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Ken Boord

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> Kenneth R. Boord, Editor WTHE WORLD AT A TWIRL* 948 Stewartstown Road Morgantown, West Virginia U S A

THE WORLD AT A TWIRL* will be mailed promptly . . . POSTPAID BY FIRST-CLASS SURFACE MAIL . . . to anyone, anywhere in the world FOR THIS ONE PRICE TO ALL!

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THE WORLD AT A TWIRL

COMPILED BY Ken Boord*

*Former Shortwave Editor (1944-1955) of RADIO & TELEVISION NEWS Former Contributing Editor, POPULAR ELECTRONICS Official East Coast North America Monitor, RADIO AUSTRALIA



FIRST EDITION - SUMMER - 1956



WITH DEEP RESPECT . . . and admiration . . . it is a distinct privilege to dedicate this FIRST EDITION of The World At A Twirl to the Dean of active U.S. SWL's . . . a pioneer in the field of international shortwave radio DX-ing . . . the most methodical DX-er whom I have ever known . . . and a true gentleman . . . my good friend and long-time consultant and adviser . . .

MR. AUGUST BAIBI, Los Angeles, California, USA

Mr. Balbi's Shortwave Listening Post set-up (shown below left) is the same today as it was when this photo was made several years ago. Equipment includes a HAMMARLUND HQ-129k (1947 model); a HALLICRAFTERS SR-20 (1942); a RME DB-20 preselector (1942), and his piece de résistance—a custom-built 15-tube HCLMES—manufactured in Los Angeles, California, 1936, equipped with a 15" Jensen high-fidelity speaker. Of the receiving equipment he has used over the past 23 years, Mr. Balbi comments; "The HCLMES is the most powerful shortwave receiver, with the best tone, I have ever had. My first receive, back in 1933, was an all-wave MIDWEST—truly the best-looking piece of junk ever sold as a shortwave receiver. I did hear VL2ME, Australia, one Saturday on it (March 5, 1934) and verified that station. Next, I had a 10 AW PATTERSON, a good receiver for that time, but with no calibration—just 1-100 markings on the dial; it had lots of harmonics to boot! My best antenna was the RCA 'Spiderweb' (1938).

wmy very best 'eatches' verified were S.S. KANIMELA, a 50-watter aboard a ship which had regular broadcasts and which plied between Sydney, New South Wales, and Perth, Western Australia, operating on about 6.010, at 1400 GMT during a heavy rainstorm on April 18, 1938; call was 9M1. Next, was Johannesburg, South Africa, on 6.010, before it was destroyed by fire back in 1935 (heard March 29, 1935; it was of very low power; call was ZTJ; I was one of the fortunate few who received a verification from this one. Third, was a 2.5-watter, located at Vancouver, B. C., Canada, VE9CS, heard irregularly with fair signal but always with a terrific fade, on 6.100 (logged June 10, 1935). There are several others I consider 'rare catches'--they include Java's PLV, Malabar, 9.415. My first 'veri' was from IETE, 9.600, Erickson Telephone Company, Mexico City, Mexico. This one was logged November 30, 1933.**
Of all the verifications he has received, Mr. Balbi considers the best-designed were those of Warsaw, Poland; Martinique, and the British Malayan Broadcasting Corp., ZHP, Singapore, 9.690 (heard July 21, 1938).

Mr. Balbi was an early member of the International Short Wave Club, East Liverpool, Ohio (1933; this club is now the ISWC, London); he was co-editor of Globe Circler (IDE-International DX-ers Alliance); has long been a member of the Universal Radio DX Club (UNDXC) of Hayward, Galif., and has belonged to several local shortwave groups. He has been Official West Coast Monitor for Radio Australia since 1941. Mr. Balbi compiled the PHILCO Shortwave Log for many years, and for still many other years, he published his own Shortwave Log.

In 1934, the Los Angeles Evening Record described Mr. Balbi as "the most methodical shortwave dialer in town." The reporter who wrote that piece should see August's Shortwave Log now! I've seen it! His Log contains pages upon pages for each band, with frequencies listed every 5 kcs., and includes all stations he has ever heard on each individual frequency!



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August maintains another book for special items -- such as new stations, changes in frequencies, changes in power, and so on. These and other books, folders, and current radio publications occupy the bottom shelf of August's rack (see photo at left). In the picture -- along with Mr. Balbi and his Shortwave Listening Post -- are two of his "more precious" OSL's. At bottom right is the well-designed QSL card of old SPW, Polskie Radio Warsaw, Poland, which listed a frequency of 13.635 with 10 kw. It confirmed Mr. Balbi's reception of February 26, 1938. At that time. SFW was scheduled weekdays 2300-0100, Saturdays and Sundays 2300-0200 GMT. Top QSL was from TILNRH, "The Voice of Costa Rica, Heredia, Costa Rica, 9.670, established by Amando Cespedes Marin, May h. 1928. According to the QSL, TI-4-NRH (then NRH) was one of the original five shortwave stations of the world, establishing Costa Rica on the same level of radio with England, Holland, and the United States of America. Built with USA radio parts, all the way from 7.5 watts, up to 15, 50, 75, 100, 150, and now to 500 watts, crystal-control; it has no commercial income but with plenty of love. culture, and fraternity, towards happiness, we have friends all over the world, w The Certificate of Reception entitled August "to be an active Member of the NRH FRATERNAL ORDER that offers you an international contact with regular Brothers, that believe in true friendship without frontiers nor race, as T have done it and demonstrated by Mail and by Radio. since May hth. 1928. so said Sr. Cespedes. Incidentally, WORLD RADIO HANDBOOK (1956) lists this station as TINRH, 9.692, still "La Voz de Costa Rica," ("The Voice of Costa Rica"), scheduled 1500-1700 and 2200-0300 GMT; director and owner: Amande Cespedes M.

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IF YOU'VE tuned the SW bands recently, I'm sure you'll agree that . . . for the first time in many years . . . SWL'g is truly coming into it's own!

And it is attracting more devotees today than ever before!

That interest in SWL'g is now at an all-time high is evidenced by the growing number of reports being received by the leading shortwave radio clubs of the world . . . by an increase in reports to broadcasters . . . by a step-up in reports . . . both as to quantity and quality . . . to DX Editors.

WHY THIS INCREASED INTEREST?

Largely, because SWBC DX itself is now at an all-time high; And predictions . . . in view of the progress of the present sunspot cycle . . . point to even better DX to come in the months immediately ahead;

* Already, it is becoming increasingly possible to log stations heretofore inaudible in many parts of the world . . . especially as stations "flock" to the higher channels.

In these circumstances . . . naturally . . . an up-to-the-minute SW Guidebook is a *must* for the serious SW DX-er
. . . RIGHT NOW! In the past, such has not been available at this season of the year. And so it is . . . on the
insistence of many SWL'g friends throughout the world . . . that I have attempted to produce in this publication the
most valuable, current information that I could obtain . . . carefully chosen and edited from sundry sources from the
uttermost points of the earth.

PREFACE #

Neither time nor expense was spared to bring to you . . . my SW-radio friends the world around . . . what I sincerely trust you'll find to be one of the most useful pieces yet offered to the ISW-listening public.

I regret that it was physically impossible to get this publication to you earlier . . . by July 1, as anticipated . . . but it has been a tremendous job . . . especially for one person. I have done practically all the work on the entire book (except for the actual printing details) . . . even to typing the final entire compilation. Hence, I can not "share" the responsibility with any others for typographical errors herein! I do believe the delay necessitated by the amount of time, effort, and hard work that went into this Guidebook has been justified in the end result.

* Careful planning . . . plus the advance advice of many of the top-flight experts in this field . . . have resulted in the method of presentation you'll find in the pages that follow.

I earnestly hope that this FIRST EDITION of "The World At A Twirl" will help YOU . . . my DX friend . . . to "bring the world to your very fingertips."

Most cordially,

KENNETH R. BOORD

Ken Board

Morgantown, West Virginia - USA 20 July 1956

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LITERALLY, hundreds of individuals and organizations have contributed to the success of this endeavor. To one and all I am
      deeply grateful . . . including broadcasters throughout the world who so generously sent me their summer schedules and fre-
      quencies in response to an urgent "last-minute" appeal . . . radio clubs . . . DX Editors . . . and, particularly, to former
      Monitors of my International Shortwave Department in RADIO & TELEVISION NEWS.
      SPECIAL THANKS go to the "core" of SW Monitors, Radio Clubs, DX Editors, and others who have aided me in a fundamental way
      ... by prompt and full response to my frequent recent specific requests for certain invaluable data to "round out" this
      publication . . . or for favors of past years . . . to the mutual benefit of all of us. This group includes:
        AUSTRALIA -- Dorothy Sanderson; Graham Hutchins (DX Editor) and Robin Wood (Overseas Programme Director) of RADIO AUSTRALIA;
      Rex G. Gillette, Edward M. Williams
        AUSTRIA--Heinrich Philipp (AUSTRIAN DX-CLUB)
        CANADA -- Alberta: Guenter Duering; British Columbia: J. Cowan Adam; Newfoundland: Roland C. Peddle, Jr.; Ontario: Robt. C.
      Kenny (Hon. Sec'y, THE WORLD FRIENDSHIP SOCIETY OF RADIO AMATEURS); Albert E. Bromley, Ted Livecque; Quebec: R. E. Fleischman
        CYPRUS -- Paul Kary (formerly of Johnstown, Pennsylvania, USA)
        DENMARK--O. Lund-Johansen (Editor, Publisher, WORLD RADIO HANDBOOK); Eyvind Fledelius
        ECUADOR -- Clayton Howard (Technician, HCJB)
        FRANCE--Robert Mercier (Editor, LA RADIO MONDIALE)
        GERMANY -- Horst A. C. Krieger (DX Editor, DEUTSCHE WELLE); Fritz Buettner
35
        GREAT BRITAIN -- Sidney Pearce, John C. Catch, Roy Patrick; Arthur E. Bear (Hon. Sec'y, INTERNATIONAL SHORT WAVE CLUB);
      Bernard J. C. Brown, B. C. Editor, and Peter Bysh, Hon. Sec'y and Treasurer/QSL Manager, INTERNATIONAL SHORT WAVE LEAGUE;
      Chris Denning, Bernard D. Rodger
        HATTI--M. E. (Mardy) Picazo, Technical Director, 4VEH
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      Ian Hardwick, Len M. Collett
*
        NORWAY--Arne Halvorsen; KRISTIANSAND S-DX-CLUB; HEUREKA DX-CLUB
*
        OKINAWA--Sgt. John D. (Doc) Bates (U. S. Army)
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        PORTUGAL -- Manuel A. Mesquita e Sousa
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        SPAIN--Luis Diez Alonso
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SWITZERLAND -- Russell Henderson, DX Editor, Swiss Broadcasting Corporation

UNITED STATES -- California: August Balbi, Paul Dilg, Capt. Frank Winch; Charles C. Norton (President, UNIVERSAL RADIO DX CLUB); David Morgan (K6DDO) and Phil Finkle (Editors, Western Section, UNIVERSAL RADIO DX CLUB); Carl B. Rosenauer, Lloyd Gay, Charles West Dyke, Bob Knowles, Ken and Brian Tandrow, William Flynn, Alan McPhadden, Mike Christie, Robert Britt Cooper II, Harold Stein, J. Art Russell, John J. Caynor. Colorado: John D. (Jack) Hathaway. Connecticut: Anson Boice (Editor, former UNITED 49 ERS RADIO SCCIETY); Ernest F. and John R. Gates, F. B. Roberts, Delaware; George R. Cox, William F. Herd, District of Columbia; FOREIGN BROADCAST INFORMATION SERVICE; Rubens J. Villela (formerly of Brazil). Florida: Jack Sherman, Jack Gardner. Georgia; C. R. Patterson, Bill Fargo. Idaho; William Hickman. Illinois; C. F. Goepper, Norman Baetz; Stephen F. Foster and Harry B. Rossener (Editors, ASSCCIATION OF MID-WEST SHORTWAVE LISTENERS). Indiana; A. R. Niblack, former Shortwave Editor and now Technical Consultant, UNIVERSAL RADIO DX CLUB; John Leary, Rev. Carl F. Click. Towa: Dave Lund, Gerry Dexter. Kansas: David Dary, Francis Rugel. Kentucky: William N. (Bill) Roemer, John Alcock. Maryland: Richard F. Cleveland. Matt Zahner, Carroll H. Weyrich (Co-Editor, Broadcast Band Section, NEWARK NEWS RADIO CLUB). Massachusetts; Gilbert L. Harris, Francis Welch, Galen Balfe, Norm Rivers, Bruce Cushman, Harry J. Hibbard, Ted Van Gilder, Ralph H. Kuhnert. Michigan: J. T. (Tom) Ferrell, Tom Becker, John DeMyer, Ted Harris, Alex C. Fried. Missouri; Herbert Updike, David Drummond. Nebraska; Marvin E. Robbins, Shortwave Editor, UNIVERSAL RADIO DX CLUB; Richard D. Sklenar. New Hampshire; Bob Hill (Wlarr), Editor, Eastern Section, UNIVERSAL RADIO DX CLUB; Dr. Ralph A. Parker. New Jersey: Stewart C. West, John J. Oskay (K2BUW); NEWARK NEWS RADIO CLUB (Irving R. Potts, President; Henry (Hank) Bennett (W2PNA), Shortwave Editor); Harry A. Harchar (W2GND), Editor, BOYS' LIFE; Simon Scheiner; James J. Hart (former Shortwave Editor, NEWARK NEWS RADIO CLUB); Frank E. Wooley, Edw. I. Broome. New York: Edward F. Bellington, George Chatfield, Harry Mast, Jr.; Rene Rastorfer, Gus Kroll, John Hoffman, Louis Geis, Stanley F. X. Worris, A. Maurice; Ray Edge, NATIONAL RADIO CLUB; Henry A. Machajewski, Sr.; Robinson B. Brown. North Carolina; Grady C. Ferguson, Lewis M. Jones (USAR). Ohio; Charles S. Sutton; Ribor Gasparik, VATICAN RADIO CORRESPONDENT; John H. Bishop, Emmet G. Riggle, Harold Buehler, Joe P. Morris, Allyn R. Miller, Ronald Guentzler, Robert L. Grenell, Charles E. Diehlman. Oregon: Andrew H. Koch, John Callarman. Pennsylvania: Bill Cooley (W3TNZ); Chester F. Bachman; Carleton Lord, Special Features Editor, NEWARK NEWS RADIO CLUB, and Associate Editor, former RADX; John Zerosh, Biddle Arthurs, Jr.; Joe Esser; Arthur (Art) Hankins, formerly a club Shortwave Editor (I believe, VICTORY RADIO CLUB); Charles A. Black, Charles Gonder. Rhode Island: Stuart B. Fuller, Steve Brookner, Edward W. Martin. Texas: Ramon H. Stark. Virginia: Albert K. (Ab) Saylor, Floyd F. Backus, Roger (VOICE OF AMERICA) and Jane Legge; Norman Kriebel. Walter Smith. F. D. Chamberlayne. Herbert Franklin Klein. Washington: Ellis Ogilvie, Wallace Treibel. West Virginia; R. J. Friant, Keith Shilts, Bill Huff (WoIXG); Basil B. Bennett (W8GEP). Wisconsin; Edward Buchholz, Dennis B. Glowienka, Skip Tonsi. Wyoming: Robert W. Lane.

FINALLY, to any others whose names may have been inadvertently omitted from this listing, I am indeed also grateful.

I AM DEEPLY APPRECIATIVE of the excellent technical assistance of my good friends--John Luchok, Editor, and David Creel, Photographer, College of Agriculture, Forestry, and Home Economics, WEST VIRGINIA UNIVERSITY-- and C. H. (Friday) Fields, Director of Information, WEST VIRGINIA FARM BUREAU, all of Morgantown, West Virginia.--K. R. B.

A POLICY STATEMENT - THE JAMMING OF INTERNATIONAL BROADCASTS

I wish to set forth here . . . briefly and concisely . . . the position of "The World At A Twirl" with regard to (1) the JAMMING OF INTERNATIONAL SHORTWAVE BROADCASTS, and (2) the ANTI-JAMMING CAMPAGN initiated by the International Short Wave Club, London, of which my good friend and long-time cooperator, Arthur E. Bear, is the Hon. Secy. In this connection, I am deeply indebted to Albert K. (Ab) Saylor, Virginia, USA, for his summary of the situation, which agrees in large measure with the (1) solicited and/or (2) voluntary opinions of many of the leading contributors to "WT" . . .

- 1. There appears to be GENERAL AGREEMENT THROUGHOUT THE WORLD that the jamming of international shortwave broadcasts is deplorable.

 ISWC is to be commended on its inauguration of the Anti-jamming Campaign.
- 2. However, as one prominent USA SWL expressed it: "I feel that if we started a campaign to bombard the 'guilty' stations with letters of protest . . . to tell them that they are driving the listening public away from their transmission with this 'child's-play' . . . they might soon come to realize that the voice of the public is a much stronger media than they have heretofere considered it."
- 3. It would be "wonderful" if SWL's the world around would VOLUNTARILY agree NOT to send reports to stations in "offending" countries and, PERHAPS, even to NOT report the reception of such broadcasters in club bulletins, magazines, and so on.
- 4. But to wexpel* (or threaten to expel) a listener from a radio club is JUST WHAT "THEY" (the JAMMERS) would like us to do! They appear to eperate on the theory of "divide . . . and then destrey!" Once a club dropped some of its "nonconforming" members, that could would likely be of great help to the JAMMERS!
- 5. If diplomatic negotiations between East and West and/or through the good offices of the UNITED NATIONS can do nothing about this "piracy" on the airwaves, then we—the SWL's of the Free World—simply "must" be the MINUTEMEN OF THE AIRWAVES who WILL DO SOMETHING ABOUT IT! Stations in jammer—offending countries are so accustomed to receive reports from SWL's of the Free World that they may think they are making "inroads" on the listening public abroad. But once their station personnel realizes that there is a concerted tide of disapproval of their tactics throughout the Free World . . . among listeners who, in the past, have been furnishing them with all those good reports . . . coupled with the determination not to listen to their broadcasts, backed up by a strong willpower . . . then . . . and PERHAPS ONLY THEN, will they see that the time has come to try to win back the goodwill of SWL's everywhere! If such stations failed to receive ANY reports . . . say from the USA . . . for even JUST ONE MONTH, wouldn't they soon begin to wonder "WHY?" Then . . . when the letters to express what USA SWL's really think of their jamming operations began to POUR IN, wouldn't they soon see the light . . . that the "jamming game" is a LOSING BATTLE FOR THEM?
- 6. Granted, this action on the part of SWL's would not necessarily immediately STOP ALL OF THE BAD JAMMING . . . but, it is sincerely believed, were these measures TAKEN SERIOUSLY BY USA SWL's, just as one example cited, within three months it should "cut out" a large portion of the jamming operations from behind the so-called "Iron Curtain."
- 7. True, no station wants the SWL's public to DETERMINE NOT TO LISTEN to its broadcasts. Such stations DO WNT SWL's to listen to their programs . . . and they desire reception reports from SWL's "all over."
- 8. So, let's set up a JAMMING "BOYCOTT" on ALL stations that continue to jam international shortwave broadcasts. Let the JAMMERS KNCW THAT WE MEAN BUSINESS: . . . That everything possible will be done to disseminate news of the "boycott" throughout the SWL'g world!
- 9. The ISWC project IS worth while. It was established and is being carried out with the BEST OF INTENTIONS. On the other hand, there are many SWL's . . . including some members, at least, of ISWC . . . who have told me that they honestly believe that the policy of ISWC in this respect is wentirely too harsh on its membership." Which brings forth this question: CAN WE, WIN GOOD CONSCIENCE, PUSH ASIDE OUR CWN FRIENDS BECAUSE THEY SEND REPORTS TO WOFFENDING STATIONS?
- 10. Instead, can we not "educate" such SWL's by seeking their VOLUMTARY cooperation in refusing to send reception reports to broadcasters whose governments engage in jamming operations? To win this "BATTLE OF THE AIRWAYES FOR THE MINDS OF MEN," so to speak, WE MUST "ALL" HOLD THE LINE TOGETHER . . . NOT allow the "jammers" to pull us apart! Divided, we would be helpless! United, we can be a mighty constructive force in whelping" . . . at least . . . to bring about the termination of this "thorn in the flesh" of freedom-loving peoples the world over . . . the childish practice of jamming international shortwave transmissions!

(A POLICY STATEMENT - JAMMING - ANTI-JAMMING CAMPAIGN - cont'd)

Hence, in this First Edition of "The World At A Twirl," after serious consideration and appraisal, your Editor has decided that his readers
. . . although they may not wish to "report" to stations in countries which practice jamming . . . do want information on the activities of shortwave broadcasters everywhere. Thus, a conscientious effort has been made to "minimize" broadcasts from "offending" nations . . . but NOT to "ignore" them entirely . . . either in word or picture herein.

I sincerely believe that such is the desire of a majority of the members of the SWL'g public throughout the Free World .-- K. R. B.

* THE KOOKABURRA (The Laughing Jackass) . . . his call is heard from RADIO AUSTRALIA daily . . .

"Jack" is found chiefly in open forest country. He belongs to a family which includes many beautiful birds, but he is the "poor relation" so far as color goes . . . with brown and brownish-grey plumage, flecked with pale-blue feathers in the wing. His tail is barred, black and brown. His powerful bill suggests a utilitarian purpose, and his keen eyes are particularly alert. Yet he has a friendly look, as though he were ready to share your lunch and be your friend.



It is his voice, however, that makes "Jack" famous . . . with a medley of raucous notes which resemble laughter, interspersed with rich, throaty chuckles, it is heard at its best in the early morning or around dusk, when the laughing of one bird will frequently be the keynote for a chorus in which a large number will join.

This is the laughing Kookaburra, so common in southern parts of Australia . . . but not in Western Australia where Jack has only recently been introduced. The northern bird . . . known as the blue Kookaburra . . . is more gaily colored than his cousin . . . but has only an "apology for a laught"

Mice, rats, small birds, lizards, and even snakes have a place in the diet of the Kockaburra. His strong bill is an efficient weapon. It is claimed that, in snake killing, the bird swoops down and grasps the snake in his bill, flies to a height, and then drops the snake. These tactics are continued until the snake has been killed by the repeated falls.

The Kookaburras are friendly birds that can readily be induced to accept meat scraps from the kitchen. They will come regularly to be fed, and will even take the food from the hand of the person who feeds them. To see such a wtame Kookaburra slapping a piece of meat against a post with its bill is an wobject lesson in the workmanlike way in which living prey is dealt with.

Because of their strange laughter, these birds are quite popular . . . and they are strictly protected.

Listen for the weird call of the Kookaburra . . . as he opens many of Radio Australia's Overseas transmissions!

Yes, indeed, "Jack" is indeed a friendly fellows

viii

Part One

- Pictorial
- Features
- Featurettes

THE LAMENT OF THE SLEEPLESS KNIGHT*

BY Capt. E. N. Massey

The foreign foemen will not stand, they flee my trusty lance, The cowards lurk 'neath CRM, as witness Fort-de-France. I "had a go" at SPD - we only had one fall, But lo: When back to him I turned, he wasn't there at all! The Cuban dastards are the worst, change places every week, I hunt the old familiar spots and do not hear a squeaks But when T think that T've discovered something that is new. T strain my ears to listen and I hear "COCOI" The Knights of Daventry go by, contemptuous of my skill, They sneer at all my challenges and swear they always will! I bid them stand and fight with me, but still they pass me by, With heads erect, they calmly say: "We do not verify." On JZJ in Tokyo I've squandered quite a heap Of dimes and patience, to say nothing of my morning sleep! I've penned them hopeful cartels, just itching for a fight; How can my honor be increased when they won't even write? HH3W . . . as well . . . is a thorn within my side, Challenging all listeners, they later run and hide; T hammer on their portals, but silence then ensues. What wonder that I am beset by symptoms of the Blues? I'm told that Delhi and Bombay are worthy of my steel, Invading both their frequencies. Tive asked them how they feel. I'd stake my DX honor on just one fight with them. Alas: The only answer is a lot of ORM! ZIK2 is lost to view . . . or rather to the ear, He signaled loudly, but of late, has hushed through starkest fear, Some messenger told him of me and made him change his mind, It's enough to make a valiant Knight lose faith in all mankind! I'm not like Alexander, with no more worlds to whip. The world is full of foemen, but they all give me the slips There are many foreign warriors who should doughty champions be, But if they ignore reports . . . how can I VAC?

*RADEX - April 1939 - (Courtesy of August Balbi, California)

RADIO PAKISTAN CALLING - A Station Profile

At the time of partition, Radio Pakistan started to broadcast programs on three low-powered medium-wave stations . . . at Lahore, Peshawar, and Dacca. Today, it has developed into an organic system of broadcasting with a Central Directorate, a Central News Organization, a Directorate of External Services, a Directorate of Monitoring, a Directorate of Music, The Departments of Research, Installation, and Mantenance, all housed in the Federal Capital (Karachi), and a network of six regional stations . . . one each at Karachi, Lahore, Peshawar, Rawalpindi, Hyderabad, and Dacca, and with two relay stations at Chittagong and Rajshahi.

They operate li transmitters, six of them shortwave, with a total power of 171.5 kilowatts. Radio Pakistan's aerial system is the only one of its kind installed in Asia, as far as automatic operation is concerned. Regional news units are attached to each station at Lahore, Rawalpindi, Peshawar, and Dacca.

The high-powered shortwave transmitters at Karachi provide an aerial link for all the zonal stations for the broadcast of National Programs and centralized news. They also carry the "Voice of Pakistan" to foreign countries through seven External Program Services . . . in Burmese, Afghan-Persian, Iranian, Arabic, Turkish, Urdu, and Gujerati languages. Total time devoted to these services comes to about six hours a day. Five other transmissions in English are directed to the United Kingdom, Turkey, Indonesia, South Asia, and Southeast Asia.

Each station provides educational, entertainment, and informative programs. Special audience programs are radiated for schools and universities, women and children, rural areas, forces, and tribal areas. Commercial bulletins, weather bulletins, and religious broadcasts are other regular items.

Daily news bulletins are broadcast in English, Urdu, Bengali, Pushto, Sindi, Baluchi, Kashmiri, Pothohari, and Punjabi. Each station puts out its local news bulletins daily. Altogether, 29 bulletins are broadcast every day in 16 different languages. Fortnightly journals, Pakistan Calling in English and Ahang in Urdu, are published from Karachi, and Elan in Bengali is published from Dacca. Monthly program pamphlets——Izaat—i-Pakistan in Arabic, Sada—e-Pakistan in Persian, and Pakistan Athan in Burmese——are issued for distribution among selected listeners in the respective target areas.

Congratulations from "The World At A Twirl" go to the staff of Radio Pakistan for the great progress that has been made in such a comparatively short period of broadcasting endeavor! -- (Courtesy of former ISW DEPT., R&TVN, monitor, Gerry Dexter, Iowa, and the NEWARK NEWS RADIO CLUB



Leaves From Ken Boord's Scrapbook

I became a shortwave listener back in the early '30's . . . first using a converter with a CROSLEY broadcast-band table-model receiver, and then with a 4-tube, plug-in-coil, regenerative SW receiver which I purchased "by mail order" from a concern in New York City. For the latter, I "rigged up" a "speaker" comprised of a headphone set and an old automobile horn! The bands were comparatively uncrowded in those "good ol' days" . . . that was the pre-super-duper powerhouse era! . . . and it was truly a REAL THRILL TO GET A PERFECTLY CLEAR SIGNAL . . . even if weak . . . from such pioneer shortwave stations as those whose verifications are pictured on the opposite page.

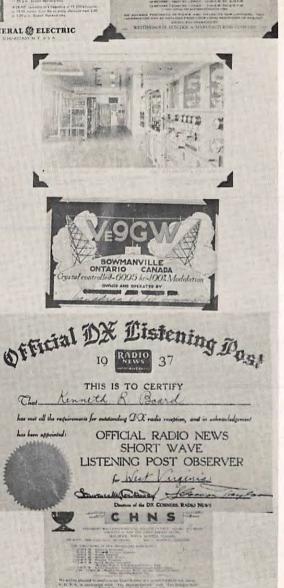
ROW ONE - 1. QSL of W9XAA, "The Short Wave Voice of Labor and Farmer," 6.080, 11.830, 17.780, 500 watts, crystal-controlled, 100% modulation, Chicago, Illinois; Maynard Marquardt was listed as the Chief Engineer, and E. N. Nockels, as Secretary and General Manager. 2. QSL of W9XF, W9XQ, 6.100, 5 kw., operated by the National Broadcasting Company (NBC), at Downers Grove, Illinois, about 22 miles Southwest of Chicago. 3. QSL of NBC's W3XL, New York City. 4. Confirmation from General Electric, Schenectady, New York, which operated W2XAF, 9.530, and W2XAD, 15.330. 5. This QSL card confirmed my reception of "The Pioneer Relay Broadcasting Station W8XK," SW outlet of the pioneer (commercial) broadcasting station of the world, KDKA, owned and operated by Westinghouse Electric & Manufacturing Company, Pittsburgh, Pennsylvania, with a licensed power of 40 kw., relaying the programs of KDKA on shortwave frequencies of 6.140, 11.870, 15.210, and (note this HIGH ONE!) 21.540; verification confirmed my reception on *48.86" meters.

ROW TWO - 6. This is the QSL card of VK2ME, The Voice of Australia, 31.28 meters (9.590), 20 kw., Sydney, New South Wales, of Amalgamated Wireless (A/sia) Ltd. (AWA), "Australia's National Wireless Organisation." This QSL verified my report of March 5, 1934; note the Kockaburra (bird) . . . or "Laughing Jackass" . . . whose weird cry now heralds the opening of many of the Overseas Transmissions from Radio Australia, Melbourne. 7. This QSL was from 1-ROZ-RO, E.I.A.R. (Ente Italiano Audizioni Radiofoniche), Rome, which listed a medium-wave frequency of 713 kcs. (75 kw.), and shortwave channels of 11.810 and 3.750 (12 kw.). 8. This verification-written entirely in English-depicted the antenna system of Deutschen Kurtzwellensenders, Berlin-Zeesen, Germany, and listed schedules of the Overseas Service to Asia, Africa, North and South America over such pre-World War II stations as DJA, DJB, DJC, and DJD, operating in the popular international SW bands (31- 19-, 25-, and 49-m., respectively). This verified my reception of February 23, 1934. 9. This QSL verified my reception of VE9JR (formerly CJRX), 2 kw., 25.6 m. (11.720), Winnipeg, Mmitoba, Canada, operated by James Richardson & Sons, Limited (grain merchants-established 1857-stocks, bonds), with studios in the Royal Alexandra Hotel, Winnipeg; noted on the reverse of the card: "Authorized Courtesy Call Letters: CJRX, commemorating the fact that under these call letters this station was the first in Canadato provide regular daily concert programs on short waves." Verified very promptly my report of April 17, 1934.

ROW THREE - 10. QSL card from H-I-l-A, "La Voz del Yaque," Santiago de Los Caballeros, Dominican Republic, with a power of 50 watts, operating on 6.188; on QSL card is the notation in both Spanish and English: "We have had reports from all America and Europe." QSL was post-marked November 6, 1934, for my report of October 6. 11. (DIRECTLY UNDERNEATH NO. 10) - The QSL card of Radio Nederland's PCJ featured a picture of PCJ's "maerial masts on wheels, which can be directed to every part of the world." Netherlands World Programs were being radiated (in 1946) over PCJ and PHI on channels of 15.220, 9.590, 17.775, 11.730, with powers of 30 kw. on the 19- and 31-m. frequencies, and 5 kw. on the 16- and 25-m. band outlets. Position was listed as Lat. 52°17'32° N., Long. 5°14,48° E. (A much-earlier QSL card from PHI has been temporarily mislaid (I hope) 12. This tiny card certified my membership in the International Broadcasting Club (IBC), London; it is undated, but I believe it dates back to the mid-thirties; president of the group was listed as C pt. Leonard F. Plugge and, if I recall aright, the organization had an affiliation with the old Spanish Radio-EAQ, Madrid, whose QSL I have apparently mislaid: 13. This "paper" QSL was sent out by HJ-ABB, Radiodifusora "La Voz de Barranquilla," Colombia, South America, dated 1934; operated on 6.447.2; it "advertised" (in English); "visit Barranquilla next December and enjoy the National Olympic Games and Exposition." 14. This QSL from VE9GW, Bowmanville, Ontario, Canada, dated January 9, 1934, was a prompt reply to my report of January 5; power was listed as 500 watts; crystal-controlled; on 6.095 with 100% modulation; owned and operated by the Canadian Radio Commission (formerly by Gooderham and Worts Ltd.). QSL was signed by W. A. Shane.



There is the DA CONNERS RADIO NEWS



PITTSBURGH, PENNSYLVANIA, U.S.A.

Perhaps it's better-late-than-never to heed Mr. Horace Greeley's advice: "Go West, young man!"

On a swing around the country . . . by air, rail, bus, taxi, and private car . . . back in 1951 . . . I spent some of the happiest days of my life . . . visiting with several of the top contributors to the ISW DEPT. of R&TVN. Pictured here are scenes I snapped with a small box-type camera on the trip:

- l. Snow-capped Mt. Rainier, Washington State, as viewed from the window of a plane-between Seattle (Wash.) and Portland (Ore.)-in the early morning. 2. A bus ride from Corvallis, Oregon, to San Francisco, California, gave me a good view of the countryside . . . including the giant redwood (Sequoia sempervirens) forests. 3. Here the ravages of fire had left a mark on the giant redwoods--note the "ghost-like" redwood as viewed through the rear window of a moving bus in the early-morning mist and fog; IF you can see the "spots" which the finished print revealed . . . they are NOT "flying saucers," but "dirt" on the window glass!
- 4. I just "had" to ride a cable-car in San Francisco! 5. And take a boat trip on San Francisco Bay--here we were passing Alcatrea (U.S. fortification and penitentiary) Island--opposite the Golden Gate. 6. A most interesting sight-seeing trip in San Francisco and vicinity ended in the late afternoon with this view of the ocean. 7. Which made me late for a dinner engagement with Hal Stein and his family where, after a delicious meal and a lot of DX-talk, a picture was "attempted" even though the sun had long since sunk in the west! Use your imagination, hi!
- 8. At Monrovia, Calif., it was indeed a privilege to make my "headquarters" in the home of "MR. DX" himself . . . Paul Dilg . . . SWL'g pioneer, formerly of Chicago, where he established unprecedented SW-listening records with receivers made by the late E. H. Scott; I "got the bug" back in the early '30's just reading about Mr. Dilg's remarkable achievements (reported in literature from the Scott concern): It was Indeed "amazing" to watch "MR. DX" tune in those "elusive" Asians on his SCOTT and then identify them immediately. When he "retired" from SWL'g not long ago, the world of SWL's truly lost its "top" DX-er: 9. All too short a time was spent with August Balbi, Los Angeles, "Dean" of active SWL's . . . to whom this First Edition of "The World At A Twirl" is dedicated. (See "Dedication" Page in front of book.)
- 10. Capt. Frank Winch, retired octogenarian, an internationally-known lecturer, writer, big-game hunter, expert dry-fly angler, and an acknowledged authority on outdoor life, demonstrated his ZENITH Trans-Oceanic (portable) receiver in the Winches' attractive outdoor living room. Capt. Winch, a lifelong friend of "Buffalo Bill" (Cody), really "brings them in" on the several Trans-Oceanic models at his Shortwave Listening Post. ll. After a hearty meal of Welsh rarebit and all the "trimmin's" in the Winch home, I posed with Mrs. Winch (Nina) in front of her pride-and-joy, the sweet peas growing so tall and luxuriantly on the trellis to her right.
- 12. Carl B. Rosenauer, then living in Whittier, Calif., posed with me under an orange tree in his front yard . . . after a "sleepless" night . . . for both of us . . . spent at the dial's of Carl's HALLICRAFTERS receiver.
 - 13. Like the average tourist, I couldn't resist a brief "side trip" to "Old" Mexico . . . this photo was made at Tijuana.
- 14-19. A trip to Grand Canyon, Arizona, provided a *picture-taker's delight!* Included were the dances staged in the afternoon by Hopi Indians for the throngs of tourists; my final *view* of Grand Canyon was taken well after sunset.
- 20. I traveled by air through the Southwest. 21. Ramon Stark, the noted Texan SWL and long a valuable contributor to the ISW DEPT. of RETVN, snapped this picture of me as I was ready to board a train for New Orleans (after a nite-session of fine DX-ing at Ramon's Shortwave Listening Post) . . . where (22) Canal Street's width was almost as intriguing to me as was (23) the French quarter as it lay practically "deserted" in the early hours after sunrise; I found only the curio shops opening on my early-morning jaunt!
- 24. At Augusta, Georgia, I visited the well-squipped Shortwave Listening Post of Bill Fargo, pictured here with a RME DB--22A preselector running ahead of his HAMMARUUND Super-Pro. 25. Last, there was a most enjoyable "breakfast" and chat with Grady C. Ferguson and Mrs. Ferguson in Charlotte, North Carolina, before I boarded the plane for the last lap of my journey.
- 26. After more than three weeks, I found my family awaiting my arrival at the Morgantown airport . . . where (27) my wife snapped this final shot of aweary . . . but happy . . . traveler!



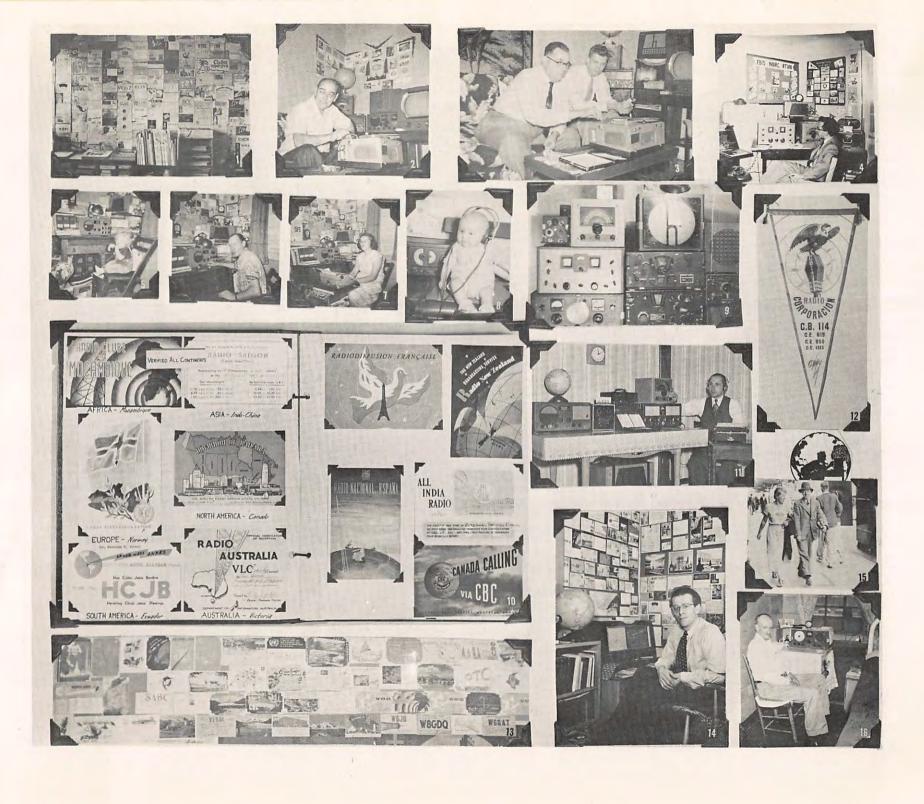
ROW ONE - 1. This photo--made several years ago -- shows just a part of the great verification collection of former ISW DEPT. (R&TVN) monitor. Rex G. Gillett, Adelaide, South Australia, one of the foremost SWL's "Down Under." 2. Long a valuable contributor to the ISW DEPT. of R&TVN, this is Albert K. (Ab) Saylor, veteran SWL of Quantico, Virginia; I snapped this shot of WADW on a visit to his Shortwave Listening Post in January 1955, as he recorded a broadcast from one of his favorite stations, LVEH, Cap Haitien, Haiti, missionary outlet. Of his radio experiences, "Ab" tells me: "I began listening in back in 1920 when we had only the crystal and the oatmeal-coil with the brass slider on it for tuning! My first "tube" set was a 1-tuber using a (3) circuit tuner, regenerative detector -- equipped with earphones. This set was tops in its day, too! The tube was a DeForest gas tube. I used this set to receive the results of the Coolidge election (first voice from the 'pioneer broadcasting station of the world, KDKA, Pittsburgh, Pa.) in 1921. My next set was au-tube REGLEX-REGENERATIVE job, also using a crystal. It had one stage of r.f. (radio frequency), a regenerative detector, and two stages of transformer-coupled audio; this was, and still is, agood set. if used. My first really 'big' set was a SILVER-MARSHALL, super-heterodyne, using 8 tubes. The 'second' set was a 'LA CAULTS' Ultra-Dyne Super. It employed 8 tubes and was the first receiver to use AUTOMATIC VOLUME CONTROL. This was a fine job! Next set -- and the BEST -- was an E. H. SCOTT Super-Hetrodyne, which used 8 tubes and a loop antenna. This was truly the best of them all& In 1928, I broke Scott's original long-distance reception record when I picked up Melbourne, Australia, on the broadcast band-using only the loop antenna. These sets were in kits-you then had to BUILD them! My first 'shortwave' set was a 1-tube job which used a tuned antenna; coils were wound on the tube base; with this receiver, I logged stations in Australia, England, and Italy. I now have a NALLICRAFTERS SX-71, a HALLICRAFTERS SX-24, a RME DB-22A preselector, a WILCOX-GAY tape recorder, and an all-wave atenna 'of my own make.' "AB" has logged many stations on all Continents. He has been in the "listening game" for almost 36 years . . . and while he is one of the "oldest" radio listeners in "point of service," he certainly is still "very young in spirit." believe mel 3. MAD" Saylor snapped this photo of Ken Boord and Jim Copal (Transmitting Engineer, Far East Broadcasting Company, Manila, Philippines, missionary broadcaster, who was then on leave in the States; a native of Atlanta, Georgia, Jim's ham call in the Philippines is DU2JM; in the U.S., his call is WLTVX; when this shot was made, we were listening to another missionary broadcaster, LVEH. Cap Haitien, Haiti). h. This prominent Delaware SW DX-er is George Cox, whose DX "catches" are known far and wide. His present set-up includes a HAMMARLUND HC-110X: a RME DB-22A preselector; a ZENITH Trans-Coeanic (portable) as a standby receiver; a FCC-90 frequency standard; a REVERE tw-speed tape recorder and a WILCOX-GAY two-speed tape recorder, and a NATIONAL Select-O-Ject. George uses one longwire amtenna N-S (60-ft. long) with 400-chm openline lead coupled to an all-wave tuner (made per instructions of veteran SWL mab" S ylor, Quantico, Virginia, by the ways); one vertical 30-ft. tubular antenna (under construction), and a new ground system (in the making!); George uses a TELEX "Monoset" headphone set which he says is "very easy on the ears!" As of May 30, 1956, George's SWBC country log stood at 138, while his BCB country log stood at 71 (when I visited George's Shortwave Listening Post in 1955, I found his location wideal" for the reception of those comparatively "elusive" BCB Europeans!).

ROW TWO - 5. Sixteen-months-old Pattie was the youngest SWL at the Shortwave Listening Post of (6) Anson (Ans) Boice and (7) his wife, Julia, New Britain, Connecticut, when these photos were made. "Ans'" receiver is a HALLICRAFTERS SX-43. Yeomanlike service was rendered the UNITED '49'ERS RADIO SCCIETY by "Ans" as Shortwave E, itor and Julia as Secretary. I enjoyed a most pleasant visit with the Boice family in 1955, by the way. 8. But DX-ers in Omaha, Nebraska, seem to start even younger than in Connecticut--witness this picture of the son of Richard D. Sklenar, a former monitor for the ISW DEPT. of R&TVN. 9. This is the attractive and well-equipped set-up of my good friend, Tom Ferrell, former student at West Virginia University, whose home is in Dearborn, Michigan. Tom uses such equipment for both DX and experimental work. Included when this photo was made some time ago was such equipment as a RME DB-22A preselector; HAMMARLUND HQ-129X; HALLICRAFTERS SX-16; BC318 BC312 and, for measuring frequencies, a BC-221. Tom just finished his electrical engineering work at a school in Detroit and recently became affiliated with NBC-Television on the West Coast (USA).

ROW THREE - 10. An inexpensive album or scrapbook can be used to mount your QSL cards attractively; the use of art corners makes the cards readily removable without damage to book or cards. Note the "Verified All Continents" page at left. The photo is from Ken Boord's "Scrapbook."

II. This neatly-arranged Shortwave Listening Post is that of John J. Oskay, New Brums wick, New Jersey, long a valuable contributor to the ISW DEPT. of RATVN; John has now returned to his "first-love," ham radio, with the call K2BUW; incidentally, John verifies SWL's reports on his ham transmissions 100%; 12. This attractive pennant was received from Radio Corporacion de Santiago-Chile. Operates CE619, 6.190, and CE1515, 15.150.

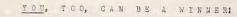
ROW FOUR - 13. Some of the QSL's collected by David Morgan, Hollywood, California, Western Section Shortwave Editor for the UNIVERSAL RADIO DX CLUB (URDXC); David first was a SWL and then also took up ham radio; his call is K6DDO. This summer, K6DDO is spending several months visiting SWL's and hams on the Continent and in the British Isles. His success in logging and verifying rare DX "catches" on the SWBC continues to be almost phenomenal, considering the comparatively low-powered receivers he has generally used. 14. Sharing YOURloggings with fellow DX-ers, through membership in a good DX club, will help YOU to log and verify (with attractive QSL cards such as these of Sven Svensson, Vaggeryd, Sweden) radio stations around the world. 15. Even a world-famous SW DX-er... such as Sidney Pearce, Berkhamsted, Herts., England... must relax once in a while; here Sid is seen strolling with Mrs. Pearce on a short vacation-trip to the seaside. 16. (EXTREME BOTTOM RIGHT) - SWL'g is a boon to the shut-in convalescent; this is the Shortwave Listening Post of Herbert Updike in a Fulton, Missouri, hospital.



Whether you have available high-powered communications-type equipment like that of (1) J. W. (Jack) Sherman (FLORIDA) or (2) Canadian businessman J. Cowan (Joe) Adam (BRITISH COLUMBIA) . . . or . . . an average, lower-priced communications-type receiver such as that of (3) Dave Lund (IOWA) . . . or a combination which includes an all-wave "home" radio (ZENITH) plus a communications-type set, the proud possession of another teen-age SWL, Bob Knowles (CALIFORNIA) . . . or . . . (5) an "ancient vintage" such as this all-wave table model (PHILCO), used ever so successfully FOR MANY YEARS by my good friend, Edward F. (Ed) Bellington (NEW YORK STATE) . . . or even a small regenerative receiver similar to that (6) of 16-year-old Lee Neeley (OREGON) . . . FASCINATING DX FROM ALL CORNERS OF THE EARTH is at your "very fingertips!" But knowing WHEN . . . WHERE . . . and HOW to tune are essential to ALL SUCCESSFUL DX-ing! For that you have the word of (7) 15-year-old John Jerry Bartko (FLORIDA), winner of the first BOYS! LIFE Radio Listening Contest . . . of (8) no other than Harry A. Harchar (W2GND), the Editor of BOYS LIFE . . . and of Arthur T. (Art) Cushen (NEW ZEALAND), one of the world's most successful DX-ers and among the top authorities on SWL'g! Now, for the details . . .

- 1. WJack* Sherman not only uses high-powered communications-type equipment . . . but has quite an array of antennas that have masts and towers so constructed that they can be lowered to the ground and anchored safely in about 5 minutes . . . in case of a hurricane warning! Equipment shown includes a NATIONAL HRO with a 30-50 mcs. frequency modulation receiver and a 152-163 mcs. frequency modulation receiver, plus a Model T-700 REVERE tape recorder. Mr. Sherman is a free-lance photographer . . . both press photography and motion pictures. He also takes pictures for the Tampa Fire Department. He keeps two receivers (the small ones pictured), set on the Fire and Police Department channels all the while, and was planning (1952) to install a third receiver to cover the Hillsborough County Sheriff's cars . . . so he can keep informed of any fires, other disasters, and the like, that he might wish to photograph. This is another "special application" of shortwave radiot 2. "Joe" Adam maintains Shortwave Listening Posts at various business operations throughout British Columbia . . and does some experimentation with shortwave antennas. Among his receivers are HALLICRAFTERS SX-88 and SX-100, HAMMARLUND HQ-1LOX, and a (British-made) EDDYSTONE. 3. Dave Lund, now on Navy duty on Adak Island in the Aleutians, who was 18 back in 1953 when this photograph was taken, then had a HALLICRAFTERS S-LOB, a BC-L5L-B (covering 3-6 mcs.), which he used strictly for 75 meters), and a 2-tube homemade receiver. His antenna system was a 300-ohm folded dipole, a 30' longwire outside, and another longwire inside (in the attic). At that time, Dave had verified 38 countries on the ham bands amond to receiver about 15 years old, he tells me. It. Teen-ager Bob Knowles is busily building up his SW log this summer. Among his "catches" in early spring was the SABC, 7.295, Johannesburg, South Africa, around 1530 GMT.
- 5. With this relatively simple and rather "ancient" equipment (PHILCO-630 table receiver of 1935 manufacture, covering 550 kcs. to 18 mcs., a RCA TRF broadcast receiver made in 1930, and using a 40' horizontal triangle antenna), "Ed" Bellington, a few years ago, listened to and verified shortwave broadcasters from ALL CORNERS OF THE EARTH! His experience is concrete proof that SKILL IN TUNING, PRACTICE, PATIENCE, PERSISTENCE, and PERSERVERANCE CAN REALLY PAY OFF FOR THE SWL who takes his DX-ing seriously! On the PHILCO table set, Ed logged 139 countries (from 1935) and verified such countries as Hong Kong, Fiji Islands, Thailand, Fr. Indo-China, Albania, Saudi Arabia, Syria, China, Japan, Iran, Iraq, Israel, India, Ceylon, Pakistan, Mozambique, Brt. New Guinea, Anglo-Egyptian Sudan, and many others. Considering his relatively poor reception location (Brooklyn, N. Y.), Ed's SWBC achievements are indeed remarkable! 6. Some years ago, teen-ager Lee Neeley had extremely good success in logging DX with this simple regenerative-type homemade receiver. 7. Fifteen-year-old John Jerry Bartko, winner of the first BOYS' LIFE (Boy Scout Journal) Radio Listening Contest and the first prize of a HALLICRAFTERS HT-20 amateur radio transmitter, was working on his ham ticket when this photo was taken. With his HAILICRAFTERS S-38C receiver, young Bartko logged 4,000 stations, totaled 7,863 points in the competition. He logged ALL CONTINENTS . . . ALL STATES . . . and ALL CALL AREAS, as well as 105 foreign countries in 400 hours at the dials during the Contest months of January-February 1953. On the wall are various certificates won in the Contest . . . along with school awards such as perfect attendance certificate, The National Beta Club, 4-H Club, and Boy Scouts of America. John Jerry was an honor roll student at Hernando High School. He has just finished his Freshman year . . . "quite satisfactorily," he tells me . . . at the University of Florida, where he is majoring in electrical engineering. His present rig (not pictured) consists of the HT-20 and a NATIONAL NC-125 receiver. Now WLHSN, John Jerry has his Technician Class ham ticket now . . . and hopes to get his General Class License this summer.
- 8. Editor of BOYS' LIFE, the Boy Scout Journal, Harry A. Harchar (W2GND), has done much to encourage teen-agers to take up SWL'z . . . and THEN TO WORK TOWARDS THEIR HAM TICKET. He has the collective CONGRATULATIONS of SWL's everywhere! 9. The "story" of "Art" Cushen, Invercargill, N. Z., is truly a fascinating one! When this photo was snapped, Art had three receivers in action. As of June 1, 1956, his verifications totaled 1,946 on the shortwave broadcast bands, plus 1,171 on the medium-wave (broadcast) band . . . for a GRAND TOTAL OF 3,117 verifications. He has verified a total of 149 countries to date.

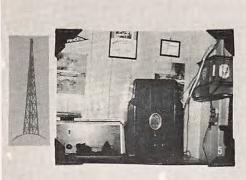
























PATIENCE...
PRACTICE...
PERSISTENCE...
PLUS
PERSEVERANCE...
WILL
PAY OFF FOR YOUA



ROW ONE - 1. This father-and-son team team of SWL's is made up of John and Ernest Gates, New London, Connecticut. 2. In 1947, this was the set-up of Larry Aldridge, "ashington State; receiver is a HALLICRAFTERS. 3. This photo-taken in 1949-shows veteran SWL Frank Wooley, New Jersey, in action; note the instruments on the wall--including a 24-hour clock. 4. This is SW DX-er George Starry, Latrobe, Pennsylvania.

5. Some years ago, this was the set-up of Lewis Jones, Greensboro, North Carolina; receiver shown covers 540 kcs. to 30 mcs. "Lew" is now stationed with the U.S. Army in Germany. 6. On the wall above this HALLICRAFTERS communications-type receiver, in the Shortwave Listening Post of Fred Baines, located in New Glasgow, Nova Scotia, Canada, is a fine collection of QSL and SWL cards.

ROW TWO - 7. This young SWL, Wally Moore, is shown at his extremely well-equipped Shortwave Listening Post in Tennessee. 8. A free-lance photographer—both press photography and motion pictures—J. W. (Jack) Sherman, Tampa, Florida, maintains this well-equipped Shortwave Listening Post. Jack also takes pictures for the Tampa Fire Department. Note the two small receivers which are kept tuned to local Fire and Police Department frequencies, so Jack can keep informed of any fires or other disasters, and so on, that he might wish to take pictures of. This is another special application of shortwave radio. Main receiver is a NATIONAL HRO, and the tape recorder is a REVERE Model T-100. 9. These four antennas of J. W. (Jack) Sherman, Tampa, Florida, are ingeniously constructed so that all masts and towers can be lowered to the ground and anchored safely in about 5 minutes. . . in case of a hurricane alert. 10. This attractive Shortwave Listening Post belongs to Louis Geis, Wolcott, New York. Receiver is a HALLICRAFTERS S-20R. Louis collects both SWBC and ham QSL cards; some years ago when this photo was made, Louis had verifications from upwards of 115 countries. YOU, too, can have great fun collecting QSL and/or SWL cards from throughout the world with which to "paper" the walls of YOUR radio "shack." An exhibit of verifications . . . such as that shown here . . . is truly "the proof of the pudding." 11. Some years ago, Jean-Marie Gauvreau, Quebec City, Canada, had great success with this small, homemade receiver which he constructed at very low cost.

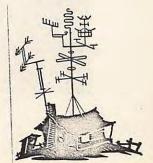
12. This "mobile" Shortwave Listening Post belongs to D. Quentin Glenn, Carlisle, Pennsylvania. His RBZ "portable" covers 5-13 mcs.

ROW THREE - 13. Caught apparently unawares . . . min solid comfort . . . is John J. Gaynor, well-known California DX-er. When this photo was made some years ago, John was mighty proud of his newnational NC-183, with which he was using a 60-ft. longwire; 40 ft. above ground.

14. This fine Shortwave Listening Post belongs to Jack E. Gardner, Jacksonville, Florida. He uses both HALLICRAFTERS and NATIONAL receivers.

15. Jack E. Gardner is shown at his Jacksonville, Florida, Shortwave Listening Post. 16. Several years ago, Harry Mast, Jr., New York City, was using this RME DB-22A preselector ahead of his HALLICRAFTERS receiver. 17. Charles E. Diehlman is pictured at his Shortwave Listening Post in Circleville, Ohio.

ROW FOUR - 18. The SW fraternity truly lost a great booster . . . and particularly of "The Happy Station" programs of PCJ, Hilversum, Holland . . . in the death of Henry Callahan, Philadelphia, Pennsylvania, shown here at his Shortwave-TV Listening Post shortly before his death. Henry was instrumental in helping to rebuild the record library of "The Happy Station," when Eddie Startz returned to the airwaves after World War II. When the Nazis left Holland, they pillaged and looted everything of value, including PCJ's library of 5,000 recordings which had been painstakingly collected from all over the glas for the entertainment of PCJ listeners. Largely at his own expense, Henry Callahan was able to secure many "rare" recorded items for Eddie Startz. He maintained frequent long-distance phone contact with Ken Boord, and when Eddie Startz visited the Philadelphian during a trip to the United States several years ago, Startz and Ken had a nice telephone chato 19. Henry Ecklund. St. Paul, Minnesota, a few years ago brought in FB DX . . . especially from the Far East . . . on this homemade receiver which employed four 676's in push-pull parallel; the set had 25 watts output, and a Class A amplifier. It probably is still in service. 20. This neat Shortwave Listening Post, in a photo taken some years ago, was that of Bill Cooley, Fairchance, Pennsylvania, a near-neighbor, who has long been of great assistance to Ken Boord. Although Bill has virtually given up SWL'g now to become a ham operator (W3TNZ), whenever Ken Boord Fgets in trouble, W radiowise, Bill gets the first call! Such as setting up a NATIONAL NC-98-SW in Ken's hospital room in April of this year, when Ken was convalescing from a hernia operation! And, more recently, double-checking the installation of a new HALLICRAFTERS SX-100 at Ken's Shortwave Listening Post: Bill also has made some mighty fine crystal receivers for experimental work. 21. For several years, a highly valuable contributor to the ISW DEPT. of R&TVN was Chester F. Bachman, Reading, Pennsylvania, shown here with his HALLICRAFTERS communications-type receiver . . . a S-20R, *Sky Champion.*



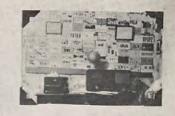










































RCW ONE - 1. Charles S. Sutton, Ohio, veteran SWL, was one of the earliest contributors to the ISW DEPT. of R&TVN. He finds a preselector (RME DB-20) of great value in logging those really "hard-to-get catches." His receiver is a HAMMARIUND HQ-129X, and he uses a BUD FCC-90 (100 kcs.) frequency standard; his antennas include a 75-ft. "L"m and a 9-30 mcs. dipole. 2. This young DX-er is Ray Boyce, New Jersey. 3. Charles West Dyke, San Francisco, California, a gentleman of Dutch descent who has a particular affection for PCJ, "The Happy Station," Hilversum, Holland, takes a stroll through Union Square in his home city. At 77, Mr.West Dyke is still a great SW enthusiast . . . has has great faith in SW radio as a means to promote friendlier international relations, goodwill, and peace among mankind. 4. Steve Brockner, Rhode Island, and his HALLICRAFTERS S-76, a ZENITH H-500, and a homemade regenerative-type receiver. Steve was Shortwave Editor for the (former) United Short-Wave Listeners of the World group. 5. This is the well-equipped Shortwave Listening Post of Jack Parsons, Pennsylvania, whose apparatus includes a HALLICRAFTERS S-40B receiver with S-meter; RME DB-20 preselector; BC-221 frequency meter; FCC-90 frequency standard, and BC-454. I note several good, timely tips from Jack in the current issue of "Monitor," official journal of the International Short wave League, London. 6. This neatly-arranged Shortwave Listening Post belongs to Larry Mitchell, New York State. 7. This 14-year-old SW enthusiast is Keith Shilts, West Virginia. He says his little NATIONAL SW-54 "does more than I thought it would!" Already, he finds membership in a good radio club essential. Keith became interested in SW radio through the BOYS' LIFE Radio Contests; he says he is proud of his LAC, LAS, and LACA certificates. 8. Even one of the smaller communications-type receivers. . . such as the one in this Chicago, Illinois, Shortwave Listening Post (which I "think" belongs to Norman Baetz). . . provides a satisfactory beginning for a SW

ROW TWO - 9. A valuable contributor to the ISW DEPT. of R&TVN over the years was young Roland C. Peddle, Jr., St. John's, Newfoundland, Canada. "Roly" is a good example of a teen-age SWL who became a ham (VOLAG). To the left is Roland's transmitter; right, his NATIONAL NC-16 receiver. For SWL'g, he uses both doublet and straightwire antennas. 10. Here are "Roly" Peddle's CSL's ... taken out on the desk (some years ago) for an unusual camera shot. He comments: "However, the antenna switches for my longwire antennae are 'plainer,' hi!" "Roly" has made some mighty fine foreign "catches" on the broadcast band (BCB), as well as on shortwave. 11. When this photo was made, teen-ager R. J. (Bob) Weggel (now W9ZZJ), Wisconsin, was the proud owner of this neat Shortwave Listening Post. Note the WRL Globe Scout transmitter at right. Receiver is a HALLICRAFTERS S-19. As of April 1954, W9ZZJ had "worked" 22 States on the 75-meter ham band alone; his transmitter was running 10 watts on 6.0 watts on CW. 12. George Chatfield, New York State, has been a SWL for 15 years. He started with a 2-tube battery-operated receiver. Shown here is his NATIONAL NC-57. When this photo was made. George had logged stations in the ISWB and amateur (ham) bands in upwards of 125 countries.

