

OLDEST MEDIUM WAVE

OFFICIAL PUELICATION OF THE NATIONAL RADIO CLUB
"Considering all that I've learned and all the enjoyment that NRC membership has given me in the past year, I can't afford not renewing!"
(Blake Lawrence, Co.)
IN THIS ISSUE...
Index to Volume 38 of DX NEWS - Mark Katz
Latin American Heads of State: A DX'ers Guide - César Objio
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List of Available NRC Reprints - Mark Katz
1970-1971 Merit Awards - The Editors
Domestic Supremacy Ratings - Bob Karchevski
Latest NRC Log Updater - Russ Edmunds
MANY NEW NRC MEMBERS THIS WEEK!
*Lawrence Boyd, Glouster Point, Va. *Gary Jackson, Sacramento, Ca. *Andrew Robins, Kalamazoo, Mi. *Michael Collins, Stratford, Conn. *Glenn Combs, Abilene, Texas *John Baldwin, Toledo, Ohio *J.W. Batson, Santa Monica, Ca. *James Cipolla, Portland, Ore. *Ronald Meeden, Groveland, Mass. *Richard Allen, Stillwater, Ok. *John Denton, Lawrenceburg, Va. *Ralph Beling, San Diego, Ca.

Welcome to the NRC, gentlemen, we hope to be reading of your DX accomplishments often here in DX NEWS. A kit of introductory material has been mailed out to you and should be reaching you shortly.

## MEMBERSHIP RENEWALS...

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Fela... Stillwell... Lehr... Pimper... Jeffrey... White...
Birlingmair... Eggert... Morss... Clements... Sundstrom...
Phillips... Reynolds... Lawrence... Osterman... Lyon...
Richardson... Jozwiak... Eastman... Higgs... Waldron...
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International DXer of the Year:
Domestic DXer of the Year:
CPCer of the Year:

PAGE TAYLOR
PAUL HART
DAVE SCHMIDT

These members have been selected by the Editors and Committee Chairmen for outstanding contributions during the past year. The recipients will receive engraved award plaques in recognition of their efforts on behalf of the NRC!

RANDOMNESS FROM HQ..
*The conclusion of the Aurora article is held over until next issue due to space limitations; sorry... HQ apologizes to all of our Winnipeg members for moving them to Ontario last week, due to the large number of complaints from Ontario members we will move Winnipeg back to Manitoba effective immediately. Congratulations to NRC'er Don Erickson for winning the ANARC MAN OF THE YEAR AWARD... Best wishes to BPC worker Hank Slade who's currently in the hospital recovering from a back operation. Response to the Incredible Pattern Book project is very favorable if you wish to reserve a copy PLEASE LET US KNOW... A few NRC Domestic and Latin American Logs are still available from HQ; see Domestic and Latin American Logs are still available from $H Q$; see
the back page for prices... "DXTRAS", the new question and answe column by Eric DiRicco and Blake Lawrence will debut next issue.. Each issue we run off a new updated membership address list as part of our computerized label making operation; they're too long part of our computerized label making operation; they're too long and change too frequently to run in DX NEWS but we'll send a copy
of the latest 20 page listing to any member who wants one; please of the latest 20 page listing to any member who wants one; please
enclose a dollar for Xerox'ing and postage... IMPORTANT NOTICE TO enclose a dollar for Xerox'ing and postage... IMPORTANT NOTICE EDITORS: please turn your makeup sheets over and use the backs
nonrepro blue is showing up again; you will be receiving new nonrepro blue is showing up again; you will be receiving new
makeup sheets shortly... COMING SOON IN DX NEWS: The latest up-to-the-minute EBU European station list for the upcoming TA season; a major article on DX'ing the Pacific stations by Jay Murley; and much more... Once again the NRC will be preparing the North American station list for the upcoming World Radio Handbook; Russ Edmunds has volunteered to handle this task in addition to all of his other jobs for the NRC; the payment for this article goes to the NRC Treasury to help fight inflation... The Grapevine says that a regular DX'ing comic strip will soon begin in DX NEWS... We hope to be reprinting part of a very interesting article on Auroral and Geomagnetic research from SDXK, the large Finnish DX CIub; not only do their observations confirm our findings based upon reception from North America, but they have totally unwittingly discovered rom North the Midwinter Anomaly..: All of the indicatiors suggest that the should be much better than the past few; this makes the upcoming VoA Okinawa-1178 test even more important; we lll try and have it scheduled for a date most favorable for North American reception, scheduled for a date most favorable for North American reception,
based on the latest auroral measurements from the satellite net.. based on the latest auroral measurements from the satellite net..
If you're interested in MECHANICAL FILTERS or are waiting for the next shipment, contact Tom Holmes for the latest information.:.

ECHNICAL
Convention DXpedition Post Mortem Patterns

CR
PH The BCB DX'ers Beverage

GPN
The Aurora of November 6-9, 1970 GPN Loop Distortion- Why Get Skewed GPN HQ Tests the "Space Magnet" LoopAntenna The Classic Aurora of December 14 th GPN, PT Great Circle Computer Program PLS The Loop-sensor Cardioid Array PLS
Patterm-Controlled Loops for the
MW DX'er
GPN
The Space Magnet- How Good is it DK
Geographical Patterns in BCB Reception
During Periods of High Auroral
Activity
GPN
FORETGN DX
TP Reception Does Exist
FBU List
Bottom DX
Report from Thailand
Multi-freak Reception
La Voz de la Fuerzas Armadas
Frequency and Callsign Allocations in
South America
RFS
Your First 20 NA/SA Countries
Report from Columbia
About Those Common Waves
RFS Cuban List
Yea, Even for a Trained Linguist
The First 20 TA Countries

## JMRN

First 30 Countries in English
RFS
First 30 Countries in English
Your First 10 Mexicans
LA Topics
Beans in Your Ears
Survey of TA Reception in North America Caught in the Jamming

Latin American Heads of State
$10 / 10$
$10 / 2411 / 711 / 28$
$11 / 21$
$11 / 28$
$12 / 12$
$12 / 191 / 23$
$1 / 23$
$3 / 27$
$3 / 2$ ?
$5 / 15$
$5 / 15$
$6 / 19$

B/2B


## DOMESTIC DX

Voice of Prophecy Log Logging Your First 500 Stations Logging Your First 50 States
Canada's Wilderness Radio- the LPRT
Logging 50 States Revisited
1971 Frequency Check List
Frequncy Check List Supplements
What is a Pre-Sunrise Authorization
DX from the Twilight Zone
NRC LOG Correctors and Updaters
$\mathrm{JM}, \mathrm{HH}$
PT, RJE
PT.RJE
PD
RJE
JF
JF, RJE
RJE
PLS
9/26
$11 / 14$
$11 / 28$
$12 / 29$
$1 / 23$
$1 / 30$
2/20 6 6/19 9/11
$1 / 9 \quad 2 / 13 \quad 2 / 27 \quad 3 / 6$
1/17 $\quad 5 / 29 \quad 7 / 24 \quad 9 / 11$

