stansfield were: WINS,CJCB,CRCT,KFI,KSL
WOWO,WKBW,WDAE, WHAS,WBBM,WGN,WHO,
CHNS,WDSU,WMBG,WRC,WJDX, KPRC,KYW,
WJAS,KMJ,LR10, LS5-9,CX11-lo,CMCY,
LS1,LT3,LV2,YV1RC,LR9,CMJB.

RECEPTION IN NORTH AMERICA

This year has not been too here, but lots of fading and very spotty.. In Dec.heard a new German 1428, relaying Frankfurt and Saarbrucken programs, but couldn't identify. I now have 86 TA's verified with 15 reports still out. 36 Aussies, 4 Zedders and 3 Hawaiians verified (W. Reichardt-TA reception dur Reading, Mass). ing most of Dec.was very fine. TA's are ALWAYS best during the period between the new and the full moon. .. Parede, Portugal (1031), is coming in so well, I think the new 30kW xmtr.must be in use. The new German on 1/29 is Kaiserslautern. Stavanger and Bodo, Norway, are now on 722kC with 1kW. BBC xmtrs.which re layed the cricket games were: NR, SR WR, LR, NIR, MR, Newcastle, Aberdeen & Bournemouth. Who was station on 1303kC relaying BBC news-bulletin? 125 TA's have been heard and definitely identified this season. Best TA morning ever here, was Dec. 19. when 95 TA's were heard. On afternoon of Dec. 24, between 3 and 7pm EST, 74 Europeans were heard. TA Dx has been pretty good this year.although noise level is a little high.. A few SA's have been heard at good strength. PREP. Rio. on 980. is still the best SA. A new Brazi-lian for me, heard on ROOkC, announc "Radio Ecucadora" -must have ed. been PRB7 (E.Roberts, Danvers, Mass) .. TA reception during Dec.was exlast two or cellent, except for three days. A new one on 986kC, believed to have been Torun, Poland, heard. Several TA's were R9 in the afternoons. P.P. was very loud until 5pm AST, when CHNC comes on. on BCB poor at present (Jan.10)but LW xmtrs.good. Have sent one hour report to Lahti, Finland, and I have new Soviet between Oslo and Kalund borg, probably Tashkent on 256kC. Huizen is good, but heterodyned by the other station on his frequency -the latter signs off at 6:05pmAST



LISTENING POST OF CARL EDER, WILLMAR, MINN. (BCB Log of 418; SW Log of 84-26 Countries





EMILE NOEL, COMPIEGNE, FRANCE
(1) Apartment. (2) Dx Post

(E.L.Peters, Westport, Nova Scotia) On Xmas morning, heard station HJ1AB-?, in Barranquilla, Colombia, on 1070kC, until 2:15am EST. Can any one identify? (Don Reynolds, Newburgh, N.Y.) TA's went wild Dec. 24. What reception: I got Lwow, Sottens and Beromunster as new ones from the mess.. Am hearing a strange station on 565kC after lam EST. Kaipeda, Lithuania? . . SA's fair at times-LR5, LR6 and LS2 are best from 7:30pm EST on; CX26,LR1,LR3, LR4, LR9 and LS4 are all best from also hearing HJN,HJ-A: 30 to 9pm; LABN and YVIRC, of course. PRER is very loud at times.. Who, and where is VGX, Roberts speaks of, on 701kC? .. Who are the Spanish xmtrs.on 653 1285 and 1315kC?.. How come Newfoundland stations don't answer re ports?.. XELO has gone to 580kC, leaving former freq.free for dx. (R.H. Tomlinson, Port Chester, N.Y.)

Middle West: Belfast (977) was great Jan. 7, 2-3am EST. I managed to log whole hour program.. PRF3 was also fine on 960kC, morning of 1/4. (J. DeMyer, Lansing, Mich). DX still poor, SA's good some evenings. PRF3 PREA special came in quite well. heard occasionally. TA's poor thus far (R. Swenson, Rockford, Ill). Best BCB catches this year are: PRF3, PREA, Rennes, Belfast, OKK, Paris PTT, Fecamp and Lille. Belfast was QSA4-R3 to 6 on 1ts Jan. 7 test. Rennes heard same morning. PRF3 was R7 on its special. Who is the Spanish xmtr.on 985kC. Apparently puts on a American Hour from 8:30-9pm EST? (H. Gustafson, Rockford, Ill). XEAF, Nogales, listed on 990kC, is actually on 985kC. Heard R5 between WBZ and KDKA.. CMCD, Havana, brought in R9 on 943kC, between KMBC and WAVE. .. PRF3 heard QSA2/R3. CKCR, Waterloo, Ontario, heard in early evening ..Since Oct.15, have logged 470BCB lOl police, 159 sircraft and 89 commercial xmtrs. on the RME-69 (M.J. Olthoff, Independence, Kans.)

In general: European reception has been fair recently, ranging from no stations audible to extraordinary conditions; SA reception has been fair; practically no TP reception has been heard but during February, Aussies and Zedders should be coming in again, reaching a peak early in March.

On Nov. 21, at llem EST, heard a French station giving news on 650 kC. Could this have been Lyons PTT? (A.E.A. Thomas, St. Michael, Barbados)

Reception poor here. November USA freq. checks were very poor. Latest loggings are KROC, WSMB, KGMB and KIEM (Ernest M. Niven, Dunedin, N. Z.)

LATEST VERI'S REPORTED

E. Niven, Dunedin, NZ: 2LM, 6WB, WKBB WAAB, KECA. H. Gustafson, Rockford, Ill: KHBC.. R.Swenson, Rockford, Ill -LS3 (11th SA veri). J. DeMyer, Lan sing, Mich: 2NR.. Evan Roberts, Danvers, Mass: KHBC. Edward Goss, Brooklyn, N. Y.: Toulouse-Muret, KGMB R. H. Tomlinson, Port Chester, LR6. N.Y.: 4BK, 2NR, 4YA, 3YA, 1YA. H. Eck, Lansing.Mich: 2GZ. A.J.Bertholomew. Bradford. N. Y.: Strausborg, LRL, Munich, Beri. 3YA, LYA, LBC. 2GB, 2KY, 2UW, 2SM, 3GI, 2GZ. C. H. Wyborski, Philadelphia, Penna: IlTO. H.Rappaport, Brooklyn, NY: LR5, PP, HHK, TGW Ralph Gozen, Brooklyn, NY: LR3.

APPOINTMENTS

STATE MGRS: C.Burnhem, 147 E. Mein St, Gloucester, for MASS; R. Donnelly 69 Downing St, Moncton, for NB; L. D. Brewer, 2246 N. 9th St, Phoenix, ARIZ.

Subscription price \$1.25 per year anywhere.

International

Published Monthly Excepting July



Ax'ers Alliance

CHARLES A. MORRISON EDITOR

VOLUMB V

BLOOMINGTON, ILLINOIS, U. S. A.

NO. 2

EDITORIAL We are grateful to these members

for contributing to the mimeograph fund: Messrs. Eck, Ivensen, Thomas, Rodriguez, Johnson, Goodeve, Brewer, Deibe, Ansell, Koch, Thomson and Beta

Chapter. (Have you contributed yet) The IDA is the only DX Club that issues a monthly printed magazine, with Stop Press Sheet; monthly ham dx bulletin (Ama-Touring), and a correspondence bulletin (Forum), and ALL for only \$1.25 per year. Dx'ers can not afford NOT to belong to the IDA. It is a non-profit club operated solely for YOUR benefit. Our officers and myself, have worked night and day ceaselessly for more than four years to give YOU the finest, most complete, most interesting and most cordial DX Fraternity in existence at an amazingly low fee. We are in the of the greatest membership midst drive in our history, but to date only a FEW members have done anything towards enrolling their own friends in the IDA. We only ask you to drop your friends, correspondents or acquaintances a line, outlining the many advantages of IDA membership and its low cost. Just forward their names and addresses to me, and I will send each information about the IDA and a sample Globe Circler. The IDA is a COOPERATIVE club, where each member should be willing to share in the work, as well as the rewards. LETS: TALK IDA, WRITE IDA AND SELL IDA. IT'S OUR CLUB.

Please pay your own renewal promptly and line up at least two members for the IDA as soon as pos sible.

To get Ama-Touring (our amateur dx bulletin, issued the first week in each month), you must send in at least one item for its columns. The (our correspondence bulletin), is issued to members who correspond with headquarters regularly.

<u>Directors, Representatives, Members, lets all combine to make 1937</u> e red-letter year for the I.D.A. Charles A.Morrison.

I.D.A. CHAPTERS

BETA (New York): Under the leader ship of N.Y.Mgr., Edward Goss, 812 Prospect Place, Brooklyn, the chapter has enrolled more than 15 new members in its ranks since the IDA Membership drive started. Meetings are held regularly every other Sat urday night, at the above address and all members or dx'ers in N.Y.C or vicinity, are cordially invited to attend.BETA DX POW-WOWS are red letter events for N.Y.dx'ers. Many interesting chapter activities are under way. See you at Ed's!

DELTA (Lansing): Meeting held on Jan. 5, at home of A. Debicki. DX was discussed as well as plans for giv ing chapter local publicity. meeting set for February 2nd.

EPSILON (London): Has enrolled two new members..local S.W.Contest won by R. E. Simms. with veris from CELAR, K4DDH and VK2BC.. The Lissen set demonstration was a huge success. Chapter will visit its plant on January 21.. Messrs. Graham-Farish has loaned chapt. a set for it to test.. Due to lack of suprort, the BGC has been dropped, and owing to disproportionate expense, the 4d subs.are not being returned unless so requested.

REGINA JUBILEE (Regina): Held its first annual banquet on Jan. 5. A good attendance made it a great success. Music was furnished by R. Bell and T.H. Wills, and Vice-President.Wm. Ansell, made an address about the IDA.Officers elected for 1937 were: Chairman, W. Ansell; Sec-Treasurer, P. Sampson, and Hon. Chairman. W. R. Pottke (radio inspector) ... Regina sent HQ a donation towards the mimeograph fund.

NEW-PHOENIX, ARIZONA, chapt. has been organized by IDA State Mgr. L.D. Brewer, with following charter members: Messrs. Criswell.Binder, Duddy, Babcock, Sprague and Stephenson. Brewer says, "We intend to put Phoenix, Arizons, on the IDA map in a big way." (Best Wishes- Ed.)

Inaugural meeting of SAN FRANCIS CO Chapter set for Jan. 22. Look out Phoenix, here we come:

BRITISH IDA SHORT-WAVE CONTEST Winners in the "Best Three" S.W. Contest were: IST, Colin Wright, with VS2AK (30W), KAIAH (30W),K7VH (25W); 2ND, R.T.Coales, with XE3AG, W7FP and HRD. Other unusual veris submitted by C.Wright were in part-W5EUC,W6KSO,W7AYG,VEL4CW,YN10P,PK-MX,VS2AK,K6KDX,VK2AP,VK3HM,VKLJX,KAIAK, CXIAA, OALF,VP9Q and CPIAB. Of these,70% are 50w or under, and two (W6KSO and VE5HU) are for the first European reports (Mr.Wright is to be heartily congretulated on this remerkable list of veri's-Ed)

TIME

E.S.T.



KNOXVILLE, TENN.