13. This well-known Washington State DX-er is Wallace Treibel; when this photo was taken some years ago, "Wally" was using a HALLICRAFTERS SX-12, a RME DB-22A preselector, a BC-221 frequency meter, and a FCC-90 frequency standard. 14. Seen in action here is SWL Domzalski of Illinois. 15. The Shortwave Listening Post of David E. Brown, New York State, features both HALLICRAFTERS and HAMMARLUND receivers.

ROW THREE - 16. This is the NATIONAL NC-24-2 of James M. Douglas, Ontario, Canada. 17. John Leary relaxes at his Indiana Shortwave Listening Post; he uses a RME DB-22A preselector ahead of his HAMMARIUND HQ-129X. 18. A good world map is essential to every Shortwave Listening Post . . . such as that of Arnold McKenzie, Maine. 19. A HALLICRAFTERS S-40 is the principal receiver at the Shortwave Listening Post of Bruce Cushman, Massachusetts. 20. This New York City teen-ager, Alfred W. Kinge, gets in some code practice. 21. Ed Richmond, a younger member of the DX fraternity, is shown with his HALLICRAFTERS S-20R; RME DB-20 preselector, and RCA K-80 receiver. He is both a SWEC and ham-band enthusiast. 22. Shortwave Listening Post of Claude Girard, Province of Quebec, Canada, is equipped with a HALLICRAFTERS S-30C receiver.

ROW FOUR - 23. From what is undoubtedly the most DX-minded country of the world ... Sweden ... comes this photo of SWL Gunnar Jansson.
24. At this modest Shortwave Listening Post in Christchurch, New Zealand, Ronald W. Gray has logged stations from many parts of the world.
25. Swedish DX-er Per Cy admires his collection of QSL's; among those I recognize in the photo are cards from IRA, Argentina; HCJB, Ecuador;
Radio Ankara, Turkey; The Happy Station, PCJ, Hilversum, Holland; OTC2, Leopoldville, Belgian Congo, and Radio Australia. 26. Prominent
Swedish DX-er Karl-Ake Bergstrom is shown with his RADIOLA 1454 (6-tube) and his HALLICRAFTERS S-40 (9-tube). 27. Some years ago this shot was
made of the FB Shortwave Listening Post of British monitor John C. Catch, a valuable contributor to the ISW DEPT. of R&TVN, located at South
Shields, County Durham, England. 28. Georg Nordh, Aspudden, Sweden, who some years ago was the winner of the big Verification Contest sponsored
by Aret Runt's Radio Club, Sweden, is shown at the receiver he was awarded. Photo was made by Arne Skoog, DX Editor of Radio Sweden. For a time,
Georg was a valuable contributor to the ISW DEPT. of R&TVN. 29. This SW DX-er from "D-land" is Horst Guilbert, Hamburg, Germany.

(CONTINUED ON PAGE 16)



RCW FIVE - 30. When this photo was made some years ago, Louis Diez Alonso, Santander, Spain, had DX-ed 43 countries, and had verified 224 stations; receiver is a HALLICRAFTERS S-53, equipped with a preselector and an inverted "I," antenna; on the wall you'll note the pennant sent out some years ago by LRY, Radio Belgrano, Buenos Aires, Argentina, 31. Back in the late 'h0's, one of the most valuable contributors in Africa to the ISW DEPT. of RATVN was Marvin Laubscher, whose collection of fine QSL's is pictured here. WHERE is this SWL now? 32. This photo of Marvin Laubscher, South Africa, was made in 1945 at Bloemfontein; "Marv" titled it: "Something to scare the kids when they're naughty, his" IF ANYONE KNOWS THE PRESENT WHEREABOUTS OF MR. LAUBSCHER, please ask him to get in touch with Ken Boord. THANKS: 33. This is ANOTHER *MISSING* South African, Peter Ridgeway, Consort Mine, Noordkaap, E. Transvaal, South Africa, one of the world's leading DX-ers and a regular contributor to the ISW DEPT. of RATVN a few years ago. When this photo was made, Peter had just acquired this fine G.E.C. Brt. 400 communications-type receiver. He also was using a Marconi frequency standard. And his antennas consisted of seven arrays -- four dipoles, two single-wires, and an inverted "y"--beamed to most parts of the world. In the four years in which he had been a SWL. Peter had received 375 verifications from 107 different countries -- an excellent record. Still ANOTHER WMISSINGN SOUTH AFRICAN DX-er with whom Ken Boord would like to resume contact is L. G. Hannaford, whose last-known QRA was 18, Clacton Road, Kensington, Johannesburg, South Africa. 34. Back win the good old days" of the ISW DEPT. of RATVN, this Shortwave Listening Post was maintained by Pieter Sleutel, a native of Holland, in Sao Paolo, Brazil. Receiver is a HALLI-CRAFTERS SX-28A ... which was the pride-and-joy of "fortunate" SWL's over the world! Ken Boord, incidentally, along with Grady C. Ferguson, North Carolina, Roger Legge, Virginia, and others, is still mighty proud of the performance of the "Super SKYRIDER," which compares favorably today with the "best" of the more modern issues of shortwave communications receivers! 35. This neatly-arranged Shortwave L, stening Post in Tokyo, Japan, is maintained by Yo Ishikawa, JAIDS, who is both a ham operator and a SWL. When this photo was made a few years ago, Yo was using a homemade 11-tube superhet with 1 RF, 3 IF, and 2 AF stages; his antenna was 10 m. long, 8 m. high, of the wT# type. 36. One of the most prominent "Down Under" DX-ers and perhaps the "earliest" overseas contributor to the ISW DEPT. of R&TVN, was Rex G. Gillett. Adelaide, South Australia, shown in 1948 at his attractively-arranged Shortwave Listening Post. Rex is one of the most accurate SW reporters I have ever known!

SOME MORE "MODERN" QSL CARDS - (OPPOSITE PAGE)

(Legends run LEFT to RIGHT; rows run TOP to BOTTOM.)

ROW ONE - 1. A very popular station during World War II was Radio SEAC (Southeast Asian Command), the Forces Broadcasting Service. This one is now Radio Ceylon; location is Colombo, Ceylon. 2. (MIDDLE) Attractive QSL card of the International Service, Radio-Canada (CBC), Montreal. 3. This is the novel QSL card of the missionary broadcaster in Guatemala City, Guatemala. . . . TGNA ("Telling the Good News Abroad") (in Spanish - "Transmitiendo Gratas Nuevas Alegres"). The card has adrawing in color of the Quetzal bird, and says; "The Quetzal is the national emblem of Guatemala. This bird seldom survives in captivity, hence, symbol of liberty." Then, the card quotes from the Holy Scriptures; "If the Son (Christ) therefore shall make you free, ye shall be free indeed." (John 8:36) Ken Boord has presented DX broadcasts . . . in the form of religious organ recitals . . . over this missionary voice . . . as well as over similar stations in Ecuador and Costa Rica (HCJB, TIFC, respective-ly). 4. (BOTTOM left) QSL card of Radio Nederland, Hilversum, Holland. 5. (BOTTOM right) QSL card from the S.S. COURIER, relay of the VOICE OF AMERICA, reportedly stationed now at Rhodes. This "Truth Transport" was designed to relay news of the Free World to listeners behind the "Iron Curtain."

ROW TWO - 6. (TOP) Letter-QSL from Radio Teheran, Iran, confirming my reception of EPB, 15.100, on July 6, 1947. 7. (MIDDLE left) QSL card from Forces Broadcasting Service (Middle East) for my reception of JCKW, 7.220, on October 6, 1945. Was signed by K.E.S. Ellis. 8. (MIDDLE right) This is a "sample" QSL card from Radio Wien, Vienna, Austria. 9. QSL card from the VOICE OF AMERICA Relay Base Station, KRHO, Honolulu, T. H. (Hawaii). 10. Attractive QSL's such as this (for CR7ED) are sent out by Radio Clube de Mocambique, Caixa Postal No. 594, Lourenco Marques, Mozambique; ACTUALLY, this card verified my reception of January 28, 1947, of CR7ED, then listed on 9.645.

RCM THREE - 11. (TOP) Approximately 10 years ago, this was the card being sent out by The OverseasBroadcasting Station, Bangkok, Thailand (Siam); this verified my reception of HS8PD on 6.040. 12. Sample of the attractive verification card of Rikisutvarpid (Iceland State Broadcasting Service), Reykjavik, Iceland; this station is a relatively difficult one to log since it has a very limited schedule--is on the air Sundays only for approximately 15 minutes--1615-1630 GMT over TFJ, 12.175; no English. 13. This attractive card verified my reception of TAQ, 15.195; TAQ is an outlet of Radio Ankara, Turkey; reception was on October 6, 1949. 14. And this one was for reception of TAP, 9.465, Radio Ankara's 31-m. outlet, on January 21, 1945.

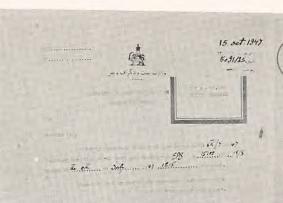
(CONTINUED ON PAGE 18)























THE OVERSEAS BROADCASTING STATION

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RCW FOUR - (TOP) This attractive card in green and yellow came from the South African Broadcasting Corporation (SABC), P.O. Box 4559, Johannesburg, South Africa, and verified my reception of July 23, 1945, of ZRK, Cape Town, at 0445-0630 CMT; however, in verifying, a (Johannesburg) frequency of 6.094 was erroniously inserted by the SABC, hil At that time, Cape Town was actually on a much lower channel (in the 50-m. band). 16. This sample QSL came from WVTR, "Key Station of the Armed Forces Radio Network," Tokyo, Japan. 17. QSL from Helsinki, Finland, confirming my reception of the then new 100 kw. outlet, OIX4, 15.190; photo is of "the 100 kw.transmitter you have heard." 18. An "earlier" QSL from OIX4 on which a notation was made in handwriting: "We are just building up a new x-mitter, which may be one among the strongest of world." This card was for my report of July 5, 1947. 19. This beautiful folder-type QSL card came from "Emissora da Guine," CCM-4, 7.948, 1 kw., Bissau, Portuguese Guinea, then scheduled daily 2130-2300 CMT; it verified my report of February 8, 1948.

ATTENTION - SWL CARD-SWAPPERS! - (OPPOSITE PAGE)

(NOTE THIS CAREFULLY: Legends read TOP to BOTTOM; rows run LEFT to RIGHT.)

While I have never been a SWL card-swapper myself, this phase of SWL'g is quite popular among many DX-ers around the world. Here are a few representative SWL cards which I have received over the years:

ROW ONE (reading TOP to BOTTOM) - 1. From CO2RO, Habana, Cuba - dating back to the early days of the ISW DEPT. in R&TVN. 2. From a member of Radio Club Hesa in Finland came this HANDMADE, attractive card. 3. SM5-VRC, Stockholm, Sweden, was the source of this one. 4. From the land of the windmills came this attractive card of my longtime good friend, Peter Koelmans, Boskoop, Holland. 5. DZ41, a German Shortwave Listening Station sent this one.

ROW TWO - 6. Clifford A. Tooke, BRS 11257, sent this card from his "British Experimental Short Wave Receiving Station," London. Note emblem of R.S.G.B. (Radio Society of Great Britain); at the time, Cliff had inked in his affiliation with ARRL (American Hadio Relay League) and ISWL (International Short Wave League, London). 7. This SWL card was sent me by Tommy Lynch, EI-SWL, Sligo, Co. Sligo, Eire (Ireland).

8. From amateur operator Vo Ishikawa (JAIDS), also a SWL, came this most attractive glossy-print SWL card; JAIDS lives in Tokyo, Japan.

9. DX697W sent this card from "the Pacific Paradise," New Zealand. 10. And "greetings from Western Australia" came from SWLA3h, George A. E. Major, Manjimup, Western Australia. 11. Card of SWL/VE2, Lennoxville, Quebec, Canada. Canadians use Zones similar to those used by U.S.

SWL'S... the same as those "assigned" to amateur (ham) operators.

ROW THREE - 12. "Always Glad to Throw the Bull," says VE3-SWL, Lorne Mitchell, Strathroy, Ontario, Canada. 13. From Medicine Hat, Alberta, Canada, "The Gas City of the West," came this card of VESWL6, Thomas J. V. Giles. 14. Beginning with No. 14 and running through No. 23 (NEXT ROW TO THE RIGHT), I have arranged cards by U.S. call areas. No. 14 is the card of Johnny Alley, SWL-WL, Middleboro, Massachusetts. At the time, he listed affailiation with ISWL/WI, and said he was an ASSOCIATE ARRL Member. 15. This attractive card came to me from a very good friend, John J. Oskay, New Brunswick, New Jersey, who was a ham operator (W2B-Z - ex-W2VIZ 1930-36) many years ago, who then became a SWL and a very valuable contributor for several years to the ISW DEPT. of R&TVN; John is a ham operator once again with the call, K2BUW. And he OSL's for SWL's 100%: 16. John C. Karrer, W3-SWL, sent this card to me from Philadelphia, Pennsylvania. 17. This W4-SWL card came from Arthur "Lefty" Hubbard, Fayetteville, North Carolina.

ROW FOUR - 18. From Hugh Selman, SWL-W5, Palestine, Texas, came this card. 19. Source of this one was W6-SWL Wallace Glavich, Eureka, California. 20. W7JLU, Robert N. Morris, Baker, Oregon, sent me this one. 21. Ken Hydeman, Piqua, Ohio, was the source of this card from WXSL-W8-land.w 22. This SWL29 card came from Mrs. B. G. Leach, Zion, Illinois. 23. And this W6-SWL area card came from David Dary, Manhattan, Kansas, still an active SWL.

RCW FIVE - 24. "Greetings from Grimsby where the Fresh Fish comes from were sent me on this card by J. Trussell, Cleethorpes, England.

25. SWL-SM, Arne H. Svensson, Kvarnby, Sweden, sent this card. 26. The emblem of ARRL (American Radio Relay League, the amateur radio association, West Hartford, Connecticut) is a prominent feature of this card from W2-SWL, Frank E. Wooley, Irvington, New Jersey. 27. Finally, this card, bearing "Greetings from the Marble State," was sent me by W4F129, Rutland, Vermont; operator of this Monitoring Station is Norbert A. Greenwood.



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BRITISH EXPERIMENTAL SHORT WAVE RECEIVING STATION

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SERMAN SHORT WAVE RECEIVING STATION



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"INTERNATIONAL GOODWILL AMBASSADOR OF THE AIRWAVES" . . . Edward Startz, PCJ (Peace, Cheer, Joy!) . . . "The Happy Station" . . .

Without doubt, the familiar voice of Edward (Eddie) Startz, versatile master-of-ceremonies, who produces and presents The Happy Station Programs from Radio Nederland, Hilversum, Holland, is known to more shortwave listeners throughout the world than that of any other such broadcaster. He's been "at it" longer, for one thing!

For upwards of a quarter of acentury, the "Happy Station" . . . largely through the efforts of this polygot speaker . . . world traveler and one of the most colorful of all radio personalities . . . has created goodwill for Holland in the world at large . . . has promoted mutual understanding between the peoples of all nations . . . and last, but not least, has spread HAPPINESS to all its listeners . . . in the four corners of the earth!

November 1953 marked the 25th year of "Happy Station" round-the-world broadcasts from the pioneer shortwave station of the airwaves, now Radio Nederland. Significantly, international shortwave broadcasting originated with the "Happy Station." It was over PCJ's then experimental shortwave transmitter back in 1926 that Queen Wilhelmina of the Netherlands spoke for the first time to her subjects in the Dutch East Indies. London's world-famous BIG BEN (the great bell attached to the "Westminster clock" in the Parliament clock tower, London) was first heard in Australia via the Dutch station which carried out the relay. As early as 1929, some 20 different languages had been spoken by prominent world personages over PCJ's microphones. In 1937, following the observance of PCJ's 10th anniversary, 7,000 letters were received from all parts of the world which proved how well-known the "Happy Station" had become . . . even in those early days of international radio broadcasting.

PCJ boasts the only rotating antenna of its type in the world . . . truly an ingenious affair on eight sets of wheels that slide on rails. At the outbreak of war in 1940, the Dutch blew up their transmitter and the famous antennas at Huizen . . . rather than to permit the equipment to fall into the hands of the Nazis. The Gestapo moved in, rebuilt the station with forced labor, and used it to pump German propaganda overseas. But shortly before the Allied invasion of 1944, clever Dutch engineers sabotaged the antenna mechanism so that . . . for the remainder of the war . . . all Nazi broadcasts from Holland were beamed to the North and South poles. No doubt, the Polar bears in the Arctic regions enjoyed excellent reception!

When the Nazis left Holland, they pillaged and looted everything of value, including the "Happy Station's" library of 5,000 recordings collected from all over the globe for the entertainment of its listeners. The Germans blew up the station again . . . but when the Liberation came, the undaunted Dutch engineers rebuilt it in record time and PCJ resumed its "Happy Station" broadcasts to the whole world.

In 1947 . . . celebrating its 20th anniversary . . . PCJ launched a world-wide contest for the best answer to the question: "Can international shortwave radio promote peace?" First prize of a week's stay in Holland . . . with a round-trip passage via K.L. M. (Royal Dutch Airlines)
. . . went to Miss Elizabeth Holland (note the coincidence of the name: Holland) of Newfoundland, Canada.

LEGENDS:

(Legends run LEFT to RIGHT; rows run TOP to BOTTOM.)

ROW ONE - 1. Eddie Startz titles this photo: "When we were young" (around 1930). 2. Note the change in microphone "design" by 1934.

3. Around 1935. 4. Eddie with Miss Elizabeth Holland, NewFoundland, Canada, first-prize winner of a week's stay in Holland, in PCJ's world-wide contest of 1947 for the best answer to the question: "Can international shortwave radio promote world peace?"

ROW TWO - 5. Another pose of Eddie Startz . . . around 1935. 6. Eddie has his famous "Nice Cup of Team" (the tune is known from one end of the world to the other!) during a "HappyStation" broadcast. 7. Eddie "tests" a newer-type microphone.

ROW THREE - 8. Eddie struck this pose for the photographer in August 1953. 9. "Older in years, perhaps, but still youthful in spirit," despite that serious look . . . that's Edward Startz, PCJ's multi-linguial "International Goodwill Ambassador of the Airwaves." Still thousands more SWL's throughout the world should have their first opportunity to listen to the "Happy Station" Programs . . . now that PCJ's long-projected goal has been reached . . . the addition of high-powered (100 kw.) transmitters! CONGRATULATIONS, PCJ, and Eddie Startz . . . may the next 25 yearsbe YOUR BEST! 10. The current "Happy Station" Calendar.



















"THE HAPPY STATION" RADIO NEDERLAND HILVERSUM HOLLAND PRODUCED & PRESENTED BY Edward Starty

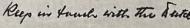
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APPLY FOR CURRENT SCHEDULE!



Reep in touch with the hatch





ROW ONE - 1. This is Broadcasting House of the Belgian National Broadcasting Service (Radiodiffusion Nationale Belge). Brussels, Sadly Sadly missed by SWL's around the world are the former "International Goodwill" programs in various languages . . . including English . . . which originated here . . . and which were received so well over the Leopoldville, Belgian Congo, "International Goodwill Station," OTC2, relaying Brussels. However, late information from Arthur E. Bear, Secretary of the International Short Wave Club, London, who recently visited Brussels, leads me to believe that very shortly, ORU-OFC2 may resume the International Service. 2. Some years ago, when the VOICE OF AMERICA's "Truth Transport, THE COURIER, the first sea-going radio relay station, was launched, Foy D. Kohler (left), Chief of the VOICE OF AMERICA at that time, listened as Commander Oscar Wey, U.S. Coast Guard, captain of THE COURTER, explained the "flating broadcaster's" unusual gimbal-mount turntable. Two of these turntables, which enable recordings to be played in spite of the ship's rolling, are special features of THE COURIER'S broadcasting studio. Although the COURIER can broadcast and originate prgrams from the open sea . . . flying her antennas from a helium-filled barrage balloon . . . she has long been anchored at a strategic location (reportedly, Rhodes), for relay of programs broadcast from VOA's New York studios. THE COURIER was designed to relay news of the Free World to listeners "behind the Iron Curtain." 3. Representatives of the Swiss Broadcasting Corporation (SEC), Berne, are shown interviewing the members of the Mt. Everest Expedition 1952 on their arrival in New Delhi, India, on December 29. 1952. This two-way transmission was arranged through the courtesy of All India Radio, New Delhi. From left to right are Russell Henderson (English-language interviewer, Swiss Shortwave Service); Jo Excoffier from Studio Geneva (French language), and René Ditter, who took part in the Everest climb that year, and Arthur Welti from Studio Zurich (German language). 4. Marc Lavry, composer and head of the Music Section, Kol Zion Lagolah, Jerusalem, Israel, is shown with Sylvia Berger, a scriptwriter for "The Eternal Light" program (aired over NEC in the USA), as they record music for the play, "These Rocks Are Thine," which was broadcast simultaneously by Kol Zion Lagolah (relayed over LXB31, 9.009AV, Tel Aviv) and wThe Eternal Light. Music was specially written by Mr. Lavry for this production. 5. Brazilian talent is widely used for musical sessions from Radio Nacional, Rio de Janeiro, Brazil, which lists frequencies of 980 kcs. (medium-wave), 6.147, 9.720, 11.720, and 17.850.

ROW TWO - 6. The International Service of Radio Canada, which originates from studios in Montreal, Quebec, is sent to the four corners of the earth from this fine transmitting station located at Sackville, New Brunswick. 7. The BBC Transcription Service provides broadcast organizations outside Great Britain with BBC programs in the form of transcriptions (that is, for example, programs specially recorded on lightweight disks). These programs can be broadcast by radio stations on their own frequencies and at times most convenient to themselves and are free from the possibilities of atmospheric interference in shortwave broadcasting. The programs are recorded at the Transcription Service headquarters at Maida Vale, London, and are dispatched from there to all parts of the world. Here you see disks being recorded in duplicate on BBC Type D equipment before being processed for distribution. 8. Sylvia Berger, scriptwriter for with Eternal Light" program (being aired over NBC in the USA at the time this photo was made), is shown making a recording in an immigrant village in Israel. 9. This is the central control desk for partial remote control of the entire equipment of Radio Indonesia's new 100 kw. General Electric transmitter.

RCW THREE - 10. Here are some of the leading personalities of the Israel Broadcasting Service, shown with H. E. Eliahu Elat, Israeli Ambassador to Great Britain. Left to right are Geoffrey Wigoder, English Section Head; Moshe Rubin, Chief Engineer; H. E. Eliahu Elat, and Mordechai Avida, Director, Kol Zion Lagolah ("The Voice of Zion"), Overseas Broadcasting Service of the World Zionist Organization, P.C. Box 754. Jerusalem. The English session from Tel Aviv, 9.009AV, is aired daily usually at 2115 GMT. 11. Don and Helen Smith, of the Staff of the Far East Broadcasting Company, Inc., Box 2041, Manila, Philippines, look over DZH7's new 10 kw. COLLINS 21M transmitter; when it was installed, the new transmitter began operations as DZH7, 9.730. FEBC desires reception reports -- particularly from listeners in Asian countries who will listen regularly to certain programs and then report their reception. Reception report forms for this purpose have been made available by FEBC. 12. This scene-back around 1929-1930, shows technicians measuring field strength, at PCJ, Radio Nederland, Hilversum, Holland, when that technique started on the short waves; so explains Edward (Eddie) Startz of the "Happy Station." I wonder if the man in the center could be Eddie? 13. Compare this scene with that immediately to the left. This is PCJ's present antenna park. From this directionalarray, the "Happy Station" Program from Hilversum, Holland, is beamed to various corners of the earth. And right now, PCJ is using one or more of its new 100 kw. transmitters -- and the familiar voice of multi-linguist Eddie Startz . . . which has thrilled thousands upon thousands of "Happy Station" Program listeners for upwards of 25 years . . . should now be heard by many thousands more. At long last, this pioneer shortwave "voice" has reached its long-projected goal . . . to be counted among the high-powered shortwavecasters of the worlds CONGRATULATIONS, PCJ 14. Here is a splendid view of the famous rotating antenna (note rails) of PCJ (Peace, Cheer, Joy), Hilversum, Holland. At the outbreak of World War II in 1940, the Dutch blew up their transmitter and the famous antennas at Huizen rather than to permit the fine equipment to fall into the hands of the invading Nazis. The Gestapo moved in, rebuilt the station with forced labor, and used it to beam German propaganda overseas. But shortly before the Allied invasion of 1944, clever Dutch engineers sabotaged the antenna mechanism so that, for the remainder of the war, all Nazi broadcasts from Holland were beamed to the North and South poles. No doubt, the Polar bears in the Arctic regions enjoyed excellent reception! PCJ still boasts the only rotating antenna of its type in the world . . . an ingenious affair on eight sets of wheels that slide on rails.



ROW FOUR - 15. About 10 years ago, this was "the latest addition" to the Central Broadcasting Station, XGOA, Nanking, China; it included two 20-kw. transmitters which were to be used for American and European beams; audio racks are at center. Rectifier racks are not shown. Soon the Communists took over Mainland China . . . and the Nationalists moved to Taiwan (Formosa): I believe they took this equipment along with them. Today, most likely, these fine facilities are broadcasting from Taipeh as "The Voice of Free China." 16. (TOP) General view of the transmitting site of old XGOA, the Central Broadcasting Station, Nanking, China. 17. (TOP) Shortwave listeners of World War II days will recall the "war news from Asia" as radiated from old XGOY, "The Voice of China," Chungking, when that city was the seat of the Chinese (Nationalist) Government. 18. (BOTTOM) A view of rhombic antenna system at old XGOA, Nanking, China; installation crew is seen in the foreground. 19. (BOTTOM) One of the 400-ft. self-supporting towers of old XGOA (660 kcs., medium-wave), Nanking, China. 20. (TOP) The "good old days" of Radio Salgon, Fr. Indo-China. are recalled by this photo of several of its Staff members. The man is M. Jean Pipon. Radio Saigon was one of the first stations to dedicate a special DX broadcast to the ISW DEPT. of R&TVN; script for that broadcast was written by Ken Boord and was read by an English announcer at the station . . . probably Margaret Legrand (shown standing to M. Pipon's left). 21. (BOTTOM) Wireless workshops, Waterkloof, home of the South African Air Force Station, ZRB, which operated for a time on 7.445, in Pretoria, South Africa, using an AVT RCA 5-kw, transmitter which fed into a Kraus antenna. The antenna system can be seen behind the Transmitter Hall. What ever happened to this station? 22. A station which had an auspicious beginning but which was short-lived was Radio Centro Americana, Panama City, Republic of Panama, which listed HOX, 940 kcs., 1 kw.; HOXA, 15.100; HOXB, 11.810, and HOXC, 9.600, all with 7.5 kw. Shortly after coming on the air, HOXA sent this attractive glossy-print verification card to SWL's all over the world; it shows various scenes at the station.

SW RADIO FACILITIES AROUND THE WORLD - (OPPOSITE PAGE)

(Legends run LEFT to RIGHT; rows run TOP to BOTTOM.)

ROW ONE - 1. Shown is the 100 kw. General Electric transmitter of KRHO, the VOICE OF AMERICA relay station, Honolulu, T. H. (Hawaii).

2. Transmitter building of the VOICE OF AMERICA Relay Base, Manila, Philippines. 3. Scene at wold "KZRH (now DZRH) with shortwave relay of DZH2, 9.640), Manila, Philippines; this is Studio "A." The Manila Broadcasting Company operates "The Voice of the Philippines" (DZRH, 650 kcs., DZH2, 9.640); and "The Voice of Manila" (DZMB, 760 kcs., DZH4, 6.000, and DZT7, 6.080), all in Manila.

ROW TWO - 4. This is a relatively new 100 kw. transmitter of "Radio Republik Indonesia" (RRI), Djakarta, Indonesia. 5. This shows the power plant of RRI's new 100 kw. General Electric transmitter. Each of the three power units has a 270-horsepower Diesel motor. Each motor is set on a concrete block which weighs 52 tons; each block is independently sprung to eliminate vibration. 6. Concert Hall, Radio House, Copenhagen, Denmark. 7. Radio House, Copenhagen, Denmark. 8. This modern building is Broadcasting House, Oslo, Norway.

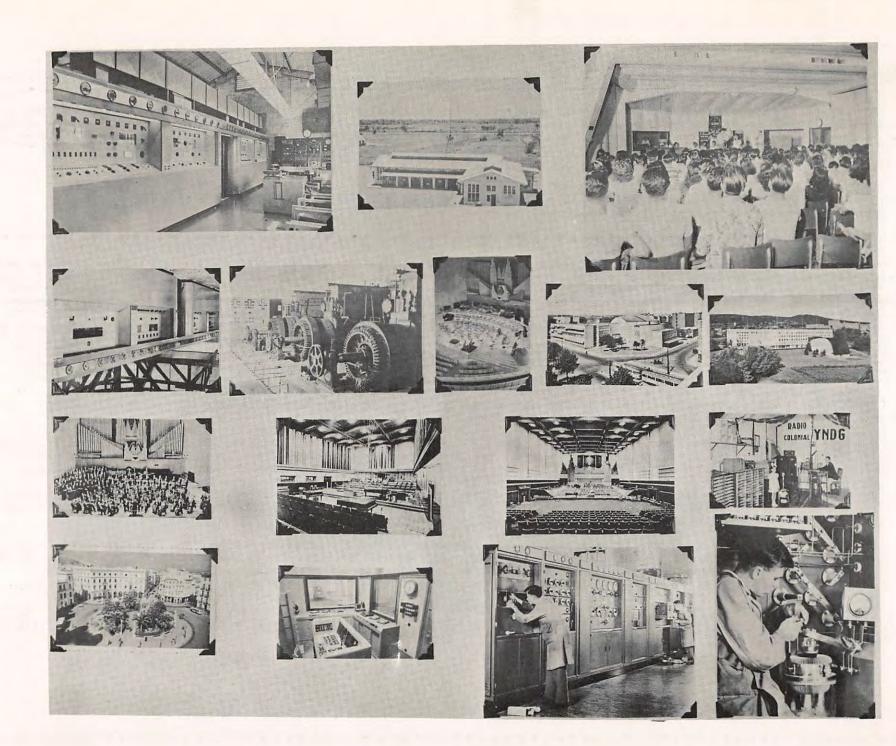
ROW THREE - 9. Here you see a performance by the Radio Symphony Orchestra and the Radio Choir in the Concert Hall, Radio House, Copenhagen, Denmark. 10. This is Studio 1 (approximately 80,000 cubic feet) at Broadcasting House, Belgian National Broadcasting Service (Radiodiffusion Nationale Belge), Brussels, Belgium; this studio is equipped with 48 mobile columns which make it possible to modify the acoustical character-istics of the studio. 11. Here you see the "Great Auditorium" of Broadcasting House, Brussels, Belgium; this is Studio 4 (approximately 400,000 cubic feet); in the background is the great pipe organ which is equipped with four keyboards, 95 registers, and 8,125 pipes. 12. Seen here are Sr. D. E. Gallo, owner, and his daughter, of Radio Colonial, YNDG, 5.995, listed at 1 kw., and scheduled 1200-0500 GMT; location of this station is Leon, Nicaragua; note the HALLICRAFTERS receiver at left. This photo was made some years ago, when YNDG was using a HALLICRAFTERS EC-610E transmitter.

RCW FCUR - 13. This building houses the studios and technical and administrative staffs of EA9AH, Tetuan, Spanish Morocco, Africa.

According to the 1956 WORLD RADIO HANDEOK, this station is now Radio Dersa (commercial) and operates over EHT-1, 6.067, in Spanish 1100-2300 GMT;

WRH lists future plans for this one as a new 20 kw. m.w. transmitter. Medium-wave frequencies listed are EHT-3, 827 kcs., and EHT-2, 917 kcs.
for the information of you BCB fans, hid 14. This photo of some years ago showed the neat studios of EA9AH (now EHT-1), Tetuan, Spanish Morocco,

Africa. 15. One of the high-powered shortwave transmitters of Radio New Zealand . . . located at Titahi Bay, near Wellington. 16. One of the high-powered tubes at the comparatively new shortwave transmitter of Radio New Zealand, located at Titahi Bay, near Wellington.



A *PEEP* BEHIND THE *IRON CURTAIN*
and (below heavy black line) . . . RADIO PERSONALITIES - FACILITIES - AROUND THE FARTH (Legends run LEFT to RIGHT; rows run TOP to BOTTOM.)

RCW ONE - 1. This unusual shot of an antenna mast shows part of the installation of Polskie Radio, Warsaw, Poland. 2. Part of the buildings of Radio Warsaw, Poland. 3. More of the installation of Radio Warsaw, Poland. 4. This is the current QSL card being sent out by Radio Bucharest (Radiodifuziunea Romina), Roumania. On the reverse of this card is this message: "Your observations are of great interest for us and your further reports will be much appreciated. With many thanks and 73's." 5. Main building, Radio Prague, "The Voice of Peace," Czechoslovakia.

RCW TWO (at right) - 6. Main building of Radio Sofia, Bulgaria; note what appears to be a "security guard" in left foreground.

7. This view of the city of Prague, Czechoslovacia, is sent out widely by Radio Prague, which "bills" itself as "The Voice of Peace."

8. Transmitter site and antenna, Radio Prague, Czechoslovacia.

RCW THREE - 9. Sven-Bertil Norberg, Program-Director, Radio Sweden, Stockholm. 10. Dr. Rudolf Narath, who verifies your reception reports and answers letters from shortwave listeners of Radio Sweden. 11. Highly important to the smooth-running of Radio Sweden, Stockholm, is Miss Sargit Ellwyn, or "Sas," that broadcaster's efficient secretary. 12. This is not a prison . . . but an illustration of the housing problem of Radio Sweden, Stockholm. The iron gate separates Radio Sweden from the offices of an insurance company. Behind the grating is Bob Pierpoint, formerly of California, USA. 13. Even a busy shortwave editor such as Arne Skoog, DX Editor, Radio Sweden, must relax once in a while. In this photo, made some years ago, Arne was pictured with his attractive wife and children. 14. This is M. Leopold Le Roye, the Director of the world-famous broadcasting station, OTC2, Leopoldville, Belgian Congo. The former English broadcasts to North America of the "International Goodwill Station" are sadly missed in SWL'g quarters the world over . . . and it is hoped that the Overseas Service (which until recently originated in Brussels through ORU . . . with OTC2 serving a relay station) of Radio Nationale Belge will soon be resumed. 15. M. Frans Zoete (left), Overseas Director of I. N. R., Brussels (with transmitter OTC2 In Leopoldville, Belgian Congo); Arne Skoog (right), DX Editor of Sweden, Stockholm, during a visit to I. N. R. in Brussels in October 1949 as a guest of the OTC-Club. 16. This is the Lahti transmitter site of Oy Yleisradio Abs; programs relayed from Helsinki can be heard in English and other languages at O300A GMT over O-XL, T5.190, and OIX5, 17.800A. 17. Broadcasting House in Helsingfors (Helsinki), Finland.

RCW FOUR - 18. Mountains form the background in this photo ... taken some years ago ... of the installation of HCJB, where with the signals are heard daily around the world; HCJB broadcasts in many languages. New high-powered transmitter/s should be in operation by this time at HCJB. 19. UIR Control-Center, 32, Avenue Albert Lancaster, Brussels, Belgium. 20. Frequencies of shortwave broadcasting stations are measured here at the UIR Control-Center, Brussels, Belgium. 21. Equipment for measurement of frequencies of shortwave broadcasting stations at the Brussels Control-Center of UIR. 22. This is a close-up of a receiver used for long- and medium-waves at UIR, Brussels. 23. Studio shot at HROW, Radio Monserrat, Tegucigalpa, Honduras, Central America. At last report, HROW was scheduled on 6.020 in Spanish at 1300-0400 (or 0500) GMT.

RCW FIVE - 24. Transmitting equipment of Radio Japan, Tokyo, located at the Yamata Transmitting Station. 25. This wappears to be a wnight shot of the Nazaki Transmitting Station of Radio Japan, Tokyo. 26. In great contrast, this is the Yamata Transmitting Station in the "Land of the Rising Sun," obviously pictured in full sunlight. 27. While this is a medium-wave, rather than a shortwave, installation, I couldn't resist the tempt ation to wshare it with you! Shown is the medium-wave installation of the BBC at Daventry. The tower-mast rises 725 feet above the earth. 28. Likewise, this BBC installation is not the kind used for shortwave radiation. Can you guess what type of antenna this is? 29. Cast of "Radioreel" in production in the Meloourne studies of the Overseas Service, Radio Australia. Incidentally, Radio Australia plans to have some additional shortwave transmitters on the air soon... probably one will be in service for coverage of the Olympic Games; it is expected to go into regular service during 1957, using 50 kw., and with the call VID.



INTRODUCTION

IF YOU'VE never been a shortwave listener, you've truly missed out on a big thrill . . . the boom of the deep tomes of Big Ben striking the hour in London . . . weird Arabic chanting from the banks of the Nile . . . the haunting call of Australia's "Laughing Jackass" (the Kookaburra bird) . . . the soft chirps of a mechanical nightingale from fabled Baghdad. For the whole world is literally at your very fingertips through the medium of this modern miracle . . . SHORTWAVE RADIO!

And . . . it's comparatively easy!

True . . . shortwave DX-ing is more of an art today than ever before. With so many of the larger nations crowding the bands with powerful multiple transmitters .. . propagandizing in many languages most of the day and night . . . you really have to "fish" for many of the lower-powered, DX (long-distance) stations . . . but this makes the hobby even more fascinating. And . . . the necessary skill CAN be acquired!

While the ranks of shortwave listeners in the United States have never been as great as in other lands . . . where daily millions depend on shortwave radio for timely news and entertainment . . . it has always had quite a following here. A new crop of SWL's comes along all the time and especially has this been the case in the past few years . . . largely in the teen-age group, many of whom have become interested in "tuning to the world" as a result of Radio Contests sponsored by the Boy Scout's journal . . .BOYS' LIFE . . .edited by my good friend, Harry Harchar. In addition, many youngsters become SWL's as astepping-stone to becoming full-fkdged amateurs (hams) later on.

International shortwave radio is glamourous! Moreover, it is educational. It provides a most satisfying hobby.

To some . . . perhaps . . . it's the "feeling of power" . . . to be able to reach out to the furthermost corners of the earth . . . at the flick of a switch and the spin of a dial. To other folks, it fills a desire to be wint on the ground floor, so to speak . . . to get the news ahead of the broadcast-band listener or the TV viewer.

It's truly a boon to the shut-in . . . and it offers endless opportunities to promote goodwill among the peoples of the earth!

with patience and practice . . . under ordinary conditions . . . it's no trick at all to log all continents in a single evening . . . at times even within a few minutes! For all you need is a shortwave receiver . . . a simple aerial . . . a knowledge of "where" and "when" to listen . . . PLUS PERSISTENCE!

In fact, any type of radio which will tune to the shortwave bands will do as a "starter." It may be an all-wave broadcast receiver, or a home-built shortwave set . . . or a low-priced communications-type receiver. In any case, my advice is to get the best equipment which YOU can afford.

As to the aerial . . . your location and the space available may make the difference . . . so agood "clue" is to EXPERIMENT A LITTLE.

An outside wire . . . as high as possible . . . and clear of all obstructions . . . is DESIRABLE. For best, over-all reception, most experienced shortwave listeners seem to prefer the ordinary straightwire . . . often referred to as the Marconi or the inverted-L. A length of 30 to 100 feet seems to give excellent results on most bands.

Shortwave transmitters include land communications stations, maritime stations, aeronautical stations, amateur (ham) stations, and broadcasting stations. Of these, the broadcasting and amateur stations are of most interest to the average SWL. By international agreement, each type of station is assigned certain bands for operation.

You'll find that the shortwave broadcasting stations operate chiefly in the megacycle bands listed on the following page. (A megacycle is 1,000 kilocycles.)



THE WORLD IS AT YOUR FINGERTIPS At 5.960 to 6.200; 7.100 to 7.300; 9.500 to 9.800; 11.700 to 12.000; 15.100 to 15.450; 17.700 to 17.900; 21.450 to 21.750 megacycles (mcs.).

Some receivers indicate these bands in meters (m.) . . . such as the 49-, 41-, 31-, 25-, 19-, 16-, and 13-meter bands respectively.

Megacycles refer to frequency . . . meters refer to wavelength.

To convert megacycles to meters, you simply divide the frequency in mcs. into 300. For example:

6.000 mcs. (frequency) divided into 300 gives you 50 m. (wavelength). Conversely, 50 m. (wavelength) divided into 300 gives you 6.000 mcs. (frequency).

Many shortwave stations operate outside the principal bands which Tive just described. For instance;

The 60- and 80-m. bands are used for local (domestic) broadcasting over relatively short distances by many South and Central American stations . . . and by stations in Central Africa, Australia, India, and elsewhere. These bands are often called the "Tropical" bands.

The property possessed by shortwaves of spanning great distances with strong signals has encouraged the nations of the world to make wide use of them for broadcasting purposes.

WHEN TO LISTEN

Reception conditions on each of the shortwave broadcast bands vary a lot at different times of the day and night. Beginners, in particular, should always keep this in mind.

Also, there is wide variation at different seasons of the year.

Hence, it is absolutely essential that you learn when to listen on EACH band.

Usually, the best reception on each of these bands during the autumn and spring months should be (according to YOUR local time):

The 6 mc. band -- Evening for Latin America and Europe.

The 7 mc. ban d--Late afternoon and evening for Europe.

The 9 mc. band -- Morning (6 to 8 a.m.) for Asia and Australia; evening for Europe and Latin America.

The 11 mc. band--Morning (6 to 9 a.m.) for Asia and Australia; evening for Latin America.

The 15 mc. band--Morning and afternoon for Europe and North and South America.

The 17 mc. band -- Morning and early afternoon for Europe and North America.

The 21 mc. band--Late morning for Europe.

During the winter months, the best bands for evening reception are lower than during the fall and spring. For example:

The 9 mc. band becomes poor for reception from Europe during the evening hours . . and the 6 mc. band becomes the best band for European reception.

In the summer months, the best evening reception shifts to the higher bands. For instance:

Evening reception from Europe becomes good in the 11 mc. band, although the 9 mc. band remains good for reception from that area.

Year-around DX (distant reception) bands are the 9 mc. and the Il mc. bands . . . although consideration there, too, must be given to receiving different parts of the world best in summer or winter.

I have just outlined what YOU can expect under normal conditions.

REMEMBER - the factors which affect long-distance radio transmission vary from day to day. At times . . . generally for periods of several consecutive days . . . transmission conditions will be wdisturbed when only the more powerful stations can be heard. (This was quite noticeable between February 11-26, 1956.) But don't be discouraged, since normal conditions will return and reception again will be GOOD.

Another important matter to consider is that shortwave broadcasters often change their schedules and/or frequencies with little or no prior notice. So always be on the alert for announcements of such changes.

Here, I would like to offer some advice that I believe will be of especial benefit to the BEGINNER:

At the outset, thoroughly familiarize yourself with GREENWICH MEAN TIME (GMT), which is used by practically all international broadcasters. Use of the 24-hour clock system for both your own "local" time and GMT will be a great advantage to you, radiowise, because it eliminates any possible confusion between time "a.m." and time "p.m."

HOW TO TUNE

46

Another "must" for the SWL is to learn how to tune. You must wknow what to look for . . . when to look for it and . . . most IMPORTANT be able to recognize it when you DO hear it. This requires a combination of KNOWLEDGE . . . SKILL . . . and PATIENCE.

Operate your receiver at MAXIMUM SENSITIVITY and BROADEST POSSIBLE SELECTIVITY when "fishing" for a station.

Once the station is located, however, adjust from there for BEST "LISTENING" POSITION.

Ordinary whomew receivers and other smaller sets must be tuned VERY SLOWLY and CAREFULLY (with the volume turned up a great deal) or you may pass over a weak signal and never know it was there. REMEMBER . . . a wide frequency range is covered in each dial division.

As you master the "slow technique" of tuning, you'll log more and more DX stations.

IDENTIFYING STATIONS

In the international shortwave broadcast bands, you'll find that most stations nowadays use English at least part of the time . . . particularly for identification purposes.

The best source for identification aids is WORLD RADIO HANDBOOK, available for \$2, postpaid, direct from Gilfer Associates, P. C. Box 239, Grand Central Station, New York 17, N. Y. -- Cr direct from the publisher, C. Lund-Johansen, Lindorffsalle 1, Hellerup, Copenhagen, Denmark. (WORLD RADIO HANDBOOK is observing its 10th anniversary.)

WRH lists announcements (by languages) used by a station; opening and signature tunes; interval signals; slogans, and so on.

Always listen carefully to foreign languages for their chief characteristics, then pick out repeated words and phrases. If you know the equivalent of "calling" in several languages, usually you'll be able to spot the location of the broadcaster . . . such as "HUNA" Omdurman, "ICI" Paris, "GOVORIT" Moskva, "HONA" el Kahera, "AQUI Lisboa, "GOVORI" Sofia, "EDHO" Athinai, "UTVARP" Reykjavik, and so on. Analyze station announcements.

It's a good idea to listen to some stations, schedules of which are known, and which broadcast in various languates (such as the BRITISH BROADCASTING CORPORATION or the VOICE OF AMERICA) . . . to learn how to recognize the sound of one tongue from another . . . such as distinguishing between Spanish and Portuguese.

Unless you are VERY CERTAIN, take nothing for granted! For instance, USSR stations ofttimes are mistaken for Chinese outlets when the Soviets are broadcasting in Chinese dialects; the same goes for BBC and VOA.

Tuning signals are a reliable guide; it pays to memorize any heard. National Anthems are similarly useful, as are other patriotic songs peculiar to the individual country.

VERIFY YOUR RECEPTION

Most SWL's whom I have known over almost a quarter of a century feel that "the proof of the pudding is in the eating!" So, they collect verifications.

Sending reception reports to stations leard and obtaining verifications (QSL cards or letters) from them to confirm reception of these stations is considered by many SWL's as one of the most satisfying parts of the DX hobby. Some stations verify by QSL card, others by QSL letter. A few organizations—such as the BBC, which has its own monitoring service throughout the world—do not verify at all.

When you report to a shortwave broadcaster, it's well to remember that the station officials want to know:

- 1. How well their transmissions come in at YOUR location.
- 2. Under what conditions their signals were received.
- 3. What effect their programs have on YOU, the listener.

Thus, make every report complete, clear, but concise! Use a "personal, friendly" touch!

Cover at least 15 minutes of broadcast--preferably more--for EACH frequency you wish verified. Reception details over a period of several days--that is, five or six 15-minute periods on different days, rather than an hour or so at one time--are of much greater value to a broadcaster--for this proves whether or not it was "freak" reception.

Detail items. Be specific. All signal and reception characteristics and program content -- by items -- should be given.

Give the date and report in Greenwich Mean Time (GMT). List the frequency on which the station was heard; give the signal strength; state the interference (GRM and CWQRM--that is, code or Morse QRM) from other stations, and the source if you know it; QRN (static, giving the type); QSB (fading), if any; give local weather conditions at the time of your reception.

This reporting system is generally used for signal stength and intelligibility:

SIGNAL STHENGTH--Sl--barely audible; S2--very weak; S3--weak; S4--fair; S5--fairly good; S6--good; S7--moderately strong; S8--strong; S9--very strong.

INTELLIGIBILITY (or READABILITY) -- R1--unreadable; R2--poor; R3--fair; R4--good; R5--excellent.

You may wish to describe the equipment-used to hear the signal (whether "home" or communications receiver, type of circuit, number of tubes, trade name and number; preselector, if used; antenna and ground systems, and so on.

UPPERMOST, give data that will be "of use" to the station and its engineers!

Then definitely . . . but politely . . . NEVER demandingly . . . ask that the accuracy of your report be checked and, if found correct, that it be confirmed by ma verification of reception." Some stations which are long on macknowledging reports are extremely short on meconfirming them.

Write legibly; use a typewriter if you have one. Write in the "working" language of the station IF you can do a good job; OTHERWISE, use English. Often you can make up a satisfactory CRA from call letters, name of station, slogan or motto, city, state or province (if any), country, continent; I have had good results in "devising" station CRA's in this manner.

You can get such addresses (QRA's) from WORLD RADIO HANDBOOK, from magazines and club bulletins, through correspondence, by listening to DX sessions, and over the air. Many stations ask for reports and give their QRA during regular transmissions.

If at all possible, reports to Latin American countries should be in Spanish; some SWL's find it an advantage to send along a "prepared" verification, ready to be signed by a member of the station's personnel.

Many stations which are government-operated will verify without return postage being sent to them. BUT IT IS ALWAYS THE BEST POLICY TO SEND ALONG AN INTERNATIONAL REPLY COUPON (IRC) unless you are certain that the station does not require one. An IRC costs 13 cents at U.S. post offices; it is "good" for one unit of return first-class postage (by surface mail) from any country that is a member of the UNIVERSAL POSTAL UNION. Four post office stamp clerk can tell you what countries do or do not accept IRC's. Do not send U.S. stamps. You may be able to get "mint" stamps of the country to which you are sending your report. Local stamp collectors might be able to help you locate mint stamps of the country involved.

Some DX-ers send along various items -- a photo of themselves, perhaps, or of their L. stening Post; picture postcards; used stamps (some station personnel collect stamps, too, you know!).

Write the station's address and YOUR return address carefully--you'd better print these! It may be an advantage to address your report for the attention of the station's Chief Engineer.

BE CERTAIN TO AFFIX THE CORRECT AMOUNT OF POSTAGE; here again, your post office stamp clerk can advise you. Airmail, of course, is much faster than surface mail--but costs more. If you "know" that an IRC is "not required" . . . you may wish to use an airletter form (which costs 10 cents at U.S. post offices and which is "good" to any place in the world).

Reports on cards are definitely "out"--simply because you cannot give sufficient details on a card to be of significant use to a station's personnel.

* *Form* reports ARE convenient . . . but must be prepared very CAREFULLY, and it is always wise to also send along a *friendly* letter. Some radio class issue forms printed in various languages . . . for the use of their members.

NOW . . . allyou need to do is "sit back and wait" for the verification. BE PATIENT! Normally, a reasonable time to wait for a reply is four to eight months.

If no reply has been received at the end of that time, send a "new" report, if possible, and refer to the "old" one and say that no reply has been received. Don't hesitate to send a "fresh" report at intervals. Some stations seem to have a habit of answering for a time, and then stop. Then, there's the "chance" that the station may be under new management . . . and may have changed its veriffication policy.

One of the world's most successful DX-ers-Sidney Pearce of England-tells how he sent reports at intervals over six or seven years to a certain station-but had no luck; then he sent another report one year covering reception on two evenings, did not enclose an IRC-but received aprompt and satisfactory reply:

Some SWL's have received replies after YEARS of waiting! So, BE PATIENT! Don't give up hope!

WHY DO STATIONS FAIL TO VERIFY? Principally, for one of two reasons:

A poor report on the part of the SML - or
 Poor management on the part of the station.

Some stations lack time, personnel, or funds. Many stations will reply when they first take to the air, or when they make a change in frequency or power, but then stop QSL'ing becausethey "know" how their station is being received, and reports are no longer of much value to them. On the other hand, some stations literally "get flooded under" with reports. And don't forget . . . there are a few stations—such as the BBC—that have a definite policy of not verifying.

By and large, however, a survey I once made shows that SWL's receive approximately 75 per cent verification on the SWBC bands—and approximately 50 per cent on the ham (amateur) bands.

A few years ago, a prominent DX-er friend of mine reported that over a period of years, while his over-all SWBC verification return was 75 per cent, response from Latin American stations was only 42 per cent. With many Latin American broadcasters adding English to their programming nowadays, verification return from that area is no doubt rising.

Collecting verifications does take time . . . and a little money . . . but it's a great part of the satisfying hobby of international shortwave radio listening!

KEEP UP TO DATE	R							
You can make your shortwave listening moreenjoyable by keeping up to date Consult current radio magazines for schedule and fre-	#							
quency changes, details on new stations, and so on. Also, you'll find that some international broadcasters present regular weekly or monthly	**	T						
DX sessions during which current tips are given. (Schedules for such	*	-						
DX broadcasts are detailed elsewhere herein EDITOR)		I			USE	OF	GMT	
	90				(01)	Taura Cara	 \	
By all means, keep a logit's valuable for future reference! Record	1.0	M			(24-	Hour Sys	tem)	
the date, time, call, frequency, location, nature of transmission or	*	E						
program content, signal strength and characteristics, kind of inter-	*	D		GMT	EST	CST	MST	PST
ference (if any) and its identity (if known), and "remarks." A ruled "analysis pad" from your localstationery shop will be good for this	"			-				
purpose Many SWL's also find it an advantage to keep a card	*	C	46	0000	1900	1800	1700	1600
index file of individual stations by frequency using 3x5 cards				(or				
to list frequency, call, location, when heard, type of program heard,	*	0	告	2400)	2000	7000	1800	1700
signal strength, readability, interference, dial setting, and "remarks."	67			0100	2100	1900	1900	1700
Such a station file is important when you find what you believe is a	*	N	15	0300	2200	2100	2000	1900
new station ad wish to check the type of program heard with that of	M	V	16	0400	2300	2200	2100	2000
stations you have logged earlier on that particular frequency.	**		14	0500	0000	2300	2200	2100
Correspond with stations. Keep them advised on how they can improve	*	E	10		(or			
their program content and services. Urge but never demand				0/00	2400)	0000	0200	00.00
that stations use (more) English.	*	R	*	0600	0100	0000	2300	22 00
		_				(or 2400)		
Exchange tips with other DX-ers. (A "real" DX-er has been defined as	并	5	34	0700	0200	0100	0000	2300
the one who after he has identified that "hard-to-log" signal	*	I	*			3.000.00	(or	100000
does not keep it a secret but passes the word along to fellow-enthusiasts so they may put their receivers to work on the same	.0	_	~				2400)	
"catch;") Why not meet other SWL's in your locality and form a	*	0	44	0800	0300	0200	0100	0000
local group? Set up some regular but informal meetings								(or
to discuss DX In sharing your experience and knowledge with	*	N	转	0000	01.00	0200	0000	2400)
others, especially encourage teen-agers; this is good training for				0900 1000	0400 0500	0300	0200	0100
prospective hams; perhaps you can influence teen-agers to become hams,	*	•	神	1100	0600	0500	0700	0300
even though you are not a ham operator yourself Foster better		C		1200	0700	0600	0500	0400
relationships and cooperation between SWL's and hams.	*	Н		1300	0800	0700	0600	0500
Pood shout the places you listen to learn their geography	#	11		1400	0900	0800	0700	0600
Read about the places you listen to learn their geography about their peoples and customs Develop wpen-pals, we especially		A		1500	1000	0900	0800	0700
abroad, to promote better world understanding.	45			1600	1100	1000	0900	0800
		R		1700	1200	1100	1000	0900
FINALLY, whether you listen to the international shortwave broadcast	4:	-		1800	1300 1400	1200	1100	1000
bands the amateur bands (see "TUNING THE HAM BANDS," elsewhere		T		2000	1500	1400	1300	1200
herein-EDITOR) or both whether or not you ever become	*			2100	1600	1500	1400	1300

IT'S EASY . . . AND IT'S GREAT FUN!

very best!

a full-fledged amateur operator . . . truly, shortwave radio knows no boundaries! Yes, it most certainly is armchair traveling at its

- W HAM VS. SWBC LISTENING
- * WHETHER to listen to the ham or shortwave bands is largely a matter of taste ... interest ... and aptitude.

TUNING

THE

HAM BANDS

* Many SWL's tell me they listen on the ham bands ONLY when they find nothing of interest on the SWBC channels.

On the other hand, many other SWL's listen to the ham bands primarily in the hope of logging . . . and possibly,

verifying a new country which does not have any SWBC outlet. Many SWL's continue to be merely "listeners" . . .

rather than to become hams. . . . Perhaps this is because no license is required . . . there's no code to learn, necessarily . . . there are no government restrictions, no sworn responsibilities. Some feelthere is a

much more rounded appreciation of the greater number of diversified and interesting methods of utilizing the broad shortwave spectrum than is enjoyed by the average ham. Also, finances may constitute a limiting factor.

Indeed, amateur stations provide interesting "listening" on the shortwave bands. These are stations operated
by private individuals, and sometimes by club groups, for the purpose of radio construction and experimentation,
 and for communication with other amateur stations.

* The principal bands for amateur station operation are:

1.80 to 2.00 mcs.
3.50 to 4.00 mcs.
7.00 to 7.30 mcs.
14.00 to 14.35 mcs.
21.00 to 21.45 mcs.
28.00 to 29.70 mcs.

The reception characteristics of these bands vary considerably:

The 160-meter band (1.80 to 2.00 mcs.) is generally useful only for relatively short-distance transmission-up to a few hundred miles. Best reception is at night. On winter nights, however, this band offers reception up to several thousand miles at times. This band has a working range of only up to about 25 miles or so in daylight.

The 80-meter band (3.50 to 4.00 mcs.) is useful for short-distance transmission during the day (up to 300 miles is possible). During darkness, reception is possible over several thousand miles. Reception is best in winter when less static is encountered and when noise level is less. The winter months also promise trans-oceanic contacts.

Many interesting contacts among U.S. amateurs can be heard on this band. Phone (voice) stations in the U.S. are assigned 3.80-4.00 mcs., the rest of the band being for CW (Morse code) operation.

The 40-meter band (7.00 to 7.30 mcs.) is partially shared with broadcasting stations outside of the American area. The combination of amateur and foreign broadcast operations makes reception of amateurs somewhat difficult in this band at times. However, during daylight, reception over several thousand miles is possible. Best reception is at dawn and dusk periods when stations on the other side of the world can sometimes be heard well. In the early morning hours, just a few minutes after sunrise, stations from Asia, Australia, and New Zealand come in well. Just before sunset and after, stations from Europe and Africa come in well, along with those from South America. In general, the winter months are better than the summer months for reception on the 40-meter band. Summer static can be serious at times on this band. In the U.S., 7.00 to 7.30 mcs. is open to CW transmissions, while 7.20 to 7.30 is open to voice transmissions. Best area for CW DX in this band is 7.00 to 7.05 mcs., and foreign phone DX can be located best in the area of 7.05 to 7.15 mcs.

Next, comes the 20-meter band.

14

The 20-meter band (14.00 to 14.35 mcs.) is the best band for foreign *
reception. U.S. phone stations are assigned to the section 14.20 to
14.30 mcs. Most foreign phone operations are in the sections 14.10 to *
14.20 and 14.30 to 14.35 mcs., on either side of the American phone
band. Most CW operation is in the low end of the band between 14.00 *
and 14.10 mcs. This band is useful during daylight hours but, at
times, freak conditions leave it "open" almost 24 hours a day. In *
general, it is best at dawn and dusk. In this band, the "skip" effect
is quite pronounced and sometimes stations only several hundred *
miles away cannot be heard at all.

The foreign amateur stations which can be heard in the 20-meter band vary considerably with different hours of the day and by different seasons. During the fall and spring months, the band opens up at about daybreak, with European and Latin American stations heard best. Australian and Asiatic stations will be heard occasionally in the eastern States and frequently in the western States. Most of the stations fade out in the eastern States by 1400 GMT (9 a.m. EST). During the afternoon hours, reception is best from Europe and Africa. In the evening, Latin American stations are heard.

During the winter months, the European stations usually fade out after early afternoon, but this provides a good chance to hear African stations without interference from the more numerous Europeans. After a period of Latin American reception in the late afternoon and early evening, the band often will be "dead" until the next morning during the winter months, except for local U.S. stations.

In the <u>summer months</u>, the <u>Europeans and Africans</u> can be heard on 20 meters during the <u>afternoon hours and into the early evening</u>
period. The <u>evening hours are good for reception from Central and South America.</u>

The 15-meter band (21.00 to 21.45 mcs.) is primarily a daylight band. During the fal, winter, and spring months, reception should be good from Europe and Africa during the morning and early afternoon. Latin Americans should be audible throughout the day, and Australians

. . . and perhaps a few Asiatics . . . in the late afternoon and early evening.