## MISCELLANEOUS

1970 Convention Report
Convention Scrapbook
Tape Recording for DX'ers Revisited Ye Olde Log Booke
Columbian Postal Information
NRC Reprint List
Index to Volume 38
larence Freeman
Cesar Objio
Chuck Rossier
Carter Scholz
Dave Gleason
Don Kenney
Dan Phillips
Glenn Hauser
Gordon Nelson
Harry Helms
Headquarters Staff
Joe Fela

RJE
RS
CS
JS
DP
DP
CO
MK
MK
KC Jerry Conrad
JM Jay Murley
JMRN Jose M. Rangel N.
JS Jerry Starr
JT Jan Turner
KB Ken Brownless
MK Mark Katz
PH Paul Hart
PLS Phil Sullivan
PT Page Taylor
PPS Page sonatz
RFS Ron Schatz

-Mark Katz

## LATIN AMERICAN RULERS • Cesar Objio

General knowledge about the Latin American situation is always helpful to medium wave listeners. Many are the times when an unidentified Spanish speaking station is heard and no hint is given about the identification. Political situation is always hot news in the countries South of the border with their constant changing of leaders, revolutions, coup d'états, political murders and kidnapping, etc. A good help is to be up-to-date with the situation, at least by knowing who is the strong hand leading the country at the time. Newsreels programs are always presented by Latin American stations giving the latest happenings in the country, mentioning facts, information, data, and some time the name of the President comes up in relation to any event. Here is a list of the actual rulers (or persons holding the power) in the Latin American countries (as of August ist., 1971).

Argentina: Lieutenant Colonel Alejandro Lanusse, President, assumed power on March 23, 1971, after Roberto Marcelo Levingston was ousted by the Army, also appointed by the vingston was ousted by the Army, also appointed by the
Army leaders on June 13,1970 . President is elected for a 6 years period. No reelection.

Bolivia: General Juan Jose Torres, President, assumed power on October 7, 1970, when leftist General Alfredo Ovando Candía was forced to resign by rightist General Rogelio Miranda, this one in turn abandoned the presidential palace when bombed by contrary forces. Presidents are elected for a 4 years period and may be reelected. (It is doubtful new elections are held again in this country due to the extreme left government in power right now.)

Brasil: General Emilio Garrastazu Medici, became President on October 30, 1969, when President Arthur da Costa e Silva, an Army marshall, elected by the Congress in 1966 , suffered a stroke and died. Garrastazu Medici was confirmed by the Congress. Presidents are elected for a 5 years period. No reelection.

Chile: Salvador Allende Gossens, President, assumed power on November 4, 1970, after ending in first place over Jorge Alessandri in the elections held on September 4, 1970, was la ter confirmed by the Congress, as he did not get the required over $50 \%$ of the votes. President period lasts 6 years. Can be reelected but not on a succesive period.

Colombia: Misael Pastrana Borrero, President, assumed power on Ju1y 15, 1970, after winning elections held on April 19, 1970, over former dictator Gustavo Rojas Pinilla, ending in second place. Succeeded Carlos Lleras Restrepo. Presidency is held for a 4 years term. Reelection is not permitted on a succesive period.

Costa Rica: Jose Figueres Ferrer, President, assumed power on Fe bruary 1, 1970, through elections. Succeeded José Joaquín Trejos. Presidential term is 4 years. Can be reelected but not on a succesive period.
Cuba Fidel Castro Ruz, Prime Minister, assumed power on January 1st, 1959, after Fulgencio Batista was ousted, ending a fight which asted several years. No elections are held in fight which a
the country..
Dominsean Rapublier Joaquín Balaguer Hicardo, President, assuned power on July ist, 1966, after winning elections over Juan losch, first on the list of defeated candidates. Succeeded Hector Garcfa Godoy, Provisional President after the civil war. Elected for a second period on May 16 , 1970. Presidential period is 4 years. Reelection permitted.
Ecuador: Jose Marfa Velazco Ibarra, President, assumed power on June 3, 1968, through elections. Succeeded Otto Arosemena Gomez. Period: 4 years. No reelection.
El Salvadorf Colonel Fidel SAnchez Hernández, President, assumed power on July ist, 1967 , through elections. Succeeded Jullo A. Rivera, 5 year period. No reelection.
Duatemala: Colonel Carlos Arana Osorio, President, assumed power on July lst, 1970, through elections. Succeeded Julio Cosar Montenegro, 4 year period. No reelection.
Haiti: Jean-Claude Duvalier, President for life, assuned power on April 22, 1971, after Francois Duvalier died, who won elections on 1957. No elections are held in the country.
Honduras: Ranon E. Cruz, Presidens, through elections held on March 28, 1971, assumed power on June 6. Succeeded Osvaldo López Arellano, who had overthrown President Ranon Villeda Morales on October 3,1963 , elected on Novenber
15,1957 . Presidential period is 6 years. No reelectlon.
Moxieo: Luis Echeverria Alvarez, President, assumed pover on July 5,1970 , through elections. Succeeded Gustavo Diaz Ordaz. 6 years period. Noreelection thereafter.
Mloaraqua: Anastasio Somoza Debayle, President, assumed power on February 6, 1967, through elections. 5ucceeded lorenzo Guerrero. 5 years period. President may not succeed himself.
Paname: General Omar Torrijos, assumed power on Decenber 1969, Succeeded Dr. Arnulfo Ari as who won elections held on May 12 , 1968, inaugurated on October 1st, was ousted on October 11 by a military junta. Junta President is Denetrio Lakas, but power is held by Torrijos, Presidential perlod is if years and there is no reelection until 8 years have elaps. ed.
Paraquagt General Alfredo 5troessner, President, assumed power on August 15, 1954, by a coup $d^{\prime}$ Etat. Have teen reelected 3 times. Forner President was Toisis Ronero Pereira. Presidentlal period is 5 years.

Perdi General Juan Velazco Alvarado, President, assumed power on October 3, 1968, when President Fernando Belaunde Terry was usted. Presidential period is 6 years. No reelection. (It is doubtful new elections are held again in this country due to the extreme left government in power right now.)

Uruguay: Jorge Pacheco Areco, President, assumed power on December 6,19 7. Succeeded Oscar Gestido. Presidential period is 5 yea s. No reelection.
Venezuela: Dr. Rafael Caldera, President, assumed power on March 11. 1969. Succeeded Raul Leoni. Presidential period is 5 - ars. No reelection.