CALL

WORLD-WIDE BROADCAST CALENDAR

KC/S KW LOCATION

II ME	E. J. I.	VO V	LOCATION		CALL	
Feb. 7	Sunday 4-5pm		La Paz, Bolivia.		CP7	
	Send reports to G. Lop	ez Videla	, Mgr. Compania Radio	Bolivian	а,	
	Casilla 637. La Paz					
	Wed. 3-Lam			NNRC	KHBC	
Feb. 27	Sat. 7-7:30pm	610 ^p 60	w Tunis, Tunisia	RP		
	A remarkable opportun	ity to lo	g TUNISIA on the fi	rst DX		
	BROADCAST ever to ori	ginate in	that country. Inte	rnstional		
	Reply Coupons must ac	company y	our reports, which	may be		
	sent to M. de Matteis,	20 Es Sad	likia St. Tunis, Tunis	ia. or		
	to Tunis Experimental	Station,	43 av. Jules Ferry.	Tunisia.		
	AN IDA RED-LETTER BRO					
	Representative in Alg	er.Algeri	8.	•		
Feb.28	Sunday 2-5am	930 .1	Prescot, Ont, Canad	8.	CFLC	
	Thurs. 5:30-7am				LIP	
	Royston Marcus. 4IP, Br	isbane St	,Ipswich.Qsld,Austr	elie.		
Mar.19	Friday 1-2am				CJCJ	
	This is an IDA broade	ast spons	ored by, and which	will be		
	entirely conducted by					
Weekly	Tues. 6:35-7pm	9530 SW	Schenectady, New Y	ork ED	W2XAP	
			Pittsburgh, Pa.			
Weekly	Sun. 1:15-1:30am	640 50	Los Angeles, Celif	• FA	KFI	
MEMBERS WHO AR- (RS)R. Swenson, (RP)R. Pleiber, (M)R. Myers, (AM) Art McLean.						
RANGED PROGRAM (ED) Eugene Darlington, (EL) Ed Lips, (FA) Frenk Andrews.						
NOTE: FAD Director, Art McLean, 1640-10th Ave., West, Calgary, Alta, Canada,						
wishes every IDA FAD member to send him a complete report on activities						
this season, number of letters written, to whom, and what success.						

AROUND THE WORLD WITH THE BROADCASTERS

AFGHANISTAN The wireless xmtr.at Kabul, has been completed and broad-casting will start shortly. Five smaller xmtrs.are under construction.

ARGENTINA A new station, IRA (750kC), "Radio del Estado," Buenos Aires, with a power of lokw.for Govt.use only, is broadcasting irreg...

LVO, is now operated by the Govt. of the Prov. of Salta on 970kC...LR 7 (950kC), "Radio Belgrano, Buenos Aires, operates deily from 6sm to 11pm EST and until lam Sundays. Proprietor is Jaime Yankelevich.

FRANCE
ITALY

New BBC xmtr. (50/100kW).is planned for Start Point, Devon Radio-Lyon, 1390kC, now radiating English sponsored BC's.

New xmtrs. are to be built at Ancone and Catania and Genoa, is to be given greater power. Sicily will then have two stations;

Palermo and Catania (R. Stansfield)

JAPAN New xmtrs.on air for regular programs: JOOG (950kC),Obihiro; JOJG (1090kC),Yamagata,and JOLG (890kC),Tottori,each has a power of 500 watts...JONK,Nagano,is now operating on 1010kC...Two new Korean xmtrs. on the air are: JBBK1 and JBBK2 in Heijo...The 50kW xmtrs. of JOAK1 and JOAK2, will be completed this summer, and the JONG xmtr. at Miyazaki,will be completed this winter (Akifusa Saito)

S. AFRICA New xmtr. to be built at Port Elizabeth.

U.S.A. New xmtrs: Bridgetown, N.J., 1210kC, 100w; Superior, Wis, 1200kC, 100w; Viselie, Celif, 1190kC, 250w; College park, Md, 1060kC, 100w, 0-6smEST

Mich, Ind, Ohio, Ky, Va, W. Va, Penna, N. Y., Del, Md, N. J. DISTRICT -6-

David Thomas 19X Ohio VQ7LO, NRH, EAJ5, LOV, SANTO PAULO, FN, PRAK, KZRC, G6BM 2BD, 1YX, VUO, Huizen, Warsaw, Moscow, Droitwich, ZBW, ZTJ, CX20.

R. Tomlinson 16X N.Y. CE62, CX3h, HAE2, Lille, Nice, Dresden, Konigsberg (1348), LS8, LT3, HAE, HAE-3, LS9, Gleiwitz, EAJ15, Poste de L'Ile, Antibes.

Ray Lewis 9X Ohio LV1, TIC.5DN, EAJ41, JOBK2, JFAK, PWMC. Palermo, Naples AX Mich 3KZ, PRA6, JOCG, Innsbruck. Stettin, Freiberg, Augs-Howard Eck

berg, JOVK. C. Wyborski 7X Pa. HJ3ABD, CX14, TIRC, TIRCA, YN1GG, LS6, Cracow.

Don Reynolds 3X N.Y. Eiffel Tower, Rigs, Monte Ceneri.

Carl Lord 3X Ohio NN, SN, Suisse Romande.

2X Mich JOPK. JOAK. 2X Ohio PRAP, LU2. John DeMyer I.Beitman R. Hough 1X N.Y. OAX. I. Goodeve 1X Mich 1ZM.

Art B. Johnson 1X N.Y. HJIABE.
NOTE: To give our SW Dx'ers a break, I propose an Honor Roll for them, based on their VAC rating, this Honor Roll to alternate every other month with the BCB Honor Roll. No one will be considered for SW Honor Roll with a rating of less than 3 VAC. The first VAC Honor Roll will appear in the March Globe Circler. To help me get started on this, I re quest EACH member in the 6th district to send me at once his or her VAC rating, to be checked with my present records. In case some do not understand the VAC rating, for example, a member with at least five ver ifications from each of the major continents (Europe, Asia, Africa, N. A., S.A., Oceanica), would have a VAC rating of Five; one with at least six veri's from each one of the six major continents, a VAC rating of Six Please have your VAC rating in to me (J. DeMyer, 51,5 Baker St, Lansing, Michigan), ON OR BEFORE FEBRUARY 12TH. (I think this unique VAC-SW Honor Roll idea could be worked in all IDA Districts- Chas. A. Morrison)

NEW I.D.A. MEMBERS

Louis Bruno, Brooklyn, New York. Emil Guerrier, Staten Island, N.Y. Chas. J. Zanardi, Brooklyn, New York. J.C. Shores, Atlanta, Illinois. R. Vergrugghe, Jr., Detroit, Michigan Moris Vanderhaeghe, Detroit, Mich. Kenyon A.Olds, Plymouth, Michigan. E. J. Hale. Regina, Sask, CANADA. Cameron H. Brown, Omaha, Nebraska. Edward L.Rockstroh, Valley Stream, L.I., New York. Max Mosler, Palm Beach, Florida. James M. Weatherly, New Rochelle, NY. C.S.Kinter, Regina, Sask, CANADA. A. E. Surtees, Regina, Sask, CANADA. M. Leach, Regina, Sask, CANADA. A. J. Dupueis, Regina, Sask, CANADA. C. Montague Veysey, Datchet, Bucks, Ellsworth H. Clark, Hollister, Calif. Howard S. Bradley, Hamilton, New York John Barre, Bronx, New York City, NY. Roy Waite, Ballaton Spa, New York. Ted Horton, Newburgh, New York. Burton W. Bostad, Minnespolis, Minn. Carl and Anne Eder, Willmar, Minn. William Myers, Jr., Kent, Ohio. John Binder, Phoenix, Arizona. John J. Duddy, Phoenix, Arizons. Henry Babcock, Phoenix, Arizona. Ralph Sprague, Phoenix, Arizona.

Robert D. Stephenson, Phoenix, Ariz.

Stephen McVicker, Brooklyn, N. Y. John Velszquez, New York City, N. Y. Robert Bartunek, Rego Park, L. I., NY. William M.Kline, Gloversville, N.Y. Joseph D. Cook, Haddonfield, N. J. Jose Tomas Carbonell, San Salvador. EL SALVADOR, Central America. T.W. Goford, South End, Mount Isa, Qsld., AUSTRALIA. Forrest Connor, Kalamazoo, Michigan.

Eugene Reinhard, Locust, New Jersey. Arthur Clark, Kansas City, Missouri. Carroll Seth, Wellsville, New York. Carlo Spartari, Astoria, L.I., N.Y. H. W. Frey, New York City. New York. Mrs. Thos. A. Mac Neill, Orangeville, Nova Scotia, CANADA.

John K. Bryan, Jr., New Augusta, Ind. Sgt. A. W. Brummond, Fort Douglas, Utah Harry J. Blanchet, Brooklyn, New York Albert Kasten, Hicksville, L. I. N. Y. Louis Eikamp, Cochrane, Wisconsin. Ted Serafin, New York City, New York Dr. W. C. Ostrom, Schenectady, New York Paul C. Bird. Vineland, New Jersey. Frank T. Jennings, Jr., Norman, Okla.

GOLDEN GATE WORLD DX CONVENTION George C. Sholin, Director-

Handsome colored Exposition poster stamps are now available at 35 ¢ per 100 or 300 for \$1.00 postpaid. Canadian or U.S. unused postage stamps in 1¢, 2 or 3¢ denominations accepted for orders of less than \$1.00. Send a dime or stamps for a sample sheet of 20 stickers p.p. (55 Lapidge St.San Francisco)

IDA STAMP EXCHANGE

Joseph D.Cook.of Box 102, Heddon-field, N.J. wishes to exchange used or mint stamps with members in any country. He can correspond in either French or English... Last month we called for votes from ISG members for officials for this organization. To date, only one vote has been received. Nothing further can be done on organizing the ISG until each member has been heard from, as to his or her choice for officers. All stamp members enrolled in the ISG have been listed under this heading in recent GC's.

E.L.Frost, of 2426 Logen Avenue, Superior, Wisconsin, would like to borrespond with other SWL's in India, China or Austrelia.

LAST MINUTE BCB NOTES

The new mystery station on 820kC verified for Carl and Anne Eder, of Willmar, Minnesota, in 5 days time. It is XEBG in Tijuana, Mexico, on the air daily from Sam to 2am EST. Listen between 1 and 2sm EST to English programs, 1 to 1:30am for Todds Clothing, and from 1:30 to 2am, for the Los Angeles Central Labor Council. Reports are appreciated ... The new 150kW transmitters for JOAK1 and JOAK2, of Tokio, Japan have been completed by the Tokyo Electric Co. They will soon be test ed at the factory. Antennas are now under construction and will soon be completed (G. Sholin, Calif) .. Practically no TA reception since the holidays. Heard a Brazilian testing on 1213kC, morning of Jan.14, from 1 to 1:30sm and 3 to 4 am EST. Call was given quite often and it sounded like PR-9. Plenty of static lately (E.L. Peters, Nova Sco tia) ... The Times Dispetch Pub.Co. Inc., of Richmond, Virginia, has been granted a permit to construct a new 100-watt station to operate on 1500kC, unlimited time... broadcast station on 1360kC, located in Panama City, Panama, relaying short-wave station HP5J, is on the sir (Nelson-Oregon).

CALGARY FOOTHILLS CHAPTER NEWS

Through the courtesy of the Hudson Bay Co. and the c-operation of the members, CF Chept. has one of the finest window displays ever shown in this city... The Chapt. has been fortunate in securing the Herald Board Rooms as a Club Room for the entire year. Meetings will be held the second Tuesday and the

third Monday of every month...All IDA members are requested to kindly listen for and report to, if at all possible, the Calgary Foothills DX Broadcast, which takes place over CJCJ (690kC), Calgary, on March 18, from 1=2am EST. Two prizes are being offered: a one-year member ship in IDA for the best report on the broadcast, within a radius of 100 miles, and a one-year membership in IDA for the best report outside the 100-mile radius.

We are grateful to the following members for additional contributions to the mimeograph fund: - - + Messrs. Rosenbrock, Roberts, Oppenheimer, Grabek. Bink, Portman and Sorensen.

BROADCASTING IN MOROCCO By M. Andre Touchard, IDA-Rep. in Casablanca, Morocco

Radio Maroc or Rabat PTT, located in Rabat.a city of 60,000 population, was erected in 1928, fulfilling the dream of Marechal Lyantey -pacificator of Morocco. It works on 60lkC or 499.16 meters. Prior to 1932, the power was 5000 watts. It now has 20,000 watts power, with a maximum power of 25,000 watts possible. A apecial quartz crystal, which is not influenced by temperature, was obtained from Japan for maintaining a constant frequency.

The serial is a T-shape between two iron masts.

Studios are located in Rabat, Casablenca, Merrakech and Fez, the principal center being in Rabat,in the building of "Direction des PTT, "where four studios are in use

On Saturdays, a 12-hour program is relayed from Casablancs. The evening mussulman programs come from Fez, the capitol of the north, or Marrakech, the capitol of the south.

It is rumored a station will be built in Meknes to operate on R6R-kC, with a power of 120kW, for broad casting Mussulman programs. Nothing definite has been done as yet.