Now, the 10-meter band (28.00 to 2.70 mcs.) is quite good when it is good . . . which it was during the 1947-1950 period of high sunspot activity. But in the following period of decreasing sunspot activity, conditions for distant transmissions on this band declined.

The sunspot minimum was observed in May 1954, and the 19th cycle maximum is predicted for June 1958. Hence, from nowon, reception conditions should improve on this band.

Like the 15-meter band, the 10-meter band is a daylight band.

Best reception during the fall, winter, and spring months should be from Latin America during the morning and afternoon. There should be occasional reception from Africa in the late morning and early afternoon, and from Australia and New Zealand in the early evening. Reception from Europe on the 10-meter band is not too likely at present.

You'll note that the <u>stations of each country are designated</u> by the prefix of their call letters.

U.S. Stations use W or K prefixes. The most frequently heard foreign countries from Europe are:

Englan	d .	0	0	0	•	•	0	0	0	<u>G</u>
France	٥	٥	0	0	٥	0	•	٥	۰	F
German	у .	۰	•	•	•	0	•	0	•	DL
Italy		0	0	•	•	0	0	•	•	Ī
From Africa:										
Morocc	0 .		•	•	•	•	0	•	0	CN8
South	Afr	ic	a	3	•	•	0	0		<u>zs</u>
And from the Pac	ifi	C:								
Austra	lia	,	0	0	0	•	•	٥	9	<u>vk</u>
New Ze	ala	nd	•	0	0	•	•	,		ZL

Japan soooooo

Reception of relatively low-powered amateur stations varies greatly from day to day . . . so don't be discouraged if you don't hear much the first few"tries.**

One good way to determine how reception conditions are is to note what stations the U.S. amateurs are calling.

For verifying amateur stations, many SWL's send specially-prepared QSL cards. (These may be purchased printed up from many souces, as advertised in the CLASSIFIED SECTION of such magazines as QST, CQ.)

Normally, what is called the "Q" code is used in such reports. For instance;

wYour signals were CSA5 (readability) and R9 (signal strength). There was some QRM (interference from others) on your frequency from Station 'XYZ.' There also was some QRN (static) present. There was slight QSB (fading) noted on your transmission. Your modulation (defined by the dictionary as "alteration of the amptitude or frequency of a wave in accordance with speech or a signal") was excellent."

Such a report will give the amateur operator an idea of how his station was being received at YOUR location.

FOR CONFIRMATION PURPOSES, tell the amateur what approximate frequency he was heard on . . . and include the CAIL LETTERS of stations with which he made contact . . . and the time (in GMT) of each contact.

It's well to send a brief, friendly letter with the card . . . also, a self-addressed, stamped envelope (for amateurs in the U.S. and possessions; however, bear in mind that the Canal Zone uses its own stamps instead of U.S. stamps).

For countries abroad, you may be able to get mint stamps of the country to which you are sending your report (local stamp collectors might be able to help you locate these). If mint stamps are not available, then an IRC may be sent. Hewever, I am told that as a rule . . . amateurs do NOT take too kindly to IRC s since they are a bother to exchange for postage and, further, are not acceptable in some countries.

QTH'S (addresses) of amateur stations . . . as given during contacts . . . should be carefully noted for use in reporting. In addition, if you have a friend who is an amateur, he probably can furnish you QTH'S from the RADIO AMATEUR CALL BOOK.

As in verifying shortwave broadcasting stations, give the amateur ample time to reply before sending a follow-up report.

A survey I made some time ago shows that SWL's receive only approximately 50 per cent verification on the ham bands. Why is this? I put this question to a long-time friend of mine, John J. Oskay (K2BUW) of New Jersey once. John was first an amateur, then a SWL, and is once again an amateur.

Here is what John had to say on this subject:

*Verification cards are difficult to obtain from some amateurs.

"However, in general, I've found that the CW (code) operators seem more willing to verify with a QSL card than do the phone operators.

"Many amateurs have expressed the opinion that they are 'not interested' in SWL reports. This may be because they make so many contacts and get cards from these contacts . . . which means so much more to them. The average phone operator may receive hundreds of cards from SWL's, since many SWL's do not know code and pick up the phone stations to send their cards to for verification.

"Nonetheless, if enough detail is given, many of the phone stations DO VERIFY.

verify since they are not 'flooded' with cards from SWL's, and the few they do receive they usually are proud to get and to verify.

about 80 per cent return from the CW boys . . . but I had much less success with amateur phone stations.

Incidentally, as mentioned herein earlier, K2BUW verifies
100 per cent!

To "round out" this piece, here's the INTERNATIONAL RADIO ALPHABET:

ABLE	ALFA	NAN	NECTAR
BAKER	BRAVO	OBOE	OSCAR
CHARLIE	COCA	PETER	PAPA
DOG	DELTA	QUEEN	QUEBEC
EASY	ECHO	ROGER	ROMEO
FOX	FOXTROT	SUGAR	SIERRA
GEORGE	GOLF	TARE	TANGO
HOW	HOTEL	UNCLE	UNION
ITEM	INDIA	VICTOR	VICTOR
JIG	JULIETT	WILLIAM	WHISKEY
KING	KILO	X-RAY	EXTRA
LOVE	LIMA	YOKE	YANKEE
MIKE	METRO	ZEBRA	ZULU

IF YOU'RE a DX-er . . . no matter what your particular field of interest is . . . there's a club for YOU!

There's

Whether you are a SWL, a BCB, or ham DX-er . . . or even a TV DX-er . . . you can greatly enhance your pleasure by joining one or more good clubs. It makes no difference the direction to which your hebby runs, you'll find just the club for "YCU!" Most clubs are open to anyone who has a sincere interest in his hobby.

I'm certain that most veteran DX-ers feel it would be utterly impractical ... almost impossible ... to go through a DX season without the help of a club as a source of current DX data ... an organization that provides a chance to exchange tuning information and long-distance (DX) loggings.

And once you've joined a DX-club, remember that it is a medium for MUTUAL EXCHANGE of DX information. Remind your-self occasionally that your whole hearted support of YOUR club in this respect is just as important . . . perhaps, even more so . . . than the cost of membership. Don't forget that officers, directors, and editors willingly accept the responsibilities of their respective positions; thatmonth after month, year in and year out, they make substantial contributions of time and effort without remuneration in any form. This is typical of the cooperative spirit which has made DX-ing one of the most fascinating of all hobbies!

True, not every member of a club is in a position to make an equivalent contribution of time and effort . . . but EACH MEMBER DOES HAVE A MORAL OBLIGATION TO DO WHAT HE CAN TO SUPPORT HIS CLUB AND ITS ACTIVITIES.

Some years ago I made a world-wide survey of the house organs and other services of the principal radio clubs around the globe. I had hoped to give you comprehensive details on those clubs . . . but space herein is limited and I feel that the space available must be used to the VERY BEST ADVANTAGE. Hence, I shall only LIST the names and addresses of the clubs on which I have data . . . with the suggestion that you WRITE DIRECT to the individual club at the CRA given herein . . . and ask for FULL DETAILS and a sample of the club's house organ.

a club

Let's start with clubs in the UNITED STATES . . . and then progress to other lands, alphabetically:

UNITED STATES--AMERICAN IONOSPHERIC PROPAGATION ASSOCIATION, Robert Seybold, President-Secretary, Bennett Road, Eunkirk, New York; covers TV DI only **AMERICAN RADIO RELAY LEAGUE, INC., West Hartford, Connecticut, wof, by and for the amateur, president of which is now Goodwin L. Dosland, WOTSN; while full voting membership is granted only to licensed amateurs, others may join; full details are contained in "QST," official ARRL organ, available at all news stands.**ASSOCIATION OF MID-WEST SWL'S (AMSWL), 1752 Cornelia Ave., Chicago 13, Illinois; Editors include Stephen F. (Steve) Foster and Harry B. Roesener; covers SWBC, ham, and BCB radio.**INTERNATIONAL SHORTWAVE NEWS AND REPORT (ISWARN), 3156 North New Jersey St., Indianapolis 5, Indiana; Joel Whitaker II, Editor.**NATIONAL RADIO CLUB, c/o Ray B. Edge, 325 Shirley Ave., Buffalo 15, N. Y., president; covers broadcast band DX only.**NEWARK NEWS RADIC CLUB (NNRC), c/o Irving R. Potts, president, 215 Market St., Newark, New Jersey; covers all phases of both radio and Ty.**UNIVERSAL RADIO DK CLUB (URDXC), c/o Charles C. Norton, president, 21446 Birch St., Hayward, California; covers shortwave broadcasting and amateur radio, and issues a Shortwave Log annually.

CANADA -- WORLD FRIENDSHIP SOCIETY OF RADIO AMATEURS (WFSRA), R. C. Kenny (VE3AYE), Hon. Secretary, R. R. 1, Kleinburg, Contario, Canada.

AUSTRIA -- THE AUSTRIAN DX CLUB, Landgutgasse 41/19, Vienna (Wien) 10, Austria; I understand this club has more recently merged with another club.

for YOU!

ENGLAND--INTERNATIONAL SHORT WAVE LEAGUE (ISWL), 86, Barrenger Road, London N. 10, England, of which Peter Bysh is
Hon. Secretary-Treasurer. INTERNATIONAL SHORT WAVE CLUB (ISWC), 100, Adams Gardens Estate, London, S. E. 16, England, of
which Arthur E. Bear is the Hon. Secretary; this club was started upwards of 25 years ago in the United States.

FINLAND -- HELSING FORS DX CLUB (HDXC), Poste Restante, Helsingfors (Helsinki), Finland, of which Bob Hielm is presi-

(THERE'S A CLUB FOR YOU! - cent'd from Page 35)

FRANCE -- CLUB DES AUDITEURS DE LA RADIO MONDIALE, 1, rue Pasteur, Juvisy-sur-Orge, France, headed by M. Robert Mercier; not heard from lately.

JAPAN--INTERNATIONAL DX LEAGUE (IDXL), Box 56, Kyoto Central Post Office, Japan, of which Kouichi R. Yoshida is president.**JAPANESE SHORT WAVE CLUB (JSWC), P.O. Box 29, Sendai, Japan, of which Kenro Wada, Akira Ogawa, and Yoshinobu Sano are Editors; monthly house organ is all-English and is one of the best publications I have ever seen from any club.

NEW ZEALAND -- NEW ZEALAND DX RADIO ASSOCIATION (N.Z.DX R.A.), 15, Plunket St., Dunedin S. 2, New Zealand, of which, at last report, J. Forrest was president; noted for many years as publisher of "Radio Calls of the World." ***THE N. Z. RADIO DX LEAGUE (NZRDXI), 41, Magdala St., Dunedin E. 1, New Zealand; much of the information shortwave broadcast-wise is compiled by the noted "Down Under" DX-er, Arthur T. (Art) Cushen.

NORWAY--HEUREKA DX-CLUB, c/o Horald Torgard, Nilserudkleiva 15, Oslo, U. H., Norway.**KRISTIANSAND-S.-DX CLUB, Havkveien 1, Vijos Hareby, Kristiansand. S. Norway, of which Stein Gjeruldsen is Secretary.

SWEDEN-THE DX-CLUB TELLUS, Rustkammarbacken, Soderhamn, Sweden.**GOTEBORGS DX-KLUBB, c/o Gosta Malmberg, Vingagatan 5, Goteborg W, Sweden.
JAMTLANDS DX-KLUBB, c/o Jan Hassner, Radhusgatan 4, Ostersund, Sweden.MALMO KORTVAGSKLUBB, Fack 7026, Malmo 7, Sweden.**THE RADIO CLUB XTAL,
Tranas, Sweden. RADIOKLUBBEN UNIVERSAL, Box 65, Nynashamn, Sweden.**SAFFLE RADIO KLUB, of which the Editor is Lars Stenson, Kaptensgatan 6,
Saffle, Sweden.**SCANDINAVIAN DX-CLUB (SDXC), Box 20038, Stockholm 20, Sweden, of which Bo Engelbrecht, Eriksbergsgatan 18, Stockholm 0, Sweden,
is Secretary.**SVERIGES RADIOKLUBB, Box 5083, Stockholm 5, Sweden.

NOTE: There are MANY other clubs in Scandinavia . . . perhaps a list of them could be obtained from Arne Skoog, DX-ALLIASEN, Ridvagen 14, Danderyd, Sweden; DX-ALLIASEN, which was to hold a DX-Camp, July 15-22, at Bole, in the south of Jamtland, is made up of 26 Scandinavian radio groups.

MANY of the house organs of clubs OUTSIDE the English-speaking countries DO publish portions of their DX items in the English language.

And now, a parting thought: REMEMBER, ONCE YOU'VE JOINED A CLUB, GIVE IT YOUR UNRESERVED SUPPORT . . . TO THE BEST OF YOUR ABILITY . . . and add greater satisfaction to YOUR DX hobby:

F L A S H from NAURU . . .

(A WI FEATURETTE)

From a CRA of Government Radio Station, Nauru Island, Les Wright has written to Phil Finkle, Western Section SW Editor, UNIVERSAL RADIO DX CLUB (URDXC):

wwe have a R/T schedule with Sydney, Australia each day at 0230 GMT. Our schedule time is half an hour, but if there are no calls we sign off after making contact. Nauru, with the call sign VKT, operates on 15.350, although occasionally, if we are jammed there, we go to 16.375. Sydney operates to us on 17.690. Also, on occasions, we use the scrambler. These are the only times and frequencies we use for the R/T. Sydney call sign to us is VLN58. The transmitter we use is a 60-watt one designed for the Royal Australian Air Force. It feeds a rhombic beamed on Sydney.**

NAURU ISLAND, 166055' E. Long., 32 miles south of the Equator, formerly German, mandated by the League of Nations to the British Empire, was placed under United Nations jurisdiction as a Trust Territory on October 22, 1947, administered by Australia, New Zealand, and Great Britain. Its area is about eight square miles; its population in 1953 was 3,404. It has valuable phosphate deposits.

From a new illustrated booklet, "A Sketch of BCC," just received from Taipei, Taiwan (Formosa), I have condensed the fascinating story of radio developments in China over the past 28 years.

The Broadcasting Corporation of China was to celebrate its 28th birthday on August 1, 1956. From a humble beginning of Station XKM at Nanking . . . with only a 500-watt medium-wave transmitter in 1928, BCC has grown through the years of the Sino-Japanese War, World War II, and the yet unfinished struggle against international Communism, says the Sketch. At its peak in 1947, the BCC (then called the Central Broadcasting Administration) had a network of 41 stations with a total of 550 kilowatts in power. More than 3,000 men and women were in its employ. It even entered the phonograph record-making business, in addition to manufacturing radio parts and assembling radio receiving sets.

Even today . . . beaming from Taiwan as "The Voice of Free China," the BCC still has 8 stations with a total power of 268 kilowatts, keeping the air busy with 253.5 program-hours a day. Its new, powerful medium-wave transmitter . . . designed especially for broadcasts to the Chinese Mainland . . . can be heard in the farthest corner of China proper, officials of BCC point out.

A STATION IS BORN--The history of BCC is actually the history of broadcasting in China. The idea of radio listening was introduced into the Orient in the late 20's. The first radio station to operate in China was a tiny one owned by an American business firm in Shanghai--Kellogg & Company--in 1928--only a year after the National Government of China had established itself in Nanking. The late Chen Kuo-fu, trusted friend of Generalissimo Chiang Kai-shek and a member of Kuomintung's Central Executive Committee, happened to see a radio set while on a visit to Shanghai. The idea struck him immediately: Here is a medium for education and information more powerful than anything in print . . . it could reach people who were unable to read and write, at a time when the rate of illiteracy in China was as high as 95 per cent. The Government responded and 500-watt XKM began broadcasts on August 1, 1928, with Generalissimo Chiang delivering the opening message. Thus, a new era in the field of mass communications began in China . . . only eight years after KDKA, first broadcasting station of its kind in the world, went on the air in Pittsburgh, Pennsylvania, USA.

Even in 1928, nobody was satisfied with the makeshift transmitter of XKM--least of all the young enthusiasts who put their neart and mind into broadcasting. A 75-kw. medium-wave transmitter was ordered from Telefunken, the famous German electronics manufacturer, and was set up at Peihokou, just outside Nanking. (Several photos of this station will be found in the PICTORIAL SECTION in the front of this book.--K.R.B.)

The new station . . XGOA . . began broadcasts on November 12, 1932, the 67th birthday anniversary of Dr. Sun Yat-sen, operating on 666 kcs. During the next 12 years, XGOA became the listening habit of millions of Chinese and was almost synonymous with the prestige of the National Government. The Japanese once called it "that noisy broadcasting station." They had good reason to hate XGOA. As the most powerful station then in the entire Far East, XGOA was instrumental in rallying nationalism among the people. While war clouds gathered, XGOA expanded. In 1934, two new stations went on the air at Peiping and Foochow, respectively. Soon the Central Broadcasting Administration had to be set up to manage the network. Stations at Changsha, Sian, and Chungking were added in 1936, giving the network a power capacity of 85 kw. managed by a staff of 136. A year later, war began between Japan and China.

XGOA GOES UNDERGROUND—With the beginning of war, Chinese broadcasting industry plunged into a role for which it was not yet adequately equipped. But it did the job well. City after city fell to the Japanese. Some broadcasting stations were lost, others were dismentled and moved to the rear. XGOA went off the air in November 1937—just before the fall of Manking and the infamous massacre that followed. But it resumed broadcasting the same month—at Hankow. When the Japanese came, it moved again—this time to Chungking—without a single day's interruption. With the whole nation awakened to the major foreign aggression in a century, new stations had to be set up in places where people never knew before what is meant by broadcasting. In building a new station at Haichang, capital of Sikang Province, all equipment was carried there by pack mules over a mountain trail that winds through some of the ranges which make up the Himalayas. The staff had to work in sub-sero temperatures, trying to overcome transmitting difficulties caused by the surrounding hills, none of them lower than 10,000 feet.

Conditions were most trying in the early stage of the war, but they were met with zeal and ingenuity. Not a few employees lost their lives in the concentrated bombings in the summer of 1939 when Chungking was almost flattened to the ground. Those who escaped from bombs and bullets, however, wiped the dust and sweat off their faces and went back to work. A whole cave was carved out of the side of a rocky hill to house the transmitter. Another cave gave shelter to the generator, still a third cave was used as office-studio. Tokyo newspapers boasted that meven the frogs in Chungking were silenced by our bombings." But the same day, XGOA was on the air as usual, unterrupted.

(CONTINUED)

(A SKETCH OF BCC - cont'd)

wyolde of CHINA" CALLING-The war years were indeed the most inspiring as far as broadcasters were concerned. IGCA and KGOY . . . its sister shortwave station . . . represented the spirit of a free people. Millions in occupied parts of the country tuned in to these stations secretly, some even risked their lives in writing to the stations. Students, responding to KGOA and KGOY calls, escaped through the lines to join the war effort. Guerrilla units and isolated pockets depended upon radio as their only news source. Eight new stations were established during the war years. The best-known of them all was the shortwave station XGOY, later renamed the International Broadcasting Station, a new branch of the Chinese broadcasting system. "The Voice of China," with directional antennae designed to make Itself heard in Europe, the United States, Japan, and Southeast Asia, brought to the world daily the battle cry of an ancient but proud people . . . bruised but unsubdued.

Programs underwent a complete overhaul in the war years. Over-all entertainment programs were drastically reduced, while emphasis was shifted to information and education. The "Yoics of China" became to Asia what BBC was to Europe during World War II. Chinese broadcasting had come of age. On the eve of V-J Day, there were II stations in the network with a total capacity of 150 kw., still small but battle-tested and hardened.

BITTER-SWEET AFTERMATH--A period of rapid expansion followed 1945. Within a year, the network swelled to 41 stations with 81 medium-wave and shortwave transmitters which totaled 550 kw. Subsidiaries engaged in the manufacture of radio parts, the assembly of receivers, and the making of phonograph records. These all became self-supporting within a short time. The 2,000 employees of the system bore the most eloquent testimony to its success.

But this "golden age" was short-lived. Communist armies swept down from the north and another retreat had to be made. Loyal broadcast workers had even less time to pack their equipment than they had in the war with Japan. As a result, all branch stations had to be abandoned. And only three transmitters at the base station in Nanking were removed in time. Packed in 1,652 cases which weighed 700 tons, they were brought to Taiwan by the same staff who had started from a 500-watt station in 1928. In 1949, the old Central Broadcasting Administration became the present Broadcasting Corporation of China, registered as a company of limited responsibility under the Chinese Company Law.

REBUILDING FRCM SCRATCH--Taiwan today is not the Taiwan of 1945. Equipment left by the Japanese was obsolete, partly damaged by wartime bombing and generally left in bad shape because of poor management-maintenance. The situation was not much better in 1949, when the arrival of the National Government studdenly lifted Taiwan from the obscurity of an island province to the spotlight of international attention.

BCC broadcasters did not mind. They had started from scratch twice before—in 1928 and during the war with Japan in the late 30's. They could do it a third time! And they did! The past six years have witnessed another transformation of "rags to riches" in Chinese broadcasting. Starting with but one station in Tgiwan, the BCC grew steadily through the years although handicapped by a lack of both funds and trained personnel. BCC now has two major stations and six local sub-stations, with a total power capacity of 268.3 kw., compared to 98.55 kw. in 1949. Total program hours have increased from 85 to 253.5 daily. Old equipment was repaired or rebuilt and new equipment was installed. Two complete shortwave transmitters came from the materials salvaged from Nanking. A major achievement was the installation of a powerful medium—wave transmitter for broadcasts to the Chinese Mainland. New monitoring stations, studios, recording rooms, and microwave decoding stations were constructed—using the latest equipment available from the United States. Five transmitters are now located at Taipei and its vicinity to beam programs to points outside of Taiwan. The present 387-man staff of BCC now wages a new war of the air—this time against their enemy, a new foe, Communism. To further improve its relay system and to step up its overseas activities, BCC is currently engaged in the construction of additional medium—and shortwave transmitters. The BCC became the first broadcasting station to assemble and service radio sets and to manufacture small transmitters when it set up a radio and electric service department on January 1, 1953. Now some 3,000 radio receivers are sold by BCC each year. However, limited material supplies have held up higher rate of production. Hence, BCC has not been able to fully meet the growing demand.

Despite the records already set during the past three decades, BCC will not rest content with its achievements. It shall, instead, continue to strive for still greater strides until broadcasting which, of course, includes the advanced medium of television, is fully developed in China.

A CODE OF ETHICS FOR THE SWL?

Here is a most interesting "lead" piece which appeared in a recent issue of "The New Zealand Radio DX TIMES," house organ of the N. Z. Radio DX League;

ON CCTOBER 17, 1919, in a garage back of his little house in Pittsburgh, Pennsylvania, USA, Dr. Frank Conrad, a radio amateur whose station 8XK was first licensed in 1916, became tired of talking into the microphone and, pushing up a phonograph, he played recordings into a mike for a while. And in that single, casual act, a miracle had been createds

For, a year later, Dr. Conrad built KDKA, the world's first regular broadcasting station.

Some of us can remember the days before radio . . . how it changes our lives . . . bringing us entertainment and music, laughter, a closer touch with the world around us. Perhaps it was the hand of Destiny that reached down out of the ether and gave you and I DX-ing . . . a grand hobby that slipped almost unnoticed into our lives. Nobedy "thought out" DX-ing . . . IT JUST HAPPENED!

Perhaps that is why . . . 35 years after . . . we are still groping for adequate rules to govern our hobby; that is why the NZRDXL and some other Radio DX Clubs are considering the offering of more and definite guidance to their members. With this end in view, we (NZRDXL) hope to have a helpful chat each month on the do and do not of DX-ing, to help members to get the utmost enjoyment out of the pastime, to be fair to themselves, to other DX-ers, and to the NZRDXL to which they have the honor to belong. Our remarks will not be personal but will deal with various aspects of the game as our attention is drawn to them.

A CODE OF ETHICS? -- Of recent years, a habit that was once frowned upon has become part of the DX hobby . . . that is, two or more listening-in on the one set to the same station tuned in by the set operator. The LEAGUE approves . . . in fact . . . encourages this listening habit, PROVIDED certain "unwritten laws" are observed . . . and they are most important:

- l. The station should always be told who and how many were listening to the program and on whose receiver. This prevents any suggestion of collusion.
 - 2. Each listener should record what HE hears . . . NOT what the other fellow "thinks" it was.
- 3. Details of the listening equipment, aerial system, etc., being actually used should be given . . . NOT that of the moutfit at home.

If these duties are conscientiously performed, it is up to the station to decide whether it will verify ALL the reports; just that of the set owner, or the BEST one. Almost invariably, when these *necessities* are carried out, ALL reports are verified and, often nowadays, via airmail.

And WHY does the LEAGUE encourage "community" listening?

Because it fosters that spirit of fellowship so necessary in any organization such as ours while it also provides the newer member with the opportunity of gaining experience.

BUT if you are reporting your loggings to "The Times," it is only proper that you should acknowledge where the loggings were made . . . firstly, out of courtesy to your host for his hospitality and, secondly, if you don't it gives a "bloated importance" to your own location which is not justified. Then one must never commit the faux pas os entering a verification thus gained against your host DX-er in the LEAGUE's "Best-of-the-Month" competition. That just isn't done . . . it's "not cricket!"

USE OF THE 24-HOUR CLOCK (A WT FEATURETTE)

* On a 24-hour clock basis, midnight is 2400 (or 0000); 3 a.m. is 0300; 10 a.m. is 1000, and noon is 1200, for example. Instead of starting again at 1 p.m., as the 12-hour system does, the 24-hour system continues to increase the number of each hour until 2359 (11:59 p.m. is reached-thus, 1 p.m. is 1300; 5 p.m. is 1700, and 10 p.m. is 22000

For the particular convenience of SWL's who live in the United States (and in the major portions of Canada), a "TIME CONVERSION CHART"

. . . which shows the conversion of GMT (GREENWICH MEAN TIME) to the STANDARD TIME of the various TIME ZONES of those areas . . . is given

* elsewhere herein. That table shows the adjustment necessary to convert GMT to EASTERN STANDARD TIME . . . CENTRAL STANDARD TIME . . . MCUNTAIN STANDARD TIME . . . and PACIFIC STANDARD TIME. Naturally, at this season of the year, allowance must be made in local time where

* DAYLIGHT SAVING TIME is in effect.

BY YOUR CLOCK

Through the courtesy of the BRITISH BROADCASTING CORPORATION . . . as contained in its Quarterly Folder for APRIL to JUNE 1956, here's how YOUR LOCAL TIME should compare with GMT . . .

200			
*	AUSTRALIA, NEW ZEALAND, S.W. PACIFIC New Zealand, Fiji	add 12 hours	(AFRICA, MEDITERRANEAN, MIDDLE EAST - contid)
#	East Australia	add 10 hours	Gibraltar, Malta, Nigeria, Belgian Congo.
	N. Territory, South Australia	add 9½ hours	(Leopoldville and Coquilhatville only),
46	West Australia	add 8 hours	Fr. Equat. Africa, Tunisia add 1 hour
	HOSO RUSULATION	add o nours	According Could Court Ct Value
			Ascension, Gambia, Gold Coast, St. Helena,
7	SOUTH-EAST ASIA and THE FAR EAST		Sierra Leone, Canary Islands, French
	British New Guinea	add 10 hours	West Africa
*	Dutch New Guinea	add 9½ hours	
	Japan, Hong Kong	add 9 hours	WEST INDIES and LATIN AMERICA
*	Korea	add 82 hours	
	Brunel, North Borneo, Sarawak,	add og nours	Argentina, East Brazil, Uruguay deduct 3 hours
*	Celebes, China	add 8 hours	British Guiana deduct 3-3/4 hours
	Malaya, Indonesian Borneo, Java		Barbados, Bermuda, Falkland Is.,
*		add 7½ hours	Leeward Is., Windward Is., Trinidad,
	South Sumatra, Thailand, Vietnam	add 7 hours	Tobago, West Brazil, Bolivia, Chile,
*	Burma, North Sumatra	add 6½ hours	Paraguay deduct 4 hours
		-	Venezuela deduct 42 hours
*	INDIA, PAKISTAN, and CEYLON		Bahamas, Jamaica, Colombia, Ecuador, Peru deduct 5 hours
	East Pakistan	add 6 hours	
*	India, Ceylon, Assam	add 5½ hours	
	West Pakistan	add 5 hours	
#			CANADA, USA, and MEXICO (allowance must be made
	AFRICA, MEDITERRANEAN, MIDDLE EAST		for DAYLIGHT SAVING TEE, where effective)
*	Mauritius Compolics	add 4 hours	The second secon
	Mauritius, Seychelles		
*	Persia ,	add 3½ hours	Newfoundland deduct 32 hours
	East Africa, Somaliland Protectorate,		Atlantic Zone deduct 4 hours
备	Aden, Iraq, Madagascar	add 3 hours	Eastern Zone deduct 5 hours
-	South Africa, N. and S. Rhodesia, Nyassa-		Central Zone, Mexico deduct 6 hours
*	land, Cyprus, Belgian Congo, Cyrenaica,		Mountain Zone deduct 7 hours
*	Egypt, Greece, Israel, Jordan, Lebanon,		Pacific Zone deduct 8 hours
46-	Sudan, Syria, Tripolitania, Turkey	add 2 hours	Denote the control of
W			

40

Direct from Taipei I've received this interesting newspaper dispatch datelined Taipei, May 2, 1956:

Communist China has undertaken a major propaganda campaign against Formosa and is bombarding this island ll hours daily with eight powerful radio transmitters, sources revealed here today. Qualified authoritative quarters told United Press that the Communists were apparently attempting to saturate this island with endless Communist propaganda over these medium-wave stations. Generating 100 kilowatts each, these stations were stretched along the Chekiang-Fukien coast just opposite Formosa. Twenty-three other stations, including several short-wave transmitters, were also audible here. Government quarters were frankly "concerned." Communist agents in Formosa were kept constantly on the run and thus ineffective by the aggressive security measures. But the Communist radio threat to the stability of Formosa was considered serious.

The situation was so serious, one source said, that if Mao Tse-tung (Communist Chinese leader) spoke over these eight stations, he could theoretically reach every nock and corner of Formosa. Government radio stations here, however, could not offer the same opportunity to President Chiang Kai-shek to speak to his own people.

The Communists were conducting a double-barrel campaign: (1) They were appealing to mainland-born Chinese who fled here in 1949 to return home to a "lenient" Communist government. The Communists were calling names and recently had the uncle of Vice Foreign Minister Shen Shuan make a personal appeal to him. (2) The Communists were attempting to stir up trouble among the local-born Formosans. The Formosans were being told they were being squeezed, tortured, and used by the mainland Chinese and the "U.S. occupation forces."

The biggest of the Communist stations was thought to be at Swatow. Others stretch along the coast and were within "crystal-clear" range of Formosa. The stations were using the best times daily (night) and were taking the best frequencies. The Nationalists, according to these sources, were not so far attempting to jam the stations. Jamming, they said, was uneconomical and also illegal. According to the Nationalists, the Communist broadcasts had so far been largely ineffective because of their terrible monotony and also they were often irritating. As countermeasures, the Nationalists were stepping up the power of their own radio transmitters here in Formosa and were "polishing" up their programs with music, drama, and news. They hoped to woo listeners away from the Communist stations in this way.

According to one source, the Nationalists had not arrested persons for listening to the Communist broadcasts although such action is unlawful. Another problem, however, was that the Communists were, according to the Nationalists, making major efforts to jam the Nationalist stations which were beamed to the mainland, using jamming equipment "30 to 50 times" more powerful than the Nationalist transmitters. The Nationalists said the Reds also were conducting a continuing radio campaign against Southeast Asia from such points as Canton and Kunming. Their transmitters were bigger and more powerful and they were thus dominating the Nationalist-Communist contest to influence Chinese in that area. Sources said, however, that the government here was aware of the situation and was taking active steps to increase the power of broadcasts from Formosa.

SUNSPOT COUNT - PREDICTIONS (THROUGH DECEMBER 1956) . . .

(A WT FEATURETTE)

Through the courtesy of Grady C. Ferguson, North Carolina, USA, here is the Sunspot Count for June 1956 from the Zurich Observatory, as reported over the Swiss Broadcasting Corporation's facilities at Berne in the July DX session:

JUNE 1-98; 2-107; 3-117; 4-106; 5-117; 6-118; 7-111; 8-90; 9-85; 10-89; 11-87; 12-94; 13-98; 14-108; 15-114; 16-132; 17-120; 18-130; 19-171; 20-166; 21-162; 22-150; 23-139; 24-125; 25-106; 26-70; 27-71; 28-122; 29-135; 30-162. AVERAGE FOR JUNE: 116.7.

PREDICTIONS - JULY 138; AUGUST 146; SEPTEMBER 152; OCTOBER 157; NOVEMBER 162; DECEMBER 165.

RADIO-CZL - ANGMAGSSALIK RADIO STATION (GREENLAND)

(A WI STATION PROFILE)

This information was received in late July direct from the station. Broadcasts from OZL, Angmagssalik, Grénland, are a part of the local Greenlandic news service, and usually take place on 7.570 and 1,500 kcs. They are first and foremost intended for Danish and Greenlandic listeners in Greenland. On the 1,500 kcs. medium-wave channel, a 100 meter L-antenna is used, height of which is 42 meters. On the 7.570 frequency, a dipole-antenna, directed SW-NE, is used, the height of which is also 42 meters. The medium-wave transmitter is anode-modulated, watts, while the shortwave transmitter is suppressor-grid modulated, 2 kw. cw, push-pull power amplifier arrangement. The station is located in the village of Angmagssalik in Eastern Greenland, and the transmitters are housed in a building which is 70 meters above sea level. Until further notice, broadcasts will continue EVERY WEEK-DAY AT 1400-1450 GMT.

The main tasks of the station are partly to collect weather observations from all Greenlandic stations and to relay these to Denmark and to others who might be interested, and partly for local telegraph service via Lyngby Radio, Copenhagen. The station also is a common coast station for civil navigation. For this service, 1 kw. telegraphy-telephony transmitters are used on 500 kcs. and 2.250, respectively.

The station, property of the Danish State Department (The Greenlandic Department) was established in 1924-25, but was fully modernized and enlarged in 1948-1951. The total staff consists of 16 Danes and 13 Greenlanders.

F L A S H ! . . . REPORT FROM PITCAIRN ISLAND

(A WI STATION PROFILE)

A letter received by Phil Finkle, Calif., who is editing the Western Shortwave Section for the UNIVERSAL RADIO DX CLUB (URDXC) this summer, from Floyd McCoy, VR6AC, regarding ZBP, reads in part;

wI am not operating ZBP any longer as one of our boys has been in training . . . and came back here seven months ago and ZPB is only for commercial CW work, for ships, and sending messages to Fiji and other parts of the world via Rarotonga Radio Station, and is a weather station (meteorological).

"The wireless operator does speak to ships 300 miles off short on the R/T. It may have been him that (Bill Flynn, Calif.) heard, since he operates on speech on 3.8, for ships is 600 meters, and 12 megacycles in the "morning" (1600-1800 CMT), and in of a condenser." VR6AC explained that he was woff the air due to failure

YOU'RE IN ON THE GROUND FLOOR VIA SW RADIO! . . .

(A WT FEATURETTE)

with a real 'FLASH' of the 12-hour REVOLUTION going on there. They all gave, from time to time, 'manifestos,' news in SP:, and so on. Since it all was in SP., I could not tell exactly what was going on . . . but I knew something had 'broken' . . . and that it was no baseball game! . . . but really important 'news!' Was still going strong at 1000. Radio Canada, for example, at its 0830 ENG: newscast time did not mention a word about the revolution in Buenos Aires, but the Los Angeles Times on June 10 around 1500 GMT confirmed my hunch! SW is truly FIRST WITH THE NEWS! So, SWL's, KEEP YOUR EARS TUNED TO THE FOUR CORNERS OF THE WORLD REGULARLY! It pays!" So reports August Balbi; California:

RADIO NEW ZEALAND . . .

Radio New Zealand's two transmitters each have a radiated energy of 7.5 kilowatts. Two frequencies are used simultaneously, and as the program service is intended primarily for Australia and the Pacific Islands, the present aerials are beamed in those two directions.

Spoken subjects (on New Zealand topics) create considerable interest among overseas listeners, and occupy approximately one-third of the program schedule. Talks are designed to help listeners become familiar with New Zealand, and documentary features which deal with the country's development are broadcast frequently. Radio New Zealand is always pleased to receive reception reports from overseas listeners. Enquiries about New Zealand will be answered in the session, "MAILBOK," and reception reports are verified by QSL card. QRA for letters: The Director, Radio N.Z., P.O. Box 2396, Wellington, New Zealand.

From studios located in Wellington, the capital city, Radio New Zealand provides a representative picture of the country as a whole by rebroadcasting programs from the main centers throughout the country at appropriate times.

Transmitters are situated at Tihai Bay Transmitting Station, some 20 miles north of Wellington. They were designed and constructed in 1945-56 by the Australian Company, Messrs. Amalgamated Wireless (A'Asia) Limited, and were installed and tested by the New Zealand Broadcasting Service engineering staff in 1946-47.

The shortwave division of the New Zealand Broadcasting Service opened on Monday, September 27, 1948, after a testing period, with speeches by the then Prime Minister, the Right Honourable Peter Fraser, and the then Minister of Broadcasting, the Honourable F. Jones.

Broadcasting in New Zeal and is a state function and comes under the Minister of Broadcasting, who is responsible to the Cabinet.

Radio New Zealand and Home Service Stations 2YA, 2YC, and 2YD have a combined staff of approximately 80 people handling technical, clerical, and program work.

Available frequencies are listed to me as ZL20, 6.02; ZL7, 6.08; ZL11, 6.13; ZL12, 7.22; ZL13, 7.29; ZL18, 9.52; ZL2, 9.54; ZL8, 9.62; ZL3, 11.78; ZL9, 11.81; ZL19, 11.83; ZL10, 15.22; ZL4, 15.28; ZL5, 17.77; ZL14, 17.82; ZL15, 21.48; ZL16, 21.58; ZL6, 25.80; ZL17, 26.00.

THE DANISH STATE RADIO . . .

(A WT STATION PROFILE)

The Danish shortwave station . . . situated at Herstedvester, about 14 kilometres from Copenhagen . . . was built by "Standard Electric."

It began regular service in October 1948. Effect is 50 kw.; effect consumption is 200 kw.; tubes are watercooled; modulation is ordinary Class-B.

Frequencies include OZF3, 6.060; OZF4, 7.260; OZF5, 9.520; OZF7, 15.165; OZF8, 15.180; OZF9, 15.320. Aerials are: North America-Directional curtain-type antenna with reflectors of the Type H 2/4/0.75. South America--Same type as North America--but reversible, so it can beam to Australia-New Zealand. South Asia--Same type as North America. Greenland--Rhombic antenna, reversible, so it can beam to Africa and the Near East. Omnidirectional Aerials--Two dipoles for 31-m. and 41-m. bands.

The daily broadcast from Copenhagen to the U.S.-Canada over OZF5, 9.520, at 0130-0230, 0300-0100 consists of many novel features (items IN CAPS are ENGLISH releases): MCN.--News, Literary Program, Music, DANISH VIEWS ON THE NEWS, CIASSICAL DANISH MUSIC. TUE.-News, Reportage, SPOTLICHT ON DENMARK, MUSICAL SELECTION, DX-BULLETIN. WED.--News, Entertainment, ACTUALITIES, DANISH FOLK MUSIC. THURS.-News, Economic-political Talks, QUIZ, THURSDAY EVENING CONCERT. FRI.--News, Old-Time Dance Music, Mailbag; DANISH VIEWS ON THE NEWS; ANYTHING-ANYBODY.

SAT.--News, Light Program; SATURDAY NIGHT CLUB NIGHT. First 30 minutes of each broadcast are Danish, the last 30 minutes are in ENGLISH.

The SATURDAY NIGHT CLUB NIGHT program also includes letters from listeners and listeners' musical requests.

CHANGE IN METHOD OF TRANSMITTING STANDARD FREQUENCIES FROM WWV, WWVH

(A WT FEATURETTE)

According to "CST," and other sources, recent changes have been made in the method of transmitting standard frequencies from WWV and WWVH.

The most noticeable change is that which concerns the length of time that the a.f. tones are transmitted—tone is now sent for three minutes, instead of four, cut of each five-minute period. The change is effective at both stations. During the fourth minute there is no modulation on the carrier except the cne-second time ticks. The fifth minute carries the announcements as usual. The extra minute without modulation is the result of requests from users of the service who found a one-minute tone-free interval too short for the adjustment of frequency standards.

WWV also now has a silent period of four minutes during each hour, beginning 45 minutes plus or minus 15 seconds, AFTER the hour. The purpose of this is to provide a completely clear channel for ionospheric measurements by laboratories throughout the world. The silent periods at WWVH are unchanged.

In transmitting time ticks, the 59th second is omitted to help in identification of the tick that initiates the following "zero" second. With fading, CRN, and the like, this has not always been sufficient identification, so the zero-second tick is now sent double, another tick following the marker tick after an interval of 0.1 second (between leading edges of the pulses). The tick or pulse transmitted from WWV continues to consist of exactly 5 cycles of 1,000-cycle tone, but the pulse transmitted by WWVH has been changed to 6 cycles of 1,200-cycle tone.

The accuracy of transmissions has been increased to 1 part in 100 million instead of the 1 part in 50 million formerly maintained.

HOW DOES "MCLLY" KNOW?

(A WT FEATURETTE)

Here's an interesting piece which appeared this spring in the American press:

THE ARCTIC

Canadians as far south as Toronto were twirling their shortwave dials last week, trying to tune in on the transpolar broadcasts of Moscow Molly. The construction workers and soldiers who are building the Distant Early Warning radar line across the Canadian Arctic report that she's their favorite disk jockey. In a soft, clear, and slightly sexy Canadian accent, Molly chats of DEW-line doings, plays recordings, and gives propaganda talks a la Tokyo Rose.

Most of her listeners are simply amused. But one carpenter on Baffin Island admitted:

mOften she makes specific remarks about people or incidents that happen right on the site. It makes us wonder a little!"

When the commander of the Resolute Bay base was transferred recently, Molly broadcast greetings to his successor the day the change-over was made. A Brooklyn pilot heard all about how and when he bought a new car.

"The Russian broadcasters are no slouches," an official declared. "It's quite obvious they're being kept up to date on what's going on in the North Country."

The government refused to concede alarm but did prepare to investigate Molly's sources. For one thing, Ottawa suspected the ham radio and military operators in the Polar Net were talking too freely.

THE WORLD OF ARTHUR CUSHENT . . .

whis sight may be poor . . . but there's no better listener. . . . that's what a staff reporter for the Southland Daily News (New Zealand) wrote about our good friend and long-time cooperator, Arthur T. (Art) Cushen, 212 Earn St., Invercargill, New Zealand, on August 6, 1955.

Art's story is such an interesting one, that I am condensing herein the newspaper story: (Courtesy of Lloyd Gay, California)

SOME PEOPLE LIVE in a little world of their own because they want to . . . others because they have to. But choice and necessity combined for Arthur Cushen of Invercargill. The little world of his own choosing was his radio. On it he has probably listened to more stations than any (other) man alive. He has ranged over whole continents simply by twisting a knob.

A few months ago, "Thur Cushen's sight deteriorated badly. Now he faces a new world. He has a big job of adjustment shead. The radio has been his big help. For of all the millions of people in the world who listen to radios, he is one of the acknowledged masters. Few other men know so much about the location of studios, the call signs, or their power. Only a handful of other listeners who have also burned midnight oil know so well what frequencies give best reception, or that on the humble broadcast band tiny stations blinking out their signals in the night can be heard thousands of miles away.

PUBLIC SERVICE-Being able to identify these stations accurately is an art. As will be told later, it can also be an important public service. But if ranging the broadcast and shortwave bands these days brings some measure of comfort to Arthur Cushen, not so many years ago it was the means of bringing much greater comfort to thousands of people he has never seen. ARTHUR WAS IN CHARGE OF THE NEW ZEALAND RADIO DX LEAGUE WHICH MONITORED PRISONER-OF-WAR MESSAGES IN THE SECOND WORLD WAR, AND LATER IN THE KOREAN WAR.

All he has to remind him of this now is folio after folio of letters he received from parents, grateful that agonizing months of doubt were over. For it was from him that they learned that their sons were not dead, but were alive and well in prison camps. With other Invercargill men, he spent countless hours listening to those enemy broadcasts about prisoners. During the Korean War, the list of prisoners he compiled by radio was nearly as large as that of the United Nations, which had hundreds of channels to collect information.

Whenever he could, he gave a personal service to parents in Invercargill. People got to know during the war when they opened their front door to him that he had some news about their son. Often it was the first time they knew he had been captured.

START OF IT ALL--The skills that Arthur Cushen used in picking up these messages started to develop in 1937 when he finally reached the iron-clad conclusion that his weak eyesight would not let him enjoy sports and he had to turn to something that would give him self-satisfaction.

In the irritated way of all radio listeners, he tuned from one New Zealand station to another. Before very long, he had heard and received an acknowledgment from every station in Australia and New Zealand. Now, anyone with a powerful radio receiver can pick up the principal shortwave or long-distance stations. But it is a different matter with broadcast stations—those designed primarily for local reception. Logging these became Arthur's hobby. In 18 years, he has picked up and confirmed reception of 1,150 stations on the broadcast band in 72 countries. It was 71 countries up to a short time ago, but recently he verified a station broadcasting from French Morocco. (NOTE: Up-to-date figures on Art's accomplishments will be found on Page 10 of the PICTORIAL SECTION and his photo is on Page 11.—K. R. B.)

Radio DX leagues the world over require more than their members: "say-so" before they will accept the fact that they actually have "heard" stations. So once they hear a new station, members are required to airmail to it information about the program, the time it was heard, and the frequency. If this is correct, the station will send back an official acknowledgment card. Arthur Cushen can back up all his claims to hearing stations by producing the acknowledgment cards—albums full of them. There are more than 100, for instance, from broadcast stations in the State of California, 80 or so from Europe, and more than 100 from Asia.

He didn't pick up these stations by luck. He learned to follow darkness across the globe, because reception is better when it covers the originating point. And he set up long aerials which help him pick up the weakest signals; and he installed switches so that he can quickly change from one aerialto another when it is necessary.

(CONTINUED ON PAGE 46)

("THE WORLD OF ARTHUR CUSHEN" - cont'd from Page 45)

INFINITE PATIENCE -- Of course, he had infinite patience. While most other people in Invercargill slept, he kept searching the wavebands for stations. And, on the other hand, he searched for them in broad daylight when most people would think it would be useless.

Some proof of his skill lies in the fact that a good 800 of the broadcast stations he listened to are at least 6,000 miles from Invercargill.

And now a word about the shortwave stations. Look through the verification cards he has received from these and you will get a real lesson in

geography. There are 1,850 of them from 135 countries. Because the managers of so many of these stations do not speak English, Arthur has had
to write to them in their own language. He has had so much to do with Spanish-speaking countries, particularly in South America, that he writes

"passable" Spanish, although he cannot speak it.

The broadcasting authorities in Ethiopia, however, seem to be able to resist sending out a verification card no matter in what language they are written to. This is one of the few countries that has not given Arthur any acknowledgment. Yet he waits in hope that cards will turn up some day!

He knows the voices of ammouncers in Los Angeles, New York, Calcutta, Moscow, Paris, Peking, and many other cities as well as he does those in Invercargill. Many announcers have written to Arthur, and others have sent their photographs. Some impulsive American station managers, surprised and proud that their programs have been heard so far away, have even sent photographs of the whole staff. The verification cards range from dull printed forms received from some American stations to exquisite works of art from Japan.

Ten years ago, the BBC recognized the work being done by Arthur Cushen by making him its New Zealand Monitor. Each week, or every day, if necessary, he sends a coded cable to London telling them exactly what was the strength and clarity of their broadcasts to the Pacific. Without this information, BBC broadcasts, at a particular time or on a particular wavelength, would be wasted, because theperson with an ordinary radio could not hear them. It is also necessary to send to the BBC graphs which accurately explain reception conditions. In spite of his handicap, Arthur can still produce these with assistance from his wife.

Three years have passed since Arthur Cushen lost the sight in one eye. It is 10 months and four operations ago since his other eye began to fail him. These blows he has borne with the fortitude to be expected of a man who has done so much to help others. And, of course, long ago he learned that listening can mean seeing, too, for he knows countries and people far out of the ken of ordinary folk. The hours he has spent by his radio have not been wasted; (END OF ARTICLE)

Significantly enough, from legends which accompanied several photos which accompanied the newspaper piece, we find this additional interesting information:

Radio, his hobby for years, has a new meaning for Arthur Cushen . . . unable to read now, he follows the shortwave news reports. By this means, he is hours shead of most people on international news and events. His wife keeps him abreast of local news by reading him the newspaper.

F L A S H1 - DX-ALLIASEN SUMMER CAMP

(A WT "EXCLUSIVE" FEATURETTE)

The DX-ALLIASEN . . . headed by Arne Skoog, DX Editor, Radio Sweden, and one of the foremost SW authorities in the world today . . . held a vacation-camp for DX-ers at Hackas, in the province of Jamtland, Sweden, July 17-22, to outline future plans for the organization. The DX-ALLIASEN consists of 26 Scandinavian DX clubs. While there are facilities for very little DX-ing (there can BE LITTLE where there is no electric-power supply! . . . commented Skoog), some fine discussions took place. And the lake, Bolesjon, provided fine bathing and fishing. Visitors had an opportunity for sight-seeing-including a trip to the largest cave in Scandinavia--at Hoverberget; to Hackas kyrka, one of the oldest churches in Sweden; to Arnljot-spelen at Froson, an historical operatic performance; to Bydalen in the mountains, and so on. There also were dancing and traditional amusements in the nearby village.

Among those from abroad who attended the camp were Horst A. C. Krieger, Cologne, Germany, DX Editor of Deutsche Welle; Mrs. Ellen Campana of the missionary station, HCJB, "The Voice of the Andes," Quito, Ecuador, South America, and David Morgan (K6DDO), Hollywood, California, USA, Western Section Shortwave Editor for the UNIVERSAL RADIO DX CLUB (URDXC).

COSMIC RAYS AND SHORT WAVES . . .

(A WT FEATURETTE)

From the May 17, 1956, issue of London Calling (BBC) comes this article of interest to SW listeners everywhere. C. L. Boltz comments on the recent "flare-up" on the sun and the major interference it caused to shortwave communications:

Some weeks ago, a number of observatories and scientific research stations in several parts of the world noticed an unusual electric phenomenon. It was an absolutely unprecedented increase in the intensity of cosmic radiation, an increase, in fact, of 100 per cent. No such increase has ever been recorded before.

The practical effect was a major interference with shortwave radio, both broadcasting and communication by telephone, an interference that in some places, such as Hong Kong, blotted the radio out.

Cosmic radiation starts out as the nuclei of elements shot from the sun. The chief ones are hydrogen and helium. These particles interact with the atoms of elements in the earth's atmosphere, and produce, even at sea-level, a continuous electrical activity, day and night, in the form of penetrating rays and showers of electrons. All these different sorts of radiation are lumped together as 'cosmic' radiation.

The study of this radiation has already contributed an immense amount to our fundamental knowledge of atomic physics.

But there are still unsolved problems about the original high-energy particles that are the beginning of all cosmic radiation. That is why laboratories are set up high in mountains, why balloons containing apparatus are sent up many thousands of feet above the earth. Only at these great heights can the original, uncontaminated radiations be examined.

The cause of the sudden outburst in cosmic rays has been described as a flare on the sun. This has not been confirmed by observation, as far as I know.

Usually, high activity is recorded when what are called sunspots are near the sun's central meridian, but the spots seen during this outburst were not in this position.

For the moment, therefore, the phenomenon remains unexplained. These spasmodic phenomena provide unanticipated and uncontrollable experimental conditions that have to be seized on whenever they occur. They are the chief source of information to help in forming an acceptable theory about the high-energy atomic nuclei shot out from our sun, and how they interact with the atmosphere. Such a theory is closely connected with theories of atomic structure: that is the fundamental importance of these cosmic-ray stories. (BROADCAST IN THE BBC's General Overseas Service.)

WHAT IS DX?

(A WT FEATURETTE)

What IS DX? The answer to this question is as varied . . . well, almost . . . as there are DX enthusiasts! Here are typical examples from a survey I made some years ago: "To me, any low-powered station that I can not hear anynight or day is a DX station; that type of station must have favorable reception conditions to be heard. CHOICE DX stations are those elusive, low-powered jobs half around the world that I never quite seem to tune in!" . . . "DX includes stations that are audible only under 'freak' conditions." . . . "A good criterion is 'watts per mile.'" . . . "It depends on the type of receiver, antenna, distance, power of the station, time of day, season, frequency, and so on; 'super-DX' is long-distance, low-powered raception, or on a channel not favorable for long-distance reception at the time HEARD--rather, a 'miracle!" . . . "It's merely relative." . . . "If eel that any station more than 3,000 miles distant is DX, regardless of frequency or power, and there's no doubt that a relatively low-powered station considerably closer also legitimately can be considered as DX." . . . "DX is anything of interest to the particular listener. Personally, it is any station that constitutes a new country for my log, or any station heard in a 'rare' country. For the beginner, almost anything would be DX." . . "It is reception of a SW station that is difficult to hear except during ideal conditions, and one that is rarely heard--not every day--should be considered as DX and unusual reception." . . . "It all depends on the way you look at it.

I would think anything over 4,000 miles should be considered DX. Of course, pulling in the 200- and 300-watters in the Pacific and the Near East is ANOTHER KIND of DX:" . . "It hink of DX as any SW broadcast station outside the continental United States; CHOICE DX includes the ones I cannot hear!" . . . And so it goes . . Perhaps YOU have YOUR OWN definition! . . .

A new high-power transmitting station . . . with two 100-kw. shortwave transmitters furnished by Telefunken . . . was recently put into service at Julich. This station radiates the "Deutsche Welle" program of the broadcasting corporation of Western Germany at Cologne. Broadcasting transmitters of such high power ratings were constructed by Telefunken many years ago, explains W. Burkhardtsmaier of that concern, but the two 100 kw. transmitters just completed are distinguished by the fact that "Kanalkuhlung" was used for the first time. Other cutstanding features of these new transmitters are the high quality of transmission . . . increased reliability of operation . . . simplicity of handling . . . and the loose grouping of the various units which allows easy access to all parts.

Tuning is effected by means of coils with fixed taps in conjunction with variable vacuum capacitors. Splitting-up of the frequency range into relatively small subranges makes fine tuning unnecessary at many points-such as in the grid circuits. Individual adjustment in these subranges allows also the use of longer connecting leads between the transmitter stages. Switching-over of the frequency subranges is effected automatically for the whole transmitter by means of a single switch. The electron tubes, which are also well-suited for use in the VHF range because of their compact construction, operate in a grounded-grid circuit and render neutralization entirely superfluous despite their high mutual conductance and gain. Modulation of the transmitter is effected not only in the final stage as this would not allow to attain the zero value when modulating down to small amplitudes, but additionally also at the suppressor grid of the second RF stage. The last two stages are equipped with tubes of type RS 826 using "Kanalkuhlung." The anodes of these tubes are entirely insensitive to overloads of short duration, so that even in case of unusual experiments there is no risk of the tubes getting destroyed.

As contrasted with earlier transmitter types, the switching and supervisory equipment is not accommodated in a separate desk apart from the transmitter, but in a panel of the transmitter itself which results in a considerable simplification of the wiring. The transmitter is switched on with automatic serve control by a single push-button, but switching-on of any part of the transmitter for inspection purposes is also possible after having opened some switches.

The output impedance of the individual stages would allow to connect the antenna not only to the final stage but also to the preceding stages. This procedure is used, for example, with one of the single-sideband transmitters for the German Federal Postal Administration. It provides the possibility to operate the transmitter at reduced power and to make considerable savings in operating costs if the full power output is not required owing to favorable propagation conditions.

The RF output stages do not operate in push-pull as previously, but in a push-push circuit arrangement. Tuning of the transmitter to any desired but preset frequency is possible in 1 to 12 minutes. Tuning to wavelengths not preset takes 3 to 4 minutes. The efficiency of the output stage is between 75 and 80 per cent, while the entire transmitting plant has an efficiency of approximately 50 per cent.

"ONDAS DEL LAGO" - VENEZUELA

(A WI STATION PROFILE)

Direct from Henrique Ascanio Buroz, Manager, CNDAS DEL LAGO S.A., Maracaibo, Venezuela, we learn that "PERMANENT" frequencies of IVMF-IVME are 1,120 kcs. (YVMF), 4.800, and 9.530 (YVME). To prospective "advertisers," the management of "Ondas del Lago" points to MORE POWER, BETTER QUALITY, and BETTER PROGRAMS. The station is described as the leading and most powerful radio station in the interior of Venezuela, transmitting with 10 kw., a station which can be tuned in by practically the whole nation. The VERTICAL antenna in Lake Maracaibo, a daring job of modern engineering, is the only one of its kind in Latin America. The station says it offers the advertising customer a way of reaching a total of 2,086,562 inhabitants. There are 56,498 receivers estimated in Maracaibo and 34,589 in other areas of the State of Zulia. Opens and closes transmissions with a march selection. News in SPANISH ("El Reporter ESSO) is scheduled at 1200, 1700, 2330, and 0230 GMT.

Commentaries, varied musical features, comedy, and many other interesting items make up the programs of "Ondas del Lago."

A SALUTE TO RADIO CANADA

The International Service of the Canadian Broadcasting Corporation began its shortwave transmissions in 1944 with programs for the benefit of the Canadian Forces serving overseas. Today, in 1956, the shortwave transmitters are on the air 100 hours perweek with programs in 15 different languages for listeners in Europe, South America, Australasia and other areas.

The Headquarters and Studios are situated in Montreal, a cosmopolitan metropolis where staff for international broadcasting is available. The Transmitter Plant on the Atlantic Coast is linked to the Studios by 600 miles of land lines.

The Studios in Montreal are located in the Radio Canada Building, a 12-story structure which houses one of the most modern radio centers on the North American continent. The 23 studios are used by the National and International Services of the CBC and vary in size and shape to accommodate different types of program operations. Two of the studios are fully equipped with tape editing facilities. The recording outfit has 10 disk and 10 tape recorders which can be connected to any studio, incoming or outgoing networks. The recorders can operate individually or be grouped to record the same program simultaneously in any quantity desired. The Master Control Board, the nerve center of any large studio broadcasting installation, can handle five transmitter feeds, eight outgoing networks, seven incoming networks, 23 studios, and was designed for one-man operation. The switching of all circuits is performed by remotely controlled relays.

The House Monitoring System with its 50 loudspeaker units distributed throughout the building is unique. Any one of 50 circuits, studios, incoming or outgoing networks, remote broadcast loops, etc., is available at the user's position through a standard telephone dial control.

None of the studios in the Radio Canada Building are large enough for audience participation. Broadcasts open to the public are produced elsewhere.

The Transmitter location in the Maritime Provinces was chosen after careful study was made on radio transmissions between Europe and Canada and in view of avoiding as far as possible, proximity of the magnetic fields of the north auroral zones. The Station is housed in a modern white stucco $2\frac{1}{2}$ -story building alonhside of the Trans-Canada Highway between Sackville, N. B., and Amherst, N. S. The ground surrounding the Station building looks like a strange forest of white andorange masts ranging in height from 90 to 460 feet with its several miles of radio frequency transmission lines feeding the network of aerials.

There are three 50-kw. transmitters at Sackville. The medium-wave transmitter, CBA, operating on 1,070 kcs. serves some of the Englishspeaking population of the Maritime Provinces. The other two 50 kw. transmitters can operate on any one of the international shortwave bands
between 6 and 21 mcs. per second and can be connected to any one of the 13 antennae by means of manually operated switches of special design.
The transmitters, equipped with Class B high-level modulators, are capable of full modulation by any audio-frequency in the range 30 to 10,000
cycles per second. The power tubes in the modulators and final radio frequency stages are water-cooled by a closed distilled water system.