(In a talk with repe of the NRC Ferraro revealed that the raiding party headed by "Killer" Dave Popkin (of 1970 NRC Convention unfame), hit at 完 $A M$ and wais armed with wirecutters and hacksawn... The allegedly lifgly dangeroua master criminale (who'd been up until 4 AM with a late night show) were taken off to the Federal facilitiea in Foley Square in handcuffs and tomsed into a cell until later released on peraonal recognisanc The case was widely covered in the media; both NYC channel 4 and 5 carried apecial programming according to Ferraro. WOR-AM was scheduled to festare a talk program about the case but later retracted the offer, citing their upcoming license review ab the reason. . GPN)

## A THREAT...UNCERTAIN FUTURE BIG CHANGES. <br> NEW WOES.

Yes, iriends, we face tile future uncertain, now that Joan, our resident soothsayer, has mads good her threat to leave. It will bn a big cinange, no loncer knowing if Theeler will hear 4,000 stations by 1974. And it means new woes - Joan is taking the old ones with her. Jut enoweh of my spiritual groblems - I do know that 40 Dkers are listed below in Dolymn . If you're
 PO Box 3151, Daiy City, Cclif. 94015. (Forsooth!-cdp)

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | DOMESTIC DX SUPREMACY RATINGS | FOR | 10 | JULY | 1971 |  |
| YR | NAME AND | HEARD |  | TAPE |  | VERIES |

BLAKE LANRENCE - BOx 803 - Canon City, Coloredo - 81212
I've missed a few deadines lately, and by puttiñ things off I heven't been in this section for a few issues. $D X$ hasn't been too bad here - totels now up to 780 . I'm hoping for 800 by , at the latest, mid-September. A new station is on $\operatorname{in}$ Clovis, N.M. - KWKA-680, came on about $8 / 1$. They are supposed to have $500 \mathrm{U}-2$, but they sound like 5,000w here. Thej play rr (just like clov is' other two stations, hi) and are CBS - IDs are "WKA." Other new DK: 8/2-R/c from KNOX-1310, KNIT-1260, KBAN-1410, \& KGRI-1000; KREO-1400 ET @ 4:512m, WOHO1470 C $5: 41$, KFGO-790 © Gam, KEYL-1400 s/on @ 6:40, \& KFAY-1250 © 7:05am. 8/3-KJBC-1150 Tex. ETing (3 2:04. 8/5- KWKA-680 © 10:13pm. 8/6-KFVS-960 r/c \& KWWB1550 © $1: 33 \mathrm{~mm}$ W/ET. MM 8/9-YVOZ-1200 @ 3:25am for country \#14. WOAI appears to be coinc off MMs ejain. 8/11-KHSL-1290 u/KOLL w/ID e 2:08am, KTM-1430 N.D. v/ ET C 2:14. 8/13-UnID on $1190 \mathrm{w} / \mathrm{TT}$ off \& on, noted just before 2 m and arain at 2:32; I suspect KAYQ, as I heard mention of a directional pattern and "Missouri" durinc e breek. 8/16-KXEQ-1340, KTXJ-1350, \& KWRD-1470 on r/cs, KTOW-1340 e 1: D am, KWBE-1450 © 6:43 \& KFAL-900 © 7:16am. ERC, if you want $\mathrm{c} / \mathrm{w}$, Denver has a sur
 Bobby Sherman \& Danny Osmond! If you pay shippinz, I'm sure all Colorado DXers'd be geld to send you NSP KLAK, hi. KKAM-1350 is now AN, SP is 1-7am MMs, rr formet. KEDI-1490 js AN, SP MM 3-8sm. KOA has been staying on to about $2: 30 \mathrm{am} \mathrm{MMs}$ lately instead of soins off e 2:05. Keep this in mind: "DXtras" is COMING! A notorious Pittsburch member told me to say this" CPYN. Good DX \& 73 from Colorful Colorddo. BPC - Is Winnipec really in Ontario?

ERIC DiRICCO - 540 Gallion Avenue - Pittsburgh, Pennoyivania - 15226
DX has been creat. For all you people who don't DX in Summer, I've manejed to loy 150 new ones. Just since July, too. Veries have been coming in Ft a clow pace, however. But surprises still come, like a second WCKY verie - I didn't even ask for it! And a verie from WPAT after five months. Also, one from long-time hold-out KRMG after stx months. I've also managed to verify a pirate though. I trecked him down \& had him sign e PP/c. Super-pest department: WHLO refuses to verisy m: reports - I even tried a PP/c (w/SASE yet) to the personalit: I heard duriny the monitoring period. Still no zo! WIN is another who refuses to verify 5 report. Guelity and leneth aren't the problems, either - I sent a o-minute report which I'm sure is correct since taken off a tape I made. Does CJCY verify? ERC. I finally heard the ex-WJRZ (now WWDJ) durine WWSW's SP. Thrills, huh? $H Q$, when can I cet a mechanical filter? I asked for some info LONG ego. Blake Lawrence \& I still haven't given up on our column idea, but no one in the CLub would take time to pass on what they thoucht of it. (It's explained in DX NETS H29, 6/19/71). C'mon peocle, show some spirit and write! I think ever member should flood the DX NEWS w/a Musing for the last issue in this volume. How about it, even John Shannon! CPYTF. 73s \& good DX to ell.

JOHN CTULL - 5539 Oek - Kanses City, Missouri - 64113
Hi ecain. Cood DX lately received. PJB after nulliñ out XELO. I never co. ld have received this station on my loncwire as XELO really has a strons sicnal into K.C. Also on $8 / 9$ I received WNEH even though signel level was just above noise. New veries: WUSI KCRG KLEY KWRE KAKE KQYX CHUM CBM CBL CBE CBR WAKY KCHI WIBV. Weiting on CKX KNX KFMJ KCTA WDAY KIIF WWIC KJPW KLEY. K.C. hes had some cool weather in the past few weeks \& the noise level has been dom from nor2. I yould like to see the IDXD in EST. Good luck to RjE and GPN and I hope the hospitel stey is short. 73.
G. KAPLEY DELEURERE - passinj through - REYKJAVIK, ICELAND

The airplane left NYC © lam this AM 8/10, therefore I' 11 be lete arrivint et Luxemboure. I don't know how now I'll EO to London. Greetins.

STBMR DRUKE - 2108 South Blmoson Street - Philadelphis, Pernaylvania- 191ke Where does the tixe got focording to wy recorla I na vay pant






 atni. This makes 57 countrles verified out of 63 heard. I has sorevhet disappolated in that not one af the three wimorra in the Dosessle Contest way fit to
 cpaceled and that vell the coly wny I knay they had received then. I ne looktas: forvaril to snother season at the disis. I hope I cen log a few pare countrics thin contr: Wimter, Bo 73 so nll and good rax.