For Maroc France, the frequencies are: 12.83 and 8.035mc. It is used solely for telephonic communication with France. Frequencies of about 6.39 and 4.54mc, are used for communication with ships. Beam serials, with reflectors, are direct ed on Lyons and Paris. The station has not transmitted broadcasts for two years, but occasionally the watr. is used for some special program or relay. Power is 12000 watts

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AUSTRALASIAN SECTION Australia-New Zealand Broadcast Stations

CALL LOCATION KC/S WATTS CALL LOCATION KC/S WATTS 6WA-Minding, W. A. 560 10000 6ML-Ferth, W. A. 1130 500 570 > 60000 2YA-Wellington, N. Z. 3SH-Swen Hill, Vict. 1130 100 520 3AR-Melbourne, Vict. 4500 LVL-Charleville, Qsld. 1130 50 LON-North Regions 140sld 600 2HD-Newcastle, NSW. 7000 11/10 500 2FC-Sydney, NSW. 610 2000 hYO-Dunedin. N Z. 11/10 **150** ZZL-Hobart, Tasmania. 620 1000 2WG-Wagga. NSW. 1150 1000 12P-Invercergill, N. Z. 5CK-Crystel Brook, S. A. 620 500 2ZM-Gistorne, N. Z. 1150 25 X 640 7500 2KA-Katoomba, NSW. 1160 100 650× 10000 1YA-Auckland, N. Z. 2LV-Inverell, NSW. 1170 1000 6**6**0 7BU-Burnie, Tasmania. 50 2ZD-Mesterton, N. Z 1170 -5 2DU - Dubbo, NSW. 660 100 3KZ-Melbourne, Vict. 1180 60Ó 2CO-Corows, NSW. 670X 7500 2CH-Sydney. NSW. 1190 1000 690 6WF-Perth, W. A. 3500 3YL-Christchurch, N. Z. 1200 500 700× 2NR-Lawrence, NSW. 7000 5KA-Adelaide, S. A. 1200 3005 VD 710 7NT-Kelso, Tasmania. 7000 6WB-Kstenning, W. A. 1200 2000 6GF-Kalgoorlie, W. A. 720 2GF-Grafton, NSW. 1210 100 3YA-Christchurch, N. Z. 720 10000 6KG-Kalgoorlie, W. A. 1210 500 5CL-Adelaide, S. A. 730 2000 3YB-Melbourne, Vict. 1210 50 2BL-Sydney, NSW. 740× 3000 LZL-Dunedin, N. Z. 1ó0 1220 2YB-New Plymouth, N. Z. 760 100 LAK-Oskey, Qsld. 1220 2000 3LO-Melbourne, Vict. 3500 770 2NC-Newcastle, NSW. 1230 2000 LYA-Dunedin, N. Z. 790×10000 2ZL-Hastings, N. Z. 12110 20 Róo 4QG-Brisbane, Qsld. 2500 6IX-Perth.W.A. 1210 500 2ZH-Napier, N. Z. 820 65 3TR-Sale, Vict. 121:0 500 3GI-Longford, Vict. 830X 7000 1ZM-Manurewa, N. Z. 1260 150 RLOX 2YC-Wellington, N. Z. 200 3WR-Shepparton, Vict. 50 1260 850 5RM-Renmerk, S. A. 1000 1000 2SM-Sydney, NSW. 1270 LAY-Ayr,Qsld. **R**60 1290 300 3AW-Melbourne, Vict. 600 P60 7HO-Hobart, Tasmania. 120 had trommeld N. 2. 1280 20-870 2GB-Sydney, NSW. 1000 BK-Brisbane, Osld. 1290 500 RRO 1YX-Auckland, N. Z. 150 2TM-Temworth. NSW. 1300 1000 DAD 6PR-Perth, W. A. 500 5AD-Adelaide, S. A. 1310 300 50 2LM-Lismore, NSW. 900 500 1ZJ-Auckland, N. Z. 68 1310 2ZP-Wairos, N. Z. 900 250 3BA-Ballarat, Vict. 500 1320 4RK-Rockhampton, Qsld. 910 2000 2BH-Broken Hill, NSW. 1330 100 2ZR-Greymouth, N. Z. 920 50 50 4RO-Rockhampton, Osld. 1330 ZJV-Suva, Fiji's. 920 400 HER Belcluths, N. Z. 1340 10 930 3UZ-Melbourne, Vict. 600 5MU-Murray Bridge, S. A. 1340 200 940 3ZR-Greymouth, N. Z. 400 3GL-Geelong, Vict. 1350 100 2UE-Sydney. NSW. 950 1000 4PM-Port Moresby, Papua. 1360 100 960 22F-Pelmerston, N. N. Z. 250 LWK-Warwick, Wald. 1360 100 960 \$0050 5DN-Adelaide, S.A. 3MA-Mildura, Vict. 1360 100 3BO-Bendigo, Vict. 970 2500 2MO-Gunnedah, NSW. 1370 100 2ZJ-Gisborne, N. Z. 9Ro 75 3HS-Horsham, Vict. 1370 1000? 6AM-Northem. W. A. 980 2000 4BH-Brisbane, Qsld. 13R0 1000 990 2000 2GZ-Orange, NSW. LCA-Cairns, Gald. 1390 100 LGR-Toowoomba.Osld. 1000 500 2GN-Goulburn, NSW. 1300 150 3HA-Hamilton, Vict. 300 1010 3MB-Birchip, Vict. 1390 100 4ZD-Dunedin, N. Z. 1010 30 2ZO-Palmerston N, N. Z. 1400 100 60 2KO-Newcastle, NSW. 4ZM-Dunedin, N. Z. 1010 1410 500 600 420-Dunedin, N. Z. 1010 25 3XY-Melbourne, Vict. 1420 2KY-Sydney, NSW. 1020 1000 2WL-Woollongong. NSW 1/130 600 3DB-Melhourne, Vict. 1030 600 2QN-Deniliquin, NSW. 1hh050 5PI-Crystal Brook, S. A. 1040 2000 LIP-Ipswich.Qsld. 1440 100 2CA-Canberra, NSW. 1050 2000 7UV-Ulverstone, Tasmania 1460 300 hMB-Marytorough Qsld. 1060 100 48M-Christohuroh. N. S. 60 1000 2AD-Armidale, NSW. 100 2RG-Griffith, NSW. 11:70 50 1480 LMK-Mackay, Qald. 1080 2AY-Albury, NSW. 100 100 1480 TO-Townsville, Qsld. 1080 200 4BU-Bundaberg.Qsld. 100 1ZB-Auckland, N. Z. 1090 1000? 3AK-Melbourne, Vict. 1500 200 LLG-Longresch, Qsld. 300 by. 1100 NOTE: Corrected GRDXA and E. 7LA-Launceston, Tasmania. 1100 300 Niven.. SYMBOLS: Asterisk-not com-2UW-Sydney, NSW. 750 pleted. Aussie calls prefixed by 2, 1110 4BC-Brisbane, Qsld. 1120 1000 3, le or 7 EST; by 5 CST; by 6 WSTime.

DIO DX'ERS ASSOCIATION (Australian Branch of the IDA) RADIO GLOBE

This article is by Arthur Preece. General Australian Representative for the IDA, and Organizer-Secretary of the Globe Radio Dx'ers Association, whose headquarters are 61 Lipson St., Adelaide, Australia.

Australia had no dx clubs that During 1937, the GRDXA will catered for both the S.W. and B.C. dx'er prior to the GRDXA. There were, and still are, Australian Dx Guilds, will support Ama-Touring the Forum, and will arrange Clubs that were exclusively for S.W. or B.C. members, but none that catered for both classes, until the GRDXA began operations on January 1,1936.

On this date, with the permission of IDA Pres. Chas. A. Morrison, the GRDXA began operations as the Australian Branch of the IDA and as the first All-Wave Association in

Australia. Australian contests were arranged for both the SW and BC sections well as special competitions

for lady members. These were as fol lows: Women's DX Australian Championship (BC), closed Jan. 2, 1937; Women's DX Australian Championship (SW), closed Jan. 2, 1937; Centenary DX Championship (BC) to close on March 31,1937; Globe Association March 31,1937; Globe Assoc Champion (SW), to close on March 1,1937. The winners of each of the

above contests will receive a Silver Trophy, which means that FOUR silver cups are being awarded to members in the first year of the GRDXA's existence. Many new and interesting features are now being arranged for 1937. With the competition furnished

by free clubs, it is hard to get dx'ers to pay a fee, but the REAL dx'er finds that the GRDXA is catering for members by the many contests that are carried on, and I can say, although members are slow in joining the GRDXA-IDA, each month finds new members to be en-

rolled as official IDA members. The GRDXA is encouraging members and has a large membership

are not at present IDA members, but these, in time, will become affili-ated members of the IDA. On October 1,1936, I arranged the

following international contests to induce dx'ers from all parts of the world to join the GRDXA: Austrelian QSL Association Champion tralian QSL (SW), to close on September 1,1937.

and Australian QSL Association Champion (BC), to close on September 1,1937. The prizes are unique silver maps of Australia, mounted

on genuine Australian timber. A special cup will be awarded for the most outstanding single veri'.

and follow the IDA in building up the Stamp. Amateur and Journalists

special broadcasts from Australian stations for Overseas members. The new Stop Press Sheet is very much

appreciated by Australian members. All amateurs are invited to get in touch with the GRDXA, as special

contests are being arranged for this department during 1937. I wish to extend our thanks to the management of the weekly radio journal. "Teleradio," for the way

ity and acted in the capacity of 'official organ' our during the past six months, and will continue to do so in the future. An offer elso comes from "Wireless News,"

that it has given the GRDXA public

in West Australia to publish our notes and it will, in the future, act as our official outlet in conjunction with "Teleradio." 1937 promises to be a great year for the GRDXA-IDA as the state rep resentatives intend to form state

branches in each state, and I am appointing District Delegates for each district, so as to form District chapters. To encourage members in gaining the results that I anti cipate, I am awarding special trophies to the member that enrolls the most new members each month,

during the whole year of 1937. GRDXA badges will be available for members early in 1937, and I would like to see the IDA have official badges also. Members would I feel sure, pay a small fee for these, and I suggest that all IDA members, who think the badge idea is a good one, to write to the Fres

ident.

Arrangements have been made that Australian members will be able to procure radio accessories receivers, etc., at reduced prices from leading dealers in each state -these names will be furnished on request.

In conclusion, Australian members send greetings to IDA members in all parts of the world, and wish the IDA every success and members the best of dx during the year 1937.

(Sincere hest wishes from all of us to the GRDXA- Charles Morrison)

To the right, Miss Pearl Geppert, Narranders, NSW, State Representative for IDA/GRDXA (Women's Section) -is a keen 20-meter band dxer and is sending out reports weekly, in hopes of scooping the cup. She has helped the GRDXA much, by means of publicity in the local newspaper,

where she is employed.

To the left, the Dx Listening Post of Miss Betty Geisel, Murray Bridge, S. Australia, Asst. Rep. (Women's Section). She is the to pass only YL exams to operate a ham xmtr. in South Australia. She will be on the air by lest of January, call VK5YL. with Miss Geisel, only

16 years of age, belong ed to no ham club, and relied entirely books for the exam, and she passed it with high honors. 5YL will be the official GRDXA-IDA xmtr.in S. Aust.

To the right, Don Cameron, Millicent, S. Australia, State Represent ative for IDA-GRDXA.at the dials of his BCB receiver. Below Don's SW set. He is one of the foundation members

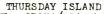
the GRDXA and is of very keen on BCB dx, being a runner-up in a recent dx competition. Don is doing his best to win the GRDXA cup this season and has also gone in for SW dx.

WIGNALL ON ROTTNEST ISLE G. Wignall, of North Perth, W. Australia, State Rep. for GRDXA/IDA, a keen dx'er is now working on the fortifications on Rottnest Island, which is about 12 miles west of the Port of

Frementle. It is terribly isolated -there being a launch touching there on Wednesdays and Saturdays only, weather permitting. It is 634 miles long and 3 miles wide, having a total area of 4726 acres, of which 510 are salt lakes. It is a great holiday resort in the summer months. The camp is 3 miles

from the settlement and after one has walked this at the end of a days work, he is ready for

sleep.