The shortwave antenna arrays at Sackville are all of the multi-element curtain type and consist of stacked horizontal dipole radiators with reflectors suspended from steal masts. The radiators and reflectors are identical in construction so that the two may be interchanged by switching, thus reversing the direction of the beam. The direction of any beam can be changed by a limited amount on either side of the normal position by shifting the phase of the current inone of the two bays of the radiating curtain. Reversing and slewing of each array is done by remote control from the main building, using motor-driven switches mounted in weather-proof enclosures at the base of the antennas. The European antenna, reversible to cover New Zealand, Central America and Mexico, has a length of 1,220 feet and is supported by four towers, two of which are 380 feet high, one 220 feet, and the other 175 feet. These steel towers rest on tapered reinforced concrete bases. The South American and African antennae reversible to cover Australia, New Zealand, and Northern Canada, consist of two vertical stacks of four horizontal elements each, and with the exception of the 6 mcs. array, are of the dual-frequency type. These dual-frequency arrays are of particular technical interest as two transmitters operating simultaneously in adjacent shortwave bands can be connected to the same antenna through a common transmission line. The diplexing filters used to prevent interaction between the two transmitters are made up of sections of transmission lines and reduces effectively the power flow towards the other transmitter sufficiently to avoid cross-modulation and spurious radiation. The whole antenna system, including towers and bases, was designed to withstand wind pressures corresponding to an indicated wind velocity of 120 miles per hour and an ice coating $1\frac{1}{2}$ inches thick on all members. In addition to individual transmitter booths for emergency program operations, the Transmitter Plant also has a small studio fully equipped for

Although the International Service beams shortwave broadcasts primarily to certain areas, audience mail letters arrive at the Radio Canada Building in Montreal from all parts of the world at an average rate of 30,000 per year. Approximately 5,000 QSL or technical verification cards are forwarded to listeners every years on request.

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RADIO FREE EUROPE . . . The Voice of Free Czechoslovakia, Free Hungary, Free Poland, Free Romania, and Free Bulgaria . . . (A WI FEATURETTE)

RADIO FREE EUROPE, a division of the Free Europe Committee, Inc., was organized in December 1949, and is supported by contributions from the American people to the Crusade for Freedom. In July of 1950, the organization went on the air with a mobile 7.5 kw. shortwave transmitter located near Frankfurt, West Germany. Programs were broadcast for a total of 10 hours and 30 minutes a week in each of five languages. Today, 23 shortwave and medium-wave target transmitters broadcast 430 hours of programming and more than 3,000 transmitter hours every week to RFE's five target countries: Czechoslovakia, Poland, Hungary, Romania, and Bulgaria.

The main broadcasting studios are in Munich, in the American Zone of Germany, and additional programs are tape-recorded in RFE studios in New York City. Running RFE shuge establishment in Germany and the shortwave transmitters in Lisbon are about 130 Americans and 500 or more exiles from Central and Eastern Europe. In addition, there are some 900 German and Portuguese administrative, broadcasting, and technical personnel. Feeding news to RFE studios in Munich are not only the major news services of the Western world, but 15 bureaus scattered along the periphery of the Iron Curtain from Stockholm and Berlin to Athens and Istanbul, manned by Americans and allies and more than 100 refugees. Bureaus interview refugees, collect reports from border runners, and translate Communist newspapers smuggled out of the satellite countries.

The total news file flowing into RFE rivals that of the greatest metropolitan newspapers. Nearly 200,000 words from Western and satellite press services are handled daily by RFE's Central News Room, while RFE bureaus produce more than 1,000 reports per month, and 300 Communist dailies and thousands of periodicals are read from cover to cover. To get the Communist version of events, RFE operates one of the most elaborate and effective monitoring systems in the world. In addition to keeping a round-the-clock watch on 21 Communist stations from Moscow to Tirana, RFE's monitoring section checks its own broadcasts to find out which are being jammed by the Soviets and picks up transmissions by nine Communist news agencies.

The primary purpose of Radio Free Europe programs to captive people is to sustain their hope of gaining their national and individual freedom and to encourage the eventual restoration of these people to the Free World. Listeners are reminded of the power of their inherent strength in contrast to the weakness of regimes which must rely on terror to maintain the power they have seized. After limited experimentation, RFE found that the most effective method of delivering its message was with the voice and authority of exiles from behind the Iron Curtain. Therefore, a network of five stations was set up: The Voice of Free Czechoslovakia, Free Hungary, Free Poland, Free Romania, and Free Eulgaria. Over each of these stations exiles from the captive countries speak to their people in their own idiom. . . . Of primary importance is RFE's practice of telling its listeners what goes on within their own country. For example, if Poland's people go meatless because a million pounds of Polish meat is shipped to Russia, then RFE reports the facts to the Polish people. News and information which is suppressed or delayed by the regimes is broadcast daily so that people behind the Iron Curtain may learn the truth.

Radio Free Europe's physical facilities are scattered all over the European map in order to take best possible advantage of differences in propagation paths and conditions. With five specific well-defined target areas to cover, RFE can design and construct antenna systems which radiate maximum power at the required horizontal and vertical angles and with optimum conical beam width, thereby insuring the delivery of high-intensity signal levels throughout the target areas. . . . In order to conform to the known shortwave listening habits of the satellite audience, it is considered necessary to broadcast in the 49, 41, 31, 25, and 19 meter bands. With locations in Germany and Portugal, it is possible to present a good signal to most of the target areas on nearly all of these bands at one time. During the daytime, broadcasts are transmitted from Germany on the 49, 41, and 31meter bands and from Portugal on the 31, 25, and 19 meter bands. In the winter, during the present phase of the 11-year sunspot cycle, the 25 and 19 meter bands cannot be used at night, but all are used during the day. Frequencies of transmission are changed as propagation conditions change.

The primary shortwave transmitting plant in Germany is located near Biblis, a small town between Mannheim and Frankfurt. There are two 50, one 20, and five 10 kw. transmitters installed at this location. About 17 miles southeast of Munich, at Holzkirchen, a 135-kw. medium-wave transmitter is installed to transmit to Czechoslovakia. Six 10-kw. transmitters at Holzkirchen relay programs from Germany to Portugaland during certain periods of the day are used to transmit to the target areas directly. A 50-kw. medium-wave transmitter mounted in trucks is located a few kilometers from the Czech border. In Portugal, the programs relayed by Germany are received at a receiver station located at Maxoqueira about 23 miles northeast of Lisbon. The programs are relayed as received to Lisbon by VHF where they are edited if necessary and retransmitted by VHF to the transmitting station at Gloria, about 35 miles from Lisbon. Here there are four 100-kw., eight 50-kw. and one 7.5-kw. shortwave transmitters. Additional low-power transmitters are used for one services. The transmitting equipment—both in Germany and Portugal—is in operation from 20 to 21 hours a day, leaving only a short time for maintenance. The phenomenal growth of RFE technical facilities was possible only through the tremendous effort put forth in the field by the American, German, and Portuguese engineers and technicians, as well as personnel of other nationalities.

Part Two

- Station Log by Countries:
- GMT with summer schedules & frequencies
- English Newscasts

Many of the SUMMER schedules herein were collected DIRECT (via airmail) from broadcasters especially for use in this publication.

An effort was made to list the schedules and other date in such a way as to be of the MOST POSSIBLE USE TO YOU . . . by COUNTRY,
then by FREQUENCY . . . leaving space for your own dial settings and "remarks." However, with some of the larger broadcasting
organizations, it was necessary to "lump" schedules together TO SAVE SPACE. Also, many abbreviations, symbols, and some definitions
were necessary:

- A AFTER a FREQUENCY means APPROXIMATE channel AFTER a TIME SCHEDULE, means APPROXIMATE START or END of transmission . . . as the case may be.
- V AFTER a FREQUENCY means CHANNEL MAY VARY IN FREQUENCY; AFTER a TIME SCHEDULE, means SCHEDULE MAY VARY IN TIME.
- M Means FREQUENCY was MEASURED RECENTLY.

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TIME: GMT - Converted so many "SUNDAY" schedules "start" in GMT (and are so listed) on "SATURDAY), and so on.

LANGUAGE ABBREVIATIONS INCLUDE:	AR.	Arabic	NEWSCAST	ABBREVIATIONS:
	ENG.	English		
	FR.	French	NA.	Arabic
	GER.	German	ND	Dut ch
	II.	Italian	NE	English
	PT.	Portuguese	NF	French
	SP.	Spanish	NG	German
			NJ	Japanese
1		*	NK	Korean
			NN	Norwegian
			NP	Portuguese
			NSP	Spanish
			NSW	Swedish
			NT	Turkish
			NU	Urdu

DAYS OF THE WEEK:

HERE ARE A FEW OTHER IMPORTANT ABBREVIATIONS:

SUN.	Sunday	annces	announces
MON.	Monday	anned	announced
TUE.	Tuesday	ament	announcement
WED.	Wednesday	approx.	approximate
THUR.	Thursday	arnd	around
FRI.	Friday	ID	identify, identifies, identified
SAT.	Saturday	sked	schedule, schedules, scheduled
D.	Daily	s/on	sign/on
WD	Weekdays	s/off	sign/off
		Xmn	transmission
1		xmtr	transmitter

COUNTRY	CITY	CALL	FREQ.	(Additional data - identification aids - CRA - miscellaneous)	YOUR DIAL SETTING AND NOTES
Aden	Aden	ZNR	7.170	1530-1730; QRAP.O. Box 1264, Aden; annces in ENG., "Here is Aden," in Arabic, "Huna Aden"; NA 1600-1610A; verifies by letter	
Afghanistan	Kabul	YAK	9•975A	1700-1745A; Kabul Radio; not reported as HEARD LATELY; may be OFF THE AIR; annœs in ENG., "This is Kabul Calling, in Pushto, "Da Kabul dai"; IS-march from Bizet's opera, Carmen; verifies by letter; CRA-Telecommunication Division, Ministry of Communications, Kabul	
Albania	Shkodra	RS	8.215	1900A-2000 closedown	2
Albania	Tirana	ZAA	7.852A	1500A-2230; CPA is Direction Centrale de la Radiodiffusion d' Albania, rue Conference de Peza 3, Tirana; announces, "This is Radio Tirana, Albania, on 38.2 metres." IS7 musical notes on piano; verifies by letter	
Algeria	Algiers	Radio Algerie	6.145	1800A-2244A; QRA is Radiodiffusion Francaise, 10 rue Hoche, Alger ISfor FR. Network is "La Casquette." ISfor Arabic Network is "Lahan Hanin" by Salim Hellali at beginning, end of each xmn	•
Algeria	Algiers	Radio Algerie	6.160	1800A-2214A	-
Andorra	Andorra la Vieja	Radio Andorra	5.979AV	0630-1400; 1800-2400A; QRARadio Andorra, Roc de les Anelletes, Andorra la Vieja (Principado de Andorra); gong low; opens, closes with "Hymne National Andorran," "Marche des Conseillers Andorrans Annces in FR., "Ici Radio Andorre," in SP., "Aqui Radio Andorram	•н
Anglo-Egyptian Sudan	(see SUDAN)		, , , , , , , , , , , , , , , , , , , ,	
Angola	Benguela	CR6RB	9.502	0545-0645, 1100-1245, 1730-2100 (SUN. 1100-1400, 1730-2100; QRA Caixa Postal No. 19, Benguela, A.O. Portuguesa; ISguitar for Foreign Service, gong for Home Service	
Angola	Dundo	CR6RG	4.770	1800-1930 (SUN. 1100-1230); QRARadio Diamang, Dundo; ISat ope ing is notes from "quissange" played on native instrument, followed by march, "Calling AllWorkers"; at close, uses chimes, "A Portuguesa"	n=
Angola	Dundo	CR6RS	8.300A	1800-1930 (SUN. 1100-1230)	
Angola	Luanda I	Emissora Oficial	4.960	Heard in JULY in Delaware with recordings in PT.; ID by man 2230; weak, bad QRM	
Angola	Luanda	CR6RZ	6.360A	1130-1330 (SUN. to 1430); 1830-2230; freq. may VARY to 6.355A	
Angola	Luanda	CR6RL	9.632	Fair in Delaware in JULY at 2052 with instrumentals; gongs 2100, then march-type music and man clearly ID, "Radio Angola" (in PT.); news or talk in PT. followed	
Angola	Luanda	cr6rz	11.862A	1130-1330 (SUN. to 1430); 1830-2230; CRACaixa Postal 1400, Luan	da
Angola	Nova Lisboa	c R6RD	4.852	1100-1300, 1730-2100 (SUN. 1215-1615); GRACaixa Postal 125, Nova Lisboa; closes with "A Portguesa"	

Angola		Sa da B _a ndeira	CR6RJ	5.024	1115-1245, 1800-2100 (SUN. 1115-1300); Radio Clube de Huila (commercial); CRACaixa Postal III, Sa da Bandeira
Angola		Silva Porto	CR6RO	4.842	0615-0645, 1130-1230, 1630-1800, 1900-2030; Radio Clube do Bie (commercial); QRACaixa Postal 33, Silva Porto
Argentina		Buenos Aires	IRY	6.090A	1030-0400
Argentina		Buenos Aires	LRX	6.180	0405-0530A
Argentina		Buenos Aires	LRS2	9.305A	Radio Splendid; noted in USA recently moved here; heard arnd 0000
Argentina		Buenos Aires	LRX1	9.660	1100-1200; 0405-0430A; has NEW Overseas Service in SPENG. arnd 1100-1130A, at times also 0405-0430A
Argentina		Buenos Aires	LRAL	9.690	1100A-0300A; may have NE 0220AV
Argentina		Buenos Aires	LRU	15.290	1100-1200; Radio El Mundo; QRA is ANNOUNCED as Maipu 555, Buenos Aires; has NEW Overseas Service in SPENG. arnd 1100-1130A
Argentina	-	Buenos Aires	LRA	15.345	1100A-1400A
Argentina		Tucuman	LRT	11.835A	1100-1200
Augtmalia		Pedio Australia	Te OVERS	EAS service 243	achedule.

Australia Radio Australia's OVERSEAS service schedule:

- Trans. 1 2000-2200, VLG15, 15.210 to New Guinea; 2000-2200, VLA11, 11.760, to New Z aland, South Pacific Islands; 2000-2200, VLC17, 17.840, to Mid-Pacific Islands; 2059-2214, VLB15, 15.160, to Northeast Asia, North Pacific Islands
- Trans. 2 2214-0030, VIB15, 15.160, to North, East Asia, North Pacific Islands; 2214-0030, VIA11, 17.790, to 3 Indonesia, Southeast Asia; 2214-0030, VIC15, 15.320, to Indonesia, Southeast Asia; 2214-0030, VIG17, 4 17.840, to Indonesia, Southeast Asia
- Trans. 5 0030-0429, VLG17, 17.840, to South, Southeast Asia; 0030-0429 (SAT., SUN.), VLG15, 15.320, to South, Southeast Asia; 0059-0415 (SAT., SUN.), VLA17, 17.790, to Southwest Asia.
- Trans. 6 0429-0545, VLA21, 21.600, to Africa.
- Trans. 7 0429-0600, VLG17, 17.840, to South, Southeast Asia; 0429-0600, VLC15, 15.200, to South, Southeast Asia; 0429-0600, VLB11, 11.740, to New Zealand, South Pacific Islands
- Trans. 8 0600-0645, VLG17, 17.840, to Indo-China; 0600-0645, VLB11, 11.740, to Tahiti, Europe (xmn is FR.)
- Trans. 9 0600-0730, VLA15, 15.160, to Brt. Isles, Europe, South Pacific Islands; 0600-0730, VLC15, 15.200, to South, Southeast Asia; 0645-0715, VLC17, 17.840, to South, Southeast Asia; 0645-0730, VLB11, 11.740, to Brt. Isles, Europe, South Pacific Islands
- Trans. 10 0729-0829, Vigli, 11.760, to New Caledonia (FR.)
- Trans. 11 0829-0915, VIBIL, 11.740, to New Zealand, South Pacific Islands; 0829-0945, VIGIL, 11.760, to Mid-Pacific Islands; 0829-0959, VIA15, 15.210, to North, East Asia, North Pacific Islands
- Trans. 12 0959-1100, VLB7, 7.220, to Indonesia; 0959-1100, VLG15, 15.200, to Indonesia (in Indonesian)
- Trans. 13 0959-1214, VLA15, 15.210, to North, East Asia, North Pacific Islands; 0959-1200, VLC15, 15.160, to South, 14 Southeast Asia; 1100-1200, VLB7, 7.220, to South, Southeast Asia; 1100-1200, VLG15, 15.200, to South, Southeast Asia
- Trans. 15 1214-1345, VLC11, 11.740, to NORTH AMERICA (EAST COAST); FROM AUG. 15, will use VLA11, 11.770
- Trans. 16 1214-1315 (FRI. ONLY), VLG15, 15.320, to Thailand (THAI)
- Trans. 17 1214-1345, VLA15, 15.210, to Northeast Asia, North Pacific Islands; 1214-1359, VLB11, 11.770, to South, 18 Southeast Asia; 1214-1359 (SAT.-THUR.), 1315-1359 (FRI.), VLG., 15.320, to South, Southeast Asia

(RADIO AUSTRALIA OVERSEAS service - cont'd)

- Trans. 19 1359-1500, VIA9, 9.580, to Southeast, Southwest Asia; 1359-1515, VLC7, 7.220, to Southeast, Southwest Asia; 1514-1615, VLC7, 7.220, to Southeast, Southwest Asia
- Trans. 20 1514-1615, VLA11, 11.740, to NORTH AMERICA (EAST COAST); FROM AUG. 15, will use VIA11, 11.770
- F L A S H! On Sunday, July 29, RADIO AUSTRALIA in its DX session listed REVISED schedules to be effected as of August 15 for its OVERSEAS service. I was able to take down most of these in shorthand (although heavy QRN spoiled PART of the FIRST ITEM--that is, schedule for a portion of TRANS. 1 to Asia; however, I believe schedules are most likely to be LITTLE CHANGED in that part of the Asian beams and will include schedules for such as they are now (July 29): Here are schedules for August 15 onwards:

TO ASIA (Japan, Korea, Philippines, East Indonesia, North Pacific Islands) -- 2000-2200, VLG15, 15.210, to New Guinea; 2000-2200, VLA11, 11.760, to New Zealand, South Pacific Islands, and 2000-2200, VLG15, 15.160, to Northeast Asia, North Pacific Islands; (and the remainder are from my shorthand notes as ANNOUNCED JULY 29); 0920-1000 ENG. and 1000-1100 INDONESIAN program, and 1100-1200 on 15.160; 2059-0030, 17.790, to South, Southeast, Southwest Asia; 2214-0030 DAILY, 17.840, 15.320; 2214-0600, 21.600; 0030-0429 on SAT., SUN. ONLY, 17.840; 0439-0815 DAILY, 17.840; 0600-0645 FR., 21.600; 0635-0715 ENG., 21.600; 0829-1730 to Asia, 15.200 (FRI. ONLY at 1214-1315 this channel will instead carry THAI program); 1000-1100 DAILY, INDONESIAN, 17.840, 15.160; 1100-1200 Mandarin, 17.840, 15.160; 1200-1300 DAILY, 17.840; 1359-1730, 9.580; 1359-1500, 1529-1730, 7.220.

TO AFRICA--0429-0545 DAILY, 21.540.

TO ERT. ISLES, EUROPE--0600-0815, 11.740; 0600-0645 FR., 15.160; ENG. 0645-0915, 15.160; it was suggested that at 0915-1730, listeners in the Brt. Isles, Europe may get good reception of beam to South, Southeast, Southwest Asia in the 16-, 19-, 31-, or 41-m. band.

TO NEW ZEAIAND, SOUTH PACIFIC ISIANDS--0429-0600 DAILY, 15.160; FR. 0600-0615 will be over same freq., 15.160; 0600-0815 ENG., 11.740; 0645-0915, 15.160.

TO MID-PACIFIC ISLANDS--0729-0829 DAILY (FR.), 11.760; 0829-0945 ENG., 11.760;2000-2200, 17.840.

TO NORTH AMERICA (EAST COAST)--1214-1345, VLall (100 kw.), 11.770. TO NORTH AMERICA (WEST COAST)--1514-1615, same channel, 11.770.

NOTE: Schedule of ENGLISH NEWSCASTS and for DX BROADCASTS from RADIO AUSTRALIA, listed ELSEWHERE HERBIN, must be CORRECTED accordingly with the schedules immediately above--from AUGUST 15 ONWARDS. NEW PROGRAM SCHEDULES ARE NOW AVAILABLE, free on request, from RADIO AUSTRALIA, Melbourne, Australia.--K. R. B.)

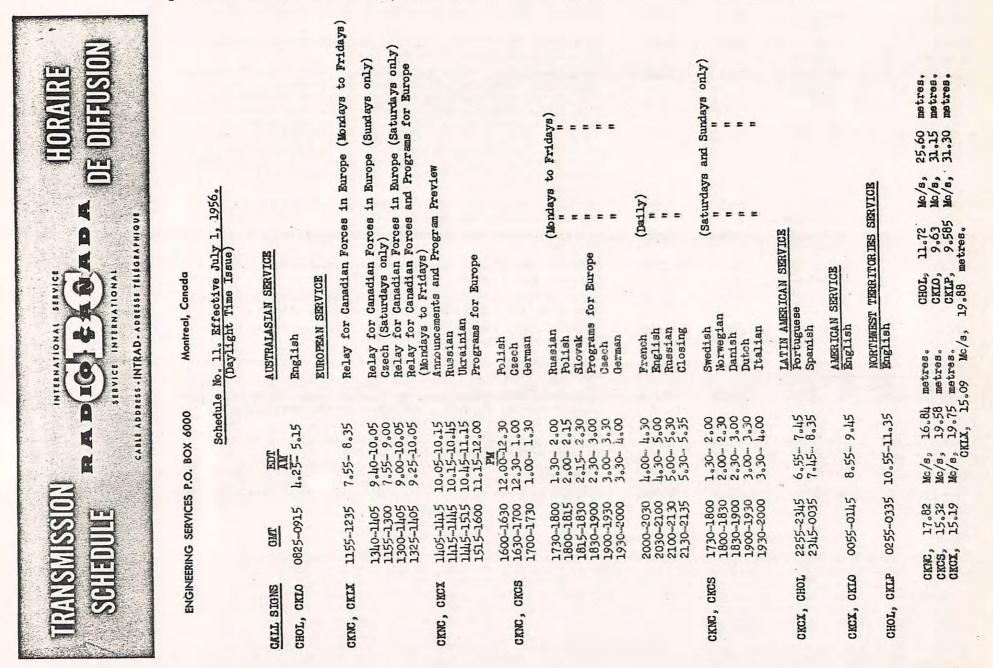
Australia	The AUSTRALIAN INLAND SHORTWAVE SERVICES (DOMESTIC) are scheduled (DAYS are CONVERTED TO GMT):
Lyndhurst (Victoria - relay from Melbourne)	2000-2215 SUNTHUR., 2000-2230 FRI., 2230-2215 SAT., VLR6, 6.150; 2230-0830 SUNTHUR., 2245-0830 FRI., 2230-0830 SAT., VLR9, 9.680; 0830-1300 DATLY, VLR6, 6.150; 2000-2315 SUNTHUR., 2000-2245 FRI., 2030-2315 SAT., VLH11, 11.880; 2330-0815 SUNTHUR., 2300-0815 FH., 2330-0830 SAT., VLH15, 15.230; 0830-1330 MONFRI., 0830-1400 SAT., 0830-1330 SUN., VLH9, 9.680. (PARTICULARS ON THE VLG xmtr are given under RADIO AUSTRALIA'S OVERSEAS service schedulesK.R.B.)
Brisbane, Queensland	2000-1330 SUNTHUR., 2000-1400 FRI., 2030-1330 SAT., VLQ9, 9.660, AND VLM4, 4.920
Perth, Wn. Australia	2000-0015 SUNTHUR., 2000-0015 FRI., 2030-0015 SAT., VLW9, 9.610; 0030-0800 MONFRI., 0030-0800, 0030-0800 SAT., 0030-0830 SUN., VLW1, 11.840; 0815-1330 SUNTHUR., 0815-1400 FRI., 0845-1330 SAT., VLW9, 9.610; 2000-0015 SUNTHUR., 2000-0015 FRI., 2030-0015 SAT., VLX4, 4.897.5; 0030-0800 MONFRI., 0030-0800 SAT., 0030-0830 SUN., VLW1, 11.840; 0815-1330 MONFRI., 0815-1400 SAT., 0845-1330 SUN., VLX4, 4.897.5
Port Moresby, Brt. New Guinea	2015-0330 SUNTHUR., 2015-2330 FRI., 2115-0100 SAT., VLT6, 6.130; 0100-0115 MONFRI., 0200-1300 SAT., 0200-0100 SUN., VLT6, 6.130; 0600-1215 MONFRI., 0600-1200 SUN., VLT6, 6.130
Sydney, New South Wales	2000-1330 SUNTHUR., 2000-1400 FRI., 2030-1330 SAT., VLI6, 6.090

Australia	Puckapunyal (Victoria)	RP	7.850	0900-1100 (TUE. ONLY); is "experimental" xmtr, 75 watts, using parallel 813's fed into a 15' vertical rod antenna; operated by ARMY PERSONNEL, intended primarily for entertainment of troops within a 10-mile radius; features mostly music; WILL VERIFY
Austria	Vienna	OBI30	5.985	0700-0900, 1300-1700; 4 kw.; Oesterreichischer Rundfunk; QRA Wien, III, Beatrixgasse 1 (Postfach 337 & 338)
Austria	Vienna	OEI22	7.245	0000-0200 (SUN. 0100-0200); 4 kw.
Austria	Vienna	OEI33	7.245	0930-1230; 4 kw.
Austria	Vienna	OEI23	9.665	1900-2200; ¼ kw.
Austria	Vienna	OEI38	25.615	0700-0900; 20 kw.
Austria	Vienna	OEI39	25.915	1025-1125; 20 kw.
Azores	Ponta Delgada	CSA93	4.868 _A V	1915-2100A; EmissoraRegional dos Acores; QRAAvenida Gaspar Fructuoso, Ponta Delgada, S. Miguel; ISone clock chime; annces in PT., MAqui Portugal, Ponta Delgada, Emissora Regional dos Acores da Emissora Nacional*
Barbados (B.W.I.)	Bridgetown	ZNX32	7.547	Uses ENG.; international cricket, tennis, and turf club race meetings beamed to Trinidad, Brit. Guiana, Jamaica approximately 1630-2130 SAT., THUR. are radiated at HEGINNING OF MARCH AND AUGUST and MEDIO NOVEMBER ONLY; verifies by letter from Barbados Rediffusion Service Ltd. (is operated by Cable & Wireless Ltd.), Trafalgar St., Bridgetown, M. 5
Bechuanaland	Mafeking	ZNB	8.252A	1730A-1930A; QRAZNB Broadcasting Station, c/o Director of Public Works, Box 106, Mafeking
Belgian Congo	Elisabethville	OQ2AC	3.390	1630-1730 (SUN. 0700-1000); QRA is Radio College, B. P. 296, Elisabeth- ville; ISopens with "Marche du Baron Tzigane" by Strauss, closes with "Marche Indigo"
Belgian Congo	Elisabethville	oq2AD	(4.980 (7.156	NEW; scheduled on 4.980 WD 1730-1930; SUN. 1030-1300 on 7.156, 1600-1930 on 4.980; 3 kw.; FR. MON., TUE., THUR., FRI., SAT. 1730-1930, SUN. 1030-1300; FLEMISH WED., SUN. during "evening" amn (1600-1930); QRARadio Diffusion UFAC, 40/45, 0Q2AD, B.P. 97, Elisabethville
Belgian Congo	Leopoldville	OTM2	9.380A	0500-0630, 1530-2105A; Radio Congo Belge; IS for RCB outlets is native xylophone beat; annces in FR., "Ici Radio Congo Belge," in Flemish, "Hier Radio Belgisch Kongo"
Belgian Congo	Leopoldville	OTC2	9.655	2315-0100; relays ORU, Brussels, Belgium
Belgium	Brussels	Here ar	e DETAILED	CURRENT SCHEDULES JUST RECEIVED DIRECT FROM BRUSSELS:

ORU3, 100 kw.; ORU4, 100 kw.; ORU5, 21 kw.; OTC2, Leopoldville, Belgian Congo (RELAY station), 50 kw. These schedules run through AUGUST 31: 1000-1200 in FR., DUTCH for Belgian Congo, Ruanda, Urundi, Fr. Africa, ORU3, 17.860, ORU4, 15.335, both beamed on Africa; 1200-1215 musical interlude, ORU3, 17.860, to Africa, ORU5, 15.280, to Southern Europe; 1215-1300 in FR., DUTCH for Belgian Missionaries, Seamen, ORU3, 17.860, to Far Mast, ORU4, 17.845, to Africa, ORU5, 15.280, to Southern Europe; 1700-1745 in DUTCH, FR. for B lgian Sailors, Missionaries, ORU3, 17.860, to Africa, ORU4, 15.335, to NORTH AMERICA, ORU5, 15.280, to Southern Europe; 1745-1800 musical interlude, ORU3, 17.860, to Africa; 1800-1900 in DUTCH, FR. for Belgian Congo, Ruanda-Urundi, and Fr. Africa, ORU3, 17.860, ORU4, 15.335, both to Africa; 1900-2100 bilingual programs MON., WED., FRI., SAT., SUN., ORU4, 15.335, ORU3, 17.860, both to Africa; 2115-2300 in DUTCH, FR. for Belgian Seamen, Belgians Abroad, CRU3, 15.335, to NORTH AMERICA, ORU4, 11.850, to SOUTH AMERICA, ORU5, 15.280, to Southern Europe; 2315-0100 in FR., DUTCH, for Belgian Seamen, Belgians Abroad, ORU3, 15.335, to NORTH AMERICA, ORU5, 15.280, to Africa, and RELAYED by OTC2, 9.655, Leopoldville, Belgian Congo, to NORTH AMERICA; also, SUN. ONLY 1300-1500 bilingual for Belgian Congo, Ruanda-Urundi, Fr. Africa (sports results and music), ORU3, 17.860, ORU4, 15.335, ORU3, 17.860, both to Africa

Bolivia	La Paz	CP38	9-440A	1100-1230, 1430-1730, 2300-0230 (MONSAT., EXCEPT THUR.); SUN. 1200-1330, 1600-2130; has 4-note chimes IS; Radio Cruz del Sur; QRACajon 8, La Paz; owned, operated by Canadian Baptist Mission in Bolivia; opens, closes with "Onward, Christian Soldiers"
Bolivia	La Paz	CP5	9•555	HEARD 1100-1300, 0000-0300; Radio Illimani; the 5.975 and 9.500 channels are NOT in use now; complete sked is "believed" to be 1100-1300, 1500-1700, 2130-0030; QRAAvenida Simeon Bolivar, La Paz
Brazil	Aparecida	ZYR44	3.285	0900-0200
Brazil	Belo Horizonte	PRK5	6.000	1000-1230, 1400-1700, 2000-0200; Radio Inconfidence de Minas Gerais; WRH lists call as PRJ3, NNRC lists as PRK5
Brazil	Cuiaba (Mato Grosso)	ZYZ5	4.985	1100-1200, 1400-1700, 2000-C100A
Brazil	Curitiba F (Paranaense)	. Clube Paranaens	11.935	1000-0300; PT.; QRACaixa Postal 1448, Curitiba, Parana.
Brazil	Fortaleza	ZYN7	15.165	100A-0500A; Ceara Radio Clube; QRACaixa Postal 222, Fortaleza
Brazil	Goiania	ZAA5	4.995	1100-0200; Radio Brasil Central; also operates on 9.755, 11.815; WRH lists "World at Your Home" (news in ENG., SP., PT.) for MON. 0200-0230; QRACaixa Postal 330, Goiania, Goias
Brazil	Manaus (Ama- zonas)	ZYS8	4.805	0900-1700, 1900-0100; Radiodifusora do Amazonas; CRARua Joaquim Sarmento 100, Manaus, Amazonas
Brazil	Recife (Pernam- buco)	PRA8	6.015	0855-0300; Radio Clube de Pernambuco; CRAAv. Cruz Cabuga 394, Recife, Pernambuco
Brazil	Recife (Pernam- buco)	· ZYK3	9.565	1100-0200; Radio Jornal do Commercio; QRARua Marques do Recife S/N, Recife, Pernambuco
Brazil	Recife (Pernam- buco)	PRA8	11.865	0855-0300; Radio Clube de Pernambuco
Brazil	Recife (Pernam- buco)	- ZYK33	15.145	1000-1800; Radio Clube de Pernambuco
Brazil	Rio de Janeiro	ZYZ2O	4.905	OCCO-2400; operates 24 hours daily; STANDARD TIME SERVICE; broad- casts short commercials, weather forecasts, gives exact time (in PT.) each minute; verification is by QSL letter; IRC IS REQUIRED; R. Relogic Federal; QRACaixa Postal 4543, Rio de Janeiro
Brazil	Rio de Janeiro	Emissora Continen		0900-0500; CRARua Riachuelo 48, Rio de Janeiro
Brazil	Rio de Janeiro	ZYP23	5.045	0800-0400; Radio Quitandinha; QRACaixa Postal 5292, Rio de Janeiro; ISgong; signature tunemaquarelas no Brasilm
Brazil	Rio de Janeiro	Radio Globo	6.035A	2330A-0200A; GRAAvenida Rio Branco 183, Rio de Janeiro; MW out- let operates on 1,180 kcs., 50 kw., at 0900-0300
Brazil	Rio de Janeiro	PRL9	6.147	0845-0430; Radio Nacional; QRAPraca Mau, 7-20° andar, Rio de Janeiro; ISfirst movement of Brazilian musical poem, "Luar do Sertao"
Brazil	Rio de Janeiro	RMV	9.575	1000A-0300A; Radio Mayrink Veiga; QRARua Mayrink Veiga 15-17, Rio de Janeiro
Brazil	Rio de Janeiro	ZYC8	9.610	0900-0300; Radio Tamoio; CRA*-Av. Venesuela 43, 2º andar, Rio de Janeiro
Brazil	Rio de Janeiro	PRL7	9.720	0845A-0500A; Radio Nacional

Brazil	Rio de Janei	ro PRL4	9.770	1000-1200, 1500-0200; Radio Ministerio de Educadora; CRAServicio de Radio Difusao Educadora, Praca da Republica 141-A, 3º andar, Rio de Janeiro
Brazil	Rio de Janeir	ro RMV	11.775	1000A-0300A; Radio Mayrink Veiga
Brazil	Rio de Janeir	ro ZYC9	15.370	1000-0330; Radio Tamoio
Brazil	Rio de Janeis	ro PRL9	17.850A	0845A-C430A; Radio Nacional; (is this frequency CURRENTLY in use?)
Brazil	Sao Paulo	ZYR63	6.025	Sociedade Radio Emissoras de Piratininga; URDXC reports this one hrd in USA 0000; QRAPraca do Patriaca 26, 3° andar, Sao Paulo
Brazil	Sao Paulo	ZYR77	6.185	0000-2400; operates 24 hours daily; Radio Bandeirantes; GRARua Paula Souza 181, 40 andar, Sao Paulo
Brazil	Sao Paulo	PRB22	9.505	0900-0300; Radio Record; QRARua Quintino Bocaiuva 22, Sao Paulo
Brazil	Sao Paulo	ZAB8	11.765	1000-0500; announces as "Radio Tupi de Sao Paulo"; relays PRG2, 1,010 kcs.; xmtr is owned by Radiodifusora Sao Paulo, but is LEASED to and PROGRAMMED by Radio Tupi"; QRARua Piracicaba, Sao Paulo
Brazil	Sao Paulo	ZYR78	11.925	0900A-1600, 2330-0330A; Radio Bandeirantes
Brazil	Sao Paulo	PRB23	15.135	0800-0500; Radio Record
Brazil	Sao Paulo	ZYB9	15.155	1000-0500; Radio Difusora Sao Paulo; QRA-Rua Piracicaba, Sao Paulo
Brt. Guiana	Georgetown	ZFY	3.255	1900-0200; Radio Demerara; QRASt. Phillips Green, Georgetown; annces, "This is Radio Demerara, British Guiana"
Brt. Guiana	Georgetown	ZFY	5.981	0957-1900 (SAT. from 0857); Radio Demerara
Brt. Honduras	Belize	BHBS	(3.300 (4.900 (6.100	1800-1915, 2200-0300; NSP 0115; QRABritish Honduras Broadcasting Service, Belize; IS"Greensleeves"
Brt. New Guinea	(see: Austra	alian Inland	Service lis	ted under AUSTRALIA)
Brt. Somaliland	(see: Somal:	iland Protect	orate)	
Brt. North Borneo	Jesselton	VS4S	7.175A	1100A-1200A; Radio Sabah; formerly was on 7.237; 0.25 kw.; CRA Director of Broadcasting, 7a Atkinson Rd., Jesselton
Bulgaria	Sofia	Radio Sofia	7.671A	2100-2130, 2145-2215 (should be ENG.)
Bulgaria	Sofia	Radio Sofia	9.700	0030-0300A, 0400-0430; takes many RELAYS from RADIO MOSCOW; QRA Ministry of Culture, Direction of Radioinformation, 4 Dragan Tzankov Str., Sofia; ISbeginning of a Bulgarian song which begins with words, "Dear Homeland"; anness, "This is Sofia, Bulgaria Calling"
Burma	Rangoon	XYZ	4.770A	1200-1515
Burma	Rangoon	XYZ	9.535AV	0530-0730, 1200-1515; "The Voice of Burma"; QRANo. 28, Windermere Crescent, Rangoon; ISfor Burmese program, signature tune is Burmese oboe, gongs, drums; for ENG., uses Eric Coates' "Calling All Workers"
Cameroon (FR.)	Douala R	adio Douala	6.115	1700-2100; also MW 1,468 kcs., both 1 kw.; Radiodiffusion du Cameroun; QRA is Radiodiffusion Douala, B.P. 986, Douala
Cameroon (FR.)	Yaounde Ra	adio Yaounde	3.333	1700-2100A; 4 kw.; CRARadiodiffusion Yaounde, Yaounde; annces, "Ici Yaounde, Radiodiffusion du Cameroun"
Cameroon (FR.)	Yaounde R	adio Yaounde	9.270	1700-2100A; lkw.; closes with "La Marseillaise"; also on MW 1,538 kcs., 1 kw.; heard often in Eastern USA
Cameroon (FR.)	Yaounde Ra	adio Garoua	9.900	1800-1900; NF 1800-1810



Canada	Calgary, Alberta	CFVP	6.030	1300-0805 (SUN. 1430-0706 MON.); "The Voice of the Prairies"; QRA12th Ave. and 6th Street, East, Calgary, Alta.
Canada	Edmonton, Alberta	VED	7.320	1345-0800; RELAY of CHX; QRAMcDonald Hotel, Edmonton, Alta.
Canada	Edmonton, Alberta	VE9AI	9.540	1400A-0600A; REIAYS CJCA, 930 kcs.; QRAEdmonton Broadcasing Ltd., 452 Borks Bldg., Edmonton, Alta.
Canada	Goose Bay, Labrador	CFGB	7.920AV	HEARD IRREBULARLY in both NORTH AMERICA, EUROPE; Station officials "claim" is a "harmonic" of CFGB, the Royal Canadian Air Force Station, "Voice of the North," in Labrador; however, MEASURED freq. (which VARIES) does NOT indicate signal is a harmonic; "try" for this one around 2200-2300, 1200-1300; the BCB outlet is listed at 300 watts; C. A. Lepine, Flight Lieutenant, of the station's personnel has informed certain USA listeners that "it is regretted that due to security we cannot add to the information disclosed in our previous correspondence"; CFGB operates on 1,340 kcs.
Canada	Halifax, Nova Scotia	CHNX	6.130	1100-0415; RELAYS CHNS; QRAThe Maritime Broadcasting Co., Broadcasting House, Halifax, N. S.
Canada	St. John's, Newfoundland	CBNX	5.970	1030-0305; RELAYS CBN; QRANewfoundland Hotel, St. John's, Nfld.
Canada	Sydney, Nova	CJCX	6.010	1000-0300; RELAYS CJCB; QRACape Breton Broadcasters Ltd., R. Bldg., Sydney, N. S.
Canada	Toronto, Ontario	CFRX	6.070	0945-0505 (SUN. 1115-0435); RELAYS CFRB; CRARogers Radio Broad-casting Co. Ltd., 37 Bloor St., W., Toronto 5, Ontario
Canada	Vancouver, Brt. Columbia	CKFX	6.080	1300-0805 (SUN. 1500-0905 MON.); RELAYS CKWX; QRACKWX Ltd., 543 Seymour St., Vancouver, B.C.
Canada	Vancouver, Brt. Columbia	CBUX	6.160	1445A-0805A (SUN. 1555-0805); RELAYS CBU; CRA710 Hornby St., Vancouver, B.C.
Canary Islands	Las Palmas	FET 34	7.000M	1300A-1530, 2200-0003A; also, see 9.100AV; Radio Las Palmas; QRA Calle Triananum, 134 Dpdo., Las Falmas de GranCanaria; IS Pasodoble's "Islas Canarias"
Canary Islands	Las Palmas	FET 34	9.490AV	1300A-1530; 2200-003A; on 7-4 noted on 9.455 closing 0000 with SP. NAT. ANTHEM; anness in both SP., ENG.
Cape Verde Is.	Praia	CR7AA	3.937M	2000-2203A
Cape Verde Is.	Praia	CRLAA	7.398A	2000-2203A; Radio Clube de Cabo Verde; CRAIraia, Isle of Santiago
Cape Verde Is.	San Vicente	CR4AB	3.960	2200-2400; Radio Clube Mindelo

NATIONAL PROGRAM in ENG., 920 kcs., 1 kw., 0130-0430, 0730-1030, 1200-1630. NATIONAL PROGRAM in Tamil, 870 kcs., 250 watts, 0130-0230, 0630-0730, 1230-1630. NATIONAL PROGRAM in Sinhalese, 700 kcs., 15 kw., 0130-0300, 0630-0730, 1130-1700. COMMERCIAL SERVICE, 640 kcs., 250 watts, 0130-1730. COMMERCIAL SERVICE, 4.870, 7.5 kw., 0130-01730. NATIONAL PROGRAM in Sinhalese, 4.900, 10 kw., 1100-1700. NATIONAL PROGRAM in Tamil, 4.967, 7.5 kw., 0130-0230, 0630-0730, 1230-1630. NATIONAL PROGRAM in ENGLISH, 5.020, 1 kw., 0130-0430, 0730-1030, 1230-1630. COMMERCIAL SERVICE, 6.004, 7.5 kw., 1130-1730. NATIONAL PROGRAM in Sinhalese, 6.095, 10 kw., 0130-0300, 0630-0730. COMMERCIAL SERVICE, 7.190, 0130-0430, 7.5 kw., and 1130-1730, 35 kw.; COMMERCIAL SERVICE, 7.110, 35 kw., 1230-1900. COMMERCIAL SERVICE, 9.520, 0130-0430, 35 kw., and 1130-1730, 100 kw. COMMERCIAL SERVICE, 11.770, 35 kw., 0130-0430. COMMERCIAL SERVICE, 11.875, 35 kw., 1230-1900. COMMERCIAL SERVICE, 15.120, 35 kw., 0130-0430. COMMERCIAL SERVICE 17.820, 0515-0600, 7.5 kw., and 0915-1015, 35 kw.

Here is transmission schedule for RADIO CEYLON, Colombo, just received:

Ceylon

Ceylon (cont'd)

Language transmissions of the COMMERCIAL SERVICE-in the schedules cited on Page 60-are not indicated; also note, 7.110 and 11.875, which relay VOICE OF AMERICA, are not so designated. Medium-wave transmitters are located at Colombo, shortwave at Ekala. CRA--Radio Ceylon, Independence Square, Colombo 7; IS-opens, closes with "Strike Up the Band" (in COMMERCIAL SERVICE)

the Band" (in C	COMMERCIAL SER	VICE)		
Chile	Santiago	CE766	7.660	1130-0630; Radio Yungay; QRAHuerfanos 930, Santiago; ISfirst movement of the song, "Donde elazul de la Noche encuentra el Ovo del Dia" ("Where The Blue of the Night Meets the Gold of the Day")
Chile	Sant lago	CE960	9.597A	1045-0500A; Radio La Americana; QRA-Nueva York 53, Santiago; IS-gong with notes from melody, "Los Copinues Rojos"
Chile	Santiago	CE1515	15.150	1200A-0415A; Radio Corporacion Chilena de Broadcasting; QRA Morande 25, Santiago
Chile	Valparaiso	CE1190	11.940AV	1100A-0435A; Radio Cooperative Vitalicia; "La Voz de Chile para Toda America" ("The Voice of Chile for All America"); QRA Casilla 1627, Valparaiso
China	Peking	(NOTE: H	Peking is us into use all	ing MANY, MANY FREQS. these days more seem to be coming the time; CHANGES IN FREQUENCIES ARE CONSTANT, TOO!K.R.B.)
China	Peking	Radio Peking	3.915	2125-0200, 1500-1730; QRABroadcasting Administration Bureau, 3 Hsi Ch'ang an Chieh, Peking (The Peoples Republic of China)
China	Peking	RP	6.100	2125-0200, 0355-0530, 0925-1445, 1500-1730
China	Peking	RP	7.500	2125-0200, 0355-0530, 0925-1445, 1500-1730
China	Peking	RP	9.510	1930-2000 (believed REPLACED by 11.715 now)
China	Peking	RP	9.765	2100-2130, 1100-1130, 1215-1300, 1400-1430
China	Peking	RP	11.650	0300-0330 (ENG.), 0900-0930 (ENG.), 2100-2130, 1215-1300
China	Peking	RP	11.715	1830-1900, 1930-2000 (ENG.), 2200-2230, 1430-1500 (ENG.)
China	Peking	RP	11.830	1400A-1630A
China	Peking	RP	11.933A	0355-0530, 0925-1445
China	Peking	RP	15.060AV	0300-0330 (ENG.), 0900-0930 (ENG.); not complete schedule
China	Peking	RP	15.240	1500A-1730A; 0355-0530
China	Peking	RP	15.355AV	0900-0930 (ENG.), 1430-1500 (ENG.), 0300-0330 (ENG.)
China	Shanghai	RS	5.985A	2300-2330, 0200-0250, 0355-0645, 0925-1345, 1400-1800; MAY HAVE BEEN REPLACED RECENTLY BY 6.270A, 9.985A
China	Shangha1	RS	(6.270A (9.985A	Noted in JULY by Balbi, California, PARALLEL, powerful level on both channels from 1230 tune-in; news in Chinese 1405, Chinese music, Western classical music 1430-1530, then more Chinese (SAME TYPE PROGRAM AS HEARD YEARS AGO FROM SHANGHAI'S 5.985A outlet); has news in Chinese 1100 (Saylor, Va.); heard JULY 29 at fair to good level arnd 1000-1100 by Ken Boord (West Virginia)
(CLANDESTINE - Radio Espana Independiente)	Unknown	REI	6.950	1800-2300 (IRREGULARLY SCHEDULED); also uses 7.600, 8.072A, all in parallel; SP. language; Spanish Communist Party in Exile; ISWC, London, comments: "Radio Espana Independiente, Estacion Pirenaica puzzled listeners for a number of years; usually broadcasts on varied frequencies OUTSIDE THE ORDINARY BROADCAST BANDS; "supposed' to be located somewhere 38° East, 56° North; station is somewhat identical with 'Radio Euscadi," The Basque Freedom Station"

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WRH quotes Roger Legge, Virginia, that current operating schedules of Colombians AUDIBLE are:
Colombia
                   3.250, HJGO, 1050-0200; R. Sutatenza, Radiodifusora de Occidente, Cali
                   4.755, HJCJ, 1200-0200
                   4.765, HJEF, 1045-0500
                   4.815, HJBB, 1100-0400; La Voz del Cucuta; CRA is Cututa
                   4.825, HJHC, 1200-0400; R. Narino; CRA is Apartado Aero 390, Pasto; IS--bells every half-hour
                   4.835, HJKE, 1300-0400; R. Continental; QRA is Hadiodifusion Colombiana S. A., Bogota
                   4.845, HJGF, 1100-0400; R. Bucaramanga; QRA is Bucaramanga; verifies by letter
                   4.855, HJFV, 1200-0400; R. Neiva Neiva
                   4.865, HJFA, 1230-0400
                   4.898, HJAG, 1130-0400; Emisora Atlantico; CRA is Calle 34, No. 43-146, Apt. 174, Barranquilla
                   4.935, HJFR, 1100-0400; Ondas de Ibague; ORA is Ibague
                   4.945, HJCW, 1100-0500; Emis. Sur America; QRA is Correo 9a No. 12-23, Bogota
                   4.965, HJAE, 1100-0500; Emisora Fuentes; CRA is Cartagena
                   5.015, HJCQ, 1200-0500; Radio Nacional; QRA is Transversal 17 No. 25-65, Bogota
                   5.020, HJFW, 1200-0400; Transmis. Caldas; CRA is Manizales
                   5.055, HJDW, 1150-0400; La Voz de Medellin; QRA is Radio Cadena Nacional, Apartado 1244, Medellin
                   5.075, HJGC, 1050-0200; Accion Cultural Popular; QRA is Escuelas Radiofonicas de Sutatenza Apartado
                                           Aereo Nr. 7170, Bogota
                   5.960, HJCF, 1100-0400; La Voz de Bogota; CRA is Apartado 312, Bogota
                   6.020, HJCK, 1200-0430; La Voz de Colombia; QRA is Carrera 9A, No. 12-23, Apartados: Postal No. 2665,
                                           Aereo No. 3855, Bogota; IS-first notes from Concerto in A-minor by Grieg
                   6.040, HJIB, 1200-0400; La Voz del Tolima; CRA is C'lle 12 No. 2-35, Apartado Aereo 604, Ibague
                   6.054, HJEX, 1130-0430; Radio Pacifico; CRA is Radio Cadena Nacional, Apt. Nacional 599. Cali
                   6.155, HJTC, 1700-0400; "adiodifusora Militar de Colombia; NSP 0100, then "ENGLISH BY RADIO" and
                                           musical program (presented in ENG.)
                   6.185, HJCT, 1200-0500; Radio Nacional; CRA is Transversal 17 No. 25-65, Bogota
                   6.195, HJEZ, 1130-0400
                   (IN ADDITION):
                                              6.000
Colombia
                                   HJKD
                                                         1130-0100; DIRECT FROM THE STATION. Emisoras Nuevo Mundo, comes
                   Bogota
                                                         word that HJKD relays 840 kcs. medium-wave; CRA is Calle 12,
                                                         No. 6-28, Bogota
Cook Islands
                   Rarotonga
                                   ZLIZA
                                              5.050A
                                                         0930-1030A (THUR.); @RA--Radio Rarotonga, Radio Department, Cook
                                                         Island Admn., Rarotonga
                                              9.692
                                                         2200-0300; La Voz de Costa Rica; CRA is Lista de Correo, San Jose
                                   TINRH
Costa Rica
                   Heredia
                                                         1245-0500; recently noted UP to 6.021; CRA--Apartado 341, San Jose
                                   TIHBG
                                              6.006AV
Costa Rica
                   San Jose
                                              6.037
                                                         1200-0500; Faro Del Caribe (The Lighthouse of the Caribbean); CRA-
                                   TIFC-2
Costa Rica
                   San Jose
                                                         Apartado 2710. San Jose; anness in ENG., "This is TIFC, Lighthouse of
                                                         the Caribbean, lighting the pathway of life" (in SP., "Este es
                                                         TIFC, Faro del Caribe, iluminando el sendero de la vida")
                                              6.075
                                   TIGG
                                                         12 00-0500; Radio Excelsior; QRA--Apartado Postal 1774, San Jose
Costa Rica
                   San Jose
                                                         1200-0500; Diario de Costa Rica; QRA--Apt. 225, San Jose
                                   TIDCR
                                              9.610
Costa Rica
                   San Jose
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TIFC-3

COCY

COBZ

COBC

San Jose

Havana

Havana

Havana

9.647AV

6.450

9.026

9.363A

1200-0500; LISTED 9.645; see also 6.037

1258-0500; Radio Siboney; CRA--Paseo de Marti, 53, Habana

Radio Salas, P.O. Box 866, Habana, for tourist information 1053-0531A; Radko Progreso; QRA-Ave. Menocal No. 105, Habana

1155-0600; has been heard to invite listeners (in ENG.) to write to

Costa Rica

Cuba

Cuba

Cuba

Cuba	Havana	COCQ	9.670A	1055-0531; Circuito CMQ; CRARadiocentro, Vedado, Habana
Cuba	Santiago	COKG	9.740A	1100-0530A; Cadena Oriental de Radio, Stgo. de Cuba; QRAEstrada Palma No. 658, Santiago de Cuba
Curacao (Neth. Antilles)	Willemstad	PJC2	5.014A	1530 (SAT. from 1630)-1730, 2300-0230; Curom; CRACuracaosche Radio Vereiniging (CUROM), P.O. Box 31, Willemstad; announces "Juliana Zender Curacao"; WRH says has ENG.program THUR. 0100-0130
Cyprus	Limassol	2ЈМ5	6.170	0325-0630, 0900-2200 (FRI., SUN. 0325-2200); Sharq al Adna (Near East Broadcasting Station); QRAP.O. Box 219, Limassol; TSArabic music and stringed instrument; annces in Arabic, "Mahattat a Sharq al Adna Lil'iza 'al Arabiya"
Cyprus	Limassol	ZJM6 ZJM8 ZJM7	(6.790 (9.650 (11.720	Same as 6.170
Czechoslovakia	Prague	OLR3B	9.504	1215-1245 (ENG.), 1900-1925A (ENG.); The Voice of Peace; QRA Radio Prague (Ceskoslovensky rozhlas), Stalinova 12, Praha 12
Czechoslovakia	Prague	OLR3A	9.550	0400-0600
Czechoslovakia	Prague	OLR3C	9.670	0030-0130; 0300-0600
Czechoslovakia	Prague	OLR4E	11.725AV	0300-0600, 1215-1245, 1900-1925A (mostly ENG. in these beams); (MEASURED 11.730 on June 6 although is OFFICIALLY LISTED by Radic Prague as 11.725)
Dzechoslovia	Prague	RP	17.872A	1L00A-1600A
Dahomey	Cotonou	FGF3	4.870	1115-1200; 1730-2033A; Radio Cotonou; CRA is Boite Postale 366, Cotonou
Denmark	Copenhagen	OZF3	6.060	1740-2115 (RELAY OF HOME SERVICE); news in DAN ISH 2100
Denmark	Copenhagen	OZF5	9•520	0015-0115; 0130-0230; 0300-0400; 1330-1430 (SUN. ONLY); 2230-2330 MON., WED., FRI.); 2330-2400 MON., WED., FRI.); 0230-0300 TUE., THUR., SAT.); 1700-1730 (TUE., THUR., SAT.); QA is The Danish State Radio, Radiohuset, Rosenornsalle 22, Copenhagen; annoes in ENG., WYOU are tuned to the Voice of Denmark"; every xmm begins with chimes of the Town Hall, followed by Danish National Anthem; ISfirst movement of "Som en rejselysten Flaade" by Carl Nielsen
Denmark	Copenhagen	OZF7	15.165	0900-1030, 1400-1530 (TUE., THUR., SAT.)
Denmark	Copenhagen	ozf8	15.180	0500-0600 (TUE., FRI.); 1400-1500 (TUE., THUR., SAT.); 1000- 1030, 1500-1530 (TUE., THUR.,SAT.)
Dominican Republic	c CiudadTrujillo	HI2S	3.345	1100A-0500A (REIAYS Onda Musical, HIT, 1,400 kcs.); CRA is Onda Musical, Estudio Dr. Faura No. 4, Ciudad Trujillo
Dominican Republic	c Ciudad Trujillo	ні4т	5.970	1050-0500A; La Voz Dominicana; QRAAv. Ciudad de Miami No. 8, Ciudad Trujillo; annces in SP., "Al Servicio de la Cultura y el Progreso en general, transmite La Voz Dominicana, desde Ciudad Trujillo, Distrito de Santo Domingo, Capital de la Republica Dominicana"
Dominican Republic	c Ciudad Trujillo	HIIZ	6.115A	1100-0500; Broadcasting Nacional; CRAEdificio Copello, calle el Conde, Ciudad Trujillo
Dominican Republic	Ciudad Trujillo	HI2T	9.735A	1050-0500A; see HILT, 5.970

Dominican Republic	ciudad Truj	illo (HILT)	11.940	THIS IS DEFINITELY A HARMONIC OF HILT, 5.970
Dominican Republic	San Francis de Macoris		4.875	1100-0257; recently MOVED BACK HERE FROM 4.860; La Voz de Progreso; QRACalle Presidente Trujillo No. 41, San Francisco de Macoris
Dutch New Guinea	Biak	RONG	5.045A	0900-1230; Radio Omroep Nieuw Guinea; QRAR.O.N.G., P.C. Box 505, Biak
Dutch New Guinea	Biak	RONG	7.190	0030-0130 (MONFRI.); 0300-0500 (SAT.); 2330-0430 (SAT.)
Dutch New Guinea	Sorong	Radio Sorong	3.395	0930-1200 (EXCEPT WED., SAT.); SUN. ALSO 0130-0330; operated by the Dutch New Guinea Petroleum Co.; 0.5 kw.
Ecuador	Guayaquil	HC2RL	6.635A	0200-0400 (THUR.); Radio Quinta Piedad; CRA-Tomas Martinez No. 307, P.O. Box 759, Guayaquil; reports can be written in SP. or ENG.
Ecuador	Portoviejo	HCLLT	6.155	0000A-0300A; reported more recently as on 6.115A; Radio Costa Azul; QRA-Portoviejo
Ecuador	Quito	HCTMI	4.910A	1030-1500; 1630-0600; Radio Gran Colombia; QRACasilla 2246, Quito; annces in SP., *Emisoras Gran Colombia, La Voz Deportiva de la Capital, Quito, Ecuador*

(CONTINUED ON PAGE 65)

F L A S HI - RESULTS OF THE INTERVAL SIGNAL POLL CONDUCTED BY ISWL, LONDON . . .

(A WT FEATURETTE)

"MONITOR," official house organ of the INTERNATIONAL SHORT WAVE LEAGUE, London, issue for July, carried these results of ISWL's
"INTERVAL SIGNAL POLL" . . .

- 1. RADIO AUSTRALIA, 21 points.
- 2. RADIO VATICAN, 13.
- 3. RADIO WARSAW, 9.
- 4. RDTF, Paris, 8.
- 5. RADIO ROMA, 6.
- 6. RADIO NEDERLAND (Hilversum) and NIGERIAN BROADCASTING SERVICE, 5.
- 7. RADIO LUXEMBOURG, RADIO MONTE CARLO, RADIO NACIONAL DE ESPANA (MADRID), 4.
- 8. RADIO NORWAY and SWISS SHORTWAVE SERVICE (Berne), ISRAEL, RADIO FREE EUROPE (POLISH SERVICE, RADIO PRAGUE, 3.
- 9. FINLAND, RADIO ANKARA (TURKEY), RADIO TIRANA (ALBANIA), and RADIO MOSCOW, 2.
- 10. RADIO INDONESIA, HCJB, BBC, and LISBON (EMISSORA NACIONAL), 1.