Above eddress is all tee; phone here 10 617-731-634 amytine before vildnight. The wife 4 I Juat aoved In as of B/15 "e dro that will ifve in Infary" his. So dues hike far 90 dnyis, antweyt 1 stil1 heven't gotion around to vritine a basie log for locsls to bulld on, too busy visiting BPC people. BGK, Bndty Kane,
 thin Qiotz can take effect at any time, nfat or day. Cs is to be congratalated for the NAC T-ahirt he eoncoctad on w kitchen tsble, well dofie, Corter! One Inst coment: Sumeer in loston in fralpid. I vill be attendint Oraha Junfor Colv Lege this Fall as a raillo production and performence asjor. 73 H good Dox , see you noxt tine, frlends, with ione wa.

## RICH RICEMM - 14 East Cheshire Place - IEsten Island, New York - 10301

For somenn who was a hichly regular Muser (and would go way over the $30-1 i n e$ limit) I've been consptcaously missing from these paces of late lack of worthwhile DX is the main reniln. Only noteworthy item was the snarinc of $1 \mathrm{CDL}-1440 \mathrm{~Pa}$. © $8: 29-8: 30 \mathrm{pm}$ s/orf 7/23. This wes during the WNJR silent period. It was crood to hear sever 1 rarely heard stations on 1420-1430-1440 as res uiars durin those doys that WN was off. (WAAB WCOJ etc.) A WCDL v/f is now


 tion. 1 wnt sir persocnittiea Franitie Lee, Hoe Mrher, ferwanan Churles Lennard, CE OFry Kooter. I ant pext to Frankie et the eomiole, throushout his $4-0 ; 30 \mathrm{pa}$ shov. Hopefuliy, I'Li be nittinc behind s conale miself at sone lucky station, poteubere, is the nase future. Ferheps, with n new locetion, I enn met sune good



 deed fortumbe to lenve ladi $\quad$ ix months enrlier then plarnot. Fort Womouth in
 011 goen vell, we should be here for flve zeara or sot The infanoun Whbc spari bent toned in the last Du Winc on 600 o 060 are attill guite avidenthere, nbout 55 alleb-58 of lodi. These syurt were really penty stion I wan livine in loal, meek-
 Spring Voller, N.K. bnek os the efr after a yent'la sbseace. They, are IDiny hat "The liev thow' \& played Mol durlne the 20 aituaten I benes then ( 4 '40-5pa). Ther ore sino hariny s ecoteat vith prizes for the furthest ils tenern: Ho eds noticed is the 20 minates I heard thea though. Comurats foxy on racent marrisgot - weleowt
 (unllatend) is 201-495-1;13. Mave a happy time ot the oonvention. T3, and etay cool. PS- UJ1K-1310 ple a e/w me every Snturs oy stternoon itartine e 12315 pa .



 been in thote pricte, so I'll re-introduon myelf. I'm 21 , pradusted In June fron Cito Moslogen with in Journilius \#na, (or, sh expeet to have to enlist in the Bervice berore too miny mocthr peata. I've poled since "G5, end froe Elyrin (I bever sounted en DX I did et school - the fever sets of totsis the better), have hesrid 1,171 atest ons from 4 C atetes, minh provinces and 29 -o3d coantries. This Sumper, es in mentfertetion of the "reer breed" of graduatea I have emploged mis falents as es
 for $2 \pi / E \pi / \mathrm{mg}, 7 / 26-$ VCrC-1450 ID $1: 17 \mathrm{mb}$. I had heard then ID three tines tha previcous 15 nimutes but wes not gure of ey hentinti all four IDe were identicn.?


 500, 2152, vxot-13K0 ID ver, vent t nusdied $3: 30$, P9 I belteve, $\quad$ thint- $1550 \mathrm{~m} /$



 Throctunte
 Philea, bo entenne at present. I maife the foril wad-land get-to-ether, mithoch for so hafof E IIme I don't thint Jerry even reelized I wha there - nt any rate




 turn ofierod to aryont win in these pares expresses a noed - po roce to liat tem.

I have now tot n ned $\mathrm{EX}-133$ in place of the $5 \mathrm{SX}-110$, and have bul1t $n$ thev $\operatorname{Iog}\left\{3^{\prime}\right\}$ so I rn sil kean for the tocinc scison. I've got quite a b 2 t ot mxin: done this Bonmer v/a fer Intereat in entohen in between thumber"tarms. Hore ere soce inthe I eould use eooe help ont Station on 770 y/II et





 15ts efer CNE oforf 62 , but heve jet to cestch ID. Do they ID e even half hour:






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H1 guyt. I ntio one nev loguini. On $7 / 15$ I candht UIXY-12Lio
 hre plomed $t 0$ be Out おest at Convention $t$ Ime 8 on abe accanton the venarable Jin lirroer wna thinitins of comtay nlong. Hovever I will heve to coll that off, beeruse I na chencln jobs * novins beck to Montresl. Thnt pecludes afy bic vachtion this reer. The move bect to Montrosi dertasniy vill be na ter povement frome
 aplary end ofil thet seatinentel rot, but the fain reescon is 20 thet. I cen do nome aplary end oll thrt seatinentel rot, but the fisin resecon is an thet. I ean do nore BCB IK: Now thet Faxy is narfied, who If next? Chapter 13 of the book Thuture
 Is ats the varguerd of the future, e sourve of identity in a biz facelass worlh. t: lons lant ve have the recognition wich ve deaprive.

12 RAND STEWAPT - 2951 East Bennett - Springfield, Missouri - 65804 Howdy from the Land of the definct Ozark Jubilee TV Show, hi. I didnt DX much during the past months, but since school starts $8 / 30 \mathrm{w} / \mathrm{classes}$ ? am-12:50pm (two student bodies will share the Glendale HS building at differemt times until fifth high school is finished). Normal Glendale students go in the morning, students who were to go to the fifth one, because of several strikes, will use the Glendale building in the afternoon, $1: 30-6: 45 \mathrm{pm}$. I figured It better start DXing. Since last Muse: 7/26- Belize noted on late w/boxing (Midaleweipht chempionship of Belize), no s/off till nearly $1: 45 \mathrm{am}$. They do announce 820, however, but never give power. 7/27-TGHR-700 o/u looped wIW w/mx. \& "R. Mundial" e 1:40, fair, heard most nights. 8/3-WXEL-1350 Ill. poor e $1: 35 \mathrm{w} /$ lotsa splash from locel NSPrt KICK-1340. 8/19- While taking log on KTOE-1420 Minn. (e) 1:40 I noted r/c of WLET Ge. Way over him till off e $1: 45$. 1420 is a fun frequency here before local midnight, what with WOC KmOE \& who ondy knows what else killing each other. 8/21-UnID LA on about 664 hetting 660 \& 670 badiy. Don't tell me TGRT is drifting again? Also, which way does WBZ beam at night? (They're non-directionsl -ERC) Noever above $S 3$ h here while KDKA is near local (Ihe qualk 1 it talk - I don't know when to shaddup, h1. h9) I'd best say 73 till the next time.