The GRDXA/IDA boasts two members on interesting Thursday Island, namely. M. Nishi and D. Clifford, known as "Ossie, "Rep. for the Island. Remote Thursday Is-land is north of Queensland and as far north as Australia goes. The main in dustry is Mother of Pearl and Beach la Mer, which is a sea slug. Left bottom photo shows natives having a war dance and right bottom, shows a few tons of Mother of Pearl. There are

200 whites and 2000 Japanese, who do the diving for the pearls, on the isle. One can easily walk completely around the isle in a day. It is quite hilly, one hill being 260 feet high. Nearest mainland port is Cairns 600 miles away, and Brisbane is 1500 miles distant. Thursday Island is the largest of 32 smaller isles in this group.





Short-Wave News

Editor-C. A. Morrison Assoc. Editors: Paul Dilg (PD); R.B. Oxrie der-Freq. Checking Bureau (RBO); Amsteur-H.S.Bradley and Edward Schmeichel (ES). IDA BROADCAST E.S.T. Feb. 27, Set. 7-7:30pm 6.108mC-60w, TUNIS

See page Five for full details.

AMA-TOURING (the new IDA hem dx bulletin) will be issued the first week in each month to, and only to, those mem-



FRRR OF LES PIEUX, FRANCE

bers who are interested in this field of reception the extent of to contributing at least one item of interest for its columns. That the first issue was greeted with tremendous enthusiasm is a well-carned tribute to its capable editors, Edward Schmeichel and H.S. Bradley. Give as complete data as possible about each ham heard, including frequency, power, identifying signals, QRA, day-date and hour heard, etc.

SHORT-WAVE REPORTS should be in this office not later than 17 of the month (15th in Feb.), but single important items can be accepted up to noon of next to last day of month for STOF PRESS SHEET. Be sure and mark card or letter-Stop Press. To permit handling, it is imperative that all reports be written or typed plainly on one side of page only, that lines be double-spaced, items be grouped into continents and time used be stated. Items in order of relative interest are: new stations; frequency or schedule changes; exact operating schedules; identifying signals and opening or signature selections; correct addresses; commer cial schedule tips and unusual receptions. RUSH important S.W. items by festest mail as soon as noted-a postal card giving facts will do.

Four stars (****) after an item denotes SCOOP or exceptional merit.

E . S . T . NORTH AMERICA-CENTRAL AMERICA Megacycles used ALASKA Commercial-KLA-Waterfall, on 2.566mc, heard foning San Fran cisco with loud signals near 9pm (DeMent-Texas)

Amateur VP6TR (14.06/14.09), Bridgetown, heard (Bostad-Minn BARBADOS Dominion Skyways Que.net includes: CZ5K-4.5, Shaboygama.On CANADA

4.8mc;CZ9U,St.Felicica;CZ5L,Mud Lake;CZ5M,Rouyn;CY3M,Shaboygama Rd(ER)
COSTA RICA TIEP-6.687.San Jose,using slogan, "The Voice of the Isthmus" (in Spanish La Voz de Isthmo or La Voz de Tropico)(RBO-Penna)... TIOW, Limon, heard on 6.85mc, et 11pm, in QSO with other xmtrs. (Legge-Ps) TIPG-6.41, Sen Jose, often using slogen, "Whiskey White Horse, and Sat.9-10pm, with English program by Tourist Bureau (Stark.Bostad) ... A.Cespedes M.of TIRCC-6.55.communicates daily with the director of the station in Managua, Nicaragua, from 6 to 7pm (CSWRC-Chicago)

Commercial CMA5, Havana, testing in evenings on 8.63, 9.95 and 10.89mc, acknowledges reports but will not verify.

is the mystery station puzzling many on 9.95 (Gozen-NYC, Legge)

D.R. HIT-6.63, Cluded Trujillo, 200w, broadcasts a DX program on Sundays 11pm-lam (E.R.Roberts)... HIRQ, Cluded Trujillo, is back on air on 6.198mc. Occasionally in chain with HILD or HILD and HIT (RBO)

VOWQ-approx. 8.65. Northwest River, owned by Newfoundland Skyweys, Ltd., heard in duplex QSO, with CZ9U, Dec. 31,7:30pm (Hyde-Conn) ... NEW-Amsteur VEIKK-14.3, Belle Isle, heard at 7:50am, 7:15pm and 1pm, from R5 to R9 (**Satterthwaite-Ohio, Hock-N. J., Hixie-Maine)

MARTINIQUE (French Colony in West Indies): NEW station 9. Hmc, announcing in French (occasionally Spanish), as Radio Fort de France, Martinique, or "Ici Martiniqu2, "first heard on Dec. 29, by Thomas, in Berbados, transmits daily from 11:15am to 12:30pm, and 6:30 to 9pm or later; usually announces in English and French at sign-off (***Thomas-

Barbados, Lippincott-Mass, PD-Chicago, CAM-Bloomington)

MEXICO Commercial XAP-R.7, Villa Hermosilla, contacts XBC, Vera Cruz.at 7pm. XBA-6.977, Tacubaya, D.F., heard testing with American recordings at QL/R7 (Ansell-Sask., RBO)... XEBM-15.LL. "El Progonero del Pacifico," (The Crier of the Pacific), located at Mazatlan, Sinaloa, relays XEBL, on Sun/Mon/Wed/Fri mornings to 10am, afternoons to 3:30 or 5 pm, and evenings from 8 to 10:45pm; interval signal is four chimes (**Criswell,QRC)... NEW-XEBR-approx. 11.83mc, Hermosillo,Sonora,relays programs of XEBH, 2 to 1 or 5pm, and irregularly in early evenings (**Balbi-Calif,E.Roberts,Murphy-Ill)... Mystery xmtr. with call sounding like XEXW,heard on approx. 11.07mc,Jan.17,1:17 to 2:12pm (Ansell-Sask)... NEW station on approx. 9.35mc, broadcasting in Spanish from 8 to 12:30am, gives calls as XJJ and XJI (*Goldner-Ind)... NEW-XEBT-9.49, Mexico D.F., using three blasts on a squeege bulb horn,sounding like CT1AA's triple cuckoo call, for identification, heard on Dec.16,Jan.7, and Jan.12 (Bostad-Minn,Graham-Que)..XEFT,Verscruz (formerly on 6.12), heard recently on 9.493 (RBO)... XEDQ relaying XED of Guadalajara, is now on 9.40mc, having apparently moved away from QRM, caused by HJ1ABH (RBO)... NEW-XEUZ (6.117), "Radio Nacionales," Mexico City,relays XEFO, to about 1:30am. Announcements are in English and Spanish, and English news is read at 1:15am (**RBO,Goldner.Ansell,E.R.Roberts)... NEW-XEPW-

(RBO)... NEW-XEUZ (6.117), "Radio Nacionales," Mexico City, relays XEFO, to about 1:30am. Announcements are in English and Spanish, and English news is read at 1:15am (**RBO, Goldner.Ansell.E.R.Roberts)... NEW-XEFW-6.12, "La Voz de Aguila Azteca desde Mejico." Apartado Phow, Mexico.D.F., using five piano notes-followed by four strokes on gong as interval signal, operating daily from Rpm to midnight, signs off with, "Ah Sweet Mystery of Life" (**RBO, Nelson, E. H. Roberts)... XETU-6.115, Guadalajara, Jalisco, giving several toots on a two-tone whistle for interval signal operates from 8 to 11pm (**RBO, E.R.Roberts)

NICARAGUA NEW-YNAM-7.2, "LA Voz del Pacifico, "Managua operating nigh

NEW-INAM-(.c., LA VOZ del Pacifico, Managua operating nightly from 8 to llpm, uses call YNIAM when xmtr. is used for ham purposes (**Graham, RBO)... YNLG, veriable freq. is near 8.505. Owned by Benjamin J.Guerra L; relays ECB station on 1280kC, from 7:30 to l0pm daily (RBO, Rodriguez-NYC)... YNOP-5.758, Managua, operates from 7:30 to llpm, except Sundays and holidays (Graham)... YNLGG, Managua, veriable in freq., is now on 6.54mc (RBO)

PANAMA A new xmtr. HP5A, "The Voice of the Ismo", Penama City, will be on the air shortly. Under same management as HP5J, the new station located in a theater, will have a power of about 3KW and will operate on the 49 meter band (**Nelson-Ore)... NEW-HF5L (11.7h), 350 watts, owned by Cia Chiricana de Radiodifusion Y Television, David, Chiriqui, was inaugurated Jan-15, and operates deily from 4 to 7pm; Mgr.is Leo Marchos ky (** RB0, Nelson)... HP5K-6.005, Colon, comes on air at 7am (Eder-Minn) U.S.A. 4h1-line television images have been successfully inaugurated by NBC (NEC)... NEW SHORT WAVE FAND (25.6 to 26.6mc), just allot-

Earl DeHaven's DX Tips, Mon/Wed/Fri 2-2:30pm over W6XKG (25.95) in L.A. SOUTH AMERICA

B.GUIANA VP3MR, Georgetown, still drifting in freq.is usually near 5.98. To insure a veri', reports must be accompanied by an IRC (RHO)

CHILE NEW-CEB-approx.12.38mc, Casilla 761, Santiago, operates from

CHILE NEW-CEB-approx.12.39mc, Casilla 761, Santiago, operates from llam to lpm and from 7 to 8 or 9pm. All announcements Spanish (**Nelson-Ore, Balbi-Calif, Walmsley-Calif)

COLOMBIA Commercial HJA9-14.94. El Centro, now on the air-works WNC,

Hislesh,Fls (Gozen)... HJlABB, Beranquille, operates during day and some times as late as 7pm on 0.559mc, and evenings to 10pm on 6.115mc (Bostad,RBO)... HJlABE-9.5, Cartagens, is conducting radio contests on dx program, Mondays 10 to 10:30pm (CSWRC)... HJlABP-9.61°, Cartagens, now having 2½kW power, has early sked from 6-9am (Schmeichel)... HJ3ABD, Bogots, moved to 6.055mc to escape QRM from GSA (RBO)... HJ1ABB-6.108,

Manizales, now comes on the air at 5:30pm (Graham)... HJhABC, "Ecos de Combeima," Ibague, is back on 6.09mc again-badly QRM'ing CRCX (E.R.Roberts)... A station announcing "La Voz de Antioquia, "apparently HJLABE, Medellin.was heard signing off at 8pm, Jan. 7, on 9.55mc (Ansell-Sask)...