Below are current schedules of "The Voice of the Andes," H-C-J-B ("Herelding Christ Jesus' Blessings"); CRA--Casilla 691, Quito; USA CRA--Talcottville, Com. 0

andard Time	Standard Time Mean Time	SURBAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIUAY	DAIUNDAT
Midnight	. 0090	[German *] Kinderpro-	[German *] Evangeliza-		[German *] Hafen	[German *]	[German *] Rvangeliza-	[German *] Briefkasten
19.88	0530	gramm [Russian]*	(Russian)*		(Russian)*	(Russian)*	[Russian] *	[Russian] *
E 00.7	0900	The Gospel	The Gospel		The Gospel	The Gospel	The Gospel	Call Call
1:00 m	0090	[Spanish *] Pláticas Dominicales	[Spanish *] La Hora		Sendas de	Prosa y Poesfa	Adelante Juventud	Los Ecos del Cielo
1:30 a	0630	Back to The Bible	Back to The Bible		Back to The Bible	Back to The Bible	Back To The Bible	Back to The Bible
2:00 a	0010	Missionary *	Radio Kids' Bible Club		Adventures of Raindrop Music Box	Hour of Decision	Musical * Mail Bag	Your Worship Hour
2:30 a	0730	Back to God Hour	American * Crusade College		Moments of Devotion	Temple Time	Old Family Bible Sacred *	Bereau Gos- pel Voice Old Fashion-
-	1 .	5.115 Megac	15,115 Megacycles 25 Meters		11.915 Megacycles	1	31 Meters - 9.745 Megacycles	gacycles
3:00 a		Call of *	Back Home *	1	Call of *	Call of *	Call Of * The Andes	Call of the *
3:38 a	0830		Tiny * Treasures		Eventide	Piano Gems *	* Open House *	Children's
8:45 a	6845	Calvary	Gospel		Glad Tidings	The Place of Power		nou signa
4:00 a	0800	Hour	Melodies *		Songs in	Word of	Rivers of Living Water*	Accent on Youth
4.30 n	6930	Organ *	The Times		Organ *	Organ *	Organ *	Organ *
4.45 E	0848	Melodies Sunday *	Lutheran		Melodies Daily Light *	Truth	Bob Jones Says	1
5:00 a	1000	[Russian]* Dawn of Life	[Russian]* Dawn of Life		[Russian]* Dawn of Life	(Russian) * Dawn of Life	_	
	M 61	leters - 15.11	19 Meters - 15,115 Megacycles	(16 m	16254	Aeters H-945	16 25 Meters H-915 Megacycles	13.89027
E.S.T.	6.M.T.	SUNDAY	MONDAY		WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:60 a	1400	(German) *	(Mon. only)	(19+25	Smelter	(19 8	and 25 meters)	ers)
11:00 0	1600	(Russian *)	Children's N	ook 16 meter	(Russian *) Children's Nook 16 meters, 17.890 Megacycles (Sunday only)	gacycles (Sur	day only)	
11:30 a	1630	(Russian *)	16 meters, 17	.890 Megacy	17.890 Megacycles (Sunday Only)	Only)		
12.00 m	1700	(Ukranian)		7,890 Megacy	rcles Tues., W	ed., Thursda	ay, Friday, Sat	urday
2:00 p	1900	[Russian]* The Light		[Russian]* The Light of Life	[Russian]* The Light of Life	(Russian)* The Light of Life	[Russian]* [Russian]* [Russi The Light The Light The L of Life of Life	The Light of Life
8:30 b	1630	[German] * Das Glaubens-		[German] * DasGlaubens-	[German] * Hafen der Hoffnung	[German] * Gastredner	[German]* Briefkasten	[German] * Kinder- programm
3:00 p	2000	(French) Bonnes Nouvelles		[French] Paroles de vie	ALL STREET	[French] l'heure Evangélique	[French] Bonnes nouvelles	(French) l'heure Byangélique
3:30 p	2030	[Swedish] Evangelium och Sang		[Swedish] * Ekos fran Ecuador	ISwedish] Mission Forbundets Time	[Swedish] Bringing Kristus til Nationerna	[Swedish]* Brevlada	[Swedish] Evangelium och Sang
4:08 p	2100			Missionary *		Hebrew	Radio Kids'	Forward on the Air
4:16 p	2115	The	4	Challenge	Canada's National	Witness	College	Sunshine Alpha Bant
4:30 p	2130	Hour		Light and	The Bible	Musical * Mailbag	Chapel Hour The Place *	Church Music Box *
5:00 p	\$200	Back to		Back To	Back To The Bible	Back to The Bible	Back to The Bible	Back To The Bible
d elia	16 Meters		ascucles		-	9 Meters - 15	15,115 Megacycles	Jes
E.S.T.	G.M.T.		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
5:30 p	2230	[Russian]* The Victory		[Russian]* The Victory	(Russian)* The Victory of Faith	(Russian)* The Victory of Faith	[Russian]* The Victory of Paith	(Russian)* The Victory of Faith
6:00 p	2300	(German)*		[German] * Briefkasten	[German] * Wort - Betrachtung	[German] * Hafen der Hoffnung	[German]* Gastredner	[German] * Kinder - programm
6:30 p	2330			[Portuguese] Hora Evangélica	[Portuguese] La Hora Luterana	[Portuguese] Hora Evangelica	(Portuguese) Hora Brazil	[Portuguese] Hora Evangélica
19 Meters		- 15.115 Megacycles	25	Meters - 11.915		31 Me	31 Meters - 9.745 N	Megacycles
E.S.T.	6.M.T.	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
8:00 p	0200	Back To The Bible		Back To The Bible	Back To The Bible	Back To The Bible	Back To The Bible	Back To The Bible Call Of *
10:00 p	0220	The Old Fashioned		The Andes Showers Of	The Andes	the Andes	the Andes Message	The Andes
10:16 p	0316	Revival		Trend of *	Haven of Rest	Hour	Bventide	Worship Hour
10:30 p	0330	The * Back Home		The Calvary Hour	Hope of Israel Glad Tidings	Crusade for	Gospel Voice Old Fashioned Melodies	Tiny * Treasures Gospel
19 Meters			25 Meters - 11.91	-	Meters - 9.745 M.	M. 49 M	49 Meters - 6.050 Megacycles	Megacycle
11:00 p	0400	Temple		God Hour	Church White	Songs. In The Night	Broadcasters	Decision
11:30 p	0430	Lutheran		Melodies	Meladies	Melodies	Melodies	Melodies
u 97:11		- Change		Midnioht *	Truth	Rob lones	Midnight *	Sunday School

INTERNATIONAL PROGRAM SCHEDULE

(Including English, Russian, Swedish, German, Portuguese, Ukranian, French)

INTERNATIONAL MISSIONARY STATIONS



"Heralding Christ Jesus' Blessings"

TWENTY FOUR YEARS SERVING ECUADOR AND THE WORLD TWENTY ONE HOURS A DAY BROADCASTING THE GOSPEL MORE THAN TWENTY FOUR HUNDRED PROGRAMS EVERY MONTH

Ecuador	Riobamba	HCSET	5.050	Audible AFTER 0330 when YVKD leaves the air; Radio Roxi
Egypt	Cairo	Radio Cairo	6.215	OCOO-Oloo; Egyptian Broadcasting Service; QRABroadcasting House, Cairo; anness inArabic, "Huna El Kahira," in FR., "Ici Le Caire," in ENG., "This is Cairo"; IScamel bells
Egypt	Cairo	Radio Cairo	7.050	0330-0630; 1400-2100
Egypt	Cairo	Radio Cairo	7.330	0400-0730; 1100-1200; 1200-1300; 1330-2200
Egypt	Cairo	Radio Cairo	9.475	1645-1745; 1800-2100 (has DISCONTINUED ENG. in this xmn)
Egypt	Cairo	Radio Cairo	9.790	0700-1100; 1400-2100
Egypt	Cairo	Radio Cairo	11.670	01,00-0700; 1100-1200; 1200-1300; 1330-2200; 2330-0130
Egypt	Cairo	Radio Cairo	17.765	1115-1615
El Salvador	San Miguel	YSHQ	6.170	1600-2000, 2300-0500; La Voz del Progreso; CRA-17 Calle Oriente, San Miguel
El Salvador	San Salvador	YSUA	6.190A	1200-0500; Radio Mil Cincuenta; QRAlh Avenida Norte No. 29, San Salvador
El Salvador	San Salvador	YSS	9.555	1800-1900, 0000-0400; Radio Nacional; QRATeatre Nacional, San Salvador; ISgong and xylophone
El Salvador	San Salvador	XAEY	11.950A	1200-0600A; La Voz Panamericana; CRA2a Avenida Norte 25, San Salvador
El Salvador	Santa Ana	YSWW	5.985A	1300-1500, 1800-2000, 0930-0400; La Voz del Pueblo; CRA
England	London	(BBC schedu	les follow	on the next page; QRA is Broadcasting House, London)

RADIO CLUB NOTES

(A WT FEATURETTE)

ENGLAND—Peter Bysh, Honorary Secretary-Treasurer and CSL Bureau Manager, INTERNATIONAL SHORT WAVE LEAGUE, 86, Barrenger Rd., London, N. 10, informs me that subscription rates from July 1, 1956, are 15/- for full membership (or TWO AMERICAN DOLLAR BILLS) for one year; associate membership is 7/- a year (or ONE AMERICAN DOLLAR BILL). Longer subscriptions are most welcome. Has new emblem badge. This club's house organ, "MONITOR," for July states that the main ISWL Listening Contest of the year will be held during the WEEKEND of November 24-25; full rules will be given in the OCTOBER issue of "MONITOR." The 1956 ISWL Transmitting Contest will takeplace Sept. 30, and has been arranged with the F.O.C. so as not to clash with its contest again. Rules for the latter competition will be announced in the August issue of "MONITOR."

NORWAY--The Norwegian DX Club recently appointed ISWL Associate Brian Smith as ENGLISH EDITOR of its magazine, "DX News," published in Norwegian and ENGLISH; subscription rate is only 3/- a year, with an additional 13/- for the magazine, or 14/- for non-members; anyone interested should write to Brian Smith, 9, St. Margaret's Road, Westgate-on-Sea, Kent, ENGLAND. (ISWL, London)

SWEDEN--The Swedish Amateur Radio Club can be addressed in care of Borje Ohlin, Box 140, Hoor, Sweden; has a 10-page duplicated magazine, written in Swedish and ENGLISH; there is more emphasis on the amateur side of listening in the S.A.R.C. than is normally to be found among most Continental Societies, says ISWL, London; membership costs 15/- per year. Write to Mr. Ohlin for full particulars.

USA--The annual convention of the NEWARK NEWS RADIO CLUB will be held Saturday, September 8, 1956, near Freehold, New Jersey, at Shady Rest Inn, where the group gathered last year. A. J. Koempel is chairman, and Cele Fallender is vice-chairman of the Entertainment Committee. This club recently made major improvements in its SHORTWAVE SECTION.

The broadcast-band club, NATIONAL RADIO CEUB, will hold its annual convention at Harrisburg, Pennsylvania, September 1-3.

Wavelengths JIO

London Calling is published several weeks in advance and we regret that, for reasons beyond our control, it is sometimes necessary to alter wavelengths alter we have gone to press. The latest information is always given in Programme Parade,

Special Services-West

America
m. 19.60 19.60
16.77 16.80 19.91
only 13.86
America a, n Area, (N. of Amazon,
15110 19.85 12095 24.80
17715 16.93 15260 19.66
of Amazon, 17730 16.92 15435 19.44
.17790 16.86 15447.5 19.42
25.09
Thursday ay 7715 16.93

The week's programmes are given on page 26 Special Services-East

GMT 06.00-07.00..... Australia,

13.82 11.65 11.65 11.65 11.65 11.65 11.85 11.85 11.85 Wavelengths directed to South-East Asia and to India, Pakistan, and Ceylon are receivable in both areas kc/s 17860 17860 17860 Far Eastern GMT 09.00-09.30 11.00-11.30 12.00-12.45 China and Japan South-East Asia 09.00-09.30..... 13.16-16.30...........17790 16.86 13.46-14.16..........17700 16.95 21.40 13.86 13.46-14.16..........17700 16.95 21710 13.82 (Tuet., Wed.) 31.32 m. 25.08 19.72 *kc/s .11960 15210 New Zealand 06.00-07.00.....9580 Pacific Eastern

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This schedule shows the times during which the Service is directed to your part of the world, and the wavelengths on which it is carried

East Africa, Arabia, Egypt,			
Israel, Jordan, Lebanon,		04.30-06.30 9770	30.71
	=	11770	25.49
15070	1661	15110	19.85
17810	6 84	21675	13.84
019/1	10.01	17715	16.93
17010	6 84	11055	25.09
	13.87		-
25720	11.66		
21660	13.85		
(except 18.15-18.3	Sun.)	lada, U.S.A., Mexico	,
18.00-21.00	10 85	21.00-00.3017810	10.84
011011111111111111111111111111111111111		23.00-03.0011930	5.1
		West Indies Central	
	,	America, South America	
04.30-06.16	16.79	(north of Amazon, including I	Peru)
17	6.84	20.00-23.1521550	13.92
21	3.87	21.00-23.1517890	16.77
		23.00-23.1517860	10.80
		93.45-00.30	16.71
		23.45-03.00 15070	19.91
	28.0	00.30-03.0011750	25.53
	56.9		
	3.84	South America	
	3.84	20	Peru)
	1.66	20.00-00.30	16.79
18.00-20.1517715	16.93	21.00-03.0015300	19.61
	9.44	22.15-03.0012040	24.92
	6.93	00.30-03.009825	30.53
Martin Africa			
	24 92		
04.30-07.15	19.85	06.00-08.0011860	25.30
	16,95	-	19.82
	13.84		10.51
	16.93	09.30-11.30	16 91
-	13.97		24.80
	10.44		19.85
	31 88	.00-22.15	16.77
	2011		13.92
Sou	24 07	06.00-08.0011820	25.38
04.30-06.30	19.85	1	19.46
	16.95		19.9
	13.97		16.0
	13.97		74 8
-	11.66		19.8
16.45-17.0021470	13.97	21.00-22.15	19.6
17.00-18.3021470	13.97		16.7
1	16.93		
	19.85	N.W.	Paoif
21.00-22.459410	31.88	30-14.151	19.53
		3	10.9
Matta. Greece. Italy.			
Central Mediterranean		09.30-15.4525750	11.65
04.30-05.009410	31.88	٦, ۲	19.9
04.30-07.1512095	24.80	4	13.7
04.30-07.1515070	16.61		
69.30-20.15	16.84	Seylon	
09.30-21.0021630	13.87	02.00-02.1515447.5	19.4
10.30-16.1521470	13.97	178	16.8
10.30-21.0015110	19.85	257	11.6
17.16-20.1521470	13.97	150	19.9
12000	24.80	215	13.5

Ethiopia	Addis Ababa	ETA94	6.419	1530A-1930; news in Amharic 1700-1710; Radio Addis Ababa; CRA P.C. Box 1364, Addis Ababa; anness in ENG., "The Voice of Ethiopia"
Ethiopia	Addis Ababa	ETHA	9.620	1530A-1930; news in Amharic 1700-1710
Ethiopia	Addis Ababa	ETAA	15.342AV	1000-1200; 1530A-1930; 0500-0515A; news in Amharic 0500
Fiji Islands	Suva	VRH4	3.980A	1830-1030A (SAT. 2000-1000); recently was logged on 3.976; closes with "God Save the Queen"
Finland	Helsinki	OIX5	9.550	0300-0500; Oy Yleisradio Ab.; ISbased on an old Finnish melody, "Kantele Melody"; QRAUnionkatu 16, H, Helsinki; annces in ENG., "Finland Calling"
Finland	Helsinki	OIX4	15.190	0300-0500; 2200-2300; NE 2200, NF 2207A, NE 0300A
Finland	Helsinki	OIXS	17.800A	0300-0500; 2200-2300; NE 2200, NF 2207A, NE 0300A
France	Paris	RDTF	5.955A	2200A-2315A; Radiodiffusion-Television Francaise; CRA107, rue de Grenelle, Paris 7eme; usually opens and closes transmissions with "La Marseillaise"
France	Paris	RDTF	6.045	2000-2100 (ENG.)
France	Paris	RDTF (Paris-Inter)	6.200	0600-2315 (SUN. 0630-2315)
France	Paris	RDTF	7.240	0745-08004; 1630-1815
France	Paris	RDTF	9.560	2000–2030
France	Paris	RDTF	9.625	2000-2100 (ENG.)
France	Paris	RDTF	9.755	2330-0100
France	Paris	RDTF	11.700	2330-0100
France	Paris	RDTF	11.845	2000–2030
France	Paris	RDTF	15.240	2000–2030
France	Paris	RDTF	15.400	1258-1500; 2000-2100 (should carry ENG. then)
France	Paris	RDTF	17.765	1145-1200
France	Paris	RDTF	17.850	1030-1100; 1258-1500; 1115-1200
France	Paris	RDTF	21.740	1145A-1200
Fr. Cameroon	(see: Camer	oon)		
Fr. Eq. Africa	Brazzaville	AEF	4.710A	1700A-2000A; NF 1700; Radio A.E.F.
Fr. Eq. Africa	Brazzaville	Radio Chad	4.910	NF 1700 but is NOT parallel Radio A.E.F. (4.710A, 9.936AV); carries Arabic to 1700
Fr. Eq. Africa	Brazzaville	RB	5.970	0600-0720; 1000-1220
Fr. Eq. Africa	Brazzaville	RB	9.625A	21.05A-0140A
Fr. Eq. Africa	Brazzaville	RB	9.730	0500-0720, 1800-2100, 2330-0140
Fr. Eq. Africa	Brazzaville	RB	11.970	0500-0720A; 1600-1700 (SUN. from 1500); 1800-2100; 2105-0140; Radio Brazzaville; QRA-B.P. 108, Brazzaville, A. E. F.; annces in FR., "Ici Brazzaville, Poste National Francais"; inENG., "This is Radio Brazzaville, the French National Broadcasting Station in Central Africa"; ISwhenthe station switches over from one direction to another, a call signal of five different notes is played on a native instrument (Kisanzi) which consists of several vibrating iron bars
68				attached to a wooden box

Fr. Eq. Africa	Brazzaville	RB	15.420	1000-1220; 1400-1500 (to Far East)
Fr. Guiana	Cayenne Radi	o Cayenne	6.235A	2230A-2400A; Radio Cayenne; QRARadiodiffusion Francaise, Prefecture de la Guyane, Cayenne; opens, closes with "La Marseillaise"
Fr. Guinea	Conakry Radi	o Conakry	6.155A	1215 (SUN. from 1200)-1315 (EXCEPT FRI.); SAT., SUN. to 1330; 1900-2130 D. QRAService de l'Information, Conakry; ISopening selection is "Marouf" by Henri Rabaud; signature tune is Overture to "Veronique" by Andre Messager
Fr. Morocco	(see: Morocco)		
Fr. W. Africa (Senegal)	Dakar Ra	dio Dakar	4.893A	2000A-2305A; 0630-0805A; Radiodiffusion Federale AOF; CRA 58, Avenue de la Republique, Dakar; ISfor Federal Network, "Infanterie de Marine," for Radio Dakar, "Sidi Brahim"
Fr. W. Africa	Dakar Ra	dio Dakar	5.945A	0630A-2300A
Fr. W. Africa	Dakar FF	Œ3	11.896AV	0630-0805; 1245-1445; 1730A-2300A
Germany	Baden-Baden	DMR32	7.265	O445A-2400A; NG 0600; Sudwestfunk; QRASudwestfunk, Zentral- studio, Hans Bredowstrasse, Baden-Baden; ISmotif from Mozart's "Zauberflote" "Bald prangt den Morgen zu verkunden"; SW xmtr is at Bad Durrheim, 1.5 kw.
Germany	Berlin (West)	RIAS	6.005	0500-0305; RIAS-Berlin (U.S. Information Agency); QRA-Berlin- Schoneberg, Aufsteiner Strasse 69; annces inGER., "Hier ist RIAS- Berlin"; ISfrom Trio Sonata by Karl Fasch
Germany	Berlin (East)	DDR	(6.115 (7.150	1905A-2230A; Staatliches Rundfunkkomitee; CRAStaatliches Rundfunkkomitee, Berlin-Oberschoneweide, Nalepastrasse 18-50, German Democratic Republic; annces in ENG., *Democratic Germany speaking to you*; IS-motif from Ludwig van Beethoven's Ninth Symphony (*Freude, schoner Gotterfunken")
Germany	Cologne	DMR25	5.980 9.630	0130-0430; Deutsche Welle; CRADeutsche Welle, WDR-Funkhaus, Koln, Wallrafplatz 5; ISmotif from "Fidelio" by Beethoven ("Es sucht der Bruder seine Bruder") played on a celesta; to NORTH AMERICA 2200-0100
Germany			9.640	
Germany	Cologne	DMR36		0130-0130 (to NORTH AMERICA)
Germany	Cologne Cologne	DMR40 DW	11.795	1000-1300; 1800-2100; 2200-0100; 0130-0130 (to NORTH AMERICA) 1130-1730
Germany	Cologne	DMR46	15.275	1000-1300, 1430-1730, 1800-2100
Germany Germany	Cologne	DW.	15.380M	2200-0100
	Cologne	DW	17.815	1430-1730; 1800-2100
Germany	Cologne	DW	17.875	1000-1300
Germany			5.470	0500-2400; 250 watts; QRAAPO 757, c/o Postmaster, New York,
Germany	Frankfurt.	AFN	7•410	N. Y., USA; American Forces Network; ISevery hour on the hour AFN annces the time and the sixth and final pip is exactly on the hour as annod; ID at least every half-hour

Germany	Hamburg	NWDR	3.970	0355A-2400A; medium-wave RELAY; Norddeutscher Rundfunk; QRA(24a) Hamburg 13, Rothenbaumchaussee 132/34; ISmotif from the first movement of Brahms' Fourth Symphony, played from Hamburg on two obces, and from Hannover on two trumpets
Germany	Hamburg	DMR27	6.075	0355A-2400A; NWDR medium-wave RELAY; has INCREASED POWER from 5 to 20 kw.
Germany	Leipzig (Ea	st) DDR	9.730	1950A-2230A; see "Berlin-East," 6.115
Germany	Munich	Radio Libera- tion	3.990	Scheduled irregularly; CURRENTLY LISTS ALSO 7.130, 9.565, 9.765, 9.730, 11.780, 11.965, 11.825, 15.255, 15.395, 15.430; QRAAmerican Committee for Liberation from Bolshevism, Inc., ACLB, RL NetworkEuropean Office, Network Techn. Coord. Dept., Muenchen 2, Damenstifstr. 5, Germany (in U.SACLB, 6 East 45th St., New York 17, N. Y.)
Germany	Munich	ĎMR29	6.160	0430 (SUN. from 0500)-2400; Bayerischer Rundfunk; CRAAnstalt des offentlichen Rechtes, Munchen 2, Rundfunkplatz 1; annces in GER., "Hier ist der Bayerische Rundfunk"
Germany	Munich	Radio Free Europe		(see: Feature article on RADIO FREE EUROPE in Part I; European ORA-Englischer Garten 1, Munich, Germany; ORA In USA110 West 57th St., New York 19, N. Y.; uses many frequencies in ALL the popular international SW bands)
Germany	Munich	VOA Relay Base	9	(see: COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")
Germany	Stuttgart	SDR	6.030	0353A-2400A; Suddeutscher Rundfunk; QRANeckarstrasse 145, Schliessfach 837, Stuttgart; ISfirst notes of a Swabian folksong, "Jetzt gangians Brunnels"
Gilbert and Ellice Islands	Tarawa	VSZ10	6.050	SUN. 0430-0500; Tarawa Radio; QRABetio, Tarawa
Gold Coast	Accra	ZOY	3.366	1130-2200A; Gold Coast Broadcasting Service; CRABroadcasting House, Private Post Bag, Accra; IS*G, C, G* notes played on piano
Gold Coast	Accra	ZOY	4.915A	1130A-2200A
Greece	Athens	GFS	6.137A	0500-0730; 1000-1300; 1530-2200; Forces' Central Radio Station, Athens; CRA3, Zalokostas St., Athens K.; ISmain motif from march, "Greece Never Dies" which is played very slowly on trumpets
.Greace	Athens	Radio Athens	15.345A	1613A-1830A; 2300-2330 (Greek); National Broadcasting Institute; QRA Ethnikon Idhryma Radiophonias (NBI), 4 Righilli St., Athens K.; station signal is "Tsopanakos" ("I Used to Be a Shepherd Boy"), a folksong onnative flute and sheep bells
Greece	Athens	Radio Athens	17.773A	1613A-1830A
Greece	Jannina		7.070	OPENS 0500 with march, program preview in Greek; station generally is jammed
Greece	Larissa	AFS	6.760AV	0500-0700, 1000-1230, 1600A-2100A
Greece	Salonika	VOA Relay Base	9	(see: COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")
Greenland	Angmagssali		7.570	1400-1450 WD.; 2 kw.; NO ENG.; operated by The Greenland Department of the Danish State Department; also uses medium-wave 1,500 kcs.
Greenland	God thaab	OXI	9.525A	OOOOA-O1OOA; QRAGronlands Radiofoni, Godthaab; ISGreenlandic song, "Sonja Kaligpok"

Guadeloupe (FR. W. Indies)	Basse-Terre	FG8HA	7.430	1000-1130, 1600-1730, 2245-0100 (SUN. 2130-2215); NOT REPORTED LATELY; OFF THE AIR? QRARadiodiffusion Francaise, Prefecture Basse-Terre
Guatemala	Guatemala City	TGNA	5.952	1212-1400; 1800-2030A; 2230-0300
Guatemala	Guatemala City	TGJA	5.990	1300-0500 (SUN. 1500-0300); Radio Nuevo Hundo; QRA6A Avenida Sur No. 10-45, Apt. Postal 281, Guatemala City; ISfirst movement of National Anthem
Guatemala	Guatemala City	TGTA	6.000	1200A-0530A; Radio Sonora; CRA6A Ave., 14-35, Apartado 401, Guatemala City
Guatemala	Guatemala City	TGAZ	6.150	1200A-0400A; Radio Continental; QRA13a, Calle 12-26, Guatemala City
Guatemala	Guatemala City	TGNB	9.668	2030-2230; 0300-0445 (ENG.); Radio Cultural; QRA-TGNA, Apartado 601, Guatemala City
Guatemala	Guatemala City	TGWA	9.767A	1200A-0600A; Radio Nacional de Guatemala; QRAEdificio Tipografia Nacional, Calle 18 de Septiembre y 7a Avenida sur, Guatemala City; has "drawn-out" opening of musichymn and National Anthem
Guatemala	Guatemala City	TGCX	11.755	1200A-0500A; Radio Cristal, "La Emisora de Su Musica"; uses "Cuckoo" calls for ID purposes; wants reports to 9a, Ave. 9-30, Guatemala City
Guatemala	Guatemala City	TGNC	11.850	2030-2230; 0300-0445 (ENG.)
Guatemala	Quezaltenango	T GDA	6.020	1300-1400; 1800-1900; 0000-0300; La Voz de Occidente; QRAInde- pendencia 8, Quezaltenango
Haiti	Cap Haitien	LIVWA	6.155	1100-1330, 2100-0300 (SUN. 0000-0300); La Voix Evangelique; QRA-East and West Indies Bible Mission, Box 1, Cap Haitien; IS"Amazing Grace" (often a recording of organ and chines, played by KEN BOORD)
Haiti	Cap Haitien	4VCP	6.198	1700-1930, 2300-0200; La Voix du Nord; CRACap Haitien
Haiti	Cap Haitien	4VEH	9.663	1000-1430 (SAT. to 1500); 2200-2400; 2400-0100; see 6.155, 15.415AV, 17.790AV, 21.480
Haiti	Cap Haitien	4VWI	15.415AV	1000-1430 (SAT. to 1500); SAT. ONLY 2200-2400
Haiti	Cap Haitien	4VWC	17.790AV	SAT. ONLY 1400-1500; 2200-2400; 0000-0100; 0100-0330 (TUE. to 0345)
Haiti	Cap Haitien	4VWI	21.480	2000-2200 (SAT. and SUN.)
Haiti	Les Gonaives	4VDP	5:060	1700-1830; 2300-0300A; Radio Independance; QRALes Gonaives
Haiti	Petionville	4VPL	5.900	2000-0300; Petionville Broadcasting System; QRAPetion Ville
Haiti	Port-au-Prince	4VHW	5.993A	1200-0300 (SUN. 1430-2300); Radio Haiti; QRAP.G. Box 737, Port-au-Prince; IS4 notes on gong
Haiti	Port-su-Prince	4VB	6.087M	2200-0330; LISTED this to me in mid-JUNE as on 5.955; Radio Commerce; CRAP.O. Box 1143, Port-au-Prime; IS4 chimes
Haiti	Port-au-Prince	4VCM	6.165	1100-0400; Magloire Broadcasting Circuit; QRA36, rue Americaine, Port-au-Prince
Haiti	Port-au-Prince	4vc	9.483A	1130-1400 (SUN. 1100-2400); has "Glimpses of Haiti" (ENG.) SUN. ONLY at 2200
Haiti	Port-au-Prince	(4VB)	12.180A	Haitien reported here at times is DEFINITE Y HARMONIC of LVB, 6.087M, Radio Commerce, Port-au-Prince
Hawaii	Honolulu VOA	Relay Base		(see: COMPLETE VOICE OF AMERICAN SCHEDULES UNDER *USA*)

Holland	Hilversum Rad	dio Neder- land	9.590	WD. 1730-1800; 1800-2000; 2000-2040; 2100-2140; 2145-2225; 2230-2300; 2305-0130; 0145-0225; 0230-0310; 0315-0355 (MON. to 0400); CRAPostbox 150, Hilversum; ISgeneral IS is an old Dutch folksong, "Merk toch hoe sterck," played oncarillon or celesta on all freqs.; program bulletins will be sent free onrequest
Holland	Hilversum	RN	11.950	USED IRREGULARLY; RECENTLY TESTED ARNO 1545-2225
Holland	Hilversum	RN	15.365	NEW channel; WD. 2145-2225; 2230-2300; 2305-0130; 0145-0225; 0230-0310; 0315-0355 (MCN. to 0400); SUN. 1300-1500; 1630-1800
Holland	Hilversum	RN	17.775	WD. 0900-1200; 1330-1500; 1630-1800; (SUN. 0900-1025; 1030-1200; 1600-1730)
Holland	Hilversum	RN	21.480	WD. 0945-1025; 1030-1200; 1300-1500; 1545-1625; (SUN. 0900-1025; 1030-1200; 1600-1730)
Honduras	Comayaguela	HRXW	6.110A	1300-0400A; Radio Comayaguela
Honduras	San Pedro Sula	HRQ	6.125	1300-0400A; Radio Suyapa, San Pedro Sula
Honduras	Tegucigalpa	HROW	6.020	1300-C400A; Radio Monserrat, Tegucigalpa
Hong Kong	Hong Kong	ZBW3	3.940	LISTS CHINESE SERVICE for 0330-0500, 0900-1430 (SAT. 0230-0500, 0900-1430; SUN. 0300-0500, 0900-1430); Radio Hong Kong; GRAP.O. Box 200, Hong Kong
Hungary	Budapest Radio	Budapest	6.248	2000-2030; 2200-2230; QRAMagyar Radichivatal, VIII, Brody Sandor-u 5, Budapest
Hungary	Budapest	RB	7.220	2000-2030; 2200-2230; 0030-0100; 0400-0430; 2230-2300 (SUN./TUE.)
Hungary	Budapest	RB	9.833A	1100-1130; 1600-1630 (SUN.); 2100-2130 (WED., SAT.)
Hungary	Budapest	RB	11.910A	2000-2020; 2200-2230; 0030-0100; 0400-0430
Iceland	Reykjavik	TFJ	12.175	SUN. ONLY 1615-1630A; Iceland State Broadcast Service; QRARikisutvarpid, Box 1026, Reykjavik; annces, "Utvarp, Reykjavik"
India	(BELOW ARE REGI	ONAL SERVI	CES SCHEDU	LES; QRAAIR, or All India Radio, and city where station is located)
India	Bombay	VUB2	4.840	1415-1530
India	Bombay	VUB	6.150	0100-0330
India	Bombay	VUB	7.240	1600-1900; 0100-0330; 0630-0900
India	Bombay	VUB	9.550	0630-0900; 1200-1530; 1545-1730
India	Calcutta	VUC	4.880	1300-1730
India	Calcutta	VUC	6.010	0100-0300; 1315-1730
India	Calcutta	VUC	7.210	1130-1215; 0100-0300; 0700-0930
India	Calcutta	VUC	9.530	0700-0930; 1130-1300
India	Delhi	VUD	4.960	1315-1430; 1430-1730
India	Delhi	VUD	5.990	1500-1530
India	Delhi	MD	6.060	1315-1430; 1430-1730
India	Delhi	VUD	6.190	0100-0215
India	Delhi	VUD	7.285	1500-1530
India	Delhi	ADD	7.290	0100-0330; 0330-0415 (SUN.); 1200-1300
India	Delhi	VUD	9.630	0430-0600 (SUN.); 0630-0800; carries Delhi "B* 0730-0900 (0930
	4-44	.02	,	on school broadcast days)