JOE A. MARKEWICZ - 1394 Elgin Avenue - West Winnipeg 3, Manitoba
Since I just joi ed, I thought on introduction would be in order. I'm 16, a Grade 12 student at Daniel McIntyre Collegiate Institute. I've been turning the dials since 1967, \& I started to verify the stations I heard on the $B C B$ in the early part of 1970. My totals 80 something like this: $640 / 348$, $39 / 32,10 / 9$, \& $8 / 7$ provinces. I also do a lot of FM \& TV DX. Some veries in: WWJC- 850 CMPN- 870 KIMS- 1480 WJCN CMCA- 830 KSEI- 930 KUJ- 1420 KMO- 1360 KRKO KQWB1550 who has moved to their new studios. KQWB's new address is Nox 2983, Fargo N.D. 58102. KQWB-FM new calls are KWIM. CKRC-630 new SP is 2:30-5:30am on Tuesday AMs, a change fromms. WWJC mentioned the wivernion on its new frequency \& power is the furthest to date. WWJC did a fair amount of testing on SMs when they were on 1270. WWJC is heard here $v / a$ poor signal during the day because KOA can riso be heard here ell day. Because of my lack of time this winter, I don't plen to do too much listening. I think that Morris Sorensen will need a lot of luck up there at God's Lake, hi. Since when has Winnegeg become part of Ontario? (Welcone to NRC, Joe - sorry to have to cut out the TV/FM stuff. We hope you will get to do some BCB DX \& will Muse about it: -ERC)

DAVE CHRISTENSEN - 3434 39th west - Seattle, Washineton - 98199
Hi 11! Time for an intro, as this is my first Musing, so to ease suspicion: I'm 17, have been DXing for about four years and a member of IRCA for ebout $3 \frac{1}{2}$ years; where I'm currently contest manacer. My totals are: $424 / 155$ (heard/veriried) stations, $35 / 33$ states, $5 / 5$ provinces, $\& 10 / 5$ countries The reason for the poor verie total is that I ve had to give up verifying all catches due to lack to time and lack of funds, so now, I verify only my best catches. catches. My RXes are a Hallicrafters $S X-130$ and a Realistic TRF (Radio Sheck) portable, the TRF is mi domestic DX RX \& the Halli. is for foreign. Best Catch is KCAM-790 Glenallen Alaska, and best verie is KSMA-1240 Santa Monica. Recent DX includus: WMBD-1470 3:30am 8/14, WDXR-1560 © 2am 8/14, and KVOP-1400 on r/c 5:22am 3/16. CX have been interesting lately, $W / K Y A K-650$ in stronger than in the Winter and JOUB-770 O/KOB in the midde of August. Thanks to Kevin Slater, I'm a jincile freak, so I'll trade you anything from Seattle for your locals. Good DX, 73, hepDy trails, and if anybody needs hely w/Wash. stations, just write. 73. (welcomd to $\%$ ou also, Dave, and we hope to hear often from you! -ERC)

M0022 SFBO - 36 Bryant Street - Bridseport, Connecticut - 06605
After waitin~ 6 months I finslly received a $v / q$ froc WJDM. Still no veries from WFIF WFEA MMN WSAB. I have sent two reports to WFEA but they fail to enswer. Also I am havin-: trouble finding the variable capacitor used in the construction of the Altizimuth Loop. I would like to hear from any members who
have one they would like to sell. A severe electrical storm in thd area temporarily quidted many of our locals - great for DXine.

ROES E. HANSCH - 5013 Risser Road - Madison, Wisconsin - 53705
Swinging across 1090 in early August the signal seemed a little strons for WGLC, and sure enough, it announced "WISS, Berlin, Wisconsin" - the lonf-10st CP. Not too stronf here in Madison 65 miles away, (everybody's 40 over on the $H \leqslant-180$ \& inverted vee $u p 65^{\circ}$ ) the $250_{\mathrm{w}}$ daytimer may be a little difficult to loy in sone places, the surroundins states all have 1090 stations and at SRS \& SSS KAAY makes a real racket. Sept. s/on is $6: 30$, s/off $7: 15$, oct. $7: 15$ \& $6: 15$. The town is pronouced with the accent on the first syllable, not like in Germany, pnd is about 20 miles $W$ of Oshkosh. The format is the modern faceless country imaze, time \& trmperature after each number - or twice - and little local color miess somebod'j gets hit by a truck - even then they mirht not find it out. I don't know how long they 've been on as they're not audible on the car radio. WSO takes care of their weak signal, but they're OK on the $\mathrm{HQ}-180$ with accompanyment by WGLC. I had a visit from Al Slater and family of Sussex, England the first week in June. He's inactive at present partly due to an HNL, but with 130 countries verified and the declining sun cycle - he'll be back, and it was good to see his renewal in the August issue. If there is sufficient interest I can arrane a couple of VOA-1178 Okinawa SM TESTs for the EC this Fall. I have been talking to George Jacobs who is in charge, and the operators at Okuma, they think we should wait no longer, Give your suggestions, opinions, etc. to Jerry Starr, Gordon Nelson, or Foxy, with 1,000kw \& a $0^{\circ}$ beam - who knows? The DX NEWS time vote - a real toughie. I run two clocks in the shack, UMI for hambands and IDXD, HQ-180C on EST, no local time. We learn to think in a time zone - you can't turn it on \& off like a faucet. Either would be OK, if you want a vite, I say, ESI all the w\&. 73.

MIKE "DOC" HARDESTER - 401 Birchwood Court - Modesto, California - 95350 Most recent news here is the addition of two "new" RXes . $H Q-150$ and $H Q-129 X$. The 150 is used solely for $B C B$ \& the 129 for SWB. The 150 combined w/an SM-1 is one cood piece of DX gear. The ole 1930 Freed-Eisemarn did darn cood job in about three years of on \& off DXing. Heard totals w/the FE on BCB were 15 countries, five provinces and 40 states; on SW I logged 65 countries. $A B C-221-M$ *frequency meter) is also in use \& if I get enounh money together (at ong time, hi) I'm going to get a good tape recorder (reel-reel). Latest DX : KYW 1060 e s/off w/SSB on $8 / 16$ © midnight w/feir signals \& KUPD QRM; XEPRS (ex-XERB) w/excellent sicnals 8/12 © 9:28-10pm on the "rapper" show: rr \& SS IDs on the hour \& half hour; XEBG-1550 heard 8/15 © 2:42-3:14am w/EE prosram \& IDs as "R. 15-50". Requests for comments on promraminc which was instrumental \& IDs as R. 15-50 Requests for comments on programing which was instrumental mx, easy, but poor Sighals w/mucho QSB \& SS IDs; KSVC-980 heard w/ET on 8/16 e 2:38-3am w/instrument-
 W/GFN on the Landline a few weeks back about Aurora of 3/23/69. I hope the info helped. 73 \& Summer DX lives: Times are EST. How about a WABC DX Special, hi.
(He's NSP, Doc! -ERC)
$S_{R T}$. E. BRUCE REYNOLDS - BOX 3082 - HQ FEN - APO San Francisco, Cal. 96267 I cuess I'll send in a usint, too. Al my renewal for wy seventh year in the NRC, I used to be rather actici, Although the newer members won't believe it I टuess I'm just a domestic DXer rean staitions are too hard to ID \& blanket too much of the dial. I wish and anese would so ahead and put all their low-power stations on FM. That would help some. I dic turn on the $R X$ a while back last nisht \& caught $\mathrm{DZ} \mathrm{CH}-1600 \mathrm{~s} / \mathrm{of} \mathrm{f}^{\prime}$ in FF © 1500 CMT. S/on is 2100 GMI. I have a hunch the DX fever will set in argain once I ret back to Missuri. Don to a hunch the DX fever will set in again couple of back to Missouri. Don't give up on me yet, onvway. I have spent a couple of enjorable evenincs w /NRCer lars Ryden, which goes to show that you nevwe know where $\because o u^{\prime} l l$ run into a f'ellow club member. I didn't expect to find one in Tokyo. I hope everyone has fun at the Convention \& best of DX in the new