Latest sked of HJLABH-9.52. Armenia.is: 8 to llam and 6 to lopm (E.R.R) ECUADOR Mystery station HCNA-9.μμ, "La Voz de Almos," believed to be in Ecuador, heard 9 to 9:33 and 10:08 to 11:05pm (Stark)... Station believed to be HClPM, Quito, heard on 5.73mc, until Iam EST, signing off with "Le Golondrine." (Sholin-Celif) ... HC2RL-6.635, Gueyequil, hes

announcer, and woman makes English announcements (Campbell) PERU NEW-OAXIB-6.161, "La Voz de Chiclayo," owned by J. Carlos Montjoy D., Compania de Radios, "Delcar, P.O. Box 9, Chiclayo, has Collins 300-watt xmtr. and relays OAXIA (1250kC), from 8 to 11pm, signing off with "Good Night Song." Was formerly on 6.125mc (**Deibe, Rodriguez-NYC RBO)... NEW-OAXLJ-approx. 9.33, "Radio Nacional, The Voice of Lima, Peru," Lima, relays OAXLI, from near 6:30 to 11:15pm or midnight. Frequently uses bugle cell and train record; uses chimes similar to NBC just before announcement of call in Spanish (**Stark-Wisc, Kure-Ohio, CAM-Ill, Roberts-Ind)... NEW-OAX5B (cell not positive), "Redio Universel," Ice, on 11.796mc, has schedule from 2 to 11pm, tu to 5, and 8 to 9:30pm (**PD-I11,Nelson-Ore,RBO) from 2 to 11pm, but usually heard from 3

VÉNEZUELA Here is official (double-checked by members) list of new venezuelan call letters NOW in effect: YVIRG-6.37, Valera, no change; YVIRH-6.39, Maracaibo, no change; NEW-YVIRI-6.21, "La Voz de Coro," Coro, owned by Rodger Leyba, power of 150w, proposed; NEW-YVIRM-6.5, Cristo de Aranza, is, or will be, testing shortly (Nelson); YVIRB (formerly YV5RMO) -5.85, Maracaibo, relays YVIRA; YVIRB (formerly YV7RMO)-6.075, Maracaibo, relays YVIRE; YV3RA (formerly YVRB)-5.809, Barquisimeto; YV2RB (formerly YV10RS)-5.809, Constatabal Relays YVIRB (formerly YV10RS)-6.909, Constatabal Relays YVIRB (formerly YV10RB)-6.909, Constatabal Relays YVIRB (formerly YV10RB)erly <u>YV10RSC</u>)-5.72, San Cristobal, relays <u>YV2RA</u>: <u>YV1qRB</u> (formerly <u>YV6RV</u>)-6.52, Valencia, relays <u>YV1qRB</u> (formerly <u>YV12RM</u>)-6.7, Maracay, relays <u>YV1qRB</u>; <u>YV5RB</u> (formerly <u>YV3RC</u>)-6.156, Caracas, relays <u>YV5RB</u>; <u>YV5RB</u>; <u>YV5RC</u> (formerly <u>YV2RC</u>)-5.8, Caracas, relays <u>YV5RA</u>; <u>YV5RF</u> (formerly <u>YV1qRC</u>)-6.38, now "Ecos de Caribe, "Caracas, relays <u>YV5RE</u>; <u>YV5RH</u> (formerly <u>YV1qRC</u>)-6.44, Cara cas, relays <u>YV5RG</u>; <u>YV5RP-6.27</u>, Caracas, no change as yet; <u>YV6RB</u> (formerly <u>YV11RB</u>)-6.545, Bolivar, relays <u>YV6RA</u>; <u>YV15RV-5.917</u>, Valencia, no change as yet (*** Nelson, RBO, Graham, Eders)

EUROPE

OER2, Vienna, now near 11.78mc, using a fast-ticking metronome as an interval signal, has a power of lakw (Peters, Nelson, X.DX-Pa)
CZECHO- Praha, power 21 to 31kw, is broadcasting at present as follows: 11.84mc, 8:45-11sm; 6.01mc, 2:25-4:30pm; 6.01 or SLOVAKIA 9.55mc, Mon/Thur, 7-9pm to N. A... Frequencies used thus far by Praha 6.01, 6.115, 6.03, 9.55, 11.74, 11.76, 11.84, 11.87, 15.23, include:

and 15.32mc (X.DX, Peters, Dilg, Stansfield) ENGLAND GSA (6.05) now on 6-8pm; GSL (6.11) now on 9-11pm (Goldner, RBO, Graham, Ambrosius)... Historic G5SW of Chemlsford supplementing regular Deventry xmtrs. irregularly... GSK (26.1) will soon be inaugu-Greenwich Time signals, sixth pip being rated with beam to Africa... correct time redisted at: 4:45em, 8:15em, 11:45em, 1pm, 4:15pm, 7:45pm and 10:45pm. These are the world's most accurate time signals (BBC)

New telephone xmtrs. to work Rocky Point reported to be: TYE3 10.42... TYA2.9.05, is broadcasting to Algeria.2-3am. FRANCE TYE 18.1, DGG-13.18, Nauen, heard foning at Pam. DZH-11.46, heard at GER MANY

12:21pm, relaying Zeesen programs (Gozen, Hock)

GREECE Salonica Radio Club, plans to shortly inaugurate a lokw SW xmtr. to work on 15.6 meters (19.23mc) according to Short-Wave-Ser. PCJ, Eindhoven, will be off sir for several weeks time, dur HOLLAND ing installation of new super-power transmitter (Whitehouse-Ill)

Opening and closing signal of HATL/HAS3 is phrase of HUNGARY nine notes in two-part harmony, four notes repeated, followed by initial note. Announcements are Hungarian, French, German & English (Schmeichel) TFJ heard using freq. of 12.21kC irregularly (Ansell)

IAC, Coltano, usually uses 17.69 cmc freq. when foning (RBO ITALY IBS-14.48, Sao Paulo, calls Addis Abeba and Asmara frequently at Sam (Schmeichel-II1) ... 2RD will have two new xmtrs, one to be beamed Italian East Africa, the other on Far East, by next October (Stansfield)

LUXEMBOURG It is reported Luxembourg (LW) will soon have a SW relay but no definite steps have been taken as yet (Short-Wave-Service)

LKJ1-9.53, Jeloy, broadcasts foreign language school, Sunday 3-4am; first half German-Norwegian; second half English-Norweigan (Kure)

SPW-13.635, still on Mon/Wed/Fri 12:30-1:30pm; deep pitched bells sound for 5 min. prior to program's start, national anthem at exactly 12:30pm, then talk or news in Polish, followed by music. Maximum volume near close. Station requires sharp tuning (PD, Graham, RBO, X. DX)

PORTUGAL CSW, Lisbon, now on 11.0hmc, until 5 or 6pm, -then to 9.9hmc, with English period 7:05 to 7:30pm (English news at 7:15pm), program for S.A. at 7:35 to Apm, followed by striking of clock, national anthem and sign-off (*PD,RBO,Ambrosius,Sholin,X.DX)... CTlAA,Lisbon,Portugal. broadcasting Tuesday programs irreg. on 25 meter band (X.DX-Penna)... NEW-CUT, approx. 8.05, Lisbon, heard working Geneva at 3am; Portuguese phone on 9.2, and 10.25 (maybe other freqs. of CUT), heard working HBO at ham. English was used in the tests (*Gozen-New York City)

SPAIN Communist xmtr. ECN1-7.22, Barcelona, transmits war news in various languages weekdays from noon to lpm, and 4-5pm, Sun 5-7pm (** Short-Wave Service);;; Communist xmtr-7.165, Valencia, operates Tues/Fri noon-lpm; Socialist xmtr-7.31, Valencia, operates Mon/Sat 7-Sem... Radio San Sebastian-7.2mc, announcing "Radio Espanola, Espana por Espana, Radio Repete, Radiodifusora San Sebastian, "often heard 9-9:30pm (PD-III)

Sens sebastian - 1.2 mer, annothering hadro Espanola, Espana por Espana, hadro Repete, Radiodifusora San Sebastian, "often heard 9-9:30pm (PD-III)

SWEDEN A powerful new govt. SW xmtr. will soon be constructed near Motala... SM5SX-11.705, Stockholm heard irreg.near 6pm (PD-ILL)

SWITZERLAND On Saturdays, Geneva xmtrs, HBP-7.797 and HBL-9.595, have been testing from 6:35 to 7pm, then broadcasting program to Swiss natlenals in N.A. and S.A. from 7 to 8:15pm (ending with anthem). At 8:25 to 8:55pm, HBL tests on new freq. of 9.345mc, alternating with omnidirectional and S.A. aerials, preparatory to adopting this frequency. (*X.DX, Kure, Dilg, E.R. Roberts, Patton, Stark, Balbi, Goldner, Ambrosius)

TURKEY Construction on new 20kW S.W.xmtr. has started at Etime ssoud, near Constantinople. Will be most powerful in Near East (E.Radio) U.S.S.R. RAN-9.6, Moscow, now transmitting to N.A. daily 7 to 9:10pm (Hutchinson, Messer, CAM)... RNE-12, RIR-10.08 and RIO-10.16, heard working fone nightly at midnight. Very loud Soviet fone on 9.35mc, heard others heard on 6.725,10.75,14.485,14.97 and 15mc from midnight on: (Goldner, Sholin, Schmeichel, Gozen)

AFRICA

FVA-12.12, Alger, works Paris, using side-band secrecy at 3am, 6:15am and 2-3pm (*C.Miller-Ky, Schmeichel-Ill, Gozen-NYC)... phone TY12-4.185 reported heard on Thursday at 2am (E.R.Roterts)

BECHUANA- NEW-ZNB (or ZMB)-5.9, L5w,-owned by govt. at Mefeking, is LAND PROT testing daily 2-3am and 1-2pm; works telephone on same ECTORATE freq., with portable ZNC in Kalahari Desert at midnight, 2am, 9am and 2pm. Send reports to Chief Engineer (***Lindsay, Roche-SA)

CANARIAS EAJL3-10.37, Tenerife, trensmits: to Europe 2:15 to 7:05pm; to N.A., with women announcer, from 7:25 to 7:55pm and irregularly after

Rpm in Spanish for Latin Americs (X.DX-Ps, Messer-Meine)

EGYPT SUV-10.055, Cairo, works GCP-10.77, in scrambled speech or CW; occasionally straight voice, near hpm (Ambrosius-Mich, E.R. Roberts)

ERI TREA New Asmera xmtr-14.5, heard calling Rome at Sam (EGS-111) F.MORROCO CNR-12.83, Rebet, heard celling FTM, Peris, Set. et 8:15em. F.SOMALILAND FZE9-8.87, Djibuti, heard celling Peris et 2em (EGS-Ill)

LIBERIA John Cooper, ex-WABIS, of Akron, now operates government radio station ELA at Monrovia; as amateur-ELIA '7.115/7.210/7.39), he works XEILK (7.2) 12:30-2:30am irreg; as EL2A (11.105), he works XEILK

(14.04) in early evenings; power 500w. (**Roberts, Satterthweite. DeMyer)

MADAGASCAR Ameteur on 14.105mc heard in South Africa (A.R.A.)

MOZAMBIQUE CR7AA, Leurenco Merques, will soon commence test transmissions on the 19 and 25 meter bands (African Radio Announcer)

TRIPOLITANIA ICK-9.46, Tripoli, works IAC, Rome, at 2sm and 6-Ram.

ZSR-9.18, Klipheuvel, works Rugby near upm (Schmeichel-Ill) ... ZTJ-6.097, best heard ll: 45pm-12: 30em; Gymnastics at midnight (Cohen SP.MOROCCO "Redio Tetuen or Redio Guerdia Civil, "on aprrox. 6.515mc, broadcasts daily 4-5pm; heard in evenings near 7.003mc; as amateur

EA9AH-14.045, gives program and news in English li to 9pm on Saturdays; works hems irregularly in evenings using Spanish (*Nicolessy, Guilbert, Lippincott, Bird, Waite, Oxrieder)

NEW-FTHAJ, "Tunis Experimental, 60 watts, owned by M.de Matteis, 20 Es Sadikia, Tunis, transmits on 6.108mc in evenings (**Pleiber) ASIA-AUSTRALIA

AUSTRALIA Sked of VK3LR-9.58, Melbourne, is dealy 3 to 8:30sm and Fri.10pm to Seturdey 8:30sm. VK5DI-7.2888, S.W. Club of Adeleide, trans mits Saturdays from 9:30 to 10 and 10:30 to 11pm and irreg. (CSWRC)

CHINA Commercial XTV-9-19, Canton, calls XPC-9-2°5, Shanghai, with VERY loud signals in English at 8:20,8:50,9:20,9:15 and loam; occasionally XTV broadcasts music at llpm; XPC calls XTV in acrambled speech 3:10 to 3:55am and XPC calls XPK-9-08, Hankow, in English at 6am. These xmtrs. believed to be owned by China National Aviation Corp. (**Gozen, Schmeichel, DeMyer, C. Miller, Goldner). XGW-10. L2. Shenghai, cells KWY in San Francisco, nightly, at 10:30pm (*Schmeichel-Ill)

VPD2, Suva, now operating on 8.719mc, 5:30-7am (*Sholin, PD) FIJI'S F.INDO-CHINA It is rumored that F31CD-11.73, is an out-law xmtr. (LN) HONG KONG Sked. of ZBW3-9.525 is: Weekdays 11:30pm-1:30am and 4-10am -Set. 9:15pm-Sun 1:30em and 3em to 9:30em; power 2kw (FS-Ohio, Eders)

VWY-8.975, Poons, calls GBC-8.68, at 2:30am; VWY-17.L8, fones Rugby at 9:30em (Schmeichel) ... New 5kW xmtrs. are to be installed at Calcutta, Bombay, Madras and Delhi (CSWRC)... Amateur VU2CQ-14.350 and 11.02. 10w. works W2IXY and All-Continents Round Table near 7:30am. NEW QRA is-M. Mozoomder, Hindu Colony, Plot Number 9. Second Floor, 161 Vincent

Road, Dadar, Bombay (D. Hall - W2IXY . NYC)

Sked. of Oversess transmissions over new 50kW Nazaki xmtrs --for Eastern N.A. and S.A., daily 4-5pm over JZJ-11.P, JVN 10.66; for Western N.A. daily midnight-lam, over JZJ, and occasionally JVH (X.DX, Gozen, Goldner, Ambrosius, PD, Bell, Lippincott, Schmeichel, RBO, Patton, Hutch inson, Stark)... JVD-15.86, works KWU daily at Lipm; JVD usually works XOJ-15.785 in English at Apm (*Goldner-Ind, Nelson-Ore).. MYSTERY XMTRS IDENTIFIED: New telephone circuit between Shuri, Akinawa Islanda, using 4.30mc xmtr. and Kagoshima, Japan, using 4.3mc xmtr., opened December 21; J2AA, the Heneds Airdrome at Tokio, is the mystery xmtr.on 6.5mc (also heard on 9.9 [mc]. It can be heard reporting weather conditions evenings and early mornings on the coast (**Sholin-Calif)

JAVA Sked of NIROM xmtrs.is: Weekdays 6-7:30pm, 11:30pm to 2 am, and 5:30 to 10:30 or 11em (Sat. to 11:30em), Sun 7:30pm-2em, 5:30-10:30em. On Mon/Wed/Fri lest hour is native program (*Hardeman-Java) MACAO CQN-heard on 9.61mc after HJJABP left air-Mon.am(ES-Il1)

MALAYSIA ZHJ-6.0R, Penang, operates from 6:40 to 9:10am ex.Sundays.