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(ALL INDIA RADIO - REGIONAL SERVICES SCHEDULES - cont'd)
India
                    Delhi
                                                9.695
                                                           1315-1415
                                    VUD
India
                    Delhi
                                                9.850
                                                           1500-1530
                                    VUD
                    Delhi
                                               11.710
                                                           1315-1415
India
                                    . VUD
India
                    Delhi
                                    VUD
                                               12.020
                                                           1500-1530
                    (BELOW ARE EXTERNAL SERVICES SCHEDULES of ALL INDIA RADIO for JUNE-SEPTEMBER 1956; QRA--Directorate
India
                   General, All India Radio, Broadcasting "ouse, Parliament S.., New Delhi):
                    Delhi
                                                6.060
                                                           1315-1415
India
                                    VUD
India
                    Delhi
                                    VUD
                                                9.600
                                                           0320-0330: 0330-0345
                                                9.850
India
                                                           1345-1430
                    Delhi
                                    VUD
India
                    Delhi
                                    VUD
                                               11.705
                                                           1945-2045
India
                    Delhi
                                               11.710
                                                           1315-1415
                                    VUD
India
                    Delhi
                                               11.740
                                                           2245-2300
                                    AND
India
                    Delhi
                                    VUD
                                               11.920
                                                           0320-0330: 0330-0345
India
                    Delhi
                                               15.105
                                    VUD
                                                           1730-1830; 1945-2045; 1845-1930
India
                    Delhi
                                               15.130
                                    VUD
                                                           0330-0400; 0415-0530
India
                    Delhi
                                               15.190
                                                           1000-1100
                                    VUD
India
                                              15.240
                                                           1500-1530; 1545-1555; 1630-1700; 1555-1630
                    Delhi
                                    AND
Tndia
                    Delhi
                                              15-270
                                                           1900-1930
                                    AND
India
                    Delhi
                                    VUD
                                              15.290
                                                           0500-0530, 1630-1700 (except on ALTERNAT SAT. when NATIONAL PROGRAM
                                                           of music radiates)
India
                   Delhi
                                    VUD
                                              15.310
                                                           1000-1100
India
                    Delhi
                                    VUD
                                              15.315
                                                           1615-1715 (EXCEPT SAT.)
India
                                              15.380
                    Delhi
                                    VUD
                                                           2315-0015; 0030-0050; 2245-2300
Tndia
                                              15.415
                    Delhi
                                                           1945-2045
                                    VUD
Tndia
                    Delhi
                                              15.445
                                    VUD
                                                           1200-1315
India
                                                           0400-0415; 0500-0530
                    Delhi
                                    VUD
                                              17.730
                   Delhi
India
                                    VUD
                                              17.735
                                                           1945-2045; 1845-1930
India
                    Delhi
                                              17.760
                                    VUD
                                                           1200-1315; 1000-1100; 1730-1830
India
                   Delhi
                                              17.765
                                                           1615-1715 (EXCEPT SAT.)
                                    VUD
India
                   Delhi
                                              17.780
                                                           0015-0115
                                    VUD
India
                   Delhi
                                    VUD
                                              17.795
                                                           1545-1555; 1630-1715; 1115-1200; 1200-1230; 1330-1430; 1555-
                                                           1630; 1900-1930
India
                    Delhi
                                    VUD
                                              17.810
                                                           2315-0015; 0030-0050
India
                    Delhi
                                    VUD
                                              17.840
                                                           1500-1530; 1000-1100
India
                    Delhi
                                    VUD
                                              17.855
                                                           0330-0400: 0415-0530
India
                   Delhi
                                              21.570
                                    VUD
                                                           1115-1200; 1200-1230
India
                    Delhi
                                              21.580
                                                           1330-1430
                                    VUD
India
                    Delhi
                                                           0015-0115: 0400-0415
                                    VUD
                                              21.700
```

India		(MORE RE	GIONAL SERVI	CES SCHEDULES):
India	Madras	VUM	6.085	0020-0145; 1230-1700
India	Madras	VUM	7.260	0020-0145; 0700-0950; 1230-1700
India	Madras	VUM	9.550	0630-0950
India	Mysore	VUM7	4.800	1200-1630HOWEVER, IS BELIEVED *OFF THE AIR* AT PRESENT; no longer is listed in *THE INDIAN LISTENER*same goes for VUM7, 6.065, formerly scheduled 0130-0245; 0800-0930
India	Simla	VUS	6.040	1200-1545
India Tndo-China	Simla	vus	7.170	0130-0300
(VIETNAM)	Hanoi	"Voice of Vietnam"	7.405A	1000-1400A; 2330-0100A; La Voix du Vietnam, Hanoi
Indo-China (VIETNAM)	Hanoi	ΛΛ	7.415AV	1000-1400A; 2330-0100A; at times is ALSO on 7.460A, 7.480A
Indo-China (VIETNAM)	Hanoi	٧٧	9.920	1000-1400A; 2330-0100A
Indo-China (VIETNAM)	Hanoi	VV	15.024AV	1000-1400A; 2330-0100A
Indo-China (LAOS	Laos R	adio Laos	7.145A	1030-1330; Radio Lao, Vientiane
Indo-China (CAMBODIA)	Phom-Penh	RNK	6.090A	2300-2400; O400-0600; 1000-1315A (SUN. ALSO 0700-0900); has NF 2330; SOMETIMES has ENG. LESSON, Flisten and Speak, 1200-1215; Radiodiffusion Nationale Khmere, Phom-Penh
Indo-China (VIETNAM)	Saigon	Radio Saigo	n 7.260	0800A-1430A
Indo-China (VIETNAM)		ice of the R lic of Vietn		RELAYS m/w 838 kcs. at 2245-0215; 0430-0800; 0955-1630
Indo-China (VIETNAM)		ice of the R lic of Vietn		2245-0200; 0430-0700; 1000-1630; is "Radio Saigon, The 'Voice of the Republic of Vietnam'"; RELAYS m/w 1,360 kcs.
Indo-China (VIETNAM)	Saigon "Voi pub	ce of the Re lic of Vietn	- 9.754	2245-1700; is "Radio Saigon, The 'Voice of the Republic of Vietnam's; RELAYS m/w 1,090 kcs.; QRADirector General, National Broadcasting Service of VIETNAM, 3 Phan-dinh-Phung, Saigon, VIETNAM
Indonesia	Bukittingi (Sumatra)	YDM2	5.033	Carries LOCAL news (in Indonesian) 1530-1540 and signs OFF 1630; WRH lists this one 2330-0145; 0530-0815; 1030-1630 (SUN. 0030-0815; 1030-1630)
Indonesia	Djakarta		3.200	RRI lists FR. onthis channel 1530-1630 for Cambodia, Laos, Vietnam, Thailand
Indonesia	Djakarta	YDB2	4.910	1100A-1630 A (ENG. 1100-1158; 1430-1528); lists Hindi Program 1530-1630, which session ALSO MAY BE CARRIED OVER YDF6, 9.710); has MAIL-BAG program ("Open Letter to Listeners") every THIRD and FOURTH SUN. of month at 1135, 1505 (IN ENG.)
Indonesia	Dja karta	YDB3	7.270A	2230-0045; 0430-0715; 0930-1530 (SAT. 2330-0715, 0930-1530 SUN.)
	(NOTE: QRA	for ALL Djak	arta outlets	is Medan Merdeka Selatan 17, Djakarta)

Indonesia	Djakarta	YD F6	9.710	1100A-1600A (ENG. 1100-1158; 1430-1528); 0100-0158 for LATIN AMERICA; has MAILBAG program ("Open Letter to Listeners") every THIRD and FOURTH SUN. of month at 1135, 1505 (ENG.)
Indonesia	Djakarta	YDF8	9.865	1730A-1958 (ENG. 1900-1958) for EUROPE; has MAILBAG program ("Open Letter to Listeners") every THIRD and FOURTH SUN. of month at 1935
Indonesia	Djakarta	YDE	11.770	0100-0158 for LATIN AMERICA
Indonesia	Djakarta	YDF3	11.797A	1900-1958 for EUROPE; ANNOUNCES and LISTS this as 11.770; has MAILBAG program ("Open Letter to Listeners") every THIRD and FOURTH SUN. of month at 1935
Indonesia	Djakarta	IAF	11.943A	0930A-1200A; Indonesian Air Force Station; uses many NORTH AMERICAN "pop" recordings; ISsound of airplane motor
Indonesia	Jogjakarta	YDJ	5.060	WD. 2230-0045; 0430-0715; 0930-1530 (SUN. 2330-0715; 0930-1530)
Indonesia	Jogjakarta	YDJ2	7.100A	Same as YDJ
Indonesia	Kotaradja (Sumatra)	YDN2	4.984А	2330-0145; 0530-0815; 1030-1630 (SUN. 0030-0815; 1030-1630)
Indonesia	Makassar (Celebes)	YDQ3	7.295	2200-0015; 0400-0645; 0900-1457 (SAT. 2300-0645; 0900-1457A)
Indonesia	Makassar (Celebes)	ADĆ5	9.552A	Same as YDQ3, 7.295
Indonesia	Medan (N. Sumatra)	YDP	4.930	Has LOCAL news (in Indonesian) 1530-1540 and signs OFF 1630; WRH lists this one at 2330-0145; 0530-0815; 1030-1630 (SUN. 0030-0815; 1030-1630)
Indonesia	Menado (Celebes)	YDS2	5.990 WD.	2200-0015, 0400-0645, 0900-1500 (SUM. 2300-0645, 0900-1500)
Iran	Ahwaz	EPU3	7.945A	1200A-1358A (TUE. ONLY)
Iran	Tabriz	EQR2	6.092A	0225-0430; 0730-1100; 1330-1800; news in Armenian 1500; in Cyprus, second harmonic is audible on 12.194A
Iran	Teheran	EQC	9.680	1145A-1215A; 1915-2030; freq. is MORE NEARLY 9.678
Iran	Teheran	EPB	15.100	1915-2030; Department of Publication and Broadcasting; QRARadio Tehran, Ark Ave., Tehran; now has ENG. 2000-2030 (EXCEPT. FRI) with news 2015y
Iraq '	Baghdad	HNQ	3.297	OL30-0600; 1330-2050A; during the religious period of Ramadan this spring (approx. April 12-May 12), extended programs to 2108A closedown; CRABaghdad Radio Station, Baghdad; ISsoft chirps of a mechanical nightingale; has news in Arabic around 2012A
Israel	Tel Aviv	4XB51	2.44	1900-2000; Israel Broadcasting Service
Israel	Tel Aviv	4XB44	6.175A	1700A-1900A; Israel Broadcasting Service
Israel	Tel Aviv	4XB31	9.009A∀	1630A-2200A; 2245-2330 (SP. to LATIN AMERICA, new xmn); ENG. 2115 to 2200A; Israel Broadcasting Service; GRA for Kol Israel is P.O.Box 1082, Jerusalem; for Foreign Service of Kol Zion Lagolah, P.O. Box 754, Jerusalem; ISeften is traditional Bible cantellation played on oboe, strings
Italy	Rome	Radio Roma	5.960	1905-2220

Italy	Rome Ra	dio Roma	6.010	1300-1400; 1735-1900; 2040-2150; 0630-0645; 1540-1555; 1605- 1725; 1905-1950; the Italian Radio and Television System; general offices of RAI in Rome: Via delBabuino 9; ISbird chirping
Italy	Rome	RR	7.270	1300-1400; 1735-1835; 1905-2220; 0320-0340
Italy	Rome	RR	7.290	1300-1400; 2040-2150; 1540-1555
Italy	Rome	RR	9.570	1300-1400; 1400-1435; 1735-1900; 2040-2150; 0320-0340; 0630-0645; 0900-0935; 1605-1725; 1905-1950; 2000-2030; 2200-2220
Italy	Rome	RR	9.710	1735-1835; 0320-0340; 2000-2030; 2200-2220; 0100-0125; 0245-0250; 0250-0310
Italy	Rome	RR	9.780	0650-0855; 0900-0935
Italy	Rome	RR	11.810	1735-1835; 0320-0340; 1500-1530; 1540-1555; 1605-1725; 1840- 1855; 1905-1950; 2000-2030; 2230-0015; 0015-0055; 0100-0225; 0225-0245; 0250-0310
Italy	Rome	RR	11.900A	1410-1435; 0630-0645; 0650-0855; 0900-0935; 0945-1005; 1010- 1035; 1440-1500; 1500-1530; 1530-1630; 2200-2220; 0015-0055; 0225-0245; 0250-0310; 0100-0225
Italy	Rome	RR	15.120	0945-1005; 1010-1035; 1045-1115; 2230-0015; 0015-0055
Italy	Rome	RR	15.320	0945-1005; 1010-1035; 1045-1115; 1540-1555; 1120-1200; 1410- 1455; 1500-1530; 1530-1630; 1605-1725; 1840-1855; 2230-0015; 0015-0055; 0100-0225; 0225-0245; 0250-0310
Italy	Rome	RR	15.400	0320-0340; 0630-0645; 1120-1200; 1530-1630; 2230-0015; 0015- 0055; 0100-0225; 0225-0245; 0250-0310
Italy	Rome	RR	17.740	0650-0855
Italy	Rome	RR	17.770	0945-1005; 1010-1035; 1045-1115; 1120-1200; 1440-1500; 1500- 1530; 1530-1630; 1840-1855
Italy	Rome	RR	17.800	0630-0645; 0650-0855; 0900-0935; 1010-1035; 1045-1115; 15 40- 1555; 1120-1200; 1410-1455; 1530-1630; 1635-1725
Italy	Rome	RR	21.560	0650-0855; 0900-0935; 0945-1005; 1045-1115; 1120-1200; 1410- 1455; 1500-1530
Ivory Coast (FR. W. Africa)	Abidjan	FGE9	4.945A	WD. 0630-0730, 1215-1400, 1745-2230A (SAT. 1600-2230, SUN. 0615-2230); uses African dialects WD. 1745-1900 EXCEPT MON., WED., FRI. at 1745-1800 when has ENG., all otherprograms are FR.; has news summary in FR. 2200-2205, preceded by a few bars of the Overture from William Tell; QRAService de l'Information, B.P. 1571, Abidjan; ISfirst 10 bars of the "Allobroges"; 10 kw.; also operates on 1,495 kcs. medium-wave, 2 kw.
Jamaica (Brt. W. Indies)	Kingston Radi	o Jamaica	4.950	1100-1200A; 2300A-0412A; at times may use 3.360 instead of 4.950; daily religious service at 0330; Jamaica Broadcasting Co. Ltd.; QRA32, Lyndhurst Road, Cross Roads, Kingston
Japan	Tokyo	JJY	2.500	Scheduled over 2.500, 1600-1800 JST; 4.000, 24 hours daily; 5.000, 24 hours (MON. ONLY); 8.000, 0600-2000 JST; 10.000, 24 hours (WED. ONLY); verified with red-white-blue QSL from JJR, Radio Research Labs., Standard Freq. Section, Koganei, Tokyo (NNRC)
Japan	Tokyo	JOZ	3.925	2130A-1415A; commercial
Japan	Tokyo	JKI	4.910	2055-2315; 0755-1000; relays Domestic Network
76				

Japan	Tokyo	JOZ2	6.055	2130A-1415A; commercial; The Nihon Short-Wave Broadcasting Co.; QRAc/o International Radio Centre, 13 Shinsaka, Machi, Akasaka, Tokyo
lapan.	Tokyo	FEN	6.160	1000-1500; Far East Network(AFRTS); CRAFar East Network, 8213th Army Unit, APO 613, c/o P.M., San Francisco, Calif., USA; IS1,000-cycle tone every hour on the hour
Japan	Tokyo	JKH	7.257.5	2000-1000; relays Domestic Network
Japan	Tokyo	JKJ	7.285	2100-1000; relays Domestic Network
Japan	Tokyo	VUNC	9.560A	1000-1100; "Voice of the United Nations Command"; CRAHeadquarters, U.S. Armed Forces, Psychological Warfare Section, Tokyo
Japan	Tokyo	JOZ3	9.595	2300-1000A; commercial
Japan -	Tokyo	JKI2	9.655	2325-0745; relays Domestic Network
Japan	Tokyo	JOB3	9.675	Radio Japan; 0915-1015; 1030-1130; 1130-1230; QRA for Nippon Hoso Kyokai (NHK) or The Japan Broadcasting Corporation, 2-chome, Uchisaiwai-cho, Chiyoda-ku, Tokyo; desires reports on all transmissions; will send FREE schedule bulletins, other publications
Japan	Tokyo	JOA4	11.705	1500-1600; 1615-1715; 1730-1830; 0915-1015; 1030-1130; 1130- 1230; 1245-1345; 1400-1500
Japan	Tokyo	FEN	11.751A	2100-0945A; Far East Network (AFRTS)
Japan	Tokyo	JKIL	11.800	1000-1300; for Japanese in the Far East
Japan	Tokyo	JOA6	15.135	0300-0400; for Japanese in the Far East; is listed but is it heard?
Japan	Tokyo	JOB9	15.235	1500-1600; 2300-2330; 0030-0100; 0330-0430; 0530-0630; 0645- 0745; 0800-0900; 1400-1500
Japan	Tokyo	JOA9	17.785	was scheduled 0530-0630; 0800-0900 but probably now these transmissions have been MOVED to JOA20, 17.825
Japan	Tokyc	JOA 20	17.825	0330-0430; 0530-0630; 0645-0745; probably also 0800-0900 now; 2300-2330, 0030-0100 (to EASTERN NORTH AMERICA); the 0330-0430 beam is to WESTERN NORTH AMERICA
Jordan	Jerusalem	JAĞ	6.045	ARABIC 0500-0545, 0915-1030 (FRI. ONLY), 1200-1230, 1600-1930; ENG. 1130-1200, 1515-1600 (WRH); Hashemite Jordan Broadcasting Service; QRARamallah, Jordan
Kashmir	Muree	AKR	3.258A	1500A-1703A; not reported as "heard" lately
Kashmir	Srinagar	Radio Kashmir	4.860	1230-1730; Radio Kashmir, Srinagar, Kashmir is CRA
Kashmir	Srinagar	Radio Kashmir	6.110	0215-0415 (SUN. to 0600)
Kashmir	Srinagar	Radio Kashmir	7.270	0730-0830
Kenya	Kisumu	ZHW7	4.943	Also ZHW23, 7.288; ZHW outlets are reported scheduled 0330-0430; 1345-1810 (SUN. 0600-1030; 1500-1810); East African Broadcasting Service; (RADepartment of Information, P.C. Box 1525, Nairobi
Kenya	Mombasa	ZHWL	4.923.5	Same
Kenya	Mombasa	ZHW22	7.172	Same
Kenya	Nairobi	VQ7LO	4.885	1000-1100; 1500-2000 (SUN. 0700-1100; 1500-1900); Kenya Broadcasting Service; QRACable and Wireless Ltd., Electra House, Kabete, P.O. Box 777, Nairobi
Kenya	Nairobi	ZHW2	4.934A	0330-0430; 1345-1810 (SUN. 0600-1030; 1500-1810)
Kenya	Nairobi	FBS	5.034A	0300-0500; 0900-2000; Forces Broadcasting Service; CRABritish Forces P.O. 10, P.O. Box 4040, Nairobi

Kenya	Nyera	ZHW24	6.170	0330-0430; 1345-1810 (SUN. 0600-1030; 1500-1810)
Korea (SOUTH)	Seoul	HLKA	2.510	2100-0030; 0300-0500; 0830-1530 (SAT. 2100-0130, 0300-0630, 0830- 1530 SUN.)
Korea (SQTH)	Seoul	AFKN	6.895A	0000-2400; operates 24 hours daily; ARMED FORCES KOREAN NETWORK; formerly relayed "RADIO VAGABOND," Seoul, but now is reported to be relaying "Radic Homestead," Pusan; GRA-Headquarters AFKN, 8214th Army Unit, APO 301, c/o P.M., San Francisco, Calif., USA
Korea (SOUTH)	Seoul	HLKA	7.935A	Same schedule as 2.510; Seoul Broadcasting Service; QRAOffice of Public Information, Chongdong Seodaemoon-koo, Seoul, Republic of Korea (South); ISopens, closes with Korean National Anthem; "Voice of Free Koream session uses "Arigang," a Korean folksong; ENG. more recently is reported starting 0930 (formerly at 1030)
Korea (NCRTH)	Pyongyang	Radio Korani	6.250A	1056-1600A; 2300-2330; also operates on 6.195 but these are NOT ALWAYS IN PARALLEL
Kuwait	Al Kuwait	Radio Kuwait	5.000	1800A-2003A; Radio Kuwait; QRASecurity Department, Kuwait
Lebanon	Beirut	LASC	6.500A	1430-1500 (TUE. and SAT.); may run as LATE as 1525A; Lebanese Army Sig. Corps; it relays Armed Forces program from Radio Liban; transmitter is a BC-610, 350 watts; antenna is a half-wave, center fed; more recently was logged in Cyprus on 6.730 at 1445-1500 s/off with relay of Radio Liban
Lebanon	Beirut	Radic Liban	8.036AV	0430-0715; 1000-1300; 1500-2130; (SUN. 0600-0800; 0945-1300; 1430-2130); noted more recently running as late as 2200A closedown, NA 2150A; Lebanese Broadcasting Station; QRAGrand Serail, Beirut
Leeward Islands (Brt. W. Indies)	Montserrat	Radio Montserrat	3.255	1300-1330 (SUN. ONLY); not reported to me as "heard" lately
I iberia	Monrovia	ELWA	4.835A	0645-0900; 1945-2115 (SUN. 0715-1030, 1945-2300); missionary broad- caster with CRA of Box 192, Monrovia; anness in ENG., "This is "adio Station ELWA, broadcasting from Monrovia, Liberia"
Liberia	Monrovia	ELBC	6.022A	1530-2345; CRA is Liberian Broadcasting Company, Monrovia; president is Dr. John B. West; plays many American "pop" tunes; uses VOA and other transcriptions
Liberia	Monrovia	ELWA	11.785AV	1630-1645; station LISTED frequency to me as 11.800; during Ramadan season this spring (approx. April 12-May 12) had SPECIAL broadcast at approx. 2200-2230
Libya	Benghazi	FBS	3.305	0400-0600; 1030-1400; 1415A-2100A (some days may run as late as 2233A); during Ramadan this spring (approx. April 12-May 12) EXTENDED schedule; this is "Forces Broadcasting Service, North Africa," Forces Broadcasting Station No. 5, with GRA of P.O. Box 55, Benghazi; often has dance music 2030-2100; annees "opening tomorrow at 6 o'clock" (0400 GMT) when makes closing announcements
Libya	Benghazi	FBS	7 220	Scheduled 0915A-1600A but has not been reported to me as "heard" lately
Luxembourg	Luxembourg	Radio Luxembourg	6.090	0540A-2300A (SAT. to 2330); in winter, extends schedule ONE HOUR; QRA Compagnie Luxembourgeoise de Telediffusion, Villa Louvigny, Luxem bourg; ISmelody played on piano ("A Luxembourgian popular scngm)
Madagascar	Tananarive	FIQA	3.232	0330-0530; 0900-1100; 1500-1930 (SUN. 0400-0745; 0830-1100; 1415-1930)
Madagascar	Tananarive	FIQA	6.172	0330-0530, 0900-1100, 1500-1930 (SUN. 0400-0745, 0830-1100, 1415-1930)
Madagascar	Tananarive	FIQA	7.155	Same schedule as 3.232; Malgache (native) network
Madagascar	Tananarive	FIÇA	9.515	Same schedule as 6.172; FRENCH NETWORK; Radio Tananarive; CRA-Place Colbert, Tananarive; ISMalgache (native) music
78				doings of ranguaritys; 15Margache (native) music

PROGRAMMES IN LANGUAGE OTHER THAN ENGLISH

Hong Kong, Korea, Japan

09.00-09.15

09.00-09.15.

and East China,

North

13.81 25.38 19.60

.11820

.21720

Southern China

Vietnam, Laos,

.....15310

12.00-12.45. 12.00-12.45.

12.00-12.45

25.38

....11820

.....15310

11.30-12.45.

11,30-12.45

13.81 30.96 19.60

0696

13.45-14.00...

13.45-14.00.....15310 Indonésia 16.90

India, Pakistan, Ceylon

30.96 19.60 19.60

....15310

13.15-14.00.

13.15-14.00

..15310

Burma, Thailand

30.96

10.30-11.00 Sun.) 7120 (10.15-11.00 Sun.) 9690 (10.15-11.00 Sun.)

42.13

Station Eastern Far

LONDON CALLING

August 2, 1956

The output of this station, which broadcasts from transmitters in Malaya to South-East Asia, the Far East, India, Pakistan, and Ceylon, consists largely of relays of BBC programmes, and provides a valuable supplement to the BBC's direct transmissions from London

5-11 August Programmes in English for

North and East China,	apted for	09.15 The News
Hong Kong, Korea, Japan	12.00 Cricket Clamorgan v. The Australians	
kc/s 09.15-11.0021720 13 09.15-14.0017870 16	m. A commentary on the second day's play at Swansca 13.81 12.35 English Magazine 16.79 presents people and events in	-
Southern China,	=	11.15 Sports Round-Up 11.25 Report from
Vietnam, Laos, Cambodia	13,15 London Calling Asia	11.30 What's the Form?
09.15-11.00 21720 13	3.81 14.15 Crieket	12.00 Cricket
		rwick
	19.60 Is.is Janeth and Design in Austr	12.35 Welsh Magazine
14.00-14.15	19.60 15.45 The Story of Colonisation	Home 1
	_	0
Indonesia	16,00 The News	14.15 The Pavilion Orchestra 14.36 The Chameleons 14.35 Serious Argument
09.15-10.30 42	42.13 16.15 Bank Holiday Sport 42.13 including Athletics: Great Britain v.	I
	30.96 Czechoslovakia at the White City 16.45-16.50 Programme Summary	16 00 The News
		16.09 Commentary
11.00-11.15	sen	16,45-16.50 Programme Summary
7	08.30	Frid
13 00-13.15 15310 19	19.60 09.50 Theatre Organ	09.15 Our Way of Life
	10.00	J. B. Priestley
	10	
	30.96 11.00 The News	10 00 The Chameleons
India, Pakistan, Ceylon	11,15 Sports Round-Up	13:
13.00-14.00	16.90 Hearings from members of Her	his L
	Majesty's Forces serving in	11.09 Commentary
	16.90 12.00 Cricket Glamorgan v. The Australians	Report
Australia	12.45 Uster Magazine	by the Provost of Bradford 11.45 Sandy Macpherson
13.00-13.159690 3	=	12.00 at the theatre organ
	19.15	The second second

11.00-11.15	20.06	Tuesday, August 7	16.45-16.50 Programme Summary
11.00-11.159690	20.70	09.15 The News	
Burma, Thailand		09.40 From the Editorials	Frid
	19.60	09.45 Programme Summary 09.50 Theatre Organ	09.15 The News 09.30 Our Way of Life
	25.59	Carroll Gibbons and his Orchestra	J. B. Priestley
	_	10.30 Commonwealth Club	09.45 Programme Summary
14.00-16.509650	-	11,09 Commentary	19.50 The Chameleons 10.00 Restoration Theatre
India, Pakistan, Ceylon		11.15 Sports Round-Up	12; 'The London Merchant'
33221	00 9	11.30 A Link with Home	and his Latin-American Orchestra
13.00-14.001/25	-	Greetings from members of Her Majesty's Forces serving in Kenya	11.00 The News
15 45-16 50 17755	-	12.00 Cricket	11.15 Sports Round-Up
(15.30-16.50 Sat.)	_	Glamorgan v. The Australians Last day's play	11.25 Report from the Midlands
			by the Provost of Bradford
Australia	_		11.45 Sandy Macpherson
13.00-13.159690	30.96		12.00 Cricket
		sreel	Last day's play
Sunday. August 5			13.00 The News
The News		14.45 Orchestral Concert	13.09 Horse News from Britain
	,	The News	13.15 London Catteng Asia
			14.15 Sigmund Freud
		mmary	A Confessory falls by Ernest Tones
145 Programme Summary			14.45 Caffing the Stars
		Wednesday, August 8	15.45 ' In the Path of Lord Buddha '
3. 'A Separation of Power	ors,	The Manne	1: The Garden at Lumbini-
by D. W. Brogan		The Menters	the Birthplace
9.30 Religious Service		Transfer Review	16.00 The News
from St. Paul's Cathedral, London	nopuor	00 15 Programme Summary	16,09 Commentary
		J.	16,45-16,30 Programme Summary
15 Sports Round-Ilp		10.00 Portrait of a Prime Minister	
		Arthur James Balfour	Safurday, August 11
90 Melody Hour		of the English statesman who was	69 15 The News
		Reftish Premier from 1905 until 1908	This
Vancesa Lee		BIS	
and Edmund Hockridge	0.		10,30 A Life of Bliss
	===	11.55 Report from	11.15 Snorts Round-up
3.15 London (alling Asia	locasi	South-	11,25 Report from
		Suffolk	ti 20 Page the West Country
5.15 'Finkel's Caff'		11.30 Strict Tempo Dance Music	11.45 Folk Music of Many Lands
introducing		12.00 Cricket	12 00 Switzerland
5 45 The Billy Mayerl		Warwickshire v. The Australians	The Unfer Grand Prix
Rhy		19.35 Interlude	the 500 ce race of Dundward N
		Between the Lines	Ireland
5.09 Commentary		Speaker: Stanley Maxted	12.15 Cricket Darkenling
45-16.50 Programme Summary	ary		A commentary on the first day's play
40.1			12.30 Scottish Magazine 13.00 The News
Monday, August 6		14.00 Great Tom. Radio Newsreel	13.09 Home News from Britain
			14.00 Great Tom. Radio Newsreel
9.30 Composer of the Week	li,		14.15 Summer Sport
40 From the Editorials			It is hoped to broadenst reports and
Ī			p. The Australians and A County
			Championship Match; Motor Cucling:
		The News	16.00 The News
			16.09 Commentary
		16.15 Back with Braden	16.50
1.15 Sports Review		16.49-10.30 regramme Summers	

10.30-11.00 News and News Talk in Indonesian 11.00-11.30 News and Programm in Japanese

09,00-09,15 Programmes in Jap:

Daily

10.15-10.30 English by Radio (Sunday only)

13,15-13,45 News and Talks in Thai

12.66-12.30 News and Program 12,30-12,45 News in Cantonese

11.30-12.00 News and Talka in Vietnamese

14,15-14,30 News and Commentary in Burmeso (to Burme and Thailand outy) H.06-H.15 News and News Talk in Hindi

H.15-1945 Programmes in Hindi, Tamil, or Bengali (to India, Pakistan, and Ceylon 14.45-15.15 Programmes in Urdu (Wednesday in Bengali)

15.45

13.00 13.00 13.15 14.00 14.15 15.15

15,30-15,45 English by Radio
(Monday to Friday)
(Sanday): The Naturabis, produced
by Desmond Hawkins and edited by
Maxwell Kuight, 6: Plant and
Afannal Infroductions)

15,15-15,30 News in Urdu

Malaya	Kuala Lumpur	vs2K6	6.025	0230-1530 (SAT. to 1600); Radio Malaya; QRADepartment of Broad-casting, P.O. Box No. 233, Kuala Lumpur
Malaya	Singapore	ZHL10	4.820	2345-1530; Radio Malaya; QRADepartment of Broadcasting, P.O. Box No. 3002, Singapore; IScomposed of notes "C-C-A-G" on an Hawaiian guitar
Malaya	Singapore	5.010	FBS	1200-1400A; Forces Broadcasting Service; QRAGHQ FARELF, c/o G.P.O., Singapore
Manchuria (China)	Mukden	6.520A	1000-1400A	; 2100-2200A; not reported to me as "heard" lately
Mauritius	Forest Side	V3USE	15.090AV	0300-0415; 0745-0930 (SUN. 0300-0430); NE WD. 0400; freq. VARIES a great deal; Mauritius Broadcasting and News Service; CRAForest Side
Mexico	Hermosillo	XEBR	11.820	1155-0300; El Heraldo de Sonora desde Hermosillo; QRAHotel San Alberto, Rosales y Vildosolo, P.O. Box 68, Hermosillo, Sonora; relays XEBH, 920 kcs.; 5 kw.
Mexico	Mexico City	XEOI	6.010	0000A-0200A; Radio Mil; QRAFomento de Radio S.A., Ayunta-miento 101, Mexico, D.F.
Mexico	Mexico City	XEWW	9.500	1150A-0650A; La Voz de la America Latina Desde Mexico; QRA Cadena Radiodifusora Mexicana S.A., Ayuntamiento 54, Mexico, D. F.
Mexico	Mexico City	XETT	9.555	1100A-0500A; La Hora Exacta; @RADolores Nr. 10, Primer piso, Mexico, D. F.
Mexico	Mexico City	XEHH	11.880	1355-0600; La Voz Potosina; QRAMA.R.S.E.M S. A., Zempoala No. 77, Col Narvarte, Mexico, D. F.
Mexico	Mexico City	XEWN	15.160AV	1150-0030A; La Voz de la America Latina Desde Mexico; see: XEWW, 9.500
Mexico	Mexico City	XESC	15.205	12 00A-0500A (however, MAY OPERATE 24 HOURS DAILY NOWK.R.B.); La mas Espanola del Mundo; GRAApartado Postal 22717, Calle Escuadra No. 73, Mexico, D. F.
Mexico	Morelia	XEKW	6.030	1300A-0500A; Radio Morelia; CRAAllende No. 29, Morelia, Mich.
Mexico	Tampico	XETW	6.045	1330A-0630A; La Voz de Tampico; CRAMadero No. 204, Ote, Apartado Postal No. 797, Tampico, Tamps.
Mexico	Vera Cruz	XEUW	6.020	1200-0600; El Eco de Sotavento; has "La Hora Nacional" SUN. (0,00-0500 MON. GMTSUN. 2200-2300 LOCAL TIME); QRAAv. Independencia No. 230, Vera Cruz, Ver.; ISfour chimes
Monaco	Monte Carlo	3AM3	6.036A	0557-2230 (WED. to 2305 with ENG.; THUR. to 2250 with ENG.; FRI. to 2235); Radio Monte Carlo
Monaco	Monte Carlo	ЗАМ4	7.140	Same schedule as 6.036A; CRA16, Boulevard Princesse Charlotte, Monte Carlo; ISbefore and after each xmn period, plays "I'Hymne
Morocco (formerly FR. Morocco)	Rabat	CNR3	6.006	Monegasque ^M 0645-0910; 1200-1430; 1800-2300; Radio-Maroc; QRAMaison de la Radio, Rue Coli, Rabat
Moroc co	Rabat	Radio-Maroc	7.214	2100-1430; WD. ALSO 0630-0800, 1930-2000 (SUN. 1430-1830, 1930-2000); this was listed direct to me by the station; formerly was a channel of VOA, TANGIER, which "RELAYED" Radio-Marco (see: 15.205)
Morocco	Rabat	Radio-Maroc	15.205	IMPORTANT NOTE: Transmission at 1200-1430 LISTED IN SCHEDULES sent out by Radio-Maroc is MISLEADING: says over a 50-kw. xmtr, which IS TRUE, BUT ACTUALLY THIS IS A RELAY BY THE *VOICE OF AMERICA* at Tangier on 15.205, and the session is BEAMED TO THE MIDDLE EAST with ANNOUNCEMENTS IN ENG., ARABIC, FR.

Mozambique	Beira	CR7RA	3.952	No recent information evailable; WRH (1956) lists CR7RA, 0.375 kw., 1630-1900; CR7RB, 7.205, 0.05 kw., Sun. 0545-0700; Radio Pax (owned by Franciscan Fathers); GRA-Caixa Postal 594, Beira
Mozambique	Beira	CR7IB	7.225	No recent information available; WRH (1956) lists CR7IB, 7.225, and CR7IC, 4.875, with powers of 0.35 kw. and 0.45 kw., respectively, Home Service in PT. 1030-1230, 1600-2015; Emissora do Aero Clube da Beira; CRACaixa Postal No. 3, Beira; IStwo chines (do-natural, laflat)
Mozambique	Lourenco Ma	rques	As of June schedule:	8, J. Pinheiro, Manager of Radio Clube de Mocambique, listed this

PORTUGUESE TRANSMISSIONS--0500-0600, 0930-1130, 1545-2015, CR7B0, 737 kcs., 300 watts, all-year round; CR7BK, 927 kcs., 10 kw., all-year round; CR7BM, 3.440, 7.5 kw., CCT. through APRIL; CR7BV, 4.829, 10 kw., all-year round; CR7BG, 15.285, 10 kw., CCT. through APRIL, and CR7BE, 11.984 (no power indicated), APRIL through CCT. (However, in Cyprus, CR7BV and CR7BG are CURRENTLY "HEARD" on 4.870, 15.080, respectively).

ENGLISH TRANSMISSIONS--0400-2100; CR7BK, 917 kcs., 10 kw., 1530-2100, all-year round; CR7AB, 3.222, 7.5 kw., 1600-2100, APRIL through OCT.; CR7BU, 4.920, 7.5 kw., 0400-2100, all-year round; CR7AA, 7.254, 7.5 kw., 0630-1500, all-year round; CR7BJ, 9.762, 7.5 kw., 0700-1500, OCT. through APRIL, and CR7BF, 11.745, 7.5 kw., 0400-1800, all-year round.

TRA for reports is P.O. Box 594, Lourence Marques; annces, usually every half-hour, "Lourence Marques for Happy Listening in the . . . meter bands."

Til tile Il	le cer pands.			
Nepal	Kathmandu	Aadio Nepal	7.100A	0320-0450; 0750-0920; not reported to me as "heard" lately; CRA Kathmandu (VIA INDIA)latter is VERY IMPORTANT IF YOU WANT A REPLY; annces in ENG., "This is Radio Nepal," in Nepali, "Yo Radio Nepal Hom.
New Caledonia	Noumea	₩K84A	3.355	0000-0200, 0700-1030, 1900-2000; "La Voix de la France dans le Pacifique"; Radio Noumea; QRAService de l'Information, Noumea, Nouvelle-Caledonie; uses ONLY FR., with news 0100, 0800; skeds were received recently DIRECT from station; xmtr on 3.355 is 0.5 kw., made by Harvey Radio Laboratories; xmtr on6.035 is 1 kw., made by "La Materiel Telephonique," Paris; however, at 0800-1030 uses a 6-kw. xmtr; for 6.035 uses doublet oriented NW-SE, for 3.355 uses a quarter-wave vertical; georgraphical location is 22°17'01" South, 166°26'10" North
New Caledonia	Noumea	FK8AA	6.035A	Same as for the 3.355 outlet
New Zealand	Wellington	ZL7	6.080	0630-1115A; QRAThe Director, hadio New Zealand, P.O. Box 2396, Wellington; IScall of native bird, "The Bell Bird" (at 8-second intervals); verifies by QSL card and return postage is NOT required; will send quarterly program schedule free on request
New Zealand	Wellington	ZL2	9.540	0630-1145A
New Zealand	Wellington	ZL10	15.200AV	1700A-2015A; moved from LISTED 15.220 to 15.200 in mid-June, probably to avoid JAMMING or other interference; however, varies frequency a great deal; in late July a NEW channel of 15.110A was brought into use
New Zealand	Wellington	ZI.4	15.280	2000A-0245A; may now be paralleled by NEW channel of 15.110A
Nicaragua Nicaragua Caragua	Bluefields Granada Managua	YNRA YNAW YNOW	7.790A 6.055	12004-0500A; Radio Atlantico; CRA-Bluefields 12004-0400; Radio Sport; CRA-Sr. Manuel Arana Valle, Granada 1200-0500; La Voz de la America Central; QRACalle Noreste No. 607, Managua
Nicaragua	Managua	YNEQ	6.065	1200-0500; La Voz de la Victoria; CRAApartado 338, Managua
Nicaragua	Managua	YNRM	7.590M	1200A-0500A

Nigeria	Enugu	Radio Nigeria	3.965	0500-0800; 1615-2000 (SUN. 1615-2200)
Nigeria	Ibadan	Radio Nigeria	3.995A	0500-0715; 1400-2200 (SAT. to 2300; SUN. 0500-2210); may be as
Nigeria	Kaduna	Radio Nigeria	3.326	high as 4.000 0540-0700; 1815-2200 (SUN. 1815-2210)
Nigeria	Lagos	Radio Nigeria		0500-0800, 0930-1100, 1100-2200 (SAT. to 2300; SUN. 0600-2210); Nigerian Broadcasting Service; CRABroadcasting House, Lagos; ISYoruba drums beating out, "This is the N.B.S."; also, Yoruba, Ibo, and Hausa musical signatures are played regularly BEFORE vernacular newscasts; stationofficials inform me that CHANGES IN FREQUENCIES WILL BE ANNOUNCED OVER THE AIR AT THE END OF THE NEWS BULLETINS; reception reports will be welcomed by the Chief Engineer
North Korea	(see: Kor	ea)		
Northern Rhodesia	(see: Rho	desia)		
Norway	Oslo			ANT NOTE: In the schedules for Oslo which follow, EXTENSION OF S ON SUN. and/or MCN. is for the ENGLISH FEATURE, "Norway This Week")
Norway	Oslo	LKJ	6.130	0400-0500 (MON. to 0520); Norsk Rikskringkasting; QRASuhmsgate 23, Oslo; each Sw xmn to Norwegians Abroad is introduced by a Norwegian folksong (from Hallingdal)
Norway	Oslo	ILS	7.210	0055-0100; 0100-0200 (MON. to 0220)
Norway	Oslo	LLG	9.610	1025-1035 (WD.); 2255-2400 (MON. to 0020); 0055-0100; 0100-0200 (MON. to 0220); 0400-0500 (MON. to 0520)
Norway	Oslo	LKQ	11.735	0630-0735 (SUN. 0715-0955); 1100-1200 (SUN. to 1220); 1300-1400 (SUN. to 1420); 1600-2200; 2255-2400 (MON. to 0020); 0055-0100; 0100-0200 (MON. to 0220); 0400-0500 (MON. to 0520)
Norway	Oslo	LLM	15.175	0630-0735 (SUN. 0715-0955); 1100-1200 (SUN. to 1220); 1300- 1400 (SUN. to 1420); 1600-2200; 2255-2400 (MON. to 0020)
Norway	Oslo	LLN	17.825	0630-0730 (SUN. 0715-0955); 1100-1200 (SUN. to 1220); 1300-1400 (SUN. to 1420); 1600-2200
Norway	Oslo	LLP	21.670	0630-0735 (SUN. 0715-0955); 1100-1200 (SUN. to 1220); 1300- 1400 (SUN. to 1420); 1600-2200
Norway	Troms	ILS	7.210	1600-2200A; RELAYS HOME SERVICE PROGRAMS
Okinawa	Naha	VOA Relay Base	(<u>see</u> :	COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")
Cuter Mongolia	Ulan-Bator Choto		6.518	1500-2022A
Pakistan	follow; QR Karachi 3;	A for Radio Pak	istan, Ka L SERVICE	AN as of July 25, 1956, as REVISED FROM VARIOUS SOURCES arachi, is Directorate General, Radio Pakistan, 71 Garden Road, ES, a signature tune is played during intervals):
HOME SERVICES	had were pake	et=n-0730-0300	6 070	7 270 0700 0000 0 615 33 815 3200 3215 7 200 0 615 3215 3200

HOME SERVICES--To WEST Pakistan--0130-0300, 6.070, 7.270; 0700-0900, 9.645, 11.845; 1200-1245, 7.200, 9.645; 1245-1300, 9.755, 7.010, 7.200, 9.645; 1400-1515, 7.200, 9.645. To EAST PAKISTAN--0130-0300, 17.750, 15.335; 0630-0650, 17.750, 21.590; 0700-0820, 17.750, 21.590; 1200-1220, 17.750; 1345-1400, 171750, 15.255; 1400-1515, 9.740.

ZONAL SERVICES--Lahore--0130-0300, 4.607; 0700-0830, 7.225; 1130-1330, 7.225; 1345-1700, 3.915. Dacca--0100-0300, 0100-0300, 5.980; 0500-0730, 9.614; 1100-1300, 7.140; 1315-1630, 5.980.

(CONTINUED ON NEXT PAGE)

Peru	San Cristo	bal OAX4S	6.216	1115-0500 (some days may run later); Radio San Cristobal; QRA-Jiron Tarapaca N. 897, Lima
Peru	Tacna	OAX6H	9.492	1140-1400; 1630-0430; Radio Tacna; QRA-Aniceto Ibarra No. 436, Tacna
Philippines	Cebu City	DYH2	6.140	2100-1500; Cebu Broadcasting Co. Operated by the Manila Broad- casting Co.; QRA is Lim Bonfing Bldg., Cebu City
Philippines	Dumague te (City DYB4	3.277	2100-0130 (SUN. to 0200); 0900-1400; "The Voice of Christian Brotherhood" is described to me as a project of the Philippine Federation of Christian Churches broadcasting in cooperation with Silliman University; has time signal every quarter hour; has weather report at 2215, 1130 GMT; ENG. newscast times are given elsewhere herein; ORA—Station DYSR, Dumaguete City
Philippines	Dumaguete (City DYH4	6.055	Same as DYB4, 3.277
Philippines	Illoilo Cit	ty NCDA-2	3.365	0900-1500A
Philippines	Manila	VOA Relay Bas	30	(see: COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")
Philippines	Manila	NCDA-1	3.305	0900-1200 (EXCEPT SUN.)
Philippines	Manila	NCDA-1	5.970	0100-0200
Philippines	Manila	DZH4	6.000	2100-1600; Manila Broadcasting Co.; QRA-7th Floor, Insular Life Bldg., Manila; The Voice of Manila
Philippines	Manila	DZH6	6.030	2100A-1700A; Far East Broadcasting Co., Inc.; QRA-Box 2041, Manila
Philippines	Manila	DZI7	6.080	2100-1600; The Voice of Manila
Philippines	Manila	DZH3	9.500	2100-1500; Radio Philippines; QRA-Ramon Roces Bldg., 4th Floor, Manila
Philippines	Manila	DZH2	9.640	2100-1500; The Voice of the Philippines; QRA-7th Floor, Insular Life Bldg., Manila
Philippines	Manila	DZH7	9.730	2100-1700A; Far East Broadcasting Co., Inc.
Philippines	Manila	DZH9	11.855	2100-1700A; Far East Broadcasting Co., Inc.
Philippines	Manila	DZH8	15.300	2100-1700A; Far East Broadcasting Co., Inc.
Philippines	Manila	DZI6	17.805AV	2100-1700; listed 17.805 but VARIES; Far East Broadcasting Co., Inc.
Poland .	Wersaw	Radio Warsaw	6.025	0030-0100; 0100-0130; 0130-0300; 0530-0600; QRA-Polskie Radio, Noakowskiego 20, Warsaw; IS-for Foreign Service, "Revolutionary Etude" (Chopin)
Poland	Warsaw	Radio Warsaw	9.525	1100-1130; 1215-1245; 1245-1315; 0030-0100; 0100-0130; 0130-0300; 0530-0600
Poland	Warsaw	Radio Warsaw	11.740	1100-1130
Poland	Warsaw	Radio Warsaw	15.120	1215-1245; 1245-1315
Portugal	Lisbon	CSB52	6.154	0830A-2400A; Radio Renascenca (religious-Catholic); QRA-Emissora Catolica Portuguesa, Rua Capelo 5, Lisbon-IS-2 and 3 chimes; programs open with choral singing
Portuga1	Lisbon	CSA23	9,635	0145-0330; Emissora Nacional de Radiodifusac; time signal and National Anthem ("A Portuguesa") form IS for ALL "EN" outlets
Portugal	Lisbon	CSA76	9.775A	OlOO-0330; Emissora Nacional
Portugal	Lisbon	CSA31	11.840	OlOO-0330; Emissora Nacional
Portugal	Lisbon	EN	15.100	NEW channel; noted late in July by Balbi, Calif., at 0100 when ID as
84				beamed to USA-Canada (probably 0000-0130)

		200		
Portugal	Lasbon	CSA64	15.125	2000-2130; 2200-0130; Emissora Nacional
Portugal	Id sbon	CSA42	15.380	1330-1415; 2130-0045; Emissora Nacional
Portugal	Lisbon	CSA209	17.835	2000A-2200A; Emissora Nacional
Portugal	Lisbon	CSA45	17.880	1330-1700; Emissora Nacional; this one has ENG. ("For Goans Abroad") DAILY 1330-1415, EN at 1345
Portugal	Lisbon	CSA46	17.895A	1030-1330; 1330-1645; 1700-1745; 1745-2100; 2130-0045; Emissora Nacional; has ENG. ("For Goans Abroad") DAILY 1330-1415, EN at 1345; may also have ENG. now 1700-1745
Portugal	Lisbon	Emissora Nacional	21.700	1700-1745 (ENG.); 1030-1330 (SUN. to 1700); 1745-2015
Portugal	Parede	CSB51	6.080	WD 0700-0100; SUN. 0600-2400; QRA-Radio Clube Portugues, Parede; IS-gong; LISTED 10 kw.
Pt. Guinea	Bissau	CQM4	7.947A	2130-2300; Emissora da Guine; QRA-Bissau; IS-"Variations in D-minor" by Arthur Paredes, played on guitar
Pt. India	Goa	Radio Goa	(4.890 (7.071 (9.610	From Cyprus, Kary flashes that Gabriel Martins, Director of the Commercial Service of Radio Goa, writes that FUTURE PLANS INCUDE THE INSTALLATION OF A 50 kw. medium-wave xmtr and a 100 kW. RIG FOR SHORT-WAVE; ENG. programs are broadcast over 4.890 (RECENTLY DOWN TO 4.883, Kary comments), 7.071, and 9.610 at 0630-1300, 1500-1630; xmtr used for 4.890 is a 5 kw. COLLINS; Martins confirmed reception of a radio-telephone xmtr on 17.558 with call of CRSAB using STANDARD ELECTRIC 7 kw. xmtr and operated by the Posts and Telegraph Dept.; this station was heard by Kary some six months ago in point-to-point contact with Lisbon's EMISSORA NACIONAL, carrying reports on the Goan situation. QRA for Radio Goa is Emissora de Goa, Gidale de Goa, Portuguese India
Reunion	St. Denis	Radio St. Denis	4.820	0130-0300 (SUN. 0300-0930); 0700-0830 (EXCEPT SUN.); Radio Reunion; QRA-Radiodiffusion Française, Saint-Denis; annces in FR., "Ici la Reunion, Radiodiffusion Française"
Rhodes	THE COURTE	R VOA Relay Ba	se	(see: COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")
Rhodesia (NORTH	ERN) Lusaka	ZQP	3.914	1000 (SUN. from 0900)-1900; country is RHODESIA AND NYASALAND; a NEW feature from Lusaka is "ASK THE BROADCASTING OFFICER," heard EVERY SECOND TUE. at 1815 GMT (8:15 p.m. local time); a team of four persons prepares the questions of various kinds which are answered by Mr. Sapseid; QRA—P.O. Box 210, Lusaka
Rhodesia (NORTHERN)	Lusaka	ZQP	4.826	1530-1730; 1730-1900
Rhodesia (NORTHERN)	Lusaka	ZQP	7.220	1000 (SUN. from 0900)-1900
Rhodesia (SOUTHERN)	Salisbury	ZEAF	3.396	1700A-1830A; Federal Broadcasting Service; QRA-Federal Broadcasting Service of Rhodesia and Nyasaland, P.O. Box 8, Causeway, Broadcasting House, Salisbury; IS-bells ("St. Margaret's Chimes"), harp glissandos
Roumania	Bucharest	Radio Bucharest	6.209A (LISTED 6.210)	0300-0400; 0400-0430; 0430-0500; 1930-2000; 2230-2300; 1800-1830; 2030-2100; 2200-2230; 1900-1930; 1700-1730; Radiodifuziunea Romina; QRA-Radiodifuziunea Romina, Bucuresti, str. A. St. Popov Nr. 62, Republica Populara, Romina
Roumania	Bucharest	Radio Bucharest	9.254	1930-2000; 2030-2100; 1800-1830; 2200-2230; 2130-2200; 1700-1730
Roumania	Bucharest	Radio Bucharest	9.570	0300-0330; 0430-0500; 1930-2000; 2230-2300; 1700-1730; 1900-1930; 2130-2200; 1830-2000; 2100-2130

Sao Tome	Sao Tome	CR7SC	4.807	1930-2130A; not reported to me lately as "heard"; Radio Clube de Sao Tome e Principe; QRA-Avenida da Armada, Sao Tome; IS-"redo-mi"
Sarawak	Kuching	Radio Kuching	4.870	1030-1445A (SUN. to 1530); Sarawak Broadcasting Service; QRA— Publicity Office, Sarawak Broadcasting Service, Kuching; annces, "This is Radio Sarawak"
Sarawak	Kuching	Radio Kuching	5,052	0400-0515 (FRI., SAT. to 0530); 0900-1445
Sandi Arabia	Djeddah	Radio Macca	3.960	Scheduled IRREGULARLY due to "local time" situation; Saudi Arabia has no Standard Time; 12-hour periods ecemence at sunrise and sunset—i.e., WITH A FEW MINUTES DIFFERENCE EACH DAY. Therefore, "I o'clock" means ONE HOUR AFTER SUNRISE, i.e., approx. 7 a.m., etc. ARABIC broadcasts from Djeddah (RELAYED FROM MEGGA) are scheduled ACCORDING TO LOCAL TIME and therefore DIFFER FROM DAY TO DAY. FOREIGN SERVICE IS LISTED at 1300-1330 Urdu to Pakistan, and 1400-1440 Indonesian to Indonesia, both in the 25-m. band; freqs. listed in addition to 3.960 (which is for "local" area) include 9.650, 3.990, 11.850, 5.975, 11.950, 6.175, 11.750, 6.100, 11.990—which are used RESPECTIVELY for beams to Riyadh by DAY, Riyadh by NIGHT, Syria by DAY, Syria by NIGHT, Egypt by DAY, Egypt by NIGHT, Iraq by DAY, Iraq by NIGHT—with 11.990 LISTED for the Urdu and Indonesian session at 1300-1340 and 1400-1440, respectively. Saudi Arabian Broadcasting; QRA: Macca; mmtrs are at Djeddah
Saudi Arabia	Djeddah	Radio Mecca	5.975	Audible in Cyprus as early as 0455 (ending NA) to 0515A s/off
Saudi Arabia	Djeddah	Radio Mecca	10.005	Heard recently in Cyprus 2013-2027 s/off, ending NA 2017; is a radio- telephone matr
Seychelles	Victoria Mahe	ZGQ3	4.990	1515-1616; The Seychelles Broadcasting Service; QRA—Education Department, Victoria Rd., Mahe; ZCQ3 employs a MARCONI TFS 12 xmtr; power runs 35 to 40 watts, fed to a dipole antenna of approx. 350 degrees bearing; xmtr is owned by Cable & Wireless Ltd.; according to a letter from the station in June, only available channel is 4.990—and no expansion or changes are anticipated
Sierra Leone	Freetown	3.316	0645-0800; 0645-0800,	1200-1400; 1600-2245 (MONFRI.); 0645-0800, 1200-2245 (SAT.); 1030-1400, 1600-2245 (SUN.); 5 kw.
Solomon Islands (Brt. Protectora	Honisra te)	VQ02	5.960	0700-0800 (MONSAT.); opens WED. at 0630 with 30-minute native program; all other broadcasts are in ENG.; weather and shipping information is 0745; QRA-Public Relations Officer, Western Pacific High Commission, Honiara; programs include not only news in ENG. and "pidgin-English", but also shipping information, weather reports, and programs for Melanesians
Somali	Mogadiscio Rad	dio Somali	4.980A	1330-1500; 1600-1800; formerly Italian Somaliland
Somali	Mogadiscio Rad	dio Somali	7.072AV	0930-1000; 1000-1045; 1330-1500; 1600-1700; 1800-1900; formerly Italian Somaliland; owned by Administratione Fiduciaria Italiana della Somalia and is OPERATED by Italian Navy personnel; xmtr on 7.072 is an Italian I.W.C.A., 300 watts output, and that on 4.980A is an Italian F.A.C.E. single-sideband job of 4 kw. power; QRA—Coando Base della Marina in Somalia, Direzione Sviluppo Economico Telecommunicazioni, Mogadiscio; annces in IT., "Transmette Mogadiscio"

Somaliland (FR.)	Djibouti	Radio Djibouti	4.970	0900-1015; 1515-1915; recently MOVED here from 4.975 to escape QRM from Tapline station on 4.975; has <u>Somali</u> to 1700, then FR.; NF (relayed from RDTF, Paris) is DAILY 1715-1730A, preceded by local weather bulletin; QRA—Service de Information et Radiodiffusion, Djibouti, Cote Française des Somalis; Station Director is M. P. Sausseau
Somaliland Pro- tectorate	Hargeisa	VQ6MI	7,126	1330-1502A; <u>formerly British Somaliland</u> ; IS-march selection, frequently played <u>before and after</u> talks and news and at closedown; Radio Somali; QRA-P.O. Box 14, Hargeisa

South Africa GENERAL QRA of the South African Broadcasting Corporation (SABC) is P.O. Box 8606, Johannesburg
The NEW 20 kw. transmitter, located at the NEW TRANSMITTER CENTER, at Paradys, NEAR Bloemfontein, are scheduled:
AFRIKAANS SERVICE—3.380, 4.895, MON.—SAT. 0440-0630, 1545-2100 (SUN. 1545-2100); 4.895, 9.650, MON.—SAT. 0630-0750
(SUN. 0555-0750); 4.895, 11.840, DAILY 0750-1215; 4.895, 7.270, DAILY 1215-1545.

ENGLISH SERVICE—3.290, 4.810, MON.-SAT. 0440-0635, 1550-2100 (SUN. 1540-2100); 4.810, 9.680, MON.-SAT. 0635-0840 (SUN. 0555-0820); 4.810, 11.900, MON.-SAT. 0840-1230 (SUN. 0820-1245); 4.810, 7.229, MON.-SAT. 1230-1550 (SUN. 1245-1540).

While the new facilities at Paradys are now used only for the AFRIKAANS and ENGLISH SERVICES, SABG officials say eventually the COMMERCIAL SERVICE will be carried over them also. Difficulty is being experienced in the (local) "evening" to keep down the "skir" effect to requirements; reception reports are coming in from many long-distant areas. Officials say:

"Wherever possible, we have endeavored to use existing frequencies, although some modification as necessary. Eventually, the AFRICA SERVICE will be operated from the new Transmitting Centre." Reports should be addressed to: The Head of Propagation and Reception Research, Box 6, P.O. Honeydew, District Johannesburg, South Africa

South Africa Johannesburg SABC 25.880A 1230A-1345A (MON.-FRI., FUBLIC HOLIDAYS excepted); 1.5 kw.; xmtr is at Roberts Heights; some sources list freq. as 25.820A; requests reports to SABC, P.O. Box 6, Honeydew, District Johannesburg, South Africa

(see: Kore	-1		
(500. 202	3B.)		
(see: Rhoo	lesia)		
Leon	Radio Leon	6.910AV	1900A-2200A; La Voz de Leon
Madrid Madrid	RNE RNE	6.000 6.135M	1000-1655; 2130-2330 2020-2200; 0315-0400; 0415-0500; 0515-0600; <u>listed on 6.130</u>
Madrid	RNE	7.100	2020–2200
Madrid	EDV10	7.200A	1700-2300; Radio SEU; QRA-Diego de Leon, Madrid; Servicio Nacional de Radiodifusion y Cine del Frente Juventudes (educational); IS- march-song of Frente de Juventudes, "Unico-Capitan"
Madrid	RNE	9.363AV	1545-1620; 1630-2010; 2215-2400; 0315-0400; 0415-0500; 0515-0600; QRA-Castellana No. 42, Studios: Castellana No. 40 y Martinez de la Rosa No. 1, Madrid
Madrid	RNE	9.605	1630-2010
Madrid	RNE	9.677	1545-1620
Madrid	RNE	9.695	2215-2400
Madrid	RNE	11.815	1100-1230; 2215-2400
Madrid	RNE	15.420	1100-1230; 1330-1400
Valencia	Radio Medi- terraneo	6.994AV	0800-2330; Sociedad Espanola de Radiodifusion; QRA-Avenida de Jose Antonio Num. 32, P.O. Box 745, Madrid
Valladolid	FET1	7.004A	2000A-2400A; Radio Falange de Valladolid; owned by Falange Espanola Tradicionalists
	(see: Rhod Leon Madrid Valencia	(see: Rhodesia) Leon Radio Leon Madrid RNE Madrid RNE Madrid RNE Madrid EDV10 Madrid RNE	(see: Rhodesia) Leon Radio Leon 6.910AV Madrid RNE 6.000 Madrid RNE 6.135M Madrid RNE 7.100 Madrid EDVIO 7.200A Madrid RNE 9.363AV Madrid RNE 9.605 Madrid RNE 9.677 Madrid RNE 9.695 Madrid RNE 11.815 Madrid RNE 15.420 Valencia Radio Medi- terranso 6.994AV

Sp. Guinea	Bata	RE	8.802A	2030-2155A; Radio Ecuatorial; annces, "Aqui Radio Ecuatorial, Bata, La Voz de Espana en Guinea"; QRA: Radio Ecuatorial, Bata
Sp. Guines (Fernando Poo)	Santa Isabel	RSI	7.160A	1730-2100 (EXCEPT SUN.); on May 11, 1956, was noted on the air at 1715 tune -in on 7.176; since that date, our WT monitor in Cyprus has been unable to trace the signal; ARH says that, according to an amnouncement from Radio Nacional de Espana, Madrid, a new xmtr of 5 kw. was inaugurated April 21, 1956; Emisora de Radiodifusion Santa Isabel; QRA-Apartado de Correios No. 195, Santa Isabel; IS-opens with "Los Voluntarios," closes with Spanish National Anthem (Hymne); annees, "Aqui emisora de Radiodifusion de Santa Isabel de Fernando Poo"
Sp. Morocco	Tetuan	EHT-1	6.067A	0600-2400; <u>formerlyEA9AH</u> ; QEA is Empress "Torres Quevedo," S.A., Tetuan; annces in Sp., "Aqui Radio Dersa Tetuan," in Arabic, "Huna Radio Dersa, Tetuan"
Sudan	Omdurman Om	Radio ndurman	5.005A	0415-0530 (EXCEPT FRI.); 1430-1930; also FRI. 0730-0930 and SUN. 0800-0900; Sudan Broadcasting Service; QRA-P.O. Box 522, Khartoum
Sudan	Ondurman Om	Radio	6.161	Same as 5.005A
Surinam (Dutch Guiana)	Paramaribo	PZH5	4.750	0930-1130, 1300-1630; 1930-0130; Avros-Algemeene Vereeniging Radio Omroep; QRA-Avros-Paramaribo, Suriname, Cultumrtuinlaan, P.O. Box 720
Sweden	Stockholm R	adio Sweden	6.095	2000-2100A; this channel is used CHIEFLY AS A HOME SERVICE RELAY OUTLET
Sweden	Stockholm Ra	dio Sweden	11.705	2115-2215; 2300-0200; 0345-0445; 0500-0600; QRA is simply Radio Sweden, Stockholm, Sweden; IS—first movement of Carl Michael Bellman's "Storm och boljor tystna ren"
Sweden	Stockholm Ra	dio Sweden	11.880	2300-2315; 0000-0230
Sweden	Stockholm Ra	dio Sweden	15.155	1200-1300; 1315-1415; 1600-1645; 1800-1930; 0245-0330; 0615-0700
Sweden	Stockholm Ra	dio Sweden	17.800	1100-1145; 1430-1545; 1700-1745
Switzerland	Berne	HER3	7210	0130-0315; 0415-0500; 0515-0700; 1000-1330; 1530-2230; Swiss Broad- casting Corporation; QRA-Swiss Shortwave Service, Berne
Switzerland	Berne	HER4	9.535	0130-0315; 0415-0500; 2100-2230; 2315-0045; 0330-0400; 0515-0700; 1000-1330; 1530-2330.
Switzerland	Berne	HEU3	9.665	1845-2030; 2045-2100; 2300-2315; 2100-2230; (may also be 2300-2315?)
Switzerland	Berne	HER5	11.865	0130-0315; 0415-0500; 0715-0900; 0900-0945; 1445-1630; 1645-1830; 1845-2030; 2045-2100; 2300-2315; 2100-2230; 2315-0045; 0330-0400
Switzerland	Berne	HER6	15.305	1245-1430; 2100-2230
Switzerland	Berne	HEU6	15.315	1645–1830
Switzerland	Berne	HER7	17.784	0715-0900; 0900-0945; 1245-1430
Switzerland	Berne	HER8	21.520	1445-1630; 0715-0900; 0900-0945; 1245-1430
Switzerland	Berne		21.605	1445-1630
Switzerland	Geneva	HRQ	6,675	1800-1900 (MONFRI.); UNITED NATIONS RADIO; GRA-United Nations Information Center, Geneva; reports are answered by QSL-card and letter
Switzerland	Geneva-(Berne)		REGULARLY OF	adcasts from "Comite International de La Croix-Rouge" (Red Cross) are in frequencies of the SWISS BROADCASTING CORPORATION; TESTS at irregular S-TIME FLASHES
Syria	Damascus Radi	o Damascus		NEW, UNLISTED channel is heard in Cyprus arnd 1800-1900 closedown
Syria		o Damascus		1930-2130 (in WINTER is ONE HOUR LATER)
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Syria		Damascus	Radio	Damascus	15.165	0000-0200 to LATIN AMERICA (SP. 0100-0130); NEW FREQUENCY; Syrian Broadcasting Service; QRA-Rue de la Victoire, Damascus; annoes in Arabic, "Huna Dimashq," In ENG., "Here is Damascus"
Syria		Damascus	Radio	Damascus	17.865	1930-2130 (ENG. 2030-2130); 0000-0200 (TO LATIN AMERICA; SP. 0100-0130)
Tahiti		Papeete		FZP8	6.135A	0400-0800; EN at 0745; Radio Tahiti; QRA-Le Directeur du Centre d'Information, Papeete; IS-Tahitian drums
Taiwan	(FORMOSA)	Taipei		QRA for to	the Broadca o me by sta in Taiwan	sting Corporation of China (BCC), "The Voice of Free China," was recently tion officials simply as Taipei, Taiwan; according to WRH (1956), all carry the same program at 1200-1230 (SUN. 1200-1300)
Taiwan	(FORMOSA)	Taipai		BED29	3.220	2220-0200; 0222-0700; 0930-1600; BCC
Taiwan	(FORMOSA)	Taipei		BEC22	5.950	2230-0030; 0350-0630; 0935-1630; QRA is No. 3 Section I, Hsinyi Road,
Taiwan	(FORMOSA)	Taipei		BED29	5.980	2220-0200; 0222-0700; 0930-1600; BCC
Taiwan	(FORMOSA)	Taipei		BEC36	5.995	2100-2200; 1200-1705; QRA-Shih-lin, Taipei; Voice of Righteousness
Taiwan	(FORMOSA)	Taipei		BEC32	6.106	2100-2230; 0255-0500 (SUN. to 0600); 0800-1500; Chinese Air Force Station; QRA-1507 Chungcheng Road, Taipsi; IS-Air Force Song; also uses 9.775
Taiwan	(FORMOSA)	Taipei (c		BEC23	7.140	2230-0030; 0350-0630; 0935-1530; Military Broadcasting Corps, Ministry of National Defence, Taipei; QRA is Behind the Taichung Municipal Govt., Taichung
Taiwan	(FORMOSA)	Taipei		BEC36	7.300	2100-2200, 1200-1705; Voice of Righteousness; QRA-Shih-lin, Taipei
Taiwan	(FORMOSA)	Taipei (d		BEC24	9.510	2230-0030; 0350-0630; 0935-1600; QRA-No. 126 Takangpu, Kaohsiung
Taiwan	(FORMOSA)	Taipei		BED5	9.575	1100A-1405A; some sources say this is Radio Liberation using BED5 facilities; BCC
Taiwan	(FORMOSA)	Taipei		BEC32	9.775▲	2100-2230; 0255-0500 (SUN. to 0600); 0800-1500; Chinese Air Force Station; QRA is 1507 Chungcheng Road, Taipei; IS—Air Force Song; schedule came from Col. Lou Chun-Tsai, Directorate, C.A.F. Radio Station; medium-wave channel is listed as 980 kcs.; also uses 6.106