GrFS: $\quad 630$ CKRC Tues. AMs; on MMs. 1350 KKAM AN- 6 $\begin{array}{llllll}1200 & \text { WOA A Off MMs again. } & 1490 & \text { K E D I AN-6 } \\ 1430 & \text { WNJR SMs \& MMS. } & & \text { WARD AN- } 6\end{array}$ 1430 W N J R SMs \& MMs.

SCOIT BROCKWAY - 112 North Crescent Drive - Rome, New York - 13440 It seems that a few stations are beginning to clean up their back mail. A verie in from WEEL-1310 for a $10 / 26 / 70$ report realiy surprised me. Other veries in: WPOP-1410 WOR-710 WGY-810 \& WJDM-1530 for their 2/15/71 TEST. My own little PP/cs are back from WILH-1400 WAIY-1420 \& WKOL-1570. The only new station in to this writing is WERI-1230 w/MENS BB © 12:33am. (I think you had WHUC, Scott - WERI is Red Sox \& HI, hi -ERC) WTXL-1490 was also in w/rr e 12:15am. He gets one of my cards, too. A short note on local WKAL-1450 - they do NOT carry Yankee $B B$ any more due to some disagreement with the authorities on something or other. They also have dropped the Twentieth Centory Reformation Hour heard from 10-10:30am. I wonder if this latter malady is catching? A talk w/the CE of the station discloded that the Dr. MacIntire was delinquent in his payments to many of his subscribing stations, so it seems the air waves are becoming less cluttered by his material. Sorry I won't be able to attend the Convention but when it moves back Best somewhere I'll probably show up. And since many people aave nominated their own cities for upcorang NRC Conventions, how about Rome? We've got a nice big Holiday Inn downtown. Also, there's never a dull moment here as most of the dev you can see jet bambers \& interceptors taking off from our S.A.C. base in the city. If you have never been buzzed in your home @ 3am by an alext, you haven't realiv lived, hi. That's it from the home base of the defenders of the Northeast U.S. (Are you offering to HCST such an NRC Convention, Scott? -ERC)

BEN DANGERFIELD - 202 Governor's Drive - Wallinfford, Pennsylvania - 19086

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\begin{aligned}
& \text { I returndd home two weeks ago from a } 24-d a y \text { trip to } \mathrm{TA} \text {-Land }
\end{aligned}
$$ which took me through The Netherlands, Belzium, Luxembourg, and West Germany, before spending 12 days in Finland. My wife \& wouncer son stayed one more week \& made a four day jeunt to Leningred, but I had to get back to work. All DX was on my Panasonic transistor set, es in 1970, and some of my impressions follow, space permitting. Naturally I could have heard much more on a large RX. Daytime reception was quite cood at Amsterdam, the semi-locais beyond Holland inciuding Nordsee-1367 Veronica-1562 Brusse $1 s-620$ \& 926; W. Germany-548 \& London-908. BBCee also jood on 1484145711511088 \& 692. And Lille-1376, buty not Imxemburg-1439, not until evening. Others in W. Germany, Britain, Belaium \& France were weaker. Movint down the coast to Brusee, Belfium, found BBC-1484 covering Ostende-1484, \& the eastern Belgians rather weak, \& Paris-584 good days. In Laxemburg, outside of R. Luxembure (whose towers I saw \& apparently different day /night patterns are used) the best daytime stations seem to be Saer 421 Trier-827 Mainz-1016 Main-flincen-1538 Frankfort-593 \& Nancy-836. Stuttgart-575 is good, but leipzig on same frequency QRMS in Imxembure as well as in Germany. AFNs at Bitbure-1394, Frankiort-872 \& Kaiserslautern-611 are strong. Some Belgians gair: Dutch weak, \& BBC, ver; weak. Tuning in the Moselle-Rhine areas of Germany brought pretty much the seme gtations. GRM between synchronized XRs at Trier \& Koblenz on 827 was noted. Siso I visited Aachen, which has a local on 701, \& Liere, whose local is on 1484. Memories there for me co back to the Battle of the aul in 1944. Note: I am still fichting it! (But eating less would help!) (I hear you talkia'! -ERC) Ni=httime reception from all these areas is nearly uniform. I did find out that the $T A$ on 1043 using "Cood $N_{i}$ itht Sweetheart" as a signature is at Drescien, who then cuts power \& returns to the air. At Gpm EST, that is. I will have to rambe on about the reception in Finland in another Musing. 73.