A news bulletin is given about 7:35am (Cohen-NTC)

SHIPS 9MI-6.01, S.S.Kanimbla, 50w, relays programs to 3BO, Bendigo, irregularly from 5:45 to 7:00em, or later; a woman announces (*CSWRC).. ZMBJ-R.P4,S.S.Awatea, 300w, being heard louder then regular Aussie stations 1 to 3em and 6 to 7:15em. Is generally best Tues/Wed or Sat/Sun, when ship is near Wellington, N. Z. No IRC's are necessary. Xmtr sometimes goes off air for few minutes while orch. takes rest (*Balbi, Schmeichel, Dilg)

HSP-17.7LO, Bangkok, calls Tokio on Mondays at 5am and Ber lin, Mondays at 5am, and Thursday at 7am (Schmeichel). HSAPJ, announces

that no further S.W. reports will be verified (Young-S. Africa)

U.S.S.R. RV15-h.273, Khabarovsk, will promptly verify reports on its English programs, now put on at 9em daily since Jen.1 (#Wonn)

		Short-	Wave List cont. from Page 19)			
V50.64	5.925	HH2S	Port-au-Prince, Hait	ti,7-10, or 11pm.		
50.71	5.917	YV15RV	Valencia, Venezuela	5pm-midnight ex.Sundays.		
N50.85	5.90	ZNB	Mafeking, Bechuanals	and, 2-3am and 1-2pm & irreg		
V50.86	5.899	YV3RA	Barquisimeto, Venez	5:30-9:30pm ex.Sundays.		
S51.07	5.875	HRN	Tegucigalpa, Honduras, 6-9:30pm.			
51.24	5.855	HI1J	San Pedro, D.R.	11:40-1:40p,6:10-8:40pm.		
C51.28	5.85	YVIRB	Maracaibo, Venez.	10:45-12:40pm, 4:30-9:30pm.		
B51.55	5.82	TIGPH	San Jose, C.R.	N'n-2pm, 7-11pm ex.Sundays		
C51.72	5.80	YV5RC	Caracas, Venezuela	5:15-9:30pm, Sun 3:30-9pm.		
51.90	5.78	OAXAD	Lima, Peru.	Wed/Sat 9-11:30pm.		
S52.10	5.758	YNOP	Managua, Nicaragua	7:30-10pm, or later, ex.Sun.		
52.30	5.735	HC1PM	Quito, Ecuador.	Tues 9-11pm & irreg.		
C52.45	5.72	YV2RB	San Cristobal. Ven.	5:30-9:30pm ex.Sundays.		
52.45	5.72		Khabarovsk, U.S.S.R			
65.22	4.60	HC2ET	Guayaquil. Ecuador	Wed/Sat 8-10pm.(9am.		
70.20	4.273	RV15	Khabarovsk.U.S.S.R.			

SHORT-WAVE BROADCASTING STATIONS

SYMBOLS: N-	New st	ations	: F- change in frequ	uency: S= change in sked				
SYMBOLS: N- New stations; F- change in frequency; S- change in sked. C- change in call letters; U- exact frequency in doubt; B- frequency								
calibrations according to Oxrieder-IDA Frequency Bureau; J- Jumpers:								
stations ne	raistin	g in h	opping about: V- Va	rwing in fraguency				
DIAL METERS	MEGS	CALL	STATION STATION	TIME E.S.T.				
15.77	19.02	HS8P.T	Bangkok, Siam	Monday 7, or 8 to 10am.				
s16.86	17.79	GSG	Daventry, England	3-5 and 6-8:45am.				
16.87	17.78		Boundbrook, N.J.					
16.89	17.76	DJE	Zeesen, Germany	9am-5pm. (East Asia				
16.89	17.76 17.76	W2XE		12:05-5:15, 5:15-11am to 16				
18.72	16.03	KKP	Wayne, New Jersey	no on-lpm				
S19.43	15.44	XEBM	Kahuku, Hawaii	Sundays 8:30-9pm. exico 8 to 10:45pm & irreg				
19.52	15.37	HAS3		Sundays 9-10am.				
19.56		DJR	Budapest, Hungary					
19.50	15.34		Zeesen, Germany	8-9am to Central America.				
19.57 19.62	15.33 15.29	LRU	Schenectady, N.Y.	10am-3:45pm, Mon to 4:30pm.				
19.52	15.28	DJQ	Buenos Aires, Arg.	6am-5:55pm. (12:25pm Sun.				
19.63 19.64	15.28	W2XE	Zeesen, Germany	6-8, 8:15-11am, 11:10am to				
	15.27		Wayne, New Jersey	1-6pm. 12:15-4pm to Africa. 19M				
19.66	15.26 15.25	GSI	Daventry, England					
19.67	15.243		Boston, Mass.	Sundays llam-noon irreg.				
19.68		TPA2	Pontoise, France	2-2:40am, 5:55-11am.				
19.71	15.22	PCJ	Eindhoven, Holland	Sun 7:30-8:30am, Tues 4:30-				
70.70	7 5 27	WOVE	Diff to be seen to Done	6am, Wed 8-liam. See notes.				
19.72	15.21	W8XK	Pittsburgh, Penna.	9am-7pm. (Sun 11:10a-12:25				
19.74	15.20	DJB	Zeesen, Germany	12:05-5:15, 5:55-11am,-				
19.76	15.18	GS0	Daventry, England	3-5am to Australia & Asia.				
19.80	15.15	YDC	Bandoeng, Java.	5:30-llam. See sked-notes.				
19.82	15.14	GSF	Daventry, England	9am to noon to India.				
19.84	15.12	HVJ	Vatican City, Italy	10:30-10:45am. (Sun 6-8am.)				
19.85	15.11	DJL	Zeesen, Germany	Mid-2am, 8-9, 11:35am-4:30pm				
<u> </u>	14.92	LZA	Sofia, Bulgaria	Su 12:30-8, 10am 4:30pm, M/W				
				F/S 5-7am, Tu/Th 1-3pm.				
20.55	14.60	JVH	Nazaki, Japan	Evenings irregular.				
<u>n</u> 21.36	14.045	EA9AH	Tetuan, S. Morocco.	Saturdays 4-9pm.				
22.00	13.635	SPW	Warsaw, Poland	Mon/Wed/Fri 12:30-1:30pm.				
N24.23	12.380	CEB	Santiago, Chile	llam-lpm, 7 to 8, or 9pm.				
N24 23 V24 52	12.380 12.235	TFJ	Reykjavik, Iceland	Sundays 1:40-2:10pm.				
25.00	12.00	RNE	Moscow, U.S.S.R.	Sun/Wed 6-7am, Sun 10-11am.				
25.21	11.90	XEWI	Mexico D.F.	M/W/F 3-4pm, Tu/Th 7:30-				
				8:45pm, T/Th/F 10pm-mid etc				
\$25.24	11.885	TPA3	Pontoise, France	2-2:40,2:55-5am,11:15-6pm.				
25.27	11.87	w8xk	Pittsburgh, Penna.	7-10pm.				
N25.27	11.87	OLR	Prague, Czechoslov.	8:45-11am (or 11.84 freq.)				
25.32	11.85	DJP	Zeesen, Germany	llam-4:20pm to Africa.				
25.34 25.36	11.84	OLR	Prague, Czechoslov.	8:45-11am (or 11.87 freq.)				
25.36	11.83	W2XE	Wayne, New Jersey	7-10pm.				
N25.36	11.83 11.83	W9XAA	Chicago, Illinois	9am-5pm, Sundays 9-11am.				
<u>N25.36</u>	11.83	XEBR	Hermosillo, Mexico	2 to 4, or 5pm.				
25.40 \$25.42	11.81	2ROL	Rome, Italy	6:45am-12:30pm 25M				
s25.42	11.80	JZJ	Nazaki.Japan	4-5pm, midnight-lam.				
$\phantom{00000000000000000000000000000000000$	11.796	OAX5B	Ica, Peru	2-9:30pm, or later (Su-irr				
25.43	11.79	WIXAL	Boston, Mass.	Th/F 6-6:30pm, Sat 4-6:30pm				
25.47	11.78	0ER2	Vienna, Austria	Mon to Fri 10am-5pm, Satur-				
			•	day 10am-5:30pm.(to N.A.				
<u>s</u> 25.49	11.77	DJD	Zeesen, Germany	11:35-4:30, 4:50-10:45pm-				
\$25,53	11.75	GSD	Daventry, England	12:15-5:45pm.				
N25 55 25 58 825 60	11.74	HP5L	David, Panama	4-7pm.				
25.56	11.73	PHI	Huizen, Holland	S/M/Th/Sa 8:30-10:30am.				
\$25.60	11.73	CJRX	Winnipeg, Canada	6-midnight Sun 3-9.30nm				
25.61	11.714	TPA4	Pontoise, France	6-midnight, Sun 3-9:30pm. 6:15pm-lam.(5pm, Wed 5-6pm.				
25.63	11.705		Stockholm, Sweden	1:45-2:45am, 6:25-7, 11am-				
25.63 \$25.68	11.68	KIO	Kahuku, Hawaii	Thursdays 9:30-10pm.				
<u>v</u> 26.24	11.435		Havana, Cuba	8am-lam, Sun 8am-Nn, 6-9pm.				
N27.17	11.04	CSW	Lisbon, Portugal	2-6pm. notes.				
<u>\$27.27</u>	11.00	PLP	Bandoeng, Java	5:30-11am, 6-7:30pm (see-				
S28.14	10.66	JVN	Nazaki, Japan	4-7:40am and 4-5pm.				
				- 1com and 4->bm•				