	(FORMOSA)	Taipei		BEC22	11.745	2230-0030; 0350-0630; 0935-1630; QRA-No. 3 Section I, Hsinyi Road, Taipei
Taiwan	(FORMOSA)	Taipei (c		BEC26	11.755	2230-0030; 0350-0630; 0935-1600; QRA is Inside the Naval Headquarters, Tsoying
Taiwan.	(FORMOSA)	Taipei		BED4	11.800	1655-1800; recently REPLACED 11.915 for this beam (to EUROPE); BCC
Taiwan	(FORMOSA)	Taipei		BED4	11.815	0500-0700; 1105-1400; BCC; the 0500-0700 beam is to USA, partly in ENG.
Taiwan	(FORMOSA)	Taipei		BED3	15,225	0500-0700 to USA, partly in ENG.; BCC
Taiwan	(FORMOSA)	Taipei		BEDS (or BEDS)	15.300	1655-1755 to EUROPE (NE 1700-1710, followed by Press Opinion; 1720 news in Chinese which recently REPLACED NF; 1730 Press Opinion in FR.; 1740 NA; 1750 Press Opinion in ARABIC); BCC
Taiwan	(FORMOSA)	Taipei		(May use	additional	channels on which you may wish to make notes here:
Tangany:	ika	Dar-es-Sa	leam	RDES	51050	1400A-1920A (FRI. to 1920A); features a "nightly" newscast in SWAHILI 1700-1715; vernacular program continues to 1800, and broadcasts thereafter are in ENG.; Tanganyika Broadcasting Service; QRA—P.O. Box 1649, Dar—Es—Salaam; IS—marimba
Tangier		Tangier		Relay Base		(see: COMPLETE VOICE OF AMERICA SCHEDULES UNDER "USA")

Tangier	Tangier	WTAN	6.025	SUNMON. 1145-1400; TUE., WED. 1145-1330; THURS. 1300-1315; FRI., SAT. 1300-1330; The Voice of Tangier; QRA is British P.O. Box 219, Tangier, Morocco, North Africa; under the direction of International Evangelism, Inc., Greensboro, N. C. USA, Rev. Paul Freed, Pres., this is a missionary radio station, dedicated exclusively to the Gospel of our Lord and Saviour Jesus Christ, say officials; it is maintained by free-will contributions; 10 kw., and 2.5 kw. xmtrs are used with directional antennae into at least five specific areas of Europe, North Africa, and the Middle East. Uses many languages, including ENG., Welsh, French, German, Spanish, Portuguese, Norwegian, Czech, Polish, Yiddish, Esthonian, Lithuanian, Slovakian, Russian, Hungarian, Yugoslavian, Bulgarian, Roumanian, Ukranian, Italian, Albanian, Greek, Armenian, Hebrew; annces, in ENG., "This is WTAN, The Voice of Tangier," in FR., "Ici la Voix Evangelique de Tanger," in SP., "Esta es la Vos Evangelica en Tanger"
Tangier	Tangier	Radio Inter- national	6.110	WRH lists schedule for FR. 0700-0900, 1200-1600, 2000-2200; Sociedad Africana Radiodifusion; QRA-33 Goya St., Tangier
Tangier	Tangier	Pan American Radio	7.290A	Reported heard in Finland 1900 with dance music, with annexts in SP.; QRA—Pan American Building, 16, rue Delacroix, Tangier; IS—"Bim Bam Bum"
Tangier	Tangier	WTAN	9.487A	1930A-2230A; some days ALSO 0700-0900 and 1600-1730 and 1830-1930
Tangier	Tangier I	Radio Tangier International	9.490A	TESTED recently at 2030 and 2300; soon to have regular daily program in Danish; annes in BOTH DANISH, ENG.
Tangier	Tangier	IBRA-Radio	9.782	2020A-2145A; uses facilities of Radio Africa-Tangier, I understand
Tangier	Tangier	DUX-Radio	12.013A	Reported heard in Finland DATLY 1500-1900 with dance music, annewts in ENG.
Tangier	Tangier	IERA-Radio	14.968A	1730A-2145A; still here recently; however, may be using 11.513 now
Tangier	Tangier	IBRA-Radio	15.025A	1730A-2145A; still here when checked at 1930 on July 28—K.R.B. Noted in late July by Pearce, England, on this channel from 1930 tune-in to 2145A closedown, in parallel with 11.513
Tangier	Tangier	IBRA-Radio	17.965A	2045A-2145
Thailand	Bangkok	HS1JS	4.878	Thai Army Signal Corps Radio; intercepted in Cyprus on June 16 at 1515 and was carried PAST 1845 withprogram which featured gamalantype music, recitations, singing (presumably was a Thai opera or musical drama)
Thailand	Bangkok	HSK9	11.670	0930-1400A; 0415-0515 (scheduled then to USA); The Thai National Broadcasting Station; QRA-Public Relations Department, Bangkok; IS-chimes
Thailand	Bangkok	HSK8	15.630	0930-1530A
Trieste (CLANDESTINE)	Trieste	6.560A	1730-2015A	not reported to me as "heard" lately
Trinidad	Port-of-Spa	in VP4RD	3.275	1000-0300; Trinidad Broadcasting Company Ltd.; QRA-Broadcasting House, 11b Maraval Road, Port-of-Spain; annees, "This is Radio Trinidad and the Rediffusion Golden Network"
Trinidad	Port-of-Spa	in VP4RD	6.085	1000-2200
Turkey	Ankara	Ankara Polic	e	
		Radio	6,160	0900-1000, 1400-1500; annees, "Burasi Ankara, Turkiye Police Radyosu"; <u>first mm includes some easily identificable</u> <u>Western</u> recordings
Turkey	Ankara	TAS	7.285	1800-1815; 1715-1745; 1900-1915; 1745-1800; Radio Ankara
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Turkey	Ankara	TAP	9.465	2100-2145 (ENG.); 0600-0630; 1300-1330; 1630-1700; 1800-1815; 1715-1745; 1900-1915; 1930-2000; 1745-1800; 1600-1630; 1915-1930; 1815-1830; 1830-1900; Radio Ankara; QRA is Basin-Yayin ve Turizm Genel Mudurlugu, Radyo Dairesi, Ankara; IS—an old Turkish dance-tune, "Sari Zeybek"
Turkey	Ankara	TAT	9.515	2230-2300; 2315-2345 (to NORTH AMERICA IN ENG.); Radio Ankara
Turkey	Ankara	TAU	15.160	2100-2145; 2015-2100; 1830-1900; 1930-2000; 1900-1915; 1915-1930; Radio Ankara
Turkey	Ankara	TAV	17.820	1330-1415; 1500-1515; 1430-1500; Radio Ankara
Turkey	Istanbul		6, 280	Also 7.050; direct from Prof. Adnan Ataman, Radio Laboratory, Technical University of Istanbul, comes this data—The Technical University operates two matrs under supervision of the staff of the Radio Laboratory, 1 kw. on 6.280 and 0.5 kw. on 7.050, both radiating the same program 1815-2000 (MON. thru FRI.); individual antennas are center-fed horizontal half-wave dipoles oriented, respectively, in E-W direction for 6.280 and approximately NE-SW for 7.050; IS—is "Turkish March" by Mozart
Turkey	Istanbul	TAO5	7.143	1057-1200
Turkey	Istanbul	TAO?	7.400AV	1700A-2310A; Istanbul University Radio (Istanbul Ten Fakultesi Radyosu); frequency VARIES AS HIGH as 7.600; in May was found by WT monitor in Cyprus some days AS IOW AS 7.345; QRA is Istanbul Ten Fakultesi Radyosu, Istanbul
Turkey	Istanbul	Radio Istanbul University	7.520₹	1400-1500 (SAT. ALSO 0800-0900) is "official" schedule; however is actually "heard" 1600-1700; power output is 2 kw. fed into a half-wave "L"-type antenna; frequency VARIES (arnd 7.540)
Turkey	Izmir	TAZ	6.630▲	Features a program of popular Western recordings daily at either 1445 or 1500
Uganda	Kampala	UBS	5.026	1430-1700 in IOCAL DIALECTS; 1700-1903A in ENG.; also operates on medium-wave 971 kcs.; verification cards are not issued, but reports from listeners overseas are welcomed by R. J. Davey, Studio Engineer, Uganda Broadcasting Service, Kampala; direct from Mr. Davey, I learn: "As our broadcasting is intended for local use only, we are only interested from a technical point of view about reception elsewhere. Our present SW Service is a 7.5 kw. Marconi B.D. 260, operating into an
			in other	8-element (in phase) array arranged horizontally and designed to fire rear the vertical. This gives a very strong local signal within Uganda. A medium-wave .500 kw. unit provides cover for the 'shadow' center rear the transmitter site which extends up to 20 miles or so from the aerial. We operate on 5.026 and 971 kcs We are always interested in receiving reports of reception from amateurs and friends countries." Closes with "GOD SAVE THE QUEEN"
Uruguay	Colonia	CXAS	9.640	1500-1700; 2000-0100; Radio Real de San Carlos; QRA-Servicio de Transmisiones, Garl. Flores 30, Colonia
Uruguay	Montevideo	CXA14	6.055	1300-1600; Servicio de Informacion y Prensa; QRA-Ministerio de Granaderia y Agricultura, Av. 25 de Mayo 385, Montevideo
Uruguay	Montevideo	CXA3	6.075	1000-0300; Radio Ariel; QRA-Av. 18 de Julio 1460, Montevideo
Uruguay	Montevideo	CXA4	6.125	1200-1430; 0015-0300; SODRE (Servicio de Difusion Radio Electrica); QRA-Mercedes 823, Montevideo; IS-first movment of "Campo"

Uruguay	Montevideo	CXA13	6.155	1400-1800; 2200-0300; Radio Carve; QRA-SADREP Ltda., Mercedes 973, Montevideo							
Uruguay	Montevideo	CXA19	11.835	1055-0300; RELAYS ENGLISH-SPANISH session from IRU, Buenos Aires, Argentina, arnd 1100-1130; El Espectador							
Uruguay	Montevideo	CXALO	11.900A	1200-1430; 0015-0300A; usually is "near" 11.896; SODRE; (see: CXA4, 6.125)							
USA	Boston	WRUL	11.710	2230-0200; World Wide Broadcasting System; QRA-One East 57th St., New York 22, N. Y., USA; Radio Boston; IS-"New World Symphony"; verifies by QSL-card, and RHTURN POSTAGE IS NOT REQUIRED; annees, "This is the Voice of Freedem, Station WRUL, Radio Boston, in Boston, Massachusetts, USA"							
USA	Boston	WRUL	15.220	1859-2030 (MONFRI.); 2300-0200							
USA	Boston	WRUL	15.300	2300-0200							
USA	Boston	WRUL	17.750	1859-2035 (MONFRI.); 2300-0200							
USA	San Francisco (California)	KGEI	9.550	EXPECTS TO USE THIS CHANNEL AS WELL AS 15.290 WITHIN THE NEXT YEAR							
USA	San Francisco (California)	KGEI	15.290	EXPECTS TO USE THIS CHANNEL AS WELL AS 9.550 WITHIN THE NEXT YEAR							
USA	San Francisco (California)	KGEI	15,350	2330-0330 beamed to IATIN AMERICA DAILY in SPPT.; General Electric Co.; QRA-P.O. Box 47, San Francisco, California, USA; presents the "University of the Air" sessions to strengthen the cultural bonds between the countries of the Americas. Programs contain no commercial or political propaganda; has daily preview at 2327, "Musical Fiesta" daily 0020; another daily feature, "The Listener Speaks,"							
USA	VOIGE OF AMERIC	A	Complete	ers' letters at OlOO, REPEATED at O3OO. Recently MOVED from 15.290 to 15.350 due to QRM from Radio Moscow							
	TOTAL OF INTREETO		Complete schedules, effective from July 1 on wards, of the VOICE OF AMERICA and its various OVERSEAS RELAY BASES for both BCB and SW bands will be found in the several pages which follow.								

SURVEY OF THE 21-MC. BAND - MADE JULY 22, 1956 - BETWEEN 1820-1930 GMT - by George Cox, Delaware

21.470 BBC at 1820; 21.475 CW station, strong; 21.485, WIMO2 (VOA); 21.500 WDS15 (VOA); 21.520 WLWO6 (VOA) with some JAMMING 1825; 21.540 WBCU1 (VOA) at 1830; 21.580 Radio Pakistan on this frequency (NOT LISTED 21.590) at 1830 when man gave ID in ENG., then had the feature, "Pakistan Calling" (ENG.); classical music at 1840, closed down 1900, to RE-OPEN 1915 (in beam to the United Kingdom); signal was EXCELLENT (10 to 20 DB's over S9 level); man did announce frequency as 21.590, but found only TERRIFIC JAMMING and POSSIBIY WGEO (buried) there; had "Pakistan Calling" feature again at 1930; 21.590 WGEO3 buried under JAMMING 1830; 21600 what appeared to be RADIO FREE EUROPE (RFE) through JAMMING; 21.610 TANGIER 12 through JAMMING at 1840; 21.620 RFE strong level in language with slight QRM on the frequency; 21.630 BBC (GVT); 21.645 too weak to ID in language at 1843; 21.650 WLWO4; 21.660 MCX, London; 21.670 LLP, Oslo, Norway, very good at 1846 with classical music in native; 21.675 GVR, London; 21.695 too weak to ID at 1848; 21.700, Lisbon, Portugal, very good at 1850 with Portuguese music; 21.720 weak station, below readability, may have been Paris, at 1850; 21.725 RFE very strong at 1900 with the Freedom Bell, ID by man in language; 21.730 WBOU3; 21.745 RFE at 1900, good level in language; 21.765A Mexico radio-telephone station, VERY STRONG; 21.525 AFTER 1915, a weak

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U. S. INFORMATION AGENCY INTERNATIONAL BROADCASTING SERVICE U. S. INTERNATIONAL BROADCASTING STATIONS AND OVERSEAS RELAY STATIONS FREQUENCY SCHEDULE - July 1, 1956

KCS	METERS	GNT	STATION	BEAM
173	1734	0/30-0730 0730-1045 1045-1200 1260-0000	Muni ch-C Muni ch-C Muni ch-C Muni ch-C	Europe (RIAS) Europe (RIAS) Europe (RIAS)
548	547	0015-0345 Sa-Tu	Muni.ch-AFN	Europe
7499	1911	1615-1645	BBC	Europe
162	379	0815-1000 (Sun only) 1000-1330 1530-1700 1700-2115 2115-2215 2215-2230	Salonika-A Salonika-A Salonika-A Salonika-A Salonika-A	Greece (Radio Athens) Greece (Radio Athens) Greece (Radio Athens) South East Europe Greece (Radio Athens)
920	326	1030-1400 1400-1430 1430-1400 2336-0000	Manila-A Manila-A Manila-A	China Philippines China Philippines
1106	27.1	0015-0345 W-F	Stuttgart-AFN	Europe
1140	263	1000-2230	Philippines-B	China/S. E. Asia
1180	254	1030-2230	Okinawa-4	East Asia
1196	251	1545-1600 Su 1600-0001	Munich-A Munich-A	Europe
1259	238	1,500-0130	Courier-A	Mid-East/Europe
1340	224	1615-1645	BBC	Europe
0009	50.00	2100-2200	Tangler-8	Near East/No. Africa
6015	88*67	1615-2230	Salonika-2	Europe
6820	149.83	0830-1530	KNBH-2	Hawaii/Australia

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BEAM	East Asia	Europe	East Asia	Europe Europe	East isia	Mid-East/Europe	India/Pakistan	Mid-East/Europe	East Asia	Mid-East/Europe	Europe	Europe	Europe	Europe	East Asia	East South imerica Europe Europe East South imerica(UN	North Africa North Africa North Africa Europe	(AFRS) "laska/Aleutians	East Asia Hawaii/Australia East Asia
STATION	Philippines-2	Munich-4	Manila-3	Munich-5 Munich-5	Okinawa-2	Courier-1	Colombo-1	Courier-2	Okinawa-1	Tangier-1	Munich-3	Salonika-3	BBC	Tangier-3	KNBH-1	WEO-1 VEOU-3 Salonika-4 VGEO-1	WLMO-2 WLMO-2 WLMO-2 Munich-1	KCBR-4 (AFRS)	Hanila-3 KNBH-5 Manila-3
GMT	1700-2230	2015-2200	2300-0000	1200-1445	1330-2230	1800-0130	1230-1700	1800-0130	1030-2230	2200-0800	1715-2230	1800-2200	1615-1645	1800-0300	0830-1530	0030-0300 0315-0345 1730-2200 2300-2350 M-F	0200-0215 0315-0345 0415-0445 1130-1715 2030-2245	0915-1200	0030-0130 0630-1400 2200-2230
METERS	76.50	46.34	48.98	48.85	48.82	48.50	42.19	11.24	41.90	41.47	41.38	41.32	96.04	31.56	31.53	31.48	31.43	31,35	31.28
KCS.	0909	0209	6125	04179	9779	6185	7110	7125	7160	7235	7250	7260	7325	9505	9515	9530	9545	0256	0056

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BEAM	Philippines/Indonesia (UN) Philippines/Indonesia	Europe	Europe	East Asia	East Asia	Brazil Europe Enst Asia	East Asia	Europe Europe	Japan/Korea (i.FRS) East Asia	West South America (UN) West South America (UN)	Mid-East/No. Africa/Europe	Md-East/Europe	Europe	Europe	Europe Philippines/Indonesia (UN) Caribbean (AFRS) Near East/Europe	East Asia	Europe	Mid-Bast/USSR Europe
STATION	KCBR-1 KCBR-1	Tangier-12	Munich-7	Okinawa-4	Okinawa-4	WDSI-3 WDSI-3 Honolulu-2	Manila-1	BBC	KCBR-2 KCBR-2	VILWO-3 VILWO-3	Tangier-4	Tangier-9	BBC	BBC	WBOU-5 KCBR-5 KGBR-4 Tangi er-10	Philippines-4	BBC	Courier-1 Tancter-2
GNT	0700-0800 Tu-Sa 0830-1530	1930-0500	2030-2230	1730-2230	1030-1700	0030-0100 0315-0345 1330-1600	1500-1600	2015-2030	073 0-1415	0030-0200 0200-0230 Tu-Sa 023 0- 0500	2345-0800	2200-0530	1615-1645 2030-2145	1615-1645	0315-0345 0700-0800 Tu-Sa 1215-1415 1930-2200	1000-1530	1615-1645	1415-1730
METERS	31.25	31.20	31,18	31.15	31.14	31.09	31.02	31.00	30.93	30.84	30.80	30.74	30.71	30,53	25.62	25.56	25.53	25.51
KCS	0096	9615	9620	9630	9635	0496	0496	6425	001.6	97725	0416	0916	0770	9825	11710	11735	11750	11760

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BEAM	East Asia East Asia	East Asia	Europe	Brazil Europe S. E. Asia/Indonesia Europe South East Asia	Europe	Europe	North Africa Europe Philippines/Indonesia	Europe	North Africa North Africa Europe	Near and Mid-East	Europe Europe	East Asia East Asia	Europe.	East South America South America (UN) South America Japan/Korea (AFRS) East Asia	East South America (UN)	India/Fakistan Mid-East/Europe	Europe Europe
STATION	Manila-1 Manila-1	KNBH-5	Tangier-10	WDSI-1 WDSI-1 Philippines-2 BBC Philippines-1	BBC	Salonika-1	WLWO-1 Tangier-12 KCSR-5	BBC	WBOU-5 WBOU-5 Munich-7	Colombo-3	Munich-2 Munich-2	Honolulu-1	BBC	MBOU-5 KNBH-2 KNBH-2 KGBR-3 KGBR-3	WBOU-5	Colombo-1 Tangier-7	BBC BBC
CIVIL	2130-0000	0830-1530	2230-0600	0030-0300 0315-0345 1000-1630 1930-2145 2300-0130	1615-1645	1415-2200	04.15-04.45 0530-0800 0830-1530	1600-1615	0200-0215 0315-0345 1415-1615	1900-2100	1130-2215	0900-1300	1830-1930	0230-0100 0200-0230 Tu-Sa 0230-0500 0730-1415 1415-1445	2300-2330 M-F	1230-1700	1630-1830 1900-2000 2045-2115
METERS	25,50	25.47	25.46	25.45	25.42	25,41	25.40	25,38	25.36	25,35	25,34	25.32	25.30	25.27		25.26	25.25
KCS	11765	11775	11785	06411	11800	11805	11810	11820	11830	11835	11840	11850	11860	11870		11875	11880

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BEAM	Jepan/Korea (AFRS) East Asia (UN) East Asia East Asia	Europe	West South America (UM) West South America West South America Near East (UN)/Europe (RTF)	Europe	Europe	Europe	South East Asia	Africa	Alasks/Aleutian (AFRS) South East Asia Europe	Europe Europe	Far East (UN) East Asia North Africa North Africa (AFRS)	Europe	Europe Europe	USSR	Mid-East/USSR	Europe South East Asia
STATION	KWBH-1 Manila-3 Manila-3 Manila-3 Munich-6	Salonika-2	WLMO-4 WLMO-4 WLMO-4 Tangier-10	Tangier-5	BBC	вяс	Philippines-3	Colombo-1	KCBR-4 Philippines-1 Tangier-11	BBC	KUBH-3 KUBH-3 WOUL-4 WBOU-4	Munich-4	Munich-4 Salonika-4 Munich-1	BBC	Courier-2	Munich–3 Philippines–2
CMT	0600-0730 0830-1000 1000-1100 2000-2200	1415-1600	0030-0200 0200-0230 Tu-Sa 0230-0500 1830-1930	1200-0800	2030-2145	1615-1645	1330-1630	1730-2100	0115-0900 1000-1630 1645-2230	1645-1830	0700-0800 Tu-Sa 0630-1530 1530-1730 1730-2245	1415-1615	1130-1330 1645-1715 1730-2000	1800-1830	1415-1730	1200-1700
METERS	25.23	25.22	25,21	25.13	25.12	25.09	19.86	19.84	19,83	19.81	19.80	19.79	19.78	19.76	19.74	19.74
KCS	11890	11895	11900	11940	11945	11.955	15105	15120	15130	15140	15150	15160	15165	15180	15195	15200

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BEAM	Mid-East (Rabat)	Brazil North Africa USSR Mid-East/Europe USSR	USSR North Africa North Africa North Africa (UN)	East Asia	South America (UN) South America Europe Europe/North Africa East Asia	East South America Europe East Asia Far East (UN) Far East Europe Europe East South America (UN)	Europe Europe Europe (AFRS)	East Asia	Europe	Caribbean (AFRS) Europe Europe Europe
STATION	Tangier-10 Tangier-6	WBOU-6 WBOU-6 BBC BBC BBC	BBC WISOU-6 WISOU-6 WISOU-6	Manila-2	KNBH-4 KNBH-4 Munich-6 WLWO-1 Philippines-2	WDSI-2 WDSI-2 Manila-1 Manila-1 WDSI-2 WDSI-2	WBOU-2 WBOU-2 WBOU-2	KNBH-4	Tangler-3 Tangler-2	KCBR-1 Tangier-10 Salonika-4 Tangier-9
CMI	1230-1430	0030-0300 0315-0345 1415-1615 1630-1800 1845-1900	1345-1400 1430-1630 1645-1715 1715-1900 M-P	0630-1600	0200-0230 Tu-Sa 0230-0500 1100-1400 1415-2130 2130-0130	0030-0300 0315-0345 0830-1000 1000-1100 Tu-Sa 11300-1315 M-F 1530-2330 M-F	0315-0345 1430-1730 1730-2245	1415-1445	0315-0800	0145-0600 1000-1215 1415-1615 1900-2145
METERS	19.73	19.72	19,70	19.68	19.67	19,65	19,63	19.62	19,61	19,59
KGS	15205	15210	15230	1,524,5	15250	15270	15285	15290	15295	15315

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	BEAM	West South America North Africa North Africa North Africa East Asia	Japan/Korea (AFRS) Europe Europe	Europe Mid-East/Europe	Greenland (AFRS)	Europe Europe	East Asia	Mid-East/Europe Europe	Burope/Near East	Europe Europe Europe	Burope	Caribbean (AFRS)	Mtd-East/Europe	Mid-East/Europe	East Asia Australia/New Zealand (UN) Europe Europe	Philippines Philippines/Marianas(AFRS,
ř	STATION	WLWO-6 WLWO-6 WLWO-6 WLWO-6 WLWO-6 Honolulu-2 WGEO-1	KCBR-2 Tangier-4	Tangier-10 Tangier-4	WRUL-2	Munich-6 Munich-6	Okinawa-2	Tangier-1 Tangier-8	Tangier-8	WBOU-2 WBOU-4 Tengler-11	Tangler-6	WRUL-3	Salonika-3	Tangier-9	Manila-1 KNBH-5 Tangier-9 WGEO-2	KGBR-5 KGBR-5
	GMT	0030-0100 0200-0215 0315-0345 0415-0445 0900-1300 1415-2145	0100-0700	0600-0800	1745-2215	1415-1930 2230-2245	1030-1300	1200-2145	1645-2045	1300-1315 M-F 1415-1445 2300-0800	1200-2045	1745-2215	1415-1730	1415-1900	0000-0030 0300-0315 \$a 0530-0800 1415-2145	2130-0100
	METERS	19.57	19.56	19,55	19.54	19,52	19,51	19,50	19.47	19.43	16.94	16.94	16.93	16,90	16.89	16,88
	KCS	15330	15340	15345	15350	15370	15380.	15385	15410	15440	17705	01771	17720	17750	17760	17770

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Europe/India/Pakistan 'Mid-East/Europe Japan/Korea (AFRS) East Asia Mid-East/Europe Europe South East Asia Europe Europe (AFRS) India/Pakistan North Africa North Africa North Africa Europe Europe East Asia East Asta East Asia East Asia Europe Europe Europe Europe Africa USSR India Philippines—1 WBOU—1 Philippines—3 WBOU—5 WBOU—5 Tangier-2 Tangier-10 Tangier-9 WDSI-3 KNBH-5 Tangler-7 Colombo-2 WDSI-5 KCBR-4 KCBR-3 KCBR-3 STATION WEND-1 WEND-1 KNBH-4 KNBH-4 BBC BBC BBC BBC BEC 0215-0230 0315-0345 1000-1300 1300-1315 M-F 1430-1730 1730-2245 1345-1400 1415-1530 1630-2000 1200-1730 0545-0800 1345-1400 1800-1730 1800-2230 1430-1730 1530-2130 2130-0030 1000-1400 1415-2200 2330-0200 0100-0700 0200-0215 0315-0345 1415-2200 0000-0030 1445-1800 1730-2100 16.76 13.98 16.78 16.78 16.77 16.79 16,80 16.80 METERS 16.81 16,82 16,81 16,85 16.83 16.87 27455 17890 17895 17880 17870 17875 17860 17855 17850 17840 17845 17800 17830 17795 17780 KCS

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BEAM	Europe	East Asia Europe Europe	North ifrica/ S. Europe	Europe	Europe	India Europe Europe (UN) Europe	Europe	East Asia East Asia Europe	East Asia	North Africa	Europe India/Paki stan	India/Pakistan	North Africa	East Asia Hawaii/Australia (UN)	ussr ussr Philippines/Indonesia	Europe		М
STATION	WLWO-2	KNBH-3 Tangier-12 WDSI-5	WIMO-6	BBC	WBOU-1	Philippines-2 WDSI-1 WDSI-6 WDSI-1	WGEO-3	KNBH-2 KNBH-2 Tangier-12	KCBR-2	WL:v0-4	Tangier-8 Tangier-8	BBC	WBOU-3	KNBH-1 KNBH-1	BBC BBC KCBR-1	Tangier-11	UNCLASSIFIED	IBS/RF,
GMT	1415-2130	0000-0030 1200-1500 1530-2130	1415-2145	1345-1400	1415-2200	0215-0230 1300-1315-M-F 1430-1715 1715-1900 M-F 1900-2200	1445-2145	0000-0030 0100-0115 1530-1900	2130-0030	1415-2200	1200-1115	1430-1630	2430-2145	2330-0200 0300-0315 Sa	1345-1400 1415-1445 2130-0100	1200-1615	illy by:	y Division, Engineer ation Agency
METERS	13.96	13.95	13.94	13.93	13.93	13.91	13.90	13.88	13,87	13.86	13.83	13,82	13,81	13.98	13.80	11.69	Issued periodically by:	The Central Frequency Office of the Chief United States Inform Washington 25, D. G.
ECS.	21485	21500	21515	21530	21540	21570	21590	01912	21630	21650	21690	21710	21730	21460	21740	25670	Issued	The C Offic Unite Washi

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USSR	Alma Ata (Kazak	h 9.340	0045-0730; 1200-1500A; Alma Ata Oblast	
USSR	Khabarovsk (RSFSR)	RK 5.940	2200-2300; 1000-1500; Khabarovsk Krai	
USSR	Kiev (Ukraine)	RK 6.020	1015-1715; Kiev Oblast	1
USSR	Moscow	QRA is simply: Radio Radio Moscow	Moscow, Moscow, USSR; here are complete details of current activities of	of

RADIO MOSCOW'S changes this season include a substantial increase of output in ENGLISH to NORTH AMERICA . . . with the institution of a SEPARATE SERVICE FOR THE PACIFIC COAST . . . and increases in SPANISH TO LATIN AMERICA . . . PORTUGUESE FOR PORTUGAL AND THE PORTUGUESE COLONIES . . . and to INDONESIA. Musical programs have been EXTENDED, with NEW DAILY CONCERTS arranged ESPECIALLY for Listeners in DENMARK, GERMANY, HUNGARY, POLAND, ROUMANIA.

On the other hand, there has been a REDUCTION in Moscow progrems BROADCAST TO THE EUROPEAN SATELLITE countries DIRECT, BUT EACH SATELLITE HOME SERVICE continues to devote a minimum of half an hour per day to REBROADCASTS of material from Radio Centre, Moscow.

(HERE'S AN IMPORTANT CAUTION: A number of stations in the SATELLITE COUNTRIES, transmitting on medium—and shortwave, CONTINUE TO RELAY THE EXTERNAL BROADCASTS FROM RADIO MOSCOW. Please keep this in mind, SWL's, in the schedules which follow... because some of the frequencies listed (AND ANNOUNCED OVER THE AIR SIMPLY AS "RADIO MOSCOW") are definitely those of the SATELLITE RELAY STATIONS.—K.R.B.) "RUSSIAN BY RADIO" language lessons are still broadcast in a number of services. Medium—wave transmitters WITHIN THE SOVIET UNION WHICH RELAY CERTAIN MOSCOW FROGRAMS FOR EUROPE AND THE MIDDLE EAST include—Riga, 575 kcs.; Leningrad, 800 kcs.; Erivan, 863 kcs.; Uzhgorod, 890 kcs.; Lwov, 935 kcs.; Kishinev, 998 kcs.; Kishinev, 998 kcs.; Tallinn I, 1,034 kcs.; Kiev II, 1,169 kcs.; Kaunas, 1,385 kcs. Medium—and SHORTWAVE stations in the EUROPEAN SATELLITE COUNTRIES which reinforce the Soviet network include—BULGARIA—Sofia I, 827 kcs. (100 kw.); Sofia SN, 9.700 (50 kw.). CZECHOSLOVAKIA—Podebrady, 9.550 (30 kw.). EAST GERMANY—Leipzig II—1,322 kcs. (100 kw.). HURGARI—Nyiregyhassa, 1,250 kcs. (135 kw.); Diosd, 11.910, 9.833, 7.220 (100 kw.). each on SW zmtrs). ROUMANIA—Timiscara, 755 kcs. (50 kw.).

Now, here are Radio Centre, Moscow, Broadcasts in Foreign Languages, Summer Schedule 1956, BY LANGUAGES:

EROADCASTS TO EUROPE—ALBANIAN—1030-1100 (for recording by RADIO TIRANA, Albania), 15.235, 15.205, 15.115, 11.755; 1100-1130 (for recording by RADIO TIRANA), 15.235, 15.205, 15.205, 15.115, 11.755; 1130-1200 (for recording by RADIO TIRANA), 15.235, 11.755, 11.755, 11.720; 1430-1500 (NOT SUN.) (ALBANIAN HOME SERVICE CHANNELS), 1,358 kcs., 1,008 kcs.; 1500-1530 (SUN.) (ALBANIAN HOME SERVICE CHANNELS), 1,358 kcs., 1,008 kcs.; 1800-1830 (ALBANIAN HOME SERVICE CHANNELS), 1,358 kcs., 1,008 kcs. BUIGARIAN—1610-1640 (SUN.) and 1630-1700 (NOT SUN.), 827 kcs. (BUIGARIAN HOME SERVICE CHANNEL). CZECH AND SIOVAK—1600-1630 (in Slovak; CZECHOSLOVAK HOME SERVICE CHANNELS), 1,484 kcs., 1,232 kcs., 1,097 kcs., 701 kcs.; 1700-1730 (in Czech; CZECHOSLOVAK HOME SERVICE CHANNELS), 1,520 kcs., 953 kcs., 638 kcs. (SUN, MON., WED., FRI.), and 1,520 kcs., 1,226 kcs., 272 kcs. (TUE., THUR., SAT.); concerts and features prepared by Radio Moscow also are REFROADCAST ON CZECHOSLOVAK HOME SERVICE CHANNELS irregularly.

DANISH—1630-1700 (CONCERT)—15.220, 15.155, 11.740; 1830-1900, 11.845, 11.770, 7.215, 1,385 kes.; 2030-2100, 11.845, 11.770, 7.215.

DUTCH—1730-1800, 11.845, 11.770, 7.215; 2000-2030, 11.845, 11.770, 7.215. ENLISH FOR THE UNITED KINGDOM—0730-0800, 15.235, 15.220, 15.195, 15.155, 15.118, 15.080, 11.930, 11.845, 11.755, 11.730; 1730-1900, 15.220, 15.155, 11.740, and (FROM 1800) 11.630; 1900-2000, 15.220, 15.155, 11.910, 11.740, 11.630, 9.833, 7.220; 2000-2100, 15.220, 15.155, 11.740, 11.630; 2100-2130, 15.220, 15.155, 11.740, 11.630. FINNISH—0930-1000, 11.845, 9.650, 800 kes.; 1730-1830, 9.790, 7.340, 7.230, 800 kes.; 1900-1930, 9.790, 7.340, 7.230, 800 kes. FIRNISH—0930-1000, 11.845, 15.155, 15.118, 11.845, 11.755; 0700-0730, 15.235, 15.220, 15.155, 15.118, 15.080, 11.930, 11.845, 11.775, 11.730; 1130-1200, 17.755, 15.440, 15.305; 1800-1830, 11.845, 11.790, 11.770, 11.730, 7.215; 1900-2000, 15.305, 11.845, 11.790, 11.770, 7.215, 1,250 kes.; 1900-2000, 15.305, 11.845, 11.770, 11.700, 7.215, 1,250 kes.; 935 kes.; 1900-2000, 15.305, 11.845, 11.770, 11.700, 7.215, 1,250 kes.; 935 kes.; 1830-1900, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11.790, 11

RADIO CENTRE, MOSCOW, SCHEDULES - cont'd

GREEK—1700-1730, 15.235, 11.930, 9.665; 1800-1830, 11.930, 9.655, 935 kes.; 1900-1930, 11.930, 9.665, 935 kes., 755 kes.; 2000-2030, 11.930, 9.665, 890 kes., 755 kes. HUNGARIAN—1200-1230 (SUN.) (HUNGARIAN HOME SERVICE CHANNEL), 539 kes.; 1500-1530 (THUR.; HUNGARIAN HOME SERVICE CHANNEL), 539 kes.; 1530-1600 (CONCERT), 15.440, 15.235, 11.930, 11.865, 11.700; 1610-1640 (TUE., WED.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1630-1700 FRI.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1810-1840 (MON.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1630-1700 FRI.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1810-1840 (MON.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1810-1840 (MON.; HUNGARIAN HOME SERVICE CHANNEL), 872 kes.; 1810-1840 (MON.; 10.00, 15.440, 11.865, 11.730, 11.700, 11.700, 1900-2000, 15.440, 11.865, 11.730, 11.700, 1.69 kes.; 2030-2100, 11.880, 11.700, 1,250 kes., 935 kes.; 2130-2200, 15.280, 11.880, 11.865, 11.700; 1830-1900, 15.440, 11.865, 11.700, 9.665, 11.69 kes., 935 kes., 830 kes., 827 kes., 827 kes., 827 kes., 830 kes.; 2130-2200, 15.440, 15.305, 11.865, 11.700; 1830-1900, 15.440, 11.890, 11.865, 11.700, 9.665, 11.690 kes. NORWEGIAN—1715-1730, 9.790, 7.340, 7.230, 800 kes.; 1830-1900, 9.790, 7.340, 7.230, 800 kes.; 2000-2045, 9.790, 7.340, 7.230, 800 kes.; 1830-1900, 9.790, 7.340, 7.230, 800 kes.; 1

SERBO-CROAT—1630-1700, 15.440, 15.305, 15.235, 11.930, 11.865, 11.700, 9.665; 1800-1830, 15.440, 11.865, 11.700, 1,250 kcs., 1,169 kcs.; 2000-2030, 11.865, 11.700, 1,250 kcs., 1,169 kcs., 935 kcs.; 2100-2130, 11.930, 11.865, 9.665, 1,169 kcs., 998 kcs., 890 kcs., 827 kcs., 755 kcs. SIOVENE—1730-1800, 11.930, 9.665; 2030-2100, 11.930, 11.865, 9.665, 1,169 kcs., 890 kcs., 755 kcs. SPANISH FOR SPAIN—2000-2100 (INCLUDES CATALAN ON SAT.), 15.305, 11.790, 11.730; 2130-2230, 15.320, 15.320, 11.770, 11.730, 7.155. SWEDISH—1700-1715, 9.790, 7.340, 7.230, 800 kcs.; 1930-2000, 9.790, 7.340, 7.230, 800 kcs.; 2045-2130, 7.340, 7.230, 1.034 kcs., 800 kcs., 575 kcs. GONCERTS—0800-1500 (ENGLISH, GERMAN, FRENCH, and SPANISH), 1,220 kcs.; 2130-2230 (ENGLISH, GERMAN, and FRENCH), 15.220, 15.155, 11.740, 9.685, 9.610, 7.340, 7.215, 1,385 kcs., 1,034 kcs., 800 kcs., 575 kcs. (AND FROM 2200) 998 kcs., 935 kcs., 890 kcs.

EROADCASTS TO THE MIDDLE EAST—ARABIC—0445-0515, 15.220, 15.155, 15.080, 11.755; 1530-1600, 11.890, 11.805, 11.715, 9.625; 1730-1800, 11.890, 11.805, 11.715, 9.625, 863 kes.; 1830-1930, 11.805, 11.715, 9.625, 890 kes., 863 kes. PERSIAN—0930-0955, 17.780, 15.440, 15.335, 15.180, 11.755; 1445-1525, 15.440, 11.805, 9.790, 9.625, 863 kes.; 1630-1720, 11.890, 11.805, 11.715, 9.625, 863 kes. TURKISH—1000-1030, 15.440, 15.235, 15.115, 11.755; 1600-1630, 11.890, 11.805, 11.715, 9.625; 1800-1830, 11.890, 11.805, 11.715, 9.625, 890 kes., 863 kes.; 1930-2000, 11.930, 11.805, 9.665, 9.625, 890 kes.

BROADCASTS TO SOUTHEAST ASIA—BENGALI—0900-0915, 17.850, 17.780, 17.710, 15.335; 1300-1400, 17.850, 17.710, 15.335, 15.180. CANTONESE—1215-1300, 17.850, 17.710, 15.335, 15.180, 15.155, 15.080. ENGLISH—0830-0845, 17.850, 17.710, 15.335; 1130-1145, 17.850, 17.710, 15.335, 15.180, 15.155, 15.080; 1400-1445, 17.850, 17.710, 15.335, 15.180, 15.080, HINDI—0915-0930, 17.850, 17.780, 17.710, 15.335; 1530-1600, 17.850, 17.710, 15.335, 15.180, 15.155, 15.080. INDONESIAN—0930-1000, 17.850, 17.710, 15.155; 1145-1215, 17.850, 17.710, 15.335, 15.180, 15.155; 15.080; 1330-1400, 15.155, 5.115, 15.080. MANDARIN (REIAY OF FAR EAST TRANSMISSIONS)—1000-1030, 17.850, 17.710, 15.335, 15.180, 15.155; 1100-1130, 17.850, 17.710, 15.335, 15.180, 15.155, 15.080. URDI—0845-0900, 17.850, 17.710, 15.335; 1445-1530, 17.850, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.180, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.155, 15.080, 17.710, 15.335, 15.150, 15.155, 15.080, 17.710, 15.335, 15.150, 17.710, 15.335, 15.150, 15

BROADCASTS TO THE FAR EAST—JAPANESE—0930-1000, 15.457, 15.195, 15.141, 11.755, 9.630, 629 kcs., 548 kcs.; 1030-1100, 17.880, 17.815, 15.457, 15.400, 15.370, 15.195, 15.141, 15.100, 11.755, 9.630, 629 kcs., 548 kcs.; 1200-1245, 17.880, 17.815, 15.457, 15.410, 15.370, 15.141, 15.100, 11.755, 9.500, 7.385, 629 kcs., 548 kcs.; 1315-1400, 15.457, 15.141, 9.660, 9.500, 7.385, 629 kcs., 548 kcs.; 2130-2200, 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 1130-1200 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.410, 15.370, 15.141, 15.100, 11.755, 9.500, 629 kcs., 548 kcs.; 1245-1315, 17.880, 17.815, 15.457, 15.410, 15.100, 9.500, 7.385, 629 kcs., 548 kcs.; 2100-2130, 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2100-2130, 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.500, 629 kcs., 548 kcs.; 2200-2230 (ALSO ON NORTH KOREAN HOME SERVICE CHANNELS), 15.457, 15.141, 11.690, 9.660, 9.5

MANDARIN—0800-0830 (CHINESE HOME SERVICE CHANNEIS), 720 kes., 600 kes.; 0830-0900, 15.457, 15.195, 15.141, 11.755, 9.630, 629 kes., 548 kes.; 0830-0900 (FOR RECORDING BY RADIO PEKING), 17.880, 17.815, 15.180, 15.155, 15.100; 1000-1030 ALSO BEAMED TO SOUTHEAST ASIA), 17.880, 17.815, 15.457, 15.410, 15.370, 15.195, 15.141, 15.100, 11.755, 9.630, 629 kes., 548 kes.; 1030-1100 (CHINESE HOME SERVICE CHANNELS), 11.933, 11.895, 11.828, 10.260, 9.730, 9.660, 9.558, 9.065, 7.500, 6.755, 7.203, 6.152, 6.103, 820 kes., 800 kes., 700 kes., 640 kes., 570 kes.; 1100-1130, 17.880, 17.815, 15.457, 15.410, 15.370, 15.141, 15.100, 11.755, 9.630, 629 kes., 548 kes.; 1400-1500, 17.880, 17.815, 15.141, 15.100, 9.660, 9.500, 7.385, 629 kes., 548 kes. MONGOLIAN—0930-1000, 17.880, 17.815, 15.100, 6.345, 656 kes., 319 kes., 164 kes.; 1315-1400, 17.880, 17.815, 15.100, 6.345, 656 kes., 319 kes., 164 kes.

BROADCASTS TO THE AMERICAS—ENGLISH FOR NORTH AMERICA (EAST COAST)—2300—0600, 15.335, 15.290, 15.150, 11.850, 11.850, 11.770, 11.770, 9.685, 9.610, 7.360, 7.290, 6.045, 6.000 (EXCEPT AT 0030—0130), ALSO on 11.910, 9.700, 9.550, 7.220; EXCEPT 0030—0200, ALSO on 9.833; EXCEPT 0130—0230, ALSO on11.890, 11.740, 11.705; and UNTIL 0030 on 998 kcs., 890 kcs. (UNTIL 0130), an1935 kcs. ENGLISH FOR NORTH AMERICA (WEST COAST)—2300—0600, 15.230, 15.110; ALSO UNTIL 0330 on 17.855, and FROM 0330 ALSO on 11.755. FORTUGUESE FOR BRAZIL—2200—2300, 15.280, 11.930, 11.755, 11.630. SPANISH FOR LATIN AMERICA—2300—0200, 15.320, 15.280, 11.925, 11.880, 11.770, 11.730, 11.630, 9.645.

(IMPORTANT NOTE: The frequencies just listed have been "heard" and "measured" BY A RELIABLE SCURCE, BUT ARE SUBJECT TO FUTURE VARIATION SINCE MOSCOW ANNOUNCEMENTS NORMALLY REFER "ONLY" TO WAVEBANDS.—K.R.B.)

Tashkent Radio (Uzbek) Vladivostok (RSFSR) Vatican City Vatican City Vatican City	Tashkent RV HVJ HVJ	6.824 5.015 5.968 6.190 7.280	1200-1230, 1500-1530 (ENG.); Rashkent Oblast 1200A-1405A; Primorskiy Krai. May be in use CURRENTLY ON IRREGULAR SCHEDULE MASS IN LATIN RITE 0800; Gospel Homily in varying languages 0835 on SUN. and HOLY DAYS
(RSFSR) Vatican City Vatican City	HVJ HVJ	5.968 6.190	May be in use CURRENTLY ON IRREGULAR SCHEDULE MASS IN LATIN RITE 0800; Gospel Homily in varying languages 0835 on SUN. and HOLY DAYS
Vatican City	HVJ	6.190	MASS IN LATIN RITE 0800; Gospel Homily in varying languages 0835 on SUN. and HOLY DAYS
			DAYS
Vatican City	HVJ	7,280	
	*	,	ENGLISH-1500-1515 and 1815-1830; MASS IN LATIN RITE 0800; Gespal Homily in varying languages 0835-SUN. AND HOLY DAYS; Oriental Liturgy 0900 and Homily in an Oriental language 1000 (SUN. AND HOLY DAYS); Musical Concert 1630 (THUR.)
Vatican City	HVJ	9.646	ENGLISH-1500-1515 and 1815-1830; MASS in LATIN RITE 0800; Gospel Homily in varying languages 0835-SUN. AND HOLY DAYS; Oriental Miturgy 0900 and Homily in an Oriental language 1000 (SUN. AND HOLY DAYS); Musical Concert 1630 (THUR.)
Vatican City	HVJ	11,865	ENGLISH-1500-1515 and 1815-1830; ENGLISH at 1600 (TUE.) for India-Pakistan- Geylon; Oriental Liturgy 0900 and Homily in an Oriental language 1000 (SUN. AND HOLY DAYS); Musical Concert 1630 (THUR.)
Vatican City	нуј	15,120	ENGLISH—1500-1515 and 1815-1830 DAILY; ENGLISH at 1600 on TUE. for India- Pakistan-Ceylon; QRA is Vatican Radio, Vatican City; IS—carillon-melody, "Christus Vincit," played on the celesta with orchestral accompaniment; annces, "Laudetur Jesus Christus" ("Praised Be Jesus Christ") and "This is Vatican Radio"

Venezuela WRH quotes Roger Legge, Virginia, USA, on these operating schedules of Venezuelan cutlets currently audible:

TVQG, 2.360, 1030-0230

YVIG, 2.440, 1030-0330; Radio Girardet, Maracay

YVMK, 2.480, 1030-0330; Radio Cabimas; QRA-Calle Democracia, Cabimas

YVKT, 3.245, 1030-0430; Radio Libertador; QRA-Provensa Propagandistas, Venezoelanos, Caracas

YVQL, 3.255, 1130-0300; In Voz de El Tigre, El Tigre

YVOC, 3.265, 1030-0330; Ecos del Torbes; QRA-Edo. Tachira Calle 9-55, Apt. 152, San Cristobal

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Venezuela
                   (schedules cont'd)
                  YVMC. 3.275, 1030-0330; Radio Mara, Maracaibo
                  YVIE, 3.285, 1130-0230; Radio Puerto Cabello; QRA-Apartedo 4. Puerto Cabello
                  YVOG. 3.295, 2200-0230; Radio Trujillo; QRA-Calle Independencia 200, Trujillo
                  YVKX, 3.305, 1030-0330; Ia Voz de la Patria; QRA-Caracas
                  YVLI. 3.315. 1130-0330; Radio Maracay, Maracay
                  YVRA, 3.325, 1130-0230
                  YVMU, 3.340, 1030-0230
                  YVKP, 3.345, 1030-0330; Radio Tropical, Caracas
                  YVID, 3.355, 1030-0330; Radio Valencia, Valencia
                  YVMI, 3.375, 1130-0230; La Voz de la Fe, Maracaibo
                  YVQI, 3,385, 1130-0230; Emisoras Unidas; QRA-Apartado 27, Barcelona
                  YVOJ, 3.395, 1130-0230; Radio Universidad; QRA-Apartado 74, Merida
                  YVKV, 4.760, 1030-0330; Emis. Vargas, L. Guaira
                  YVMW, 4.770, 1130-0330; Ondas del Caribe; QRA-Punto Fijo
                  YVIA, 4.780, 1100-0330; Voz de Carabobo; QRA-Valencia; relays YVIB, 690 kcs.; Publicidad Escala; equipment is
                    General Electric; audio facilities, Western Electric; power was listed to me as 1.1 kw.
                  IVQN, 4.790, 1030-0330; Ecos del Orinoco; QRA-Circuito Radiofonico del Sur. C. Bolivar
                  YVME, 4.800, 1030-0330; Ondas del Lago; QRA-Apartado 261, Calle 99, No. 12-44, Mar.caibo
                  YVMG, 4.810, 1030-0330; Radio Popular; QRA-P.O. Box 247, Maracaibo
                  YVNB, 4.820, 1100-0230; Ondas d.1. Medanos, Coro
                  YVOA, 4.830, 1030-0330; Voz del Tachira; QRA-Apartado 37, San Cristobal
                  YVOI, 4.840, 1130-0330; Radio Valera; QRA-Calle Bolivar 54. Valera
                  IVMS, 4.850, 1030-0230; Radio Universo; QRA-Apt. 77, Barquisimeto
                  YVPA, 4.860, 1030-0330; Radio Yaracay, San Felipe
                  YVKF, 4.880, 1030-0330; Ondas Populares; QRA-Edificio Coraven Barcenas a Rio, Caracas, Apt. de Correos 587
                  YVKB, 4.890, 1030-0430; Radiodifusora Venezuela; QRA-"Provensa, " Caracas
                  YVQE, 4.900, 1030-0330; Radio Bolivar; QRA-Circuito Radiofonico del Sur. C. Bolivar
                  YVKR, 4.923, 1030-0330; Radio Caracas; QRA-Barcenas a Rio, Edificio R. Centro, Apartado 2057, Caracas
                  YVMO, 4.940, 1030-0330; Radio Occidental, Barquisimeto
                  YVM. 4.950, 1030-0330; Radio Coro; QRA-Fundada el 15 de Marzo de 1937, Coro; relays YVMN, 1.210 kcs. "Ia
                    Mensajera Espiritual del Pueblo Falconiano"
                  YVQA, 4.960, 1030-0330; Radio Sucre, Cumana
                  YVIK, 4.970, 1030-0330; Radio Rumbos; QRA-Apartado 514, Caracas; has ENG. 2300-2400 (for Americans in
                    Venezuela; news in ENG. 2345 (some sources say is MON., FRI. ONLY)
                  YVMQ, 4.990, 1030-0330; Radio Barquisimeto; QRA-Apartado 76, Barquisimeto
                  YVM1, 5.030, 1030-0430; Radio Continente; QRA-Bolsa a Padre Sierra 22, altos, Apt. Correos 866, Caracas
                  YVMA, 5.040, 1030-0330; Ecos del Zulia; QRA-la decana de las emisoras de Occidente, Maracaibo
                  YVKD, 5.050, 1030-0330; Radio Cultura; QRA-la Emisora de los Exitos, Caracas
                  YV KO, 6.170, 1500-0330; Radio Nacional; QRA-Radiodifusora Nacional de Venezuela, Caracas; WRH says has
                    ENG. (teckly news summary) MON. 2330-2400
                  YVXJ. 9.510, 1030-2130; Radio Barquisimeto; see: 4.990
                  YVMZ, 9.530, 1030-2130
                  YVOM. 9.570. 1030-0330
                  TVSC, 9.640, 1500-0330; Radio Nacional; see: 6.170
                                                        2200-0215; QRA-Windward Islands Broadcasting Service, St. George's,
Windward Islands
                  St. George's,
                                             3.390AV
  (B. W. I.)
                    Grenada
                                                        Grenada, Windward Islands, B. W. I.
Windward Islands
                  St. George's.
                                  WIBS
                                            17.800A
                                                        2200-0215
  (B. H. I.)
                    Grenada
                             Radio San'a
Yemen
                   San'a
                                             5.985
                                                        0400-0500; 1800-1800; QRA-Radio Sana'a, Sanaah, Yemen
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Iugoslavia	Belgrade Radio Belgrade	6.100	0415A-2300A; QRA-Radio Beograd, Yugoslav Radiodiffusion, 19, Knez Mihajlova, Belgrade; annces in ENG., "This is Yugoslavia, RadioBelgrade Calling," etc.; in FR., "Ici la Yougoslavie, Belgrade vous parle"
Yugoslavia	Belgrade Radio Belgrade	7.200	Usually parallels 6.100
Zanzibar	Zanzibar Radio Zanzibar	4.795	1530-1700 (EXCEPT SUN.); during season of Ramadan this spring (approx. April 12-May 12), had special transmission at 1830-2000; QRA—Information Office, P.O. Box 222, Zanzibar; IS—opens with Anthem of His Highness, the Sultan of Zanzibar; annomets: ENG., "This is the Voice of Zanzibar"; in Swahili: "Hiini Sauti ya Unguja"; in Arabic: "Hadha Saut Zinjibar"; verifies by letter, RETURN FOSTAGE NOT REQUIRED. A RECENT RELAY BY RADIO ZANZIBAR OF THE BBC'S ARABIC programs is believed to begin at 1700 and run to 1800 closedown; seems to be a WEEKDAYfeature; this added broadcast seems to be in keeping with British attempts to check Saudi and Yemeni propaganda directed to the Aden Protectorate. No mention is now made of an 89-meter cutlet, announced during the
	+ +		Special Ramadan Broadcasts in April-May

END

"KEEPING AHEAD" WITH THE NEWS . . . through ENGLISH NEWSCASTS

This is a COMPREHENSIVE, "SELECTED" LIST of the "best" in ENGLISH newscasts . . . arranged according to TIME (GMT on a 24-hour block basis). Due to space limitations, it was impossible to list VOA newscasts, and only the MAJOR NEWS BROADCASTS of BBC are included; the same goes for Radio Australia, Canada, and some other of the major broadcasters.

			
0000 AFN, Frankfurt, Germany Moscow	5.470 17.865, 15.390, 15.370, 15.290, 15.150 15.110, 11.935, 11.976, 11.890, 11.740, 11.720, 11.700, 7.360, 7.290 6.000	Sofia, Bilgaria Warsaw, Poland	3.275 11.880 (to E. Nor. Amer.) 91700 11.740, 9.525
Budapest, Hungary Sofia, Bulgaria Singapore, Malaya Manila Manila Boston, Mass., USA Oslo, Norway Calgary, Alta., Canada	11.910, 9.833, 7.220 (Moscow Relay) 9.700 (Moscow Relay) 4.820 (Radio Malaya) 6.030, 3.345 (FEBC) 9.640 (NOT SUN.) 17.750, 15.390, 15.220, 11.710 (MONFRI.; LOWELL THOMAS, newscaster) 15.175, 11.735, 9.610 (SUN. ONLY) 6.030 (NOT. SUN.)	Moscow Budapest, Hungary Manila Manila Belize, Brt. Honduras Montreal	17.865, 15.390, 15.370, 15.290, 15.150, 15.110, 11.935, 11.976, 11.890, 11.740, 11.720, 11.700, 7.360, 7290, 6.000 11.910, 9.833, 7.220 (Moscow Relay) 5.970 9.500 (NOT SUN.) 6.100, 3.300 (weather after news) 15.090, 9.630
0015 Rome Manila Melbourne	15.325, 11.905 6.110 (NOT SUN.) 17.840, 17.790, 15.320, 15.160	Karachi, Pakistan Calgary, Alta., Canada Toronto, Ont., Canada * Oll5 Stockholm	17.750, 15.335 6.030 (DAILY) 6.070 (followed by weather report)
0030 Prague Budapest, Hungary Warsaw, Poland Delhi Tokyo	11.976, 11.725 (may be high as 11.730), 9.550 11.910, 9.833, 7.220 11.740, 9.525 17.810, 15.380 17.825, 15.235	0120 Warsaw, Poland 0130 Berne, Switzerland 0145 Vancouver, B.C., Canada	11.880 (to E. Nor. Amer.) 11.740, 9.525 11.865, 9.535, 6.165 6.160 (WD)
0033 Wellington, N. Z.	15.280, 15.200 (MonFri.; news and sports bulletin)	4	

0200	Copenhagen	9.520	0300	Toronto, Ont., Canada	6.970 ("The 11 o'clock EDT news")
	Moscow	17.865, 15.390, 15.370, 15.290, 15.150 15.110, 11.935, 11.976, 11.770,	# 0307		15.365, 9.590 (except MON.)
		11.730	. 0315	Madrid	9.360AV, 6.130AV
	Budapest, Hungary	11.910, 9.833, 7.220 (Moscow Relay)	*	Stockholm	15.155
	Sofia, Bulgaria	9.700 (Moscow Relay)		Cebu City, Phil.	6.140 (SUN.)
	Colombo, Ceylon	15.120, 11.770, 7.190, 4.870 (BBC Relay)	0325	Buenos Aires, Argentina	9.660, 6.120 (or 6.180)
	Kingston, Jamica	4.950 (BBC Relay)			
	Grenada, Windward Is.	17.800, 3.390 (BBC Relay)	* 0330	Tokyo	17.825, 15.235 (Radio Japan)
	Port-of-Spain, Trinidad	3.275 (BBC Relay)	4	Tokyo	11.751A, 3.800 (FEN-AFRTS)
	London	17.810, 15.447.5, 15.310, 15.300,		Belize, Brt. Honduras	6.100, 3.300 (weather follows news)
	at 11-3-	15.070, 12.040, 11.930, 11.750, 9.825 11.880	# 0345A	Belize, Brt. Honduras	6.100, 3.300 (may start late as 0350)
	Stockholm	11.735, 9.610, 7.210 (MON. ONLY)	0400	Stockholm .	11.705
	Oslo, Norway	6.030 (MON., TUE., WED., THUR.)	*	Sofia, Bulgaria	9.700
	Calgary, Alta., Canada	6.070, 7.270, 17.750, 15.335		Prague, Czechoslovakia	11.976, 11.725 (may be as high as
	Karachi, Pakistan	5.980 (probably relayed from Karachi)	46	riaguo, ozeonobiovania	11.730), 9.550
	Dacca, Pakistan	4.807 (relayed from Karachi)		Budapest, Hungary	
	Lahore, Pakistan	4:007 (1614)64 11011 11414	长	Moscow	11.910, 9.833, 7.220 15.390, 15.370, 15.110, 11.890, 11.740,
0210	Kingston, Jamaica	4.950		10000	11.630, 9.630, 11.725
		9.690, 6.180 (NOT SUNMON.)	*	Manila	6.030, 3.345 (FEBC)
	Buenos Aires, Argentina	A CONTRACTOR OF THE PROPERTY O		Bacolod City, Phil.	4.985
0215	Grenada, Windward Is.	17.800, 3.390	96	Forest Side, Mauritius	15.060AV (NOT SUN.; varies a lot in
0225	Rome	15.325, 11.905		-01000 01100, 11111111111111111111111111	frequency, as high as 15.093A)
0230	Cologne, Germany	11.795, 9.640, 5.980 (to North America)	#	Melbourne	17.840, 17.790, 15.320
0200	oorogno, acrama-,	(some sources list this at 0235)	-	Kure, Japan	6.105 (except SAT.; Radio Australia
	Warsaw, Poland	11.740, 9.525	*		Relay; Britcom Broadcasting Station)
	Delhi	17.865, 17.830, 15.400, 15.310, 11.830,		Toronto, Ont., Canada	6.070 (CFRX)
	Dozna	9.665, 7.160 (Regional Services)	2 0105	Vomeshi Baleistan	
	Bombay	6.150	0405	Karachi, Pakistan	17.750, 15.335
	Calcutta	7.210	* 0415	Madrid	9.360AV, 6.130AV
	Madras	6.085	46	Delhi	17.830, 15.290
	Simla (India)	6.040	0420	Downe Cudtmanland	13 865 0 525 (3/5
	Bacolod City, Phil.	4.985	**	Berne, Switzerland	11.865, 9.535, 6.165
	Karachi, Pakistan	11.885	* 0425	Bangkok, Thailand	11.670, 6.001
	Srinagar, Kashmir	6.110 (AIR Relay)	# 0430	Bucharest, Roumania	9.570, 6.210
	Brisbane	9.660, 4.920 (Inland Service)		Manile.	17.805A, 15.300, 11.855, 9.730 (FEBC)
	Melbourne	15.230, 9.680 (Inland Service)	*	Manila	11.840, 6.170 (NOT SUN.)
	Perth	11.840, 9.610 (Inland Service)		Buenos Aires, Argentina	9.660, 6.120 (or 6.180); time may
	Sydney	6.090 (Inland Service)	*		VARY AS EARLY AS 0425A
	Pt. Moresby, Brt. New	6.130 (Radio Australia Relay)		London	17.870, 17.810, 15.447.5, 15.110,
	Guinea		幣		15.070, 12.095, 12.040, 11.770,
0232	Hilversum, Holland	15.365, 11.730, 9.590 (except MON.)			9.770, 9.410
	Paris	8.837 (on-the-hour WEATHER NEWS)	× 0435	Katmandu, Nepal	7.100
0300	Helsinki, Finland	17.800, 15.190, 9.555 (NOT MON.)	. 0445	Manila	11.840, 6.170 (NOT SUN.)
	Prague, Czechoslovakia	11.725, 9.550 9.570, 6.210	0455	Paris	8.837 (on-the-hour WEATHER NEWS)
	Bucharest, Roumania	17.865, 15.390, 15.370, 15.110, 11.976,	* 0500	AFN, Frankfurt, Germany	5.470
	Moscow	11.890, 11.770, 11.740, 11.730,	0,00	Stockholm	11.705
		11.720, 11.700, 7.360, 7.290, 6.000	*	Moscow	15.110, 11.890, 11.825, 11.755, 11.740,
	Budapest, Hungary	11.910, 9.833, 7.220 (Moscow Relay		92.7727.07	11.720, 11.630, 9.630
	Sofia, Bulgaria	9.700 (Moscow Relay)	\$6	Karachi, Pakistan	21.590, 17.750
	Peking	15.350, 15.060, 11.650		Cebu City, Philippines	6.140 (NOT SUN.)
	Vancouver, B.C., Canada	6.160	#	Lourenco Marques, Mozame	
	, , , , , , , , , , , , , , , , , , , ,			bique	11.745AV 107

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0500	Vancouver, B. C., Canada Oslo, Norway Johannesburg, Sou. Africa Melbourne Taipei, Taiwan (Formosa) Kuching, Sarawak	6.080 11.735, 9.610, 6.130 (MON. ONLY) 3.290, 4.810 (WEEKDAYS) 17.840, 15.200, 11.740 15.225, 11.815 (to USA) 5.052 (Radio Australia Relay)		0630	Warsaw, Poland Karachi, Pakistan Dacca, Pakistan Honiara, Solomon Islands Taipei, Taiwan (FORMOSA)	9.615, 9.555, 7.145, 7.105 21.590, 17.750 (<u>latter</u> sometimes is HIGH as 17.760) 9.614 5.960 (WED.) 15.225, 11.815 (to USA)	
0505	Manila	9.640 (NOT SAT., SUN.)	_		Wellington, New Zealand	15.280, 15.200 (BBC Relay or	
0515	Madrid Manila Brazzaville, Fr. Eq. Africa Melbourne	9.360AV, 6.130AV 6.080, 6.000 11.970, 9.730A 21.600 (to Africa; now may be 21.540)	景景	0700	AFN, Frankfurt, Germany Honiara, Solomon Islands Melbourne	rebroadcast; now may be on 15.110) 5.470 5.960 (NOT SUNWED.) 17.840, 15.320, 15.160, 11.740 (at 0710 NEWS COMMENTARY); and/or 15.200	7 4
0520	Shannon, Ireland	8.837 (WEATHER NEWS)			Monrovia, Liberia	4.835 (ELWA)	
0525	Delhi	17.855, 15.130	*		Vancouver, B.C., Canada	6.080	
0530	Warsaw, Poland Tokyo	11.740, 9.525 17.785, 15.235	*		Calgary, Alta., Canada	21.675, 21.470, 17.810, 17.700, 15.420, 15.140, 15.110, 15.070, 12.095, 11.860, 11.820, 11.770 6.030 (DAILY)	
0555	Paris	8.837 (on-the-hour WEATHER NEWS)			Tokyo, Japan	11.751A, 3.800 (FEN-AFRTS)	
0600	Tokyo Manila	11.751A (FEN-AFRTS) 17.805, 15.300, 11.855, 9.730 (FEBC)	景景	0715	Tokyo Stockholm	17.825, 15.235 (SUN. 0720) 15.155	
	AFN, Frankfurt, Germany Stockholm	5.470 15.155		0720	Berne, Switzerland	21.520, 17.784, 11.865	
	Kuala Lumpur, Malaya Singapore, Malaya Benghazi, Libya Vancouver, B.C., Canada	6.025 (Radio Malaya) 4.820 (Radio Malaya) 3.305 (NOT SUN.; FBS, North Africa) 6.160	*	0730	Moscow Wellington, New Zealand	15.235, 15.220, 15.195, 15.155, 15.118, 15.080, 11.930, 11.845, 11.755, 11.730 9.540, 6.080 (SUN.; "Lookout," a N.Z. commentary on international affairs)	
	Vancouver, B.C., Canada London	6.080 21.470, 17.870, 17.810, 17.700, 15.447	7.5,	0730A	Honiara, Solomon Is.	5.960 (VQO2 is call; LOCAL NEWS and WEATHER REPORT)	
	**	15.420, 15.140, 15.110, 15.070, 15.095, 12.040, 11.860, 11.820, 11.770, 9.770	*	0745	Wellington, New Zealand Papeete, Tahiti	9.540, 6.080 6.135	
	Salisbury, Rhodesia (So.)	3.396 (BBC Relay)	46	0757A	Vancouver, B.C., Canada	6.160 (CBUX)	
	Johannesburg, So. Africa Melbourne Brisbane	3.290, 4.810 (DAILY) 15.320 (BBC relay to S.E. Asia 9.660, 4.920 (BBC, ABC news; Inland Service)	*	0800	Delhi Bombay	17.865, 15.255, 15.200, 11.710, 9.630 (Regional Service) 9.530	
	Melbourne	15.230, 9.680 (BBC, ABC news; I.S.)	*		Calcutta Madras	7.210 9.590	
	Perth Sydney Pt. Moresby, Brt. New	11.840, 9.610 (BBC, ABC news; I.S.) 6.090 (BBC, ABC news; I. S.)	*		Tokyo Vancouver, B.C., Canada	17.785, 15.235 6.080	*
	Guinea)	6.130 (BBC, ABC news; Radio Australia Relay)	*		Calgary, Alta., Canada Karachi, Pakistan	6.030 (NOT SUN.) 9.645, 11.845, 17.750, 21.590 (not parallel)	
	Kaduna, Nigeria Enugu, Nigeria	3.326 (BBC Relay) 3.967A (BBC Relay)			Iahore, Pakistan	7.225	7)
	Ibadan, Nigeria Iagos, Nigeria Accra, Gold Coast	4.000A (BBC Relay; LISTED 3.995) 4.800 (BBC Relay) 4.915, 3.365 (BBC Relay)	新	0830	Moscow Cebu City, Philippines Montreal	17.850, 17.710, 15.335 6.140 (NOT SUN.) 11.720, 9.630	
	Tokyo, Japan	11.751A, 3.800 (FEN-AFRTS)	*		Karachi, Pakistan Wellington, N. Z.	21.590, 17.750 9.540, 6.080 (NOT SUN.; N.Z. news)	
0615	Accra, Gold Coast	4.915, 3.365 (relay of BBC's "Radio Newsreel" session)	泰		Tokyo	17.785, 15.235	
0600	Manila, Philippines	17.805A, 15.300, 11.855 (FEBC) 8.837 (WEATHER NEWS)		0900	AFN, Frankfurt, Germany Rome	5.470 21.560, 17.800, 9.780	
0620	Shannon, Ireland	OOO) (WENTHER MENS)	景		and the same of th	2000 110000 70100	

0900	Peking Dumaguete City, Phil. Tokyo Pt. Moresby, Brt. New Guinea Melbourne	15.350, 15.060, 11.650 6.055, 3.255 (LISTED 3.277) 11.751A (FEN-AFRTS); also on 3.800 6.130 (Relay from Radio Australia) 15.320, 15.210, 11.760, 11.740 (0910 news commentary)	* 1030 * * 1045	Manila Bangkok, Thailand Damascus, Syria Wellington, N. Z. Rome Port-of-Spain, Trinidad	9.691 (NOT MON.) 11.670 (HSK9), 6.001 7.145 (NOT FRI.) 9.540, 6.080 (NOT SUN.; N. Z. news) 21.560, 17.770, 15.120 6.085, 3.275
8905 8916 0915	Brisbane Melbourne Perth Sydney Kure, Japan Berne, Switzerland Salisbury, Mhodesia (So.) Singapore, Malaya	9.660, 4.920A (Inland Service) 6.150, 9.680 (I. S.) 9.610, 4.897.5 (I. S.) 6.090 6.105 (Radio Australia Relay; Britcom Broadcasting Station) 21.520, (3APA) 21.720, 17.870, 7.120, 9.690 (BBC);	1100		3.305 ("Voice of Civil Defence"; has Civil Defense news and music) 17.815, 15.275, 11.795 17.800 15.120, 11.740 5.981 (BBC Relay) 6.085, 3.275 (BBC Relay) 7.220; FBS, North Africa 15.320, 15.210, 15.160, 7.220
		BBC Far Eastern Station, FORMERIX British Far Eastern Broadcasting Service—BFEBS	**	Brisbane	(1100 world news; 1105 ABC news; 1110 news commentary) 9.660, 4.920 (Inland Service)
0920	Rome	11.905, 9.575	發	Melbourne	9.680, 6.150 (I. S.)
0930	Delhi Seoul, South Korea	Korea" session; if not found 0930,	왕 왕	Perth Sydney Pt. Moresby, Brt. New Guinea	9.610, 4.897.5 (I. S.) 6.090 (I. S.) 6.130 (ABC news relayed from Radio
	Colombo, Ceylon	17.820 (Radio Ceylon)		Singapore, Malaya	Australia) 17.870, 7.120 (BBC Relay)
0945A	Hilversum, Holland	21.480, 17.775, 15.220 (OR 15.425, CR 15.365?); WEEKDAYS ONLY	*	Salisbury, Rhodesia (So.) London	3.396 (BBC R _e lay) 25.750, 25.720, 21.675, 21.630.
	Kure, Japan Dumaguete City, Phil. Toronto, Ont., Canada	6.105 (Canadian news and sportscast; Britcom Broadcasting Station) 6.055, 3.277 (MONSUN.; DYHR, DYB4) 6.070 (CFRX)	*	Kure, Japan Jesselton, Brt. No. Borned	21.550, 21.470, 17.810, 17.740, 15.110, 15.070 6.105 (BBC Relay; Britcom Broad- casting Station) 7.175A (may be irregular; Radio Sabah)
0950	Tokyo, Japan Copenhagen	9.595, 6.055, 3.925 (JOZ-commercial) 15.165 (TUE., THUR., SAT.)	9775	Wellington, N. Z. Djakarta, Indonesia	9.540, 6.080 (SAT.)
0955	Manila	9.640 (NEWSREEL; DZH2)	*	Georgetown, Brt. Guiana	9.710, 4.910 5.981 (NOT SUN.)
1000	Hanoi, Vietnam	NOT BE 1000 NOW BUT IS DEFINITELY	* 1115A	Johannesburg, So. Africa Jesselton, Brt. North Borneo	3.290, 4.810 7.175A; Radio Sabah
	Manila Manila	17.805, 15.300, 11.855, 9.730, 6.030, 3.345 (FEBC)	* 1125A *		15.290, 9.660 (short newscast; time of start VARIES); Radio El Mundo Il.835
	Manila Toronto, Ont., Canada	his "Breakfast On the Farm" Show)		AFN, Frankfurt, Germany	5.470 17.850, 17.710, 15.335, 15.180,
	Delhi Wellington, N.Z.	17.840, 17.750, 15.310 9.540, 6.080 (MON.; "Looking At Ourselves"—background to the N.Z. news	16	Kuala Lumpur, Malaya Singapore, Malaya	15.155, 15.080 6.025 (Radio Malaya) 4.820 (Radio Malaya)
1015	Georgetown, Brt. Guiana	5.981 (BBC)		Baghdad, Iraq	11.700, 3.295A
1022	Hilversum, Holland	17.775, 15.425, 15.220 (NOT SUN.)	N-	Jerusalem, Jordan Dumaguete City, Phil.	6.045
1025	Melbourne	Southeast Asia)	* 1145	Tel Aviv, Israel Caracas, Venezuela	6.055, 3.255 (LISTED 3.277) 6.835 4.890

1200	Stockholm Dumaguete City, Phil.	15.155 6.055, 3.277 (SUN.—religious news; SAT.—weekly news roundup;	* 1300	Kure, Japan	6.105 (BBC Relay, followed at 1310 by "Home News From Britain"; Britcom Broadcasting Station
		DYH4, DYB4)	**	Brisbane	9.660, 4.920 (BBC, ABC news; Inland
	Fort-of-Spain, Trinidad	6.085, 3.275	M.		Service)
	Oslo, Norway	21.670, 17.825, 15.175, 11.735 (SUN. ONLY)	*	Melbourne	9.680 (BBC, ABC news; I. S.)
	Tokyo	6.160, 3.800 (FEN-AFRTS)		Perth Sydney	9.610, 4.897.5 (BBC, ABC news; I. 3.) 6.090 (BBC, ABC news; I. S.)
	Karachi, Pakistan	7.200, 9.645, 17.750	*		
	Dacca, Pakistan	7.140		Kuching, Sarawak	5.053 (NOT SATSUN.); some sources
	Lahore, Pakistan	7.225	#		say is at 1300 and/or that is relay or a rebroadcast of BBC news)
	Toronto, Ont., Canada	6.070 (CFRX)			or a reproducast of BBC news)
1215	Prague, Czechoslovakia	11.725, 9.504	* 1315	Stockholm	15.155
	Warsaw, Poland	15.120, 11.740	*	Melbourne	11.740 (1325 news commentary; to
	Melbourne	11.740 (to E. No. Amer.; FROM AUG.			E. No. Amer.; FROM AUG. 15 will use
	Commenters But Curlons	15 will use VIAll, 100 kw., 11.770) 5.981 (BBC)	# 7000		VIA11, 100 kw., <u>11.770</u>)
	Georgetown, Brt. Guiana		1330		9.500 (FRI.)
1220		11.705, 9.675	#	Ankara, Turkey	17.825
1225	Caracas, Venezuela	4.890	1335	Delhi	21.580, 17.795