## Past Articles from DX NEWS

## ANTENNAS

A1 SOME TIPS ON LOOP CONSTRUCTION, J. Starr. Helpful hints on the practical construction of loop antennas.
A2 ANTENNA TUNING DEVICES FOR THE LONGWIRE ON THE BROADCAST BAND, R. J. Edmunds. Discussion of various types of antenna tuners for matching longwire antennas to medium wave receivers.
A3 HIGH PRECISION DIRECTION FINDING ON THE BCB, PARTS I \& II, G. P. Nelson. Part I uses Maxwell's Equations to derive the equations describing MW direction finding with a loop antenna. Part II is a non-technical discussion of how loop antennas operate on the BCB and how to get the most out of a loop antenna.
A4 A ZERO SHARPENING DEVICE FOR A BCB LOOP, T. Holmes. If you're having trouble obtaining sharp nulls with your simple loop, this device may help.
A5 A VERSATILE LONGWIRE ANTENNA COUPLER, R. FOXWOrth. How to get the maximum amount of signal from your longwire.
A6 RANDOM THOUGHTS ON THE CONSTRUCTION OF THE FET ALTAZIMUTH LOOP ANTENNA, R. J. Edmunds. Practical hints on building the ultimate in MW loops.
A? ROLL YOUR OWN (LOOP THAT IS...), D. Fischer. Loop won't tune the entire band? This articie describes what's wrong and how to cure it.
A8 DIRECT COUPLED LOOPS, D. Fischer. Discussion of loop design and details on coupling your present loop for maximum performance.
A9 ONE TRANSISTOR LOOP AMPLIFIER, G. P. Nelson. This simple circuit will greatly improve loop performance.
A10 The degenerate loop - an excellent antenna coupler, D. Fischer Another approach to obtaining a good antenna match.
A11 FET ALTAZIMUTH LOOP ANTENNA PLANS, G. P. Nelson. Highly detailed instructions on the construction and operation of the most advanced loop antenna ever designed. Computeroptimized design permits nulling local stations more than 80 decibels; hear DX under your locals! Plans for both designs with and without transistor amplifierFET amplifier can be added later to boost performance. Many drawings; where to obtain parts.
A12 THE BCB DX'ERS BEVERAGE, G. P. Nelson. Nontechnical article on building a Beverage antenna-unequalled for MW reception.
A13 LOOP DISTORTION - WHY GET SKEWED, G. P. Nelson. Discusses the origin of distorted DX loop patterns; unique technical material not available elsewhere; a must for those interested in designing MW loop antennas.
A14 PATTERN CONTROLLED LOOPS, PARTS I \& II, G. P. Nelson. Introduction to the theory and practice of patterm controlled and cardioid loops for the BCB DX'er.

A15 HQ TRIES THE SPACE MAGNET, HQ Staff. NRC technical staff
evaluates the commercial "Space Magnet" loop antenna, and compares its performance with the FET Altazimuth loop.
A16 THE SPACE MAGNET - HOW GOOD IS IT?, D. Kenney. Further discussion of the "Space Magnet" loop.
A17 THE WAVE ANTENNA - A NEW TYPE OF HIGHLY DIRECTIVE ANTENNA, Beverage, Rice and Kellog. This is the original 1923 article describing the Beverage antenna.

## RECEIVING EQUIPMENT AND TECHNIQUES

R1 SPURIOUS SIGNALS \& SPURIOUS SIGNALS REVISITED, R. J. Edmunds and G. P. Nelson. Many MW DX'ers hear stations on frequencies where they don't "belong". These articles describe the causes and cures of spurious MW responses. Especially valuable if you've got powerful local stations nearby.
R2 SINGLE SIDEBAND RECEPTION ON THE BROADCAST BAND WITH MECHANICAI FILTERS, G. P. Nelson. Few commercial receivers covering the MW band have adequate selectivity to cope with $B C B$ interference - especially in the presence of powerful local stations. This article explains in great detail how to fit mechanical filters to a MW receiver for the ultimate in adjacent signal seperation. Now widely used by many top MW DX'ers.
R3 SUBAUDIBLE HETERODYNES ON THE MW BCB, G. P. Nelson. Details on a brand new technique which permits the MW DX'er to detect and characterize signals too weak to be audible at the time; also permits the $D X^{\prime}$ er to count the number of stations on a channel even if no programming is audible and permits direction finding on channels with several stations.
R4 AUDIO FILTER, G. P. Nelson. How to build a very cheap audio filter using surplus parts that really reduces MW noise and heterodynes.
R5 THE TRACKING PROBIEM AND HOW TO CURE IT, G. P. Nelson and T. Holmes. Many excellent receivers are poorly designed for MW operation this article describes one of the most common design flaws and how to cure it; very useful if you've got powerful locals.
R6 ELECTRONIC VERNIER TUNING, R. Moore. Detailed instructions on how to fit a "varicap" to a MW receiver to provide fine bandspread tuning.
R7 MECHANICAL FILTERS FOR THE HQ1 80, J. Starr. Complete details on the conversion of this popular receiver to multiple MF operation. Order with R2 above.
R8 HOW TO LIVE WITH A BUDGET RECEIVER, R. J. Edmunds. How to improve inexpensive receivers for NW performance.

R9 SELECTING A RECEIVER, R. J. Edmunds. Shopping for a MW DX radio? Read this first!
R10 SIMPLE AUDIO FILTERS, R. J. Edmunds. How to build and use simple high-pass, low-pass, band-pass, and band-reject filters. Includes a discussion of "variable cutoff frequency" filters available as surplus.

## DOMESTIC DX

D1 THE KOB PROBLEM, P. Hart. KOB seems reluctant to QSL your report? This article gives the inside story of broadcasting's most interesting legal hassle as gleaned from oficicial FCC files in Washington.
D2 IT TAKES TWO TO VERIFY, J. Murley. Unhappy with your domestic QSL returm percentages? Read this article on the station's attitude towards reception reports and improve your returns; written by a highly experienced broadcasting professional.
D3 CANADA'S WILDERNESS RADIO - THE LPRT, P. Taylor. In depth study of those 20 and 40 watt Canadian stations that you hear but don't understand; a must for the domestic DX'er.
D4 WHAT IS A PRESUNRISE AUTHORIZATION?, R. J. Edmunds. Some U.S. stations are authorized to operate with powers such 14.3 watts during certain hours; this article explains how and why.

## FOREIGN DX

F1 REPORTS TO LATIN AMERICA, C. Objiq. Helpful hints on how to verify Latin stations, written by a world-famous Latin America DX'er.
F2 LATIN AMERICAN NAMES, C. Objio. It's hard enough to QSL many LA stations without insulting the station personnel by misusing Spanish personal names! How to use Spanish names correctiy.
F3 PORTUGESE FOR DX'ERS, R. Schatz. Describes the important and unusual features of this language: a must if you log Brazilians.
F4 STATION NAMES VS. CALL LETTERS, C. Objio. The distinction between call slogans and call letters is important in Latin America; this article will help you $D X$ the Spanish speaking stations.
F5 HUNTING THE LATINS BY MUSIC, R. Schatz. Describes the various types of "Latin American Music" characteristic to various countries and tells how to ID LA"s using this information.
F6 FREQUENCY AND CALISIGN ALLOCATIONS IN SOUTH AMERICA, R. Schatz. Confused by Latin American MW calls? This article explains all.
F? SURVEY OF TRANSATLANTIC STATIONS HEARD IN THE U.S., K. Brownless. A compilation of all the $T A$ stations heard over here during the 1970 DX season: a useful guide of best bets for the next year.
F8 BOTTOM DX, C. Freeman. Quite a number of stations operate below 540 kHz , the traditional "bottom of the band". This article lists these stations and tells how to modify your receiver to hear them.
F9 ABOUT THOSE COMMON WAVES, R. J. Edmunds. European Common Wave channels feature dozens of stations in different areas carrying the same programming. This article explains how and why and the significance for the DX'er.