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2:15-7:05,7:25-8, 8-9pm.
s28.93
                                  EAJ43 Tenerife, Canarias
                  10.37
  28.98
                                                Buenos Aires, Argen Mon/Fri 5-6pm & irregular.
                  10.35
                                  LSX
                                                                                            1:30-3pm to Belgian Congo.
5:30-11am, 6-7:30pm etc.
6:05-8pm. (2-4pm.
                  10.33
                                                Ruysselede, Belgium
  29.04
                                  ORK
S29.24
                                  PMN
                                                Bandoeng, Java
                 9.94
9.86
9.746
                                                Lisbon, Portugal
\sqrt{30.18}
                                   CSW
                                                                                            3-5pm irreg,5:15-10pm,Sat-
Relays CMQ 7am-lam.
V30.43
                                                Madrid, Spain
                                   EAQ
V30.78
                                                Havana, Cuba
                                  COCQ
                                                                                            9-10, 11:30pm-midnight.
Tues/Thurs/Sat 4-7pm.
2-3 and 8-11pm.
                  9.698
V30.94
                                  TIANRH Heredia, C.R.
                  9.693
9.662
9.666
9.66
                                  CTIAA Lisbon.Portugal
YNLF Managua, Nicaragua
J30.95
V31.04
                                                                                            Wed/Sat 3:45-5:30pm.
                                  CR6AA Lobito, Angola, Afr.
U31.06
                                                                                             6-10:30pm.
5:30-11am (see notes)
  31.06
                                   LRX
                                                 Buenos Aires, Argen
                  9.66
F31.06
                                   YDB
                                                 Sourabaja, Java.
                  9.645
                                                                                             1 1-2, 7-8:30pm.
M/W/F 12:40-7:30pm,T/Th/S
                                   HH3W
                                                 Port-au-Prince, Haiti
B31.11
   31.12
                                   2R03
                                                 Rome, Italy
                                                                                             12:40-7:45pm, Sun 1:20-5:30
                                                                                             6-8am, 5-11pm, Sun 5-8pm.
Mon/Fri 7-8:30am.
                  9.618
9.61
9.605
 \sqrt{31.20}
                                   HJlABP Cartagena, Colom.
v21.20
031.22
31.23
531.25
31.25
531.27
                                   CQN
                                                 Macao, Macao.
                                                                                                                                                  31M
                                                                                             11:45-1:15pm, 7-10pm.
                                                 Panama City, Panama
                                   HP5J
                  9.60
                                                                                             7-9:10pm.
                                   RAN
                                                 Moscow, U.S.S.R.
                                                Santiago, Chile 10:30am-noon, 6-8:30pm.
Geneva, Switzerland Sat 5:30-6:15, 6:35-8:15pm.
Eindhoven, Holland Sun 2-3pm, 7-8pm, Tu 1:30-3p
                  9 . 60
9 . 595
9 . 59
                                   CB960 Santiago, Chile
                                   HBL
 S31.28
                                   PCJ
                                                                                             Thur 7-10pm. See notes.
                  9.59
9.59
9.58
9.58
9.575
9.575
                                                                                             Sun 1-3, 5-llam.
Noon-8pm, Sun noon-7pm.
4-5:45, 6-8, 9-llpm to NA.
3-8:30am, Fri 10pm-Sat 8:30
  31.28
31.28
                                   VK2ME Sydney, Australia
                                   W3XAU Philadelphia, Penna
  31.32
                                                 Daventry, England
                                   GSC
S31.32
                                   VK3LR Melbourne, Austral.
B31.34
31.35
31.36
                                   HJ2ABC Cucuta, Colombia
                                                                                              6-10pm ex.Sundays.
                                                                                             6:30am-lam, Sun 8am-lam.
Sun 1:30-3:30am, Tu/Th/Fr
11:30am-12:30pm. (10:45pm
                                   WlXK
                                                 Springfield, Mass.
                                                 Bombay, India
                                   VUB
                                                                                             12:05-5:15,5:55-11am,4:50-
During day and to about 7p
2:25-4:30pm irr,M/T 7-9pm.
                   9 • 56
9 • 559
9 • 55
9 • 54
31.38
N31.38
N31.41
                                   D.JA
                                                 Zeesen, Germany
                                   HJ1ABB Barranquilla, Col.
                                                 Prague, Czechoslov.
                                    OLR
                                                                                             12:05-5:15,5:55-11am,4:50-
10:45pm to South America.
   31.45
                                    DJN
                                                 Zeesen, Germany
                   9 • 535
9 • 53
9 • 53
9 • 525
531.46
531.48
531.48
                                                                                             Tu/Fr 2-3pm, dly 4-5pm irr.
                                    JZI
                                                 Nazaki, Japan
                                                                                             4pm-mid, Sat 1pm-mid.
                                   W2XAF
                                                 Schenectady, N.Y.
                                                                                              6-11pm; Sun 3-4am etc.
                                                  Jeloy, Norway
                                   LKJ1
                                                 Hong Kong, Hong Kong 11:30pm-1:30am,4-10am; Sat
 $31.50
                                    ZBW3
                                                 9:15pm-Sun 1:30am,3-9:30am
9:15pm-Sun 1:30am,3-9:30am
(Armenia,Colombia 6-10pm.(pm, 6-8, 9-11pm.
Daventry,England 3-5,6-8:45,9-Nn,12:15-5:45
Buenaventura,Colom Mon/Wed/Fri N'n-2, 8-11pm.
 $31.55
31.55
31.55
$31.58
31.58
B31.58
                   9.52
9.51
9.51
9.50
                                    HJ4ABH Armenia, Colombia
                                    GSB
                                    HJU
                                    HJ1ABE Cartagena, Colombia
                                                                                                5-10:30pm ex.Sundays.
                   9.50
                                                                                             4:45-5:45pm ex.Sundays.
                                    PRF5
                                                 Rio de Janeiro, Brz
                   9.50
9.493
                                                                                             4-7am except Sundays.
                                    VKXME Melbourne, Austr.
                                                                                              7:30pm-midnight.
                                                  Veracruz, Mexico.
                                    XEFT
                   99999
 N31.61
                                                  Mexico D.F.
                                                                                              Evenings irreg.
                                    XEBT
 F31.65
31.73
N31.78
31.80
                                                                                              Evenings irreg.
                                                  Guadalajara, Mexico
                                    XEDQ
                                                                                              8-10,11pm-mid, to 5am Sun.
                                    TGWA
                                                  Guatemala, Guat.
                                                  Fort de France, Martinique 6:30 to 9pm or late
                                                                                              7am-mid, Sun 8-9am, 11:30am-
                                                 Havana, Cuba.
                    9.428
                                    COCH
                                                                                              1:30pm, 6-9pm.
                   9.35
9.345
9.33
9.30
9.125
8.84
8.84
                                                                                              Thursdays 7 to 8, or 10am.
 32.09
N32.11
                                    HS8PJ Bangkok, Siam
                                                  Geneva, Switzerland Tests Saturdays 8:25-8:55p
                                    HBL
 N32 11
N32 15
N32 26
N32 88
N32 88
N32 11
N3
                                    OAX4J Lima, Peru
                                                                                               6:30 to 11:15pm, or midnite
                                                                                              1-2:55, and 6-8pm.
                                    YNGU
                                                  Managua, Nicaragua
                                                                                               Sundays 6-7pm.
                                    HAT4
                                                  Budapest, Hungary
                                                                                               7-11:30pm except Mondays.
                                    HCJB
                                                  Quito Ecuador
S.S. Awatea"
                                                                                               1-3:30am and 6-7:15am irr.
                                     ZMBJ
                    8.795
8.75
8.719
8.665
                                                  Bogota, Colombia Mon/Thur 7-7:30pm.
Hong Kong, Hong Kong 4-10am. See notes.
Suva, Fiji's 5:30-7am except Sundays.
                                    HKV
                                    ZBW
  F34.40
                                                  Suva, Fiji's
                                    VPD2
 534.66
F35.27
J36.36
                                                                                               5:30-6:30pm or to 9pm irr.
1:30-2:30, 6-10pm
                                    CO9JQ Camaguey, Cuba
                    8.505
8.25
                                                  Managua, Nicaragua
                                    YNLG
                                    HC2CW Guayaquil, Ecuador
                                                                                               8-11pm except Sundays.
```

```
7.854 HC2JSB Guayaquil, Ecuador
7.797 HBP Geneva, Switzerland
7.55 TI8WS Puntarenas, C.R.
7.52 KKH Kahuku, Hawaii
7.38 XECR Mexico D.F.
7.315 YNLAT Granada, Nicaragua
7.20 ECN1 Barcelona, Spain
7.20
B38.20
$38.47
B39.68
39.74
$39.87
                                                          6-10:30pm except Sundays.
                               Geneva, Switzerland
                                                          Sat 5:30-6:15,6:25-8:55pm.
                                                          Evenings irregularly.
                                                          5-7, 8:30-10pm, Sun 5-6pm.
                                                          Tuesday 12:30-lam.
Sundays 7-8pm.
  40.65
 V41.00
                                                          8-10pm irreg.
N41.55
S41.67
                                                          Noon-1,4-5pm, Sunday 5-7pm.
            7.20
                               Radio San Sebastian, Spain, Evenings to 9:30pm Managua, Nicaragua 8-11pm. (later
            7.20
N41.67
                     YNAM
            7.10
 42.25
                     F08AA
                               Papeete, Tahiti
                                                          Tues/Fri llpm to mid. or-
<u>J</u>42.80
                               Tetuan, S. Morocco 4:30-7pm irreg.
Paramaribo, D. Guiana Mon/Wed/Fri 5:40-9:40pm.
            7.00
                     EA9AH
BL2.80
            7.00 PZH
6.90 HI2D
6.895 HCETC
 43.48
                               Trujillo City, D.R. Heard Saturdays at 7pm.
43.51
N43.80
                               Quito, Ecuador
                                                          Thursdays 8-10:30pm
            6.85
                     VP4TC
                               Port-of-Spain, Trinidad, heard Sat 4:30-4:50pm.
  43.99
                                                          5:30-9:40am.
                     XGOX
                               Nanking, China
Δήή • 58
Μή • 58
            6.805
6.775
6.75
                    HI7P
                               Trujillo City, D.R.
                                                         Evenings irreg.
                    HIH
                               San Pedro, D.R.
                                                          7:40-9:10pm except Sunday.
  44.44
                     JVT
                               Nazaki, Japan
                                                          4-7:40am irreg.
 本51 58 460
                     HC1TQ
                               Quito, Ecuador
                                                          Sundays 5-7pm.
                                                                                     (llpm.
            6.73
6.727
6.687
                     HI3C
                                                          6:10-7:40pm;irreg late as
                               La Romana, D.R.
                    PMH
                               Bandoeng, Java
                                                          5:30-llam. See notes.
                                                         3.7-10:30 or 11:30pm ex.Sun
Sun 5:30-7:30pm,Tu 9-11pm.
12:10-1:40pm,5:40-8:40pm.
 V44.86
                    TIEP
                               San Jose, Costa Rica
Guayaquil, Ecuador. S
845.22