1230	Delhi	17.720, 15.325, 11.710, 9.695 (Reg-	1345	Lisbon, Portugal	17.895, 17.880 (at times, also may
		ional Service)	#		use 15.380)
	Bombay	7.240		Saigon, Vietnam	7.290 (Radio Saigon; RECENTLY MOVED
	Calcutta	9.530 6.085	*		HERE FROM LISTED 7.260)
	Madras Manila	6.110 (NOT SUN.)	# 1400		5.470
	Kingston, Jamaica	4.950; NOT SUN.; at times may	-	Moscow	17.850, 17.710, 15.335, 15.180,
		instead use 3.360)	4	Manila	15.155, 15.080 11.840, 6.170 (NOT SUN.)
1215	Colembo Cerrlen	9.520, 7.190, 6.004		Port-of-Spain, Trinidad	6.085, 3.275 (BBC Relay)
124)	Colombo, Ceylon Tokyo	15.225, 11.705	景	Oslo, Norway	21.670, 17.825, 15.175, 11.735 (SUN.
	Warsaw, Poland	15.120, 11.740			ONLY)
	Manila	11.840, 6.170 (NOT SUN.)	96	Calgary, Alta., Canada	6.030 (NOT SUN.)
1250	Berne, Switzerland	21.520, 17.784, 15.305	-	Hong Kong	3.940A
1300		15.024A, 7.460A, 7.480A, 6.210A		Tokyo, Japan Singapore, Malaya	6.160, 3.800 (FEN-AFRTS) 15.435, 15.310, 11.725, 9.690; (this
2,000	Edmonton, Alta., Canada	9.540 (VE9AI)	96	orngaporo, maraya	is "Radio Newsreel," relayed from
	Illoilo City, Phil.	3.365			BBC; BBC Far Eastern Station, formely
	Manila	6.110 (NOT SUNMON.)	#		BFEBS)
	Manila	9.640 (NOT SAT., SUN.)	1401	Melbourne	11.770, 9.580, 7.220 (1411 news
	Manila	6.000	*		commentary)
	Cebu City, Phil. Kingston. Jamaica	6.140 (NOT SUN.) 4.950 (at times may instead use	* 1415	Cairo, Egypt	17.765
	Kingston, Jamaica	3.360)			ica 15.425A (might use 15.595 instead)
	Port-of-Spain, Trinidad	6.085, 3.275 (BBC Relay)	# 1430	Stockholm	15.155
	Cairo, Egypt	17.765		Peking	15.350, 11.715
	Singapore, Malaya	17.870, 15.310, 11.725, 9.690 (to	簽	Singapore, Malaya	6.135 (Radio Malaya; BBC rebroadcast)
		Australia); BBC Far Eastern Sta-	1445	Karachi, Pakistan	11.745A, 9.740, 9.645, 7.200
	Tandam	tion—formerly BFEBS)	#	Dacca, Pakistan	5.980
	London	25.750, 25.720, 21.675, 21.630, 21.550, 21.470, 17.810, 17.740,	#	Lahore, Pakistan	3.915
		15.110, 15.070	14454	Djakarta, Indonesia	9.710, 4.910
	Melbourne	15.320 (SAT. to THUR.), 15.210,	* 1450	Berne, Switzerland	21.605, 11.865; also 21.520 (EXCEPT
		11.770 (1310 news commentary)		y bina vaoa nama	SUN.)
22.4			景		4757

	Tashkent, Uzbek, USSR	15.120, 11.685, 9.645A, 7.280 6.824	76	550	Tokyo Berne, Switzerland Calgary, Alta., Canada	15.225, 11.705 15.315, 11.865 6.030' (NOT SUN.)
	Beirut, Lebanon Rangoon, Burma Edmontom, Alta., Canada	8.036 9.543 (some sources list this at 1510) 9.540	-	700	Lisbon, Portugal Stockholm	21.700, 17.835 17.800
	Jerusalem, Jordan Colombo, Ceylon Georgetown, Brt. Guiana	6.045 5.020 5.981 (BBC)	#		Alternative and the second	9.540, 7.145 21.670, 17.825, 15.175, 11.735 (SUN. ONLY)
1520		15.235, 11.705	*		Melbourne Calgary, Alta., Canada	11.770, 9.580, 7.220 6.030 (NOT SUN.)
	Cologne, Germany	17.815, 15.275, 11.945 (some sources list this at 1535)	t≆		Johannesburg, So. Africa	3.290, 4.810 15.300, 11.815 (to Europe; may
	Delhi	15.480, 11.915, 11.710, 9.850, 7.285, 5.990, 7.120 (Regional Service)	*			have MOVED more recently to 11.800)
	Bombay	4.840 6.010, 4.880	* 1	715	Salisbury, Rhodiesia (So.)	
	Calcutta Madras	6.085 (OR 4.920)	#	~~ ~ ~	AFN, Frankfurt, Germany	5.470 (SUN. 1700)
	Simla (India)	4.760			Lisbon, Portugal	21.700, 17.895, 17.835 4.950 (SUN.; at times may
	Srinigar, Kashmir Melbourne	4.860 (AIR Relay) 11.770, 11.740, 7.220 (1540 news			Kingston, Jamaica	instead use 3.360)
	Karachi, Pakistan	commentary) 21.590 (at dictation speed)	1		Moscow Kingston, Jamaica	15.220, 15.155, 11.740 4.950 (NOT SUN.; at times may
	Vancouver, B.C., Canada	6.160 (WEEKDAYS)	新		nanga oong ounces	instead use 3.360)
1549	Rome Delhi	6.160 (WEEKDAYS) 17.800, 15.320A (NOT SUN.) 17.795, 15.240	96		Lima, Peru	9.562 (NOT SUN.)
	Hilversum, Holland	21.480, 17.775, 15.425 (OR 15.220, OR 15.365?); WEEKDAYS ONLY	. l'	740	Karachi, Pakistan	11.800, 7.010 (slow-speed; POSSIBLY NOW ON 15.225 and/or
1550	Toronto, Ont., Canada	6.070 (CFRX)				9.645)
1600	Stockholm	15.155			Abidjan, Ivory Coast	4.945, 4.824 (MON., WED., FRI.)
	Vatican City	11.685, 9.645 (TUE. ONLY)	* 1	800	Rome	9.575, 6.010
	Saigon, Vietnam Georgetown, Brt. Guiana	9.754 (some say is 9.755) 5.981 (BBC R _e lay)	*		Stockholm Moscow	15.155 13.220, 15.155, 11.740, 11.630
	Kingston, Jamaica	4.950 (BBC Relay; NOT SAT., SUN.; at			Tokyo	15.225, 11.705
		times, may instead use 3.360)	景		Caracas, Venezuela	6.170 (MON.)
	Port-of-Spain, Trinidad Benghazi, Libya	6.085, 3.275 (BBC Relay) 7.220 (BBC Relay; FBS, North Africa)	#		Benghazi, Libya Nairobi, Kenya	3.305 (BBC R lay; FBS, North Africa) 4.885, 3.315 (BBC Relay)
	Nairobi, Kenya	3.315, 4.885-			Accra, Gold Coast	4.915, 3.365 (BBC Relay)
	Nairobi, Kenya	4.934 (BBC Relay)	雅		Insaka, Rhodesia (No.)	4.826, 3.915-(BBC Relay)
	Accra, Gold Coast	4.915, 3.365 (may be BBC relay?) 4.826, 3.914	*		Kaduna, Nigeria Emugu, Nigeria	3.326 (BBC Relay) 3.967A (BBC Relay)
	Lusaka, Rhodesia (No.) Kampala, Uganda	5.026	-		Thadan, Nigeria	4.000 (LISTED 3.995; BBC Relay)
	Dar-es-Salaam, Tanganyika	5.050	#		Lagos, Nigeria	4.800 (BBC Relay)
		11.970 (also may be on 15.420A)			Kampala, Uganda	5.026 (BBC Relay)
	Singapore, Malaya	17.755, 15.435, 11.725, 9.690 (BBC) Far Eastern Station—formerly BFEBS)	祭		Dar-es-Salaam Salisbury, Rhodesia (So.)	5.050 (BBC R _e lay) 3.396 (BBC Relay)
	London	25.720, 21.675, 21.630, 21.550, 21.470, 17.810, 15.310, 15.110, 15.070	*		Geneva, Switzerland	6.675 (MON., WED., FRI.; UNITED NATIONS RADIO; FR., TUE., THUR.)
	Calgary, Alta, Canada	7.030 (NOT SUN.)	#		London	25.720, 21.675, 21.630, 21.550, 21.470,
	Vancouver, B.C., Canada Johannesburg, So. Africa	6.160 3.290, 4.810	96		Toronto, Ont., Canada	17.810, 15.110, 15.070 6.070 (CFRX)
1630	Tel Aviv, Israel	9.009AV	1	1810	Izsaka, Rhodesia (No.)	4.826, 3.915 (AFRICAN NEWS)
20,0	Port-of-Spain, Trinidad	6.085, 3.275	發	1815	Kaduna, Nigeria	3.326 (NBS news)
	Athens, Greece	17.745 (if not found then, try at 1730—former hour for this; might	#		Emugu, Nigeria	3.967A (NBS news)
		use 15.345 and/or 17.775)			Ibadan, Nigeria	4.000 (LISTED 3.995; NBS news)

1815	Lagos, Nigeria	4.800 (NBS news)	* 2010	Georgetown, Brt. Guiana	3.275
101)	Addis Ababa, Ethiopia	15.070AV (if not found there, TRY 15.342AV)	7	Boston, Mass., USA	17.750, 15.220 (MONFRI.; American business bulletins at
	Brazzaville, Fr. Eq. Africa Dar-es-Salasm, Tanganyika	5.050 (LOCAL NEWS, WEATHER)	* Vanco	ouver, B.C., Canada	2020) 6.160 (WEEKDAYS)
1830	Nairobi, Kenya Belgrade, Yugoslavia	4.885, 3.315 (IOCAL NEWS) 7.200, 6.100		I Teheran, Iran	15.100, 9.678 (LISTED 9.680),
1090	Belize, Brt. Honduras Karachi, Pakistan	6.100, 3.300 (weather follows news) 21.580, 11.910; although "annumces"	*	* .	3.785Å (LISTED 3.960); NOT FRI.; time VARIES (ENG. starts NOW 2000—NOT Fri.)
		21.590, actually was MEASURED 21.580 on July 22 by Cox, Delaware,	* 2020	Madrid	7.100, 6.130
		at 1830 with news feature, "Pakistan Calling"	* 2030		7.850 17.820, 15.320
1850	Berne, Switzerland	11.865, 9.665	*	Melbourne	17.840, 15.210, 11.760
1900	Cologne, Germany AFN, Frankfurt, Germany	17.815, 15.275, 11.795 5.470	* 2045	Damascus, Syria Pt. Moresby, Brt. New	17.865
	Prague, Czechoslovakia	7.225 (recently noted "mixing" with Baden-Baden, Germany, 7.265)	*	Guinea Brisbane	6.130 (Radio Australia Relay) 9.660, 4.920 (Inland Service)
	Warsaw, Poland	9.615, 9.540, 7.145	*	Perth Melbourne	9.610, 4.897.5 (I. S.) 11.880 (I. S.); also on 6.150
-	Moscow Budapest, Hungary	15.220, 15.155, 11.740, 11.630 11.910, 9.833, 7.220 (Moscow Relay)	#	Sydney	6.090 (I. S.)
	Tel Aviv, Israel Johannesburg, So. Afr.	9.009A, 6.835 3.290, 4.810	2050	Brazzaville, Fr. Eq.	11.970, 9.730
303.5	Vancouver, B.C., Canada	6.160 (SUN.)	* 2100		15.220, 15.155, 11.740, 11.630
1915	Djakarta, Indonesia Baghdad, Iraq	11.797A (ANNCES 11.770), 9.865 11.700, 3.295A (this now seems to	*	Ankara, Turkey Kingstown, St. Vincent Is	
		have been DROPFED; during Ramadan season (April-May) had ARABIC	*	Calgary, Alta., Canada Johannesburg, So. Africa	6.030 (NOT SUN.) 3.290, 4.810
		to 2108A closedown; normal closedown is 2000A)		Freetown, Sierra Leone	3.316 (LOCAL NEWS; time VARIES as late as 2105)
2000	Georgetown, Brt. Guiana	3.255 (BBC)	#	Ibadan, Nigeria Kaduna, Nigeria	4.000 (LISTED 3.995) 3.326
1930	Bucharest, Roumania	9.615, 9.540, 7.145 9.570, 9.253, 6.210, 5.980	*	Iagos, Nigeria Toronto, Ont., Canada	4.800 6.070 (CFRX)
	Peking Karachi, Pakistan	11.715, 15.220A 21.580 (annes 21.590), 9.740;	*	Damascus, Syria	17.865
	Anna Anna Anna Anna Anna Anna Anna Anna	feature is "Pakistan Calling" in beam to the United Kingdom	* 2115	V Andrews Miller and Control of the	9.700, 7.671 11.840, 6.170 (SAT.)
1945	Delhi	17.735, 15.415, 15.105, 11.705	*	Tel Aviv, Israel	9.009AV
2000	Paris Stockholm	15.400, 9.625, 6.045 6.095 (for Europe)	* 2125	Tel Aviv, Israel	9.009AV (THUR.; NEWSREEL)
	Berlin (EAST) Budapest, Hungary	9.730, 7.150, 6.115 (NOT SUN.) 11.910, 7.220	2130	AFN, Frankfurt, Germany Prague, Czechoslovakia Berlin (EAST)	5.470 6.115 9.730, 7.150, 6.115 (NOT SUN.)
	Warsaw, Poland Moscow	9.615, 9.540, 7.145 15.220, 15.155, 11.740, 11.630	*	Tokyo	11.751A, 3.800 (FEN-AFRTS)
	Kingston, Jamaica	4.950 (BBC Relay; NOT SATSUN.; at times may instead use 3.360)	* 2140	Manila	11.840, 6.170 (NOT SAT., SUN.)
	Port-of-Spain, Trinidad London	6.085, 3.275 (BBC Relay) 25.720, 21.675, 21.630, 21.550 21.470, 17.870, 17.810, 17.715, 15.435, 15.110, 12.095, 11.700	*	Dumaguete City, Phil. Manila Abidjan, Ivory Coast Melbourne Kure, Japan	6.055, 3.277 (SUNFRI.; DYHR, DYB4) 6.030, 3.345 (NOT SAT.; FEBC) 4.945, 4.824 (THUR.) 17.840, 15.210, 15.160, 11.760 6.105 (Radio Australia Relay);
1			*		Britcom Broadcasting Station

2147 2147 2155 2200	Brisbane Melbourne Perth Sydney Pt. Moresby, Brt. New Guinea Hilversum, Holland Calgary, Alta., Canada Helsinki, Finland Budapest, Hungary Dumaguete City, Fhil. Manila Tirana, Albania Tokyo Buenos Aires, Argentina	9.660, 4.920 (NOT SAT.; Inland Service) 11.880, 6.150 (NOT. SAT.; I. S.) 9.610, 4.897.5 (NOT SAT.; I. S.) 6.090 (NOT SAT.; I. S.) 6.130 (Radio Australia Relay; NOT SAT.) 17.775, 15.365, 9.590 6.030 (NOT SUN.) 17.800, 15.190 (NOT SUN. OR HOLIDAYS) 11.910, 7.220 6.055, 3.277 (SAT.; DYH4, DYB4) 6.110 (NOT SAT.) 7.850 11.751A (FEN-AFRTS) 9.690 (IRAl; time MAY VARY TO ARND 2220)	* 23 * * * * * * * * * * * * * * * * * *	305		17.800, 21.550, 17.810, 12.040, 17.750, SUN.; at 23: at 23: 6.030, 6.160, 17.865, 15.15; 11.890, 7.360, 9.700,	(BBC Relay) , 3.390 (BBC Relay) , 17.890, 17.870, 17.860,), 15.310, 15.300, 15.070,), 11.930 , 15.390, 15.220, 11.710 (NOT American business bulletins 15 MONFRI.; newscast 30 MON.) (NOT SUN.) (SUN.) , 15.390, 15.370, 15.290, 0, 15.110, 11.935, 11.976, 0, 11.740, 11.720, 11.700, 7.290, 6.000 , 9.833, 7.220 (Moscow Relay) (Moscow Relay) (to North America) , 3.390
	Freetown, Sierra Leone	3.316 (MAY NOT BE DAILY; WAS LOGGED IN ENGLAND DURING LATE JULY)	*		Caracas, Venezuela Melbourne	6.170	(MON.) , 17.790, 15.320, 15.160
2210	Manila	9.640 (SAT.)	* 2	315A	Edmonton, Alta., Canada	9.540	(VE9AI)
2215	Belgrade, Yugoslavia Georgetown, Brt. Guiana Toronto, Ont., Canada	7.200, 6.100 3.255 (BBC) 6.070 (SUN. ONLY; CFRX)	* 2	330	Manila Caracas, Venezuela	4.970	, 15.300, 11.855, 9.730 (FEBC) (some sources say is MON., ONLY—some say INCLUSIVELY)
2222	Hilversum, Holland	15.365, 9.590 (NOT SUN.)			Dumaguete City, Phil.	6.055	, 3.277 (SUNFRI.; news and
2230		9.730, 7.150, 6.115 (NOT SUN.) 9.615, 9.540, 9.555, 7.175, 7.145 9.570, 6.210 6.070	* 2	2335A	Toronto, Ont., Canada Brazzaville, Fr. Eq. Africa	11.970	re; DYH4, DYB4) (day's major newscast); CFRX , 9.625 (to the Americas and
2245	Dakar, Fr. W. Africa	5.960 (or 5.945A), 4.893 (TUE., THUR., FRI., SAT.; some say is NOW OFF THE	*			vary;	ral Africa; however, time may on July 26, started at 2335)
	Bacolod City, Phil. Kure, Japan	AIR WITH THIS FEATURE) 4.985 (MON.) 6.105 (Radio Australia Relay; Britcom Broadcasting Station)	*	2345	Manila Cebu City, Phil. Port-of-Spain, Trinidad), 6.170 (NOT SAT.)) (SAT.)
	Brisbane	9.660, 4.920 (SAT. ONLY; Inland Service)	*	2350A	Kingston, Jamaica	4.950)
	Melbourne Perth Sydney Pt. Moresby, Brt. New Guinea	11.880, 9.680 (SAT. ONLY; I. S.) 9.610, 4.897.5 (SAT. ONLY; I. S.) 6.090 (SAT. ONLY; I. S.) 6.030 (SAT. ONLY; Radio Australia Relay)	*		END	•	
2255	Tokyo	11.751A, 3.800 (WEEKDAYS; FEN-AFRTS)	*				
2300		5.470 15.155, 9.620 17.825, 15.235 9.640 (NOT SAT.) 3.275 (BBC Relay)	*				

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DX BROADCASTS AROUND THE WORLD

You can greatly enhance your SWL's hobby by listening regularly to DX broadcasts around the world!

AUSTRALIA—The familiar voice of Graham Hutchins, DX Editor of Radio Australia, is heard weekly (see Australia schedules elsewhere for current frequencies)—SATURDAY 2200 to Northeast Asia, North Pacific Islands; SUNDAYS 0530 to Africa; SUNDAYS 0715 to British Isles, Europe, and South Pacific Islands, and to South and Southeast Asia; SUNDAYS 1330 to EASTERN NORTH AMERICA; SUNDAYS 1600 to WESTERN NORTH AMERICA and to Southeast and Southwest Asia. When Graham is on vacation, the "Australian DX-ers Calling" session is capably scripted by one of the world's top women SWL's, Miss Dorothy Sanderson. QRA is Graham Hutchins, DX Editor, Radio Australia, Melbourne.

DENMARK--CZF5, 9.520, Copenhagen, each WED. 0200A. Material appears to be compiled by <u>O</u>. <u>Lund-Johansen</u>, publisher of WORLD RADIO-TELEVISION HANDBOOK (WRH), and WRH Bulletins are issued periodically (every two weeks) for other radio editors around the world.

GERMANY—Horst A. C. Krieger is DX Editor for Deutsche Welle, Cologne; issues an excellent DX Bulletin periodically for "active" reporters to the station, also furnishes excellent report forms to those interested: QRA is Horst A. C. Krieger, Editor of Dx Program, c/o Deutsche Welle, Koln/Rhein, Funkhaus, Wallrafplatz 5, Germany. Current schedule of DX broadcasts is SECOND MON. OF EACH MONTH at 1030, 17.875, 15.275, 11.795 (to FAR EAST); 1500, 17.815, 15.275, 11.945 (to NEAR EAST); 1830, 17.815, 15.275, 11.795 (to AFRICA); 2230, 15.375, 11.795, 9.630 (to SOUTH AMERICA); and SECOND TUE. OF EACH MONTH at 0200, 11.795, 9.640, 5.980 (to NORTH AMERICA).

HUNGARY—Radio Budapest has a shortwave radio AMATEURS program SAT. ONLY around 2100-2128 over 9.833. This broadcast includes sports news so you may find the radio amateur portion does not start until 2120A.

JAPAN—IN EARLY SPRING, a DX Program in JAPANESE was scheduled for EACH FRIDAY 1345-1400 over JOZ, 3.925, JOZ2, 6.055; opened with "NSB DX-TDME" in Morse code and "The Swedish Khapsody."

NEW ZEALAND "This Radio Age" is presented at 0930 on the FIRST WED. OF EACH MONTH. Current channels are ZI2, 9.540, ZI7, 6.080. QRA is Radio New Zealand, P.O. Box 2396, Wellington, New Zealand.

SWEDEN—"Sweden Calling DX-ers!" is aired EVERY FOURTH MONDAY at 1215, 15.155 to Far East;/17.800 to South Asia; 1815, 15.155 to Africa; 2015, 6.095 to Europe; EVERY FOURTH TUESDAY at 0130, 11.880 to North America. F L A S H;—At press time, direct from Sweden I learned that as of October 1, Radio Sweden will ADD another DX broadcast service—this one to WESTERN NORTH AMERICA at 0515 GMT (Oct. 2) or 2115 PACIFIC STANDARD TIME (PST) on Oct. 1; this initial beam of the DX broadcast in the Western North America Service will feature an interview between DX Editor Arne Skoog of Radio Sweden and David Morgan (K6DDO), Hollywood, California, USA, Western Shortwave Section Editor for the UNIVERSAL RADIO DX CIUB (URDXC)—to which group the initial broadcast will be dedicated; it will be carried on the REGULAR FREQUENCY for the West Coast beam (11.705 CR 9.535); SPECIAL VERIFICATIONS ANDFRIZES FOR THE MOST COMPLETE REPORTS ARE BEING ARRANGED. CRA: Arne Skoog, DX Editor, Radio Sweden, Stockholm, Sweden. Skoog heads the DX-ALLIASEN, which consists of 26 Scandinavian DX-clubs, and made the arrangements for the vacation—camp for DX-ers at Hackas in the province of Jamtland, July 17-22, 1956.

SWITZERIAND—On the air EVERY FIRST THURSDAY/FRIDAY OF THE MONTH in regular beams of the Swiss Broadcasting Corporation (SBC), Berne. Schedules are available free of charge from the Swiss Shortwave Service, Berne, Switzerland. The DX Editor of SBC is Russell Henderson. Current schedule is FIRST THURSDAY OF THE MONTH at 1915-1930, 9.665, 11.865; FIRST FRIDAY OF THE MONTH AT 0200-0215 and 0445-0500, 6.165, 11.865, 9.535; 0745-0800 and 0930-0945, 11.865, 17.784, 21.520; 1315-1330, 15.305, 17.784, 21.520; 1515-1530, 11.865, 21.520, 21.605; 1715-1730, 11.865, 15.315. As a service to observatories in other parts of the world—AND OF MUCH BENEFIT TO SWL'S AND HAM OFERATORS ALIKE—sumspot predictions of the Swiss Federal Solar Observatory in Zurich for the coming months—AND the sumspot county for the preceding month—are put on the air in the IX transmissions.

USA—The VOICE OF AMERICA presents a program primarily for amateurs but also of interest to SWL's each Saturday at 1845-1900 over WDSI, 15.270, 17.830; WLWO, 17.795, 21.650; WBOU, 21.540; Tangier, 9.505, 15.130; Munich, 7.250; REPEATED at 2145-2200 over Tangier, 9.505. Narrator is Bill Leonard, WZSKE. The broadcast, described as "of, by, and for radio emateurs throughout the world," serves as a clearing-house for international shortwave information, including up-to-the-minute, band by band, propagation forecasts. WZSKE also serves as the program's technical writer, pooling his broad experience with beginners and old-timers alike. Gene Kern, WZBAK, is program editor and propagation forecasts are supplied by George Jacobs, WBASK/WZPAJ, 607 Beacon Road, Silver Spring, Md. Reception reports and QSL's received from Histeners to this program, I understand, will be acknowledged with a distinctive VOA QSL card. Since shortwave frequency schedules are subject to frequent change, latest program schedules for this broadcast can be obtained from IBS/RF, U.S. Information Agency, Washington 25, D.C., USA. In addition, up-to-the-minute propagation forecasts for radio amateurs and shortwave listeners are broadcast EVERY WEEKDAY by VOA at APPROXIMATEIX 1805 GMT on the frequencies just cited—as a part of the feature, "Panorama, USA."

Part Three

- Press-time Pictorial
- Late Flashes
- Addenda

Press-time Pictorial

AROUND THE WORLD WITH SHORTWAVE PERSONALITIES - AND FACILITIES

(Legends run LEFT to RIGHT; rows run TOP to BOTTOM.)

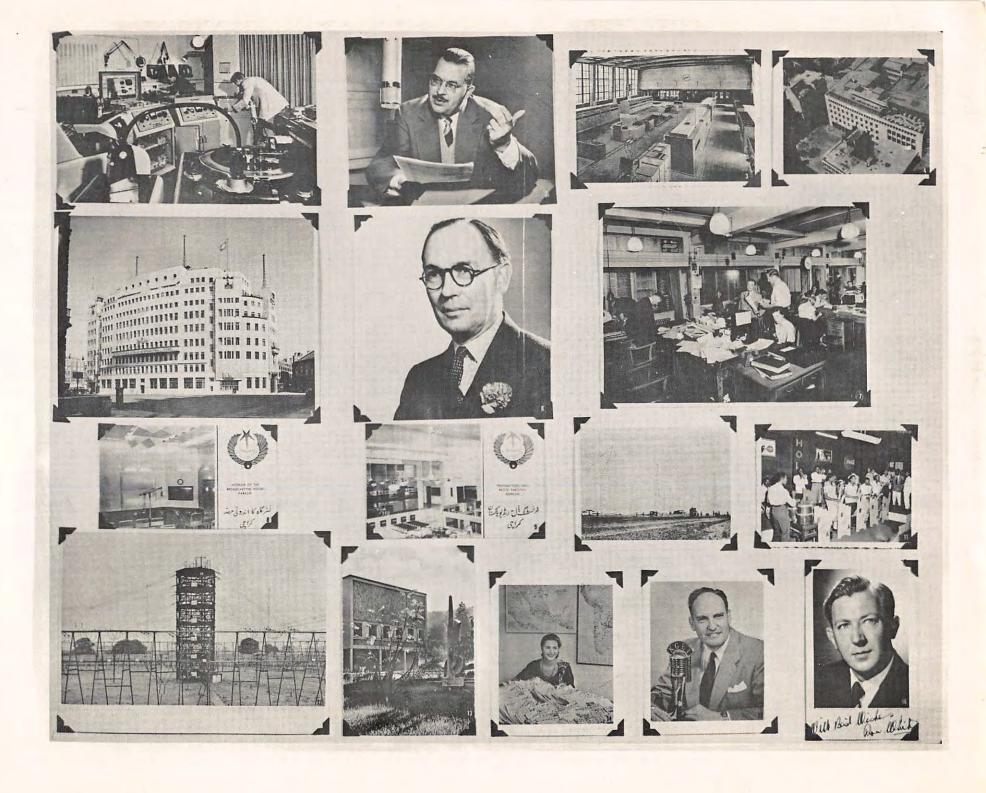
ROW ONE (TOP) - 1. Shown is a combined disk and magnetic tape recording channel at Broadcasting House of the BBC, London; this is a general view of the equipment, including Type-D disk recording machines and type BTR/2 tape recorders with linking console. 2. This is Lance Tschannen of the Swiss Broadcasting Corporation, Berne, Switzerland, who presents (a) "Do You Know This?" - Switzerland's quiz program (SUNDAYS); (b) "A Penny -A Song" - weekly request program (SATURDAYS); (c) "They Went Abroad" (FRIDAYS), and (d) "Dance With Lance in Swiss Country Style" (THURSDAYS). 3. This is the transmitting center of the Belgian NATIONAL BROADCASTING SERVICE (RADIODIFFUSION NATIONALE BELGE, located at Wavre-Overijse. near Brussels. Belgium. In the foreground are the 3 shortwave transmitters, and in the background are the 2 medium-wave transmitters (used for Home Service programs). 4. The new Cologne (Germany) Broadcasting House, in the Wallrafplatz, which was inaugurated by the NORDWESTDEUTSCHER RUNDFUNK on June 21, 1952, in the presence of the President of the German Federal Republic, replaced the older building which had been in use since 1927, and which no longer provided adequate accommodations for present-day needs. A new building had been planned before the war, but circumstances have only recently permitted its realization. It was thus, however, possible to incorporate in its construction the considerrable technical advances that have been made during the past 10 years or so. Contrary to what is now the usual practice, the new Cologne building was not constructed in the outskirts of the town, but in its center. The Broadcasting House is situated in the Cathedral quarter, being thus very centrally located from cultural, economic, and travel considerations, and it has all the advantages of a central position. In 1954, an extension annex covering 25.000 cubic metres was opened, with a television studio of 1,700 cubic metres with the necessary technical rooms, as well as editorial and technical rooms for the GERMAN SHORTWAVE OVERSEAS SERVICE. Here you see Broadcasting House as viewed from the towers of the Cathedral. The roof of the studio wing can be seen on the RIGHT-beyond the roof-garden restaurant.

ROW TWO - 5. This impressive structure is a late photo of Broadcasting House, London. 6. This is Sir Ian Jacob, K.B.C., C.B., Director-General of the BBC, London. 7. This is a scene of the BBC's news division, which prepares and supplies all the news bulletins broadcast in the Home and Light programs and in the GENERAL OVERSEAS SERVICE IN ENGLISH, and which is also responsible for the Farliamentary reports and news takes. This is a general picture of the Newsroom, whichis manned on a shift system throughout each 24-hour period. Thirty-four bulletins go out from here daily for Home or Overseas listeners. Into this room and to this desk comes all the news available to the BBC.

ROW THREE - 8. Interior of the Broadcasting House, Radio Pakistan, Karachi. 9. Transmitting Hall, Radio Pakistan, Karachi. 10. This is the elaborate transmitting center of Radio Rome, "Prato Smeraldo." 11. This is one of the NEW studios of "Radio Atlantico," HOL (1,390 kcs., 500 watts), and HOLA (9.505, 1 kw.), Avenida Balboa, No. 9069, Colon, Republic of Panama, of which Anibal Galindo is proprietor. Miss Mary Fernandez B., secretary of the station, describes the new studios as "the biggest and best-constructed in the Republic of Panama." Note the Coca Cola signs!

ROW FOUR - 12. This is the BBC's Shortwave Transmitting Station at Skelton; the close-up view of the feeder-switching tower shows the sender number plates; remotely-controlled motor-operated switches, mounted within the tower, permit the sender output to be switched to various arrays.

13. This photograph, just received from Baden-Baden, Germany, shows the Sudwestfunk Funkhaus (Broadcasting House). 14. Katarina Real, Spanish and Portuguese language announcer at General Electric's station KGEI, San Francisco, California, USA, is seen with some of the thousands of letters which KGEI has received from its Latin American listeners. KGEI broadcasts four hours daily from San Francisco ina transmission which is heard in all parts of Latin America. 15. Professor Ronald Hilton, cultural director of General Electric's station KGEI at San Francisco, California, USA. Professor Hilton, who is also director of the department of Hispanic American Studies at Stanford University, is heard DAILY on KGEI's facilities in Spanish and Portuguese broadcasts DIRECTED TO LATIN AMERICA. KGEI broadcasts daily now from 2300 to 0330 on 15.350 in the 19-meter band. MAY USE 9.550 AND/OR 15.290 WITHIN THE NEXT YEAR. 16. This is Ron White, papular Chief Announcer of Radio Australia, Melbourne.



YE RADIO EDITORS - AROUND THE WORLD - AND PROMINENT CLUB OFFICIALS

(Legends read LEFT to RIGHT; rows run TOP to BOTTOM.)

ROW ONE (TOP) - 1. Bill Leonard, W2SKE, conducts the "Radio Amateur Program" broadcast in ENGLISH EACH SATURDAY over the VOICE OF AMERICA at 1845-1900, currently scheduled on MDSI, 15.270, 17.830; WLWO, 17.795, 21.650; WBOU, 21.540; Tangier, 9.505, 15.130; Munich, 7.250; REFEATED 2145-2200 over Tangier, 9.505. 2. Russell Henderson, Editor of the Dx Program of the SWISS BROADCASTING CORPORATION, Berne, whose DX tips are ON THE AIR EVERY FIRST THURSDAY/FRIDAY OF THE MONTH. 3. One of the top shortwave radio authorities of the world is Arne Skoog, DX Editor, RADIO SWEDEN, shown in a photo made several years ago, tuning a HALLICRAFTERS SX-28. 4. (BOTTOM) - The voice of RADIO AUSTRALIA'S Dx Editor, Graham Hutchins, has long been familiar to SWL's around the world. 5. This is a very recent photo of Arne Skoog; in addition to his work as DX Editor for RADIO SWEDEN, Arne is editor for several Swedish radio publications. 7. This was Ken Boord's SHORTWAVE LISTENING POST in 1953. Equipment pictured included a HALLICRAFTERS SX-28 (still in action 1956), HALLICRAFTERS SX-73, NATIONAL NC-183D, HAMMARLUND SP-600-JX (SUPER-RO); RME DB-22A preselector; BC-221 frequency meter, and a PANADAFTOR.

ROW TWO - 7. Now more than a quarter of a century old, THE INTERNATIONAL SHORT WAVE CLUB, London, was established initially in the United States. Some years ago the 20th anniversary of ISWC was marked by a broadcast in the BBC's General Overseas Service about shortwave listening. The program was devised by Wilfred Gostman (LEFT) and those taking part were, LEFT TO RIGHT, Harold Wilkinson, Head of the BBC Overseas and Engineering Information Department; Thomas Fort, a vetern member of the ISWC; Arthur E. Bear, Honorary Secretary of the Club; Patricia Board, a new member of the Club at that time, and William Holt, wall-known broadcaster, who acted as narrator. 8. This is Karl-Ake Bergstrom, Sweden, founder and president of the SCANDINAVIAN DW-CLUB. 9. Veteran SWL and radio-TV editor is Carleton Lord, who has long conducted the popular Special Features Section ("LEAVES FROM A DX-ER'S SCRAFBOOK") for the NEWARK NEWS RADIO CEUB (NNRC); after living in Pittsburgh and then Meadville, Pa., the past few years, Carl has just returned to Corning, New York, Many years ago, he was a co-editor of RADEX . . . one of the earliest and best of DE periodicals. His Special Features Section for MRC now includes a most comprehensive coverage of TVDX during the spring and summer months. Incidentally, MNRC was organized in 1927; Irving R. Potts is president-editor. 10. This well-equipped Mistening Post belongs to Carl Lord. I note HALLICRAFTERS and NATIONAL receivers in use . . . and isn't that receiver at the LEFT one of the famous E. H. SCOTT ell-wave jobs? Il. Founders of the ASSCIATION OF MID-WEST SWIg are Harry B. Roesener, SWDK Editor (LEFT) and Stephen F. (Steve) Foster, editor-in-chief, with headquarters at 1752 Cornelia Avenue, Chicago 13, Illinois, USA. Both are former monitors of the ISW DEFT., BATVN. Publication of this club is called "A-SWL." 12. This Shortwave Listening Post forms the headquarters of the ASSOCIATION OF MID-WEST SWIs. Chicago. Equipment includes a NATIONAL NC-125; a RME DB-22A preselector; beam filter; beam-antenne tumer (homobuilt); BUD FCC-90A frequency standard; MEISSNER FM tuner; WEBCCR disk-changer; MOSIEI antenna switch; TAR-A-LINE extension cord. and a 24hour clock.

ROW THREE - 13. This teen-age enthusiast is David Morgan, K6DDO, Hollywood, California, WESTERN Section Shortwave Editor. UNIVERSAL RADIO DX CLUB (Hayward, California), one of the leading radio organizations of the world for many years, and now the only U.S. club which issues a Shortwave Log each year. Dave's almost phenomenal achievements are too many to even list here. His interest in SWL'g-which included his contributions to the ISW DEFT. of RATVN-led to his becoming a ham operator. He is now in Europe where he is visiting broadcasting stations. other radio organizations, club groups, S.L's and hams. 14. While K6DDO is abroad this summer, "sitting in" for him as WESTERN Section Shortwave Editor for URDXC is this youthful DX-er, Phil Finkle, Burbank, California. Phil has made some wonderful "catches" in his brief SWL'g career. 15. (LOWER, LEFT-HAND CORNER) - This is Bob Hill, Wlarr, Concord, New Hampshire, EASTERN Section Shortwave Editor for URDXC. who is a ham operator now. More recently, Bob traded his NATIONAL NC-125 for a HAMMARLUND HQ-129X. Bob's latest DX "catch" is the INDONESIAN AIR FORCE STATION (RADIO ANGKATAN UDARA), 11.943, Djakarta, Indonesia, REPUTEDLY OF VERY LOW POWER. Bob has been an active SWL since 1950; has logged 208 countries (196 ham, 121 SWBC, 32 BCB); has logged ALL CONTINENTS on every band, including BCB, right on up through 10 meters. He has been a ham since early '54. Is a member of Rag Chewers Club, Concord Brasspounders, ARRL, URDXC, NNRC. 16. FORMER Shortwave Editor for URDXC and now Consultant, A. R. Niblack, Vincennes, Indiana, has long been known as one of the most reliable smortwave DX-ers in the U.S. Equitment used includes a NATI NAL NC-125 receiver; RME DB-22A preselector; Q-MULTIPLIER, BUD FCC-90 (100 kcs.) generator; KNIGHT 2-speed tape recorder; "Al" uses a longwire antenna, directed N-S. He haslogged more than 107 countries, has verified stations in upwards of 50 countries (all on SWBC bands). In his present advisory capacity for URDXC, Mr. Niblack furnishes semi-technical data concerning receivers. aerials, "know-how," and other data-particularly to beginning DX-members of URDXC; he compiles URDXC's annual Shortwave Station log. 16. "THERE'S A CLUB FOR YOU," no matter what your especial interest is in the hobby of shortwave radio! MEMBERSHIP IN ONE OR MORE GOOD RADIO CLUB IS ESSENTIAL TO EVERY SERIOUS SHORTWAVE RADIO ENTHUSIAST! Incidentally, president and Editor of URDXC is Charles C. Norton. Hayward California; Shortwave Editor is Marvin E. Robbins, Omaha, Nebraska, and Amateur Editor is Ralph W. Kastner, New Braunfels, Texas,

































ments continue

JAPANESE SHORT WINE CIER P O Box 29 Sexon Japan



SHORTWAVE DX-ERS AROUND THE WORLD - AND PROMINENT SHORTWAVE PERSONALITIES (Legends read LEFT to RIGHT; rows run TOP to BOTTOM.)

ROW ONE (TOP) - 1. Harold (Hal) Buehler, Columbus, Ohio, is the justly proud owner of this fine Shortwave Listening Post; equipment includes a RNE-45 receiver, RNE DB-22A preselector; and a CONCERTONE tape recorder. 2. Another fine Shortwave Listening Post is that of William F. (Bill) Flynn, Berkeley, California; equipment, from LEFT TO RIGHT, includes BELL RT65B three-speed tape recorder; RNE DB-22A preselector; BUD FCC-90A (100 kcs.) xtal frequency calibrator; NATIONAL NC-125 (11-tube) receiver, with DRAKE "QZer" (Q-MULTIPLIER) on top; unit on table in foreground is a "homebuilt" antenna tuner; speaker is mounted on wall. 3. This is a very new photo of the attractive Shortwave Listening Post of Floyd F. Backus, Richmond, Virginia, a SWL who, in a comparatively short time, has logged and verified many SWBC and ham stations all over the world; equipment includes a HAMMARLUND HQ-129X; a RNE-45, and a RME DB-22A preselector. 4. SWL's are of many talents. Stephen F. (Steve) Foster, Chicago, Illinois, Editor-in-Chief, ASSOCIATION OF MID-WEST SWLs, helps "Music USA" along WITH A LITTLE IMPROMPTU BASSING. 5. Steve Foster's radio "shack" features this NATIONAL NC-125; NOTE THE EFFICIENT USE OF ART CORNERS ON QSL CARDS.

ROW TWO - 6. Ron Fleischman, Montreal, Quebec, Canada, is a shortwave DX-er who is fortunate-along with a comparatively few others, such as Ken Boord, Grady C. Ferguson (North Carolina), and Arne Skoog (Sweden)-to be the proud owner of the famous HALLICRAFTERS SX-28! Included in Ron's radio "shack" are various pieces of test equipment and what looks to me like an elaborate recording outfit. 7. Taken in April 1956, this is a photo of Roy Patrick, England, long a leading contributor to various radio publications. 8. Receivers used by Roy Patrick, England, are (TOP) an 1155A (9-tube) job and (BELOW) a HALLICRAFTERS S-19. 9. Long a loyal contributor to the ISW DEPT. of R&TVN, here is a late photo of the Portuguese SWL, Manuel A. de Mesquita e Sousa, CT/83, Braga, Portugal. 10. From far-away South Korea comes this photo of the Shortwave Listening Post of HLISWI Cho Byong Joo, Pusan. 11. This well-equipped Shortwave Listening Post belongs to William N. (Bill) Roemer. well-known shortwave DX-er of Bowling Green, Kentucky. During World War II and the Korean War, Bill listened for POW (Prisoner-of-War) messages and them forwarded such messages to loved ones at home. He has received many, many letters of thanks for this fine service. In February 1954, Bill met his first POW from Korea; he had heard his message in 1951 over RADIO MOSCOW and had sent the message on to the POW's wife; by return mail the wife told Bill that the message had been the first word she had received that her husband was alive. She had first received a telegram saying that her husband was "missing in action," then a year later the War Department had notified her that her husband was a PO and "not missing." as first stated. This particular POW was released on the same day as General Dean. "On Monday," says Bill, "Major-now Lt.-Col. Harry Fleming was released from the hospital and was on his way to Florida for a couple of weeks before he was to take up his new post in Mossouri. When he choned me. all he said was: 'Bill, this is Harry Fleming.' I was delighted to meet him; he and his wife visited me for about a half-hour. He said: 'I just want to shake your hand for what you did for my wife.' A year ago, Bill received a Christmas card from an ex-serviceman who was a POS in Italy during World War II -- about whom Bill forwarded a POW message. The young man is now out of the Army, is married, and has a 120-acre farm in Iowa . . . and a son! Equipment at Bill's Listening Post includes a NATIONAL HRO-50, a HALLICRAFTERS S19R, a PILOTUNER FM receiver, a RME DB-22A preselector; a BC-221 frequency meter; a BC453 Q-5er; an elaborate antenna-switching system, ingeniously connected so the preselector may be added for weak signals at any time (antennas run N-S, E-W, NE-SW, and NW-SE); a WEBSTER wire recorder; a 24-hour world-time clock; an automatically-set clock for any 15-minute period day or night; a WEBSTER wire recorder; and (NOT SHOWN IN FHOTO) a RME-45 receiver and a 10" disk recorder (TO THE LEFT of the elaborate card index file shown at LEFT, which Bill maintains for his extensive correspondence with other SWL's around the world. 12. This is a very recent photo of the Shortwave Listening Post of Albert K. (Ab) Saylor, Quantico, Virginia, one of the "oldest" radio listeners in point of time in the world. Equipment includes a HALLICRAFTERS SX-71, a HALLICRAFTERS SX-24, a RME DB-22A preselector, and an especially fine homebuilt antenna-tuner devised by "Ab" after much experimentation.

ROW THREE—13. Shown at his New Bedford, Massachusetts, Shortwave Listening Post is Harry J. Hibbard, who observed his 63rd birthday on June 14, 1956; he belongs to the NEWARK NEWS RADIO CLUB, UNIVERSAL RADIO DX CLUB, and the NATIONAL RADIO CLUB (BCB); fishing is another of Harry's hobbies! 14. This is the Shortwave Listening Post of the "most methodical SW DX-er whom I have ever known," August Balbi, Los Angeles, California; the big console job is "the best receiver I have ever had," says August; SEE "DEDICATION PAGE" IN FRONT OF BOOK FOR MORE DETAILS.

15. And here is an EXCLUSIVE WT PHOTO of Mr. Balbi himself—taken during the last week of June 1956. Note the large log book on top of the HAMMARLUND HQ-129X. AUGUST HAS A RECORD OF EVERY STATION HE HAS EVER HEARD! 16. Torsten Ingleson, Halsingborg, became the SWEDISH DX-CHAMPION 1956 by winning the big contest arranged by DX-ALLIASEN, Danderyd, Sweden. Young Ingleson was the ONLY CONTESTANT to log ALL the 20 stations scattered throughout the earth which broadcast Contest programs during the competition this spring. 17. This photo just in from Sweden, shows Arne Skoog, DX Editor, Radio Sweden, with Mrs. Anna-Lisa Soderholm, Rummaro, making a recording in a new series of DX-programs which TEKNIKENS VARLDS RADIOKLUBB has been broadcasting since June 4, 1956, each MONDAY at 2000-2015 over WRUL, Radio Boston, USA. 18. A popular member of Radio Australia's staff for many years, Robin Wood is now OVERSEAS PROGRAMME DIRECTOR.

ROW FOUR - 19. The attractive bulletin board of SWL Galen Balfe, Massachusetts, displays to advantage QSL cards from both ISVBC and ham stations. 20. Father Edgar Rocha, Brazilian priest now in Cakland, California, is heard EACH THUR. over KGEI, San Francisco, Calif., USA., in a Pt.-language program directed to Brazil. 21. Jack Terry, international disk jockey and announcer, broadcasting from the New York Studios of WRUL, Radio Boston; programs are carried by leased wire line to the xmtrs at Scituate, Mass., for broadcast to Europe and Latin America.



ROW ONE (TOP) - 1. Studio and Transmitter Building at ELWA, missionary broadcaster, at Monrovia, Liberia. 2. A native reader records part of the New Testament in the Tchien dialect at ELWA, Monrovia, Liberia. 3. This photo, just received via airmail from Jose Ramon Alonso, an official of the station, shows the main building of RADIO NACIONAL DE ESPANA, Madrid. 4. Shown (CENTER) is Ingo. Jose S. Caceres V., owner and Director General (Director Gerente) of Radio Tacna, OAX6H, 9.492, Tacna, Peru, South America. This station operates DAILY at 1140-1400 and 1630-0430, and will observe its 10th Anniversary on October 10, 1956, on which date Sr. Caceres tells me HE WILL BEGIN OPERATION OF A COMPLETELY NEW CONSOLE. All the equipment was built by Sr. Caceres himself "and works very well here in Tacna, Peru," he says. "I receive many letters from every part of the world reporting reception of my radio station. Soon I shall try to make work a long-wave station for local service, and soon also I am going to change the station's plant to another place about 2 miles from this city. Also, I work as the Chief Technical Engineer of RADIO NACIONAL DE TACNA, and in motion pictures as a public address systems operator."

ROW TWO - 5. This is the PORI installation of OY YLEISRADIO AB., used to relay broadcasts which originate in the Finnish capital, Helsinki.

6. This is a photo just received from Jose AngelYllescas, Technican-Owner of "La Voz de Occidente," TGD, 1,070 kcs. (1 kw.), and TGDZ, 6.020, (500 watts), located at Quezaltenango, Quatemala. This station is dedicated "AL SERVICIO DE LA PATRIA Y PROSPERIDAD DE SU NEGOCIO" (to the service of the country and prosperity of her commerce). Note that this studio appears to have control rooms on either side. 7. This is a sample QSL card just received vair airmail from B.H.B.S., the ERITISH HONDURAS BRCA DCASTING SERVICE, Belize, British Honduras, Central America. It lists schedule of 1800-1915 and 2400-0300 GMT daily on frequencies of 1,280 kcs., 3.300, 4.900, and 6.100. 8. This modernistic transmitter installation is that of CFCN, 1,060 kcs. (10 kw.), whose shortwave transmitter, CFVP, RUNS ONIX 100 WATTS (A REAL DX "CATCH!"), is located at Calgary. Alberta, Canada. As can be seen by the flat terrain, CFCN-CFVP has an appropriate slogan: "THE VOICE OF THE PRAIRIES."

ROW THREE - 9. This is one of the NEW studios of HQLA, 9.505, Colon, Republic of Panama; station officials describe the new facilities as the "MOST MODERN AND BEST-CONSTRUCTED IN PANAMA." HOLA presents both Sp. and ENG. broadcasts. 10. Here are transmitters of Radio Commerce, Port-au-Prince, Haiti, 4VA, 1,080 kcs., 1 kw.; 4VB, 6.091 (VARIES AT TIMES), 7.5 kw., and 4VC, 9.485, 7.5 kw. Antenna for the shortwave transmissions is oriented EAST-WEST and is of the Delta" horizontal type. Transmitters, consoles, and other accessories all were manufactured by RADIO CORPORATION OF AMERICA (RCA). Radio Commerce is dedicated "to the service of national progress" (au Service du Progres National"). According to a program brochure just received from the station, Radio Commerce is on the air weekdays 1130-0400 and Sundays 1100-0300; en ENG. program, largely featuring tourist information and music, called "GLIMPSES OF HATTI," is radiated SUNDAYS at 2200 over AVC. 9.485. 11. Here are various scenes connected with the missionary broadcaster, 4VEH, Haiti, "LA VOIX EVANGELIQUE" ("THE EVANGELICAL VOICE") of the East and West Indies Bible Mission, Box 1, Cap Haitien, Haiti. Shown at UPPER LEFT are the Technical Director and the "CHILDREN'S HOUR" pastor. M. E. (Mardy) Picazo and his son, Esteban (6 years old). "Mardy," a great cooperator with the ISW DEPT. of R&TVN and now with "THE WORLD AT A TWIRL," is also a ham operator. The transmitting facilities of 4VEH appear to be located at the very edge of the "jungle." In the photo at LOWER LEFT is Stewart C. West, Union, New Jersey (this summer of Yorktown, Virginia), a great booster and cooperator of AVEH. who visited the station and helped with its special Anniversary Broadcasts last year. A former monitor for the ISW DEFT, of R&TVN. Stewart is now an active cooperator of "THE WORLD AT A TWIRL." This photo was made a few years ago when Stewart was serving with the U.S. Navy. The Rev. G. T. Bustin is General Director of 4VEH, and Mrs. Picazo serves as secretary and QSL-Manager. 12 and 13.—Here are photos of a statement secured from the British Foreign Office which sets forth the policy of Her Majesty's Government on the jamming of international broadcasts. It was transmitted to me by the Foreign Office, under date of 30 May 1956, through the Private Office, British Embassy, Washington 8. D.C., and reads, in part: "H.M.G. deplore the systematic jamming of broadcasts, short-wave or otherwise, without regard to contents. H.M.G. therefore view with sympathy the private anti-jamming campaign organised by the International Short-Wave Club. The British Broadcasting Corporation, which is a corporation independent of H.M.G., has never engaged in the practice of jamming short-wave broadcasts . . . you probably had in mind when framing your question, reports concerning H.M.G's decision to carry out discriminate jamming against certain broadcasts of a violently subversive nature by Athens Radio, directed to Cyprus, which seek to incite the population to acts of murder and terorism. The Secretary of State for the Colonies. Mr. Lennox-Boyd, stated in the House of Commons on January 30: 'Her Majesty's Government reserve the right to take any counter measures which they may consider necessary and fustified to preserve Cypriot and British lives from outrages directly provoked by these broadcasts, which contain incitement without precedent between allies and for which it would be difficult to find a parallel in the history of broadcasting. "







































ROW FOUR (BOTTOM) - 14. Main transmitter control room, showing two international shortwave 50 kw. transmitters of RADIO CANADA; transmitters are located at Sackville, New Brunswick, and programs are relayed from studios in Montreal, Quebec. PHOTO INSERTED AT LETT shows the European antenna array of RADIO CANADA'S INTERNATIONAL SERVICE; pictured are high-gain antenna curtains supported between towers 380-, 220-, and 175-ft. high. 15. This sample QSL card just came to me from RADIO LIBERATION (RADIO OSVOBOZHDENIYE), Munich, Germany, which "speaks to the peoples of the USSR." On the reverse of the card, current frequencies "inked in" are 3.990, 7.130, 9.565, 9.765, 9.730, 11.780, 11.965, 11.825, 15.255, 15.395, 15.430. Says: "Cur broadcasting schedule changes frequently due to changing propagation conditions." Naturally, although not stated, "JAMMING" HAS A LOT TO DO WITH SUCH CHANGES! Further states: "We would appreciate to receive further reception reports; please note kind of disturbances and their code identifications." 16. (TOP) - Shown here are the second and third units of the transmitter of RADIO ISTANBUL UNIVERSITY (Istanbul Fen Fakultesi Radyosu), Istanbul, Turkey. The station is of 2 kw. output at the antenna and consists of four units: (1) A beat-frequency exciter, 1st doubler, tripler, 2nd doubler and driver amplifier, control stage, test panel, and rectifier unit; (2) Class AB2 push-pull modulator (tube type VT31 surplus type), Class C push-pull power stage (again VT31) premodulator and rectifier unit; (3) power surply system, and (4) studio consolettes which include pre-amplifier, studio canal amplifier, line amplifier, and controllers constituting the main operation. The station was constructed in 1951-52 at the Electronic Laboratores of the University as

(BOTTOM) - Namik Kanik, at present program and technical supervisor of RADIO ISTANBUL UNIVERSITY (ISTANBUL FEN FAKULTESI RADYOSU), Istanbul, Turkey. 18. Shown is a corner of "Studio El Indie" ("Indian-Hindu Studio") during a transmission from RADIO SIBONEY, S.A., Escobar 452, Habana, Cuba. The studio measures 6 by 4 metres. Administrator of the station is <u>Dr. Roberto Lopez Calderon</u>. As COCY, is scheduled on 6.450 at 1258-0500 GMT.

an applicable work under the supervision of <u>Prof. Adnan Sokullu.</u> Collaborators in this work are the following students—Sadrettin Sinman, Fikret Ulutas, Ozean Senocak, Namik Kanik, Orhan Isilgan, and Salih Akkilio. Antenna is Tyle L, half-wavelength, around 45° slopt to East-West. Tests prove that the station is being heard exceedingly well throughout Turkey and in the Mediterranean countries. Mr. Simman tells me: "We are broadcasting every day between 1400-1500 <u>GMT</u> and on SATURDAYS between 0500-0900 <u>GMT</u>. Turkish, classical, jazz, and dance records are our only broadcasting materials. We hope to increase our broadcasting hours and develop the programs in the future." 17.

PRESS-TIME FLASHES!

AUSTRALIA—RADIO AUSTRALIA expects to have its NEW 50 kw. transmitter, VID, in operation for coverage of the Olympic Games in Nov.

BEIGIUM—During a recent visit to Brussels, Arthur E. Bear, Secretary, ISWC, London, learned there is a POSSIBILITY that Radiodiffusion

Nationale Belge MAY RESUME ITS INTERNATIONAL SERVICE TOWARDS THE END OF THIS YEAR...particularly, it would be directed to NORTH AMERICA.

CHILE—Bampton, England, says CE1515, 15.150, Santiago, has been hrd broadcasting ENGLISH LESSONS on TUE. 2245-2300. (Radio Sweden)

CHINA—ENGLISH sessions during 1956 from Radio Peking, according to printed schedule received on July 29, are scheduled 1930-2000 (apparently for EUROFE), 15.220, 11.715; 0300-0330, 11.650, 15.060, 15.350; 0900-0930, 11.650, 15.060, 15.350; 1430-1500, 11.715, 15.350. A "Listeners' Letter-Box" program is presented EACH SUN. ON ALL FOUR KMNS, and answers questions from listeners about China. Balbi, Calif., notes Peking opening on 15.22, 11.715 at 1830 in SP. On July 20, Cox, Delaware, found RADIO SHANGHAI, 6.270, fairly good 1120 with man in oriental language; CWRM at times; parallel outlet 9.980A was also good.

GOLD COAST -- Accra's ZOY now verifies by QSL card. (Radio Australia, Others)

HATTI-TEST frequencies of 4VEH, Cap Haitien, in the 13-meter band are 21.480-21.485, 21.525, 21.560. "LISTENERS' FOST" session is now 1000 SAT. (instead of former 0900); 1430 SAT., and 2130 SAT., and 0230 TUE. The BULLETIN BOARD (an important feature in which announcements of frequency changes and happenings at the "Evangelistic Voice" are given) is heard at 1500 SAT., 0200 MON., and (NEW) 1100 SAT. (instead of 1000 MON.). (West, Va.)

HOLLAND—According to word direct from Eddie Startz of the "HAPPY STATION," PCJ, Hilversum, one of the NEW 100 kw. transmitters at Utrecht should be in use by this time; the second 100 kw. xmtr should come into operation during Aug. or Sept. Further high-powered xmtrs are expected to become operative late this year and/or in early 1957.

INDIA-On July 23, Cox, Delaware, noted AIR, Delhi, strong at 1229 on 21.570 with woman in native, then native interval signal; man ID in

ENG. 1230 followed by sign-off.

INDONESIA—According to a QSL letter from YDF, 4.930, Medan, Sumatra, xmtr is a RCA ET47500 of 7.5 kw. output; schedule is YDP, 4.930, 2330-0230, 0630-0810 MON. through THURS., EXCEPT HOLIDAYS; 0530-0810, 1130-1630 FRI. and SAT.; and 0030-0810, 1130-1630 SUN. and HOLIDAYS; YDP3, 7.110, transmits DAILY 1330-1530. (Kary, Cyprus) YDL3, 6.170, Padang, weak 1057-1100 with man in native. (Cox, Delaware) ISRAEL—Kary, Cyprus, says the Israeli Ministry of Communications has verified reception of HAIFA RADIO on 2.182, stating call is 4X0, xmtr is RCA TE755 of 3 kw. power.

(FRESS_TIME FLASHES - cont'd from Page 124)

JAPAN—JKG21, 6.175, strong signal in California with Japanese at 1300; JKO21, 6.005, weak to fair around 1300; are Home Service outlets.

RADIO JAPAN has REFLACED JOA9, 17.785, to Hawaii 0530-0630, with JOA20, 17.825, parallel JOB5, 15.235; thus, JOA20 is the ONLY 17-mc. outlet now used by RADIO JAPAN. (Balbi) RADIO JAPAN informs that it is now sending out "receiving logs" to listeners to fill out and return to the station as a part of its "extensive investigation into reception conditions of Radio Japan"; these "receiving logs" are now being forwarded to listenes in all parts of the world to which RADIO JAPAN'S xmms are directed. PROGRAM SCHEDULES WILL BE SENT FREE TO ANYONE ON REQUEST.

KENYA-ZHWS, 4.985, Mombasa, is again sudible in Cyprus closing daily at 1800 with "God Save the Queen," following a program in Arabic. (Kary) LEBANON-RADIO BEIRUT, 8.036, has ENG. for the Middle East daily 1500-1600; best-heard is the first half-hour when no CWQRM is audible on the

channel. (Buettner, Germany)

MONACO-Printed schedules from Radio Monte-Carlo show ENG. sessions as "Baltimore Gospel Tabernacle" Program WED. 2205, and "The Hour of Decision," featuring Billy Graham, the noted U.S. evangelist, THUR. 2205-over 6.035, 7.140, 1,466 kcs.

NEW CALEDONIA-RADIO NOUMEA, 6.035, noted July 22 with clock ticks from 0658; man ID in FR. 0700, excellent level, 20 DB's over S9 in

Delaware, (Cox)

NEW ZEALAND—RADIO NEW ZEALAND has just REPLACED 15.22V with 15.110, heard in California with ID 0600, closing 0615 parallel ZL4, 15.280; to the best of our knowledge, this is the FIRST TIME that 15.110 has been used by Wellington (no call sign was announced, just the frequency). (Balbi)

OKINAWA-Balbi, California, on July 17 noted VOA relay, Naha, on 11.835 at 1330; at 1530 with ENG. news; this frequency is not listed in

latest VOA skeds.

PHILIPPINES Northern Luzon VOA relay base noted on 15.245, opening 0500, runs to 0600; announced at opening; NOT listed in latest VOA skeds.

(Balbi, Calif.)

PORTUGAL—EMISSORA NACIONAL, 9.755, 11.840, noted in Eastern USA on June 24 at 0325 tune-in with ENG.; probably was a SPECIAL FEATURE. (Niblack, Indiana) Noted on NEW MEASURED 15.100 on July 23 at 2310 parallel 15.125 with musical program, man announcer in PT., both at fine

level in Delaware. (Cox)

SIERRA LEONE—The Sierra Leone Broadcasting Service, Freetown, operates on "announced" 3.316; audible in Cyprus from as EARLY as 2000 to daily closedown 2200A; programs prior to 2100 consist of relays of the BBC's General Overseas or West African Service; LOCAL NEWS IN ENG. is 2100A (varies as late as 2105), followed by news, talk in vernacular at 2110; announces, "This is Freetown Calling," and/or "You are tuned to Freetown in the Sierra Leone Broadcasting Service," and other variations; signal is good level in Cyprus, although QRN, CWQRM, and speech distortion reduce readability. (Kary)

SCMALILAND PROTECTORATE—RADIO SOMALI, 7.126, Hargeisa, has been noted recently PAST SCHEDULED 1500 closedown with TEST TRANSMISSIONS until 1700 sign/OFF, directed to listeners in Somaliland, Adem, East Africa, and another location; programs consist of Somali music and features with occasional announcements in ENG. and Somali; reception is excellent in Cyprus, SUGGESTING FERHAPS THAT THIS MAY BE THE NEW XMTR MENTIONED

IN CORRESPONDENCE FROM THE STATION LAST YEAR. (Kary)

SURINAM—FZC, 15.405, Paramaribo, noted with ENG. 0130-0200 sign/OFF on a recent MON.; ID at closedown, fair to good level. (Balbi, California) SWITZERLAND—F L A S H!—The International Committee of the Red Cross in Geneva will TEST AGAIN over facilities of SBC, Berne, as follows: AUGUST 14, 16, 18, on 7.210 at 0600-0700 (100 kw.); 1130-1230 (100 kw.), 1500-1600 (25 kw.), and 2030-2130 (25 kw.); each TEST consists of a 10-minute program in FRENCH, GERMAN, ITALIAN, ENGLISH, SPANISH, and ARABIG. Officials say: "The conditions in regard to propagation have undergone a considerable change since last winter, owing to the evolution of the sunspot-cycle; YOUR report will, therefore, BE MOST WEIGCME." (VRH) QRA is "Comite International de Ia Croix-Rouge," Geneva, Switzerland.

THAILAND-An UNIDENTIFIED Thai station was logged recently on 7.080 at 1540 PAST 1635 when was obliterated by JAMMING of Jannina. 7.072.

Greece. (Kary, Cyprus)

TURKEY—From the Director of Izmir Radio, Umit Halit Demiriz, comes word to Kary, Cyprus, that TAZ, 6.630, employs a H. B. 400 Turkish-made imtr of 400 watts output, scheduled 1400-2100 (although on SUN. the station is on the air during "morning" hours); future plans consist of "a new

radio station," but no details were supplied.

UNIDENTIFIED—Cox, Delaware, notes a French-speaking station on 15.092A around 2230-2300 and later which possibly may be RADIO MARTINIQUE; plays much Latin and Caribbean-type music, also "pop" tunes; both male and female announcers in FR., but has heard no identification.

VIETNAM—RADIO SAIGON recently MOVED from 7.260 to LISTED 7.290; hrd ID 1330; ENGLISH NEWS was noted at 1345, good level. Hanoi's "Voice of Vietnam" has REPLACED 7.405 with 7.480A (may VARY), parallel 6.210, 15.024A; has ENGLISH NEWS now at 1300. (Balbi, California)

LONDON CALLING

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LIBERIA ... LEBANON

MACAO ISLAND

MADETRA ... MALAYA ...

& ppe add 12 CMT FRENCH EQUATORIAL FRENCH INDO-CHINA FRENCH CAMEROONS PRENCH MOROCCO ...

August 9, 1956

Chart World Time Calling,

e programmes of the BBC's Overseas Services announced and printed in 'London Calling' in Greenwich Mean Time. This chart shows the hours to be added or subtracted to convert GMT to the clock-time in your part of the world.

The time differences given are those known at the date of going to press-June 28, 1956. A new edition will be published every three months and any intermediate changes will be notified in 'London Calling."

CHART

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MARSHALL ISLANDS

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Mexico generally
Lower California
Pacific Coast only
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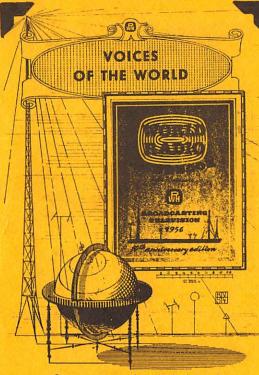
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If YOU liked this First Edition of "THE WORLD AT A TWIRL" . . . please tell your friends about it . . . and how they, too, can get a copy. Thanks!--K. R. B.

The author is shown with a copy of the First Edition of "THE WORLD AT A TWIRL"

. . along with some of the first ADVANCE OFDERS received for the publication.

First orders from the United States were sent in by Capt. Frank Winch,
Los Angeles, California, and Floyd F. Eackus, Richmond, Virginia . . . from Canada,
first orders came from J. Cowan Adam, Vancouver, British Columbia; Ron E. Fleischman
and J. P. Hughes, Montreal, Quebec . . . while the first order from outside North
America came from Class W. Englund, Sunningen, Lane Herrestad, Sweden. . . .

Equipment pictured at Ken Boord's Shortwave Listening Post in Morgantown, West Virginia, USA, includes:

A new HALLICRAFTERS SX-100, along with "old Faithful," a HALLICRAFTERS SX-28 (Super SKYRIDER) of 1914 vintage; a NATIONAL NC-98-SW; a ZENITH Trans-Oceanic-portable--mborrowed from the 'boy across the street, "; a RME DB-22A preselector; a PANADAPTOR, and a home-built 200 kc. Frequency Standard.

The little crystal set atop the Frequency Standard was the author's first radio receiver . . . dates back to the mid-20's . . . and still *perks!*