145.25

145.29

145.60

145.80

145.80
            6.635
                    HC2RL
            6.630 HIT
6.625 PRA
                               Trujillo City, D.R.
                    PRADO
                                                          Thursdays 9-11pm.
            6.525 PRADO
6.578 HCVT
6.555 TIRCC
6.545 YV6RB
6.545 YV1GR
6.545 YV1GR
6.52 YV1GR
                              Riobamba, Ecuador
                              Ambato, Ecuador
                                                          Broadcasts irregularly.
                               Trujillo City, D.R.
                                                          5:10-8:10pm ex.Sundays.
6-9:30pm.
                               San Jose, C.R.
C45.84
B45.87
C46.01
                              Bolivar, Venezuela
                                                         8-10pm.
                                                                                           49M
                                                         4-5pm.
1-2:30, 8-10pm.
                              Tetuan, S. Morocco.
                              Managua, Nicaragua
                              Valencia, Venezuela 10:30am-1:30pm, 5:30-9:30pm
 46.15
            6.50
                    TIOW
                              Port Limon, C.R.
                                                          10-11:30am, Sundays 2-3pm.
N46.15
                    YV1RM
                              Cristo de Aranza, Venezuela, will be testing.
            6.50
6.479
6.477
到6.15
                    HIL
                              Trujillo City, D.R.
                                                         5:40-7:40pm ex.Sundays.
則6.31
則6.33
46.73
                    HI8A
                              Trujillo City, D.R.
                                                         5:40-7:40pm ex.Sundays.
                    HITA
                              S.F.de Macoris, DR.
                                                         5:10-6:40pm ex.Sundays.
            6.42
                    HILS
                              Santiago, D.R.
                                                          6:10-8:10pm ex.Sundays.
 46.80
            6.41
                              San Jose, C.R.
El Valle, Venezuela
                    TIPG
                                                          6-11:30pm.
                                                         5-9:30pm, ex. Sundays. 6:30-10:45pm.
C46.88
            6.40
                    YV5RH
            6.40 YV5RH
6.39 YV1RH
6.38 YV5RH
6.37 YV1RG
6.357 HRP1
6.344 HIX
6.31 HIZ
6.30 YV4RD
6.282 CHB-
6.282 HIG
J46.95
C47.02
                              Maracaibo, Venez.
                                                                                         (Sun
                              Caracas, Venezuela
                                                         llam-lpm, 5:30-9:30pm ex.
时7.10
                                                         5:30-8:30pm.
                              Valera, Venezuela.
 47.20
                              San Pedro Sula, Honduras 7:45-10pm ex. Sundays.
B47.27
                              Port-au-Prince, Haiti. not heard recently. Trujillo City, D.R. Tues/Fri 8:10-10:10pm.
17.27
147.54
147.54
147.76
147.77
147.92
                                                         5:10-7:40pm ex.Sundays.
6-10pm except Sundays.
                              Trujillo City, D.R.
                              Maracay, Venezuela
                              Sancti Spiritus, Cuba 4-6, 9-11pm ex. Sundays.
Trujillo City, D.R. 8:10-9:40pm, T/F 6:40-8:10p
            6.28
                    HIG
            6.27
                    YV5RP
                              Caracas, Venezuela
                                                          6:30-9:30pm or later.
B47.92
V48.05
            6.26
                                                         7-11pm.
                    OAX4G
                              Lima, Peru.
            6.243 HIN
                              Trujillo City, D.R.
                                                         7:10-9:10pm.
S48.11
            6.235 HRD
                              La Ceiba, Honduras
                                                          7:30-10:30pm.
以8.39
以48.47
                                                         8-9am, 11am-2pm, 5-9pm.
            6.20
                    COKG
                              Santiago, Cuba
            6.198 HI8Q
                              Trujillo City, D.R.
                                                         4:40-8:40pm.
            6.19
                    HILA
                              Santiago, D.R.
                                                         10:40am-1:40pm, 6:40-9:40pm
V48.59
N48.67
B48.78
V48.78
V48.78
            6.174 XEXA
                              Mexico D.F.
                                                         8-10am, 3-5, 7-11pm.
            6.164
                                                         8-11pm.
                    0AX1B
                              Chiclayo, Peru
                   YV5RB
CB615
            6.156
                              Caracas, Venezuela
                                                         3:30-10pm.
            6.150
                              Santiago, Chile
                                                         4-7pm.
            6.15
                    HI5N
                              Santiago, D.R.
                                                          6-7am, no on-2pm, 6-9:30pm.
            6.15
                              Winnipeg, Canada
                    CJRO
                                                          6-mid, Sun 3-9:30pm.
 48.81
                              Bulawayo, S. Rhodesia Mon ilam-Nn, Tu/T 1:15-3:15
            6.147
                    ZEB
                                                           pm, Sun 3-4:30a, F 10-10:45
548.82
            6.145 HJ4ABU Pereira, Colombia
                                                          6:30-10pm.
```

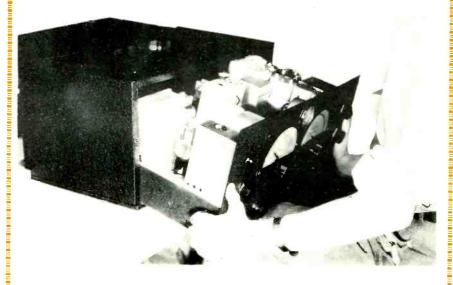
```
6.140 W8XK
                                                                                  10pm-lam.
 48.86
                                           Pittsburgh, Penna.
                 6.138 HJ4ABD Medellin, Colombia
J48.87
                                                                                  8-llpm.
                 6.137 CR7AA
                                                                                   11:45pm-12:30pm,4:30-6:30a
S48.88
                                           Laurenco Marques,
                                                                                  9:30-11am, 12:30-4pm.
                                           Halifax, N.S., Canada relays CHNS irregularly. Georgetown, B. Guiana 4:45-8:45pm ex, Sundays. Kuala Lumpur, FMS, Sun/Tues/Fri 6:40-8:40am.
B48.93
S48.93
48.94
148.94
                 6.132 VE9HX
                 6.132 VP3BG
                6.13
                             ZGÉ
                                           Kuala Lumpur, FMS,
                                           Havana, Cuba
Montevideo, Uruguay
                                                                                   N'n-lam, Sun 10am-4,8-10pm.
                 6.13
                             COCD
                                                                                  8am-noon, 2-10pm.
10:30a-2:30pm,5:30-11:30pm
                 6.125
  48.98
                            CXAL
                6.122 HJ3ABX Bogota, Colombia
6.122 OAX4P Lima, Peru
 49.01
                                                                                   Noon-lpm, 9-lipm.
 49.01
                 6.12
                                                                                   10-11pm.
 49.02
                             W2XE
                                           Wayne, New Jersey
                                                                                   7:30pm-midnight.
                 6.12
                                           Veracruz, Mexico.
 49.02
                             XEFT
                                                                                   8pm-midnight.
N49.02
                 6.12
                             XEPW
                                           Mexico D.F.
                                                                                   relays XEFO to 1:30am.
                                           Mexico D.F.
                 6.117
                             XEUZ
N49.04
                 6.115 HJ1ABB Barranquilla, Col.
                                                                                   6-10pm except Sundays.
J49.06
                                            Guadalajara, Mexico
Daventry, England
                                                                                   8-11pm.
                 6.115 XETU
c49.06
                                                                                   9-11pm.
sli9.11
                 6.11
                             GSL
                                                                                   Sa 9:35-Su 2:05am, Su 7:05-
                                            Calcutta, India
 49.11
                 6.109 VUC
                                                                                   10:35am; daily 1:35am on-
                                                                                   Mornings irreg.
                 6.108 FT4AJ
N49.11
                                           Tunis, Tunisia
                                                                                   5:30-10pm ex Sun, Sat to 11 6-11pm, Sat 6pm-lam.
                 6.108 нуцавв
349.11
                                           Manizales, Colombia
                 6.10
                                           Boundbrook, N.J. Chicago, Illinois
  49.18
                             W3XAL
                                                                                   11pm-2am.
                                                                                                                (5:15pm.
                             W9 XF
  49.18
                                            Belgrade, Yugoslavia 1-3am, 6:15-8:15am, noon-
  49.18
                 6.10
                             YTC
                                                                                   7:30-10:30pm.
                             НЈ4АБЕ Medellin, Colombia
到9.20
                 6.097
                                                                                   11:45pm-1am, 3:15-7:30,9am-
4pm, Sun 3:30-4:30,8-10:15a
<u>549.20</u>
                 6.097
                             ZTJ
                                            Johannesburg.S.Afr
                                                                                   5:30-11:30pm, Sun 3-11:30pm
8-10pm.
149.26
N49.26
                 6.09
                                            Bowmanville, Canada
                             CRCX
                 6.09 HJ4ABC Ibague, Colombia
                                           Ibague, Colombia.
NESTS STATES OF THE PROPERTY O
                                                                                   7-11pm.(2:30p,Tu/Th 8:20a-
M to F 5:40-6:10,11:25am-
                 6.083
                             VQ7L0
                                            Nairobi, Kenya.
                                                                                   7:30-9am and 6pm-lam.
                  6.08
                             W9 XAA
                                            Chicago, Illinois
                                            Penang, S.S.
Colon, Panama
                  6.08
                                                                                    6:40-9:10am ex.Sundays.
                             ZHJ
                                                                                   7-10:30pm.
                 6.075 HP5F
                                           Maracaibo, Venez.
Vancouver, B.C. (2w)
Bogota, Colombia
                                                                                    5-10pm.
                 6.075
                             YVIRD
                                                                                     6-7:30pm, Sun 1:45pm-lam.
N49.42
                 6.07
                              VE9CS
                                                                                   7pm-midnight ex.Sundays.
B49.41
                 6.069
                             HJ3ABF
                  6.06
                              0XÝ
                                            Skamlebaek, Denmark
                                                                                   1-6:30pm, Sun 11am-7pm
  49.50
                                                                                   8-11pm.(Thurs 5:40-8:10am.
49.50
149.50
49.50
                  6.06
                             W3XAU
                                            Philadelphia, Penna
                                                                                    Sat 10:40pm-1:10am, Mon/Wd-
                                            Singapore, S.S.
                  6.06
                              ZHI
                                                                                    6:30am-8pm,11pm-2am,S 8-8p
                             W8XAL
                                            Cincinnati.Ohio
                  6.06
FN-149996577255988
                  6.055 HJ3ABD Bogota, Colombia
                                                                                   7pm-midnight.
                                                                                    6-8pm.
                  6.05
                                            Daventry, England
                              GSA
                  6.05
                                            Colombo, Ceylon
                                                                                    6:30-7:45am.
                  6.042 HJ1ABG Barranquilla, Colom
                                                                                    6:30-10pm ex.Sundays.
                  6.04
                              WIXAL
                                            Boston, Mass.
                                                                                    Sun 5-7pm, Mon/Fri 7-9pm.
                                                                                    2:30-8:30pm.
                  6. Oli
                              PRA8
                                            Pernambuco, Brazil
                  6.03 HJ4ABP Medellin, Colombia
6.03 HP5B Panama City, Panam
                                                                                    7-11pm except Sundays.
                                                                                    8-10:45pm.
                                            Panama City Panama
                  6.03
                                                                                    10am-2am.
                              VE9 CA
                                            Calgary, Canada
                                                                                    5:30-10:30pm ex.Sundays.
10pm-lam (not heard lately
11:35-4:30pm,4:50-10:45pm.
                  6.025
                             HJIABJ
                                            Santa Marta, Colom.
                  6.02
                              XEUW
                                            Veracruz, Mexico
                  6.02
                                            Zeesen, Germany
                              DJC
                                                                                    4:40-9:40pm except Sundays
 749.86
                  6.017 HI3U
                                            Santiago, D.R.
                                                                                   4-11pm, Sunday 4-9pm.
7:55am-10pm or later.(irr.
2:25-4:30pm,Mon/Th 7-9pm-
5:45 to 7am, or later.
car, 10-11am.
                  6.012 HJ3ABH Bogota, Colombia
  49.91
   49.92
                  6.01
                              COCO
                                            Havana, Cuba
                                            Prague, Czechoslov. S.S. "Kanimbla"
                  6.01
 FL9.92
                              OLR
 <u>s</u>49.92
                               VK9MI
                  6.01
   49 95
49 95
49 97
                   6.01
                              FIU
                                             Tananarive, Madagascar
                                                                                    7:45am-lam,Sun 9am-11:15pm
7-10am, 1-2, 7-10pm.
10am-1:45am.
                  6.005 CFCX
                                            Montreal, Canada
                  6.005 HP5K
                                             Panama City, Panama
                              XEBT
                  6.003
                                            Mexico D.F.
 Sun/Mon/Wed/Fri 4-5pm.
                  6.00
                              RNE (RV59) Moscow, USSR.
                                                                                    (7-11pm) see 9.33mc.
                               OAXLJ
                  6.00
                                             Lima, Peru.
                                             Bucaramanga, Colom. 6-10pm.
Georgetown, B. Guiana 4:45-8:45pm, Sun 8:45am-(S
                  5.99
5.98
                               HJ2ABD
                                            Bucaramanga, Colom.
 B50.17
                               VP3MR
                                                                                      11am-2pm,8:30-10:30pm ex-
                  5.955 HJN
                                             Bogota, Colombia
```

V50.38

YOUR—1937—RECEIVER

RME-69 SINGLE SIGNAL SUPER

FREQUENCY RANGE 550 KC TO 32000 KC



STANDARD FEATURES FOUND IN EVERY RME-69

- * R.F. stage ahead of first detector gives high ratio of signal to noise level.
- * Optional crystal filter for knife-edge selectivity.
- * Maximum sensitivity less than one microvolt absolute.
- * Built-in coils with wiping silver contacts. continuous band spread from 550 to 32000kC.
- * Tuning dial accurately calibrated in megacycles.
- * Separate trimmer for maximum resonation of R.F. circuits.
- * Carrier level indicator shows R's and DB's.
- * Optional AVC control.
- * All elements carefully treated for tropical use.
- * UNCONDITIONALLY GUARANTEED.

Bulletin 69 for information on receivers

INTERNATIONAL DX 'ERS ALLIANCE

BLOOMINGTON, ILLINOIS. U.S.A.