F10 TRANSPACIFIC RECEPTION DOES EXIST, J. Murley and G. P. Nelson A highly experienced West Coast DX'er gives a full rundown on how to hear, identify, and QSL Transpacific stations. Much invaluable practical information.

## PROPAGATION

P1 MEDIUM WAVE SIGNAL PATHS, PARTS I,II,III \& IV, G. P. Nelson. Discusses great circle paths, seasonal absorbtion patterns, auroral effects and the Midwinter Anomaly.

P2 SOLAR CONTROL OF DAWN E BLANKETING ON THE MW BCB, G. P. Nelson. Explains how the position of the sun controls the fade-out time of Transatlantic and Transpacific stations.
P3 EAST-WEST SYMMETRY AND THE FADE-IN PROBLEM, G. P. Nelson. Considerations oí solar control of fade-in times for MW stations.
P4 SUMMER RECEPTION ON THE BROADCAST BAND, G. P. Nelson. First article describing the seasonal patterms in solar terminator location which makes summer MW reception from Deep South America and Africa possible. A must for the international MW DX'er.
P5 GEOMAGNETIC MEASUREMENTS DURING THE PAST $4 \frac{1}{2}$ YEARS, K. G. Scrimgeour. This article provides more evidence for the effect of geomagnetic/auroral phenomena on NW reception.
P6 AURORAL EFFECTS AND THE 1969 TRANSATLANTIC LISTENING TEST, G. F. Nelson. Brief but simple description of how the geomagnetic/auroral phenomena control TA reception from various stations. Best general introduction to MW auroral effects.
P. 7 THE AURORA OF NOVEMBER 6-9, 1970, G. P. Nelson. Traces a classic MW auraral attack from its origins on the sun to its effect on NW reception; a must for understanding the auroral effects on the MW band.
P8 ECLIPSE, $3 / 7 / 70$, T. Holmes and G.P. Nelson. Explains the effect of a solar eclipse on the ionosphere and on MW propagation.

TIPS FOR BEGINNERS
N1 TIPS FOR THE NOVICE DX'ER, PART I, P. Taylor and R. Edmunds. Beginner's introduction to domestic DX'ing; how to log your first 500 stations.
N2 TIPS FOR THE NOVICE DX'ER, PART II, P. Taylor, R. Edmunds. How to log all 50 states.
N3 TIPS FOR THE NOVICE DX'ER, PART III, P. Taylor, R. Edmunds. TIPS FOR THE NOVICE DXPER, PART IV, P. Taylor, R. Edmunds. Logging your first 20 transatlantic stations.
N5 THE FIRST 30 COUNTRIES IN ENGLISH:, J. Conrad. More than 30 countries in North and South America broadcast in English on the MW band; this article tells where and when to listen.

N6 YOUR FIRST 10 MEXICAN STATIONS, J. Murley. Bewildered by all those Mexican stations you hear? This article tells how to $\log$ and identify the major stations.

## LOGS AND LISTS

L1 CONDITION OF FREQUENCIES LIST, L. Kruse. Monday Morning is often a very fruitful time for domestic DX since many stations are regularly off the air; this is an invaluable list showing the occupants of each channel on Monday Mornings. (December, 1969)
L2 FREQUENGY CHECK LIST, J. Fela. Many U.S. stations run equipment tests at regularly scheduled times and dates; this is a listing of frequency checks that will permit many new domestic loggings. (February, 1971)
L3 THE WORLD TOMORROW LOG, J. Murley. A tabulated listing of the stations and schedules carrying this very widely broadcast religious program; a fine aid to identifying domestic stations. (January, 1970)
I4 THE VOICE OF PROPHECY LOG, J. Murley and H. Helms. Similar to L3 above for another well known program. This article also includes data on Mexican and Spanish speaking stations carrying this program. (September, 1970)
L5 EUROPEAN BAND STATUS REPORT, Edited from reports of the EBU. This is one of the most accurate listings of MW broadcasting stations in Europe. A must for the international DX'er. (October, 1970)
L6 CUBAN STATION LIST, R. Schatz. Invaluable aid for identifying these widely heard stations. (January, 1971)
L7 DOMINICAN REPUBLIC STATION LIST, C. Objio. A listing, including addresses and schedules, of the stations in the Dominican Repubiic. (July, 1970)
L8 VENEZUELAN STATION LIST, C. Objio. Similar format to L7 above. (June, 1970)
L9 COLUMBIAN STATION LIST, C. Objio. Similar to L6 andL? above. (February, 1970)
L10 CARACOL STATION LIST, R. Schatz Listing of Columbian stations which are Caracol affiliates. (January, 1971)

UPDATERS TO THE NRC LOG
The following updaters contain corrections and additions to the NRC Domestic Log. Dates are those of publication.

MISCELLANEOUS
M1 TEIEVISION INTERFERENCE ON THE MW BCB, G. P. Nelson. T.V. receivers generate QRM which appears on specific frequencies on the MW band. This article lists the TVI frequencies and suggests a cure for the problem.
M2 LOCAL SIDEBAND SPLASH - HOW MUCH IS TOO MUCH?, G.P. Nelson. Many MW DX'ers complain that certain local stations "over modulate" and produce undue amounts of QRM. This article describes the federal regulations which govern permissible sideband radiation on the MW band; also describes certain types of station-originated spurious radiation.
M3 A FREQUENT BUT RARELY DISCUSSED CAUSE OF BCB INTERFERENCE J. Starr. Explains how modulation arcing at the station can cause severe $Q R M$ on the $M W$ band; a relatively common but rarely understood problem.
M4 SUNRISE-SUNSET TABLES, G. P. Nelson. These charts permit the DX'er to determine the exact time of sunrise or sunset at any point in the world on any particular day. Very useful for international MW DX'ers.
M5 QUASIMONTHLY PATTERNS IN ATYPICAL MW DX RECEPTION, G. P. Nelson. A large body of data on TA reception gathered by $R$. Wood in England is analyzed in an attempt to prove or disprove the "Lunar Phase" theory.
M6 SAFETY AND PREVENTITIVE MAINTENANCE FOR DX'ERS, J. Starr. Will your DX setup surprise you with a lethal shock or someday start a fire? This article is a must - unless you like surprises.
M7 UNRESTRICTED RADIATION, G. P. Nelson. Discussion of carriercurrent and other restricted radiation stations - and how to hear them.
M8 RF POLLUTION, G. Hauser. General discussion of the radie interference problem and what steps will be necessary to control it.

M9 PATTERNS, PARTS I, IIa, and IIb, P. Hart. An understanding of the directional antenna patterns used by North American MW stations is vital for the active domestic DX'er. This series of unique articles explains in authoritative detail what patterms mean and how the DX'er can fatten his log by understanding them. Many graphs and maps.
M10 TAPE RECORDING FOR THE DX'ER - REVISITED, J. Starr. A prof fessional broadcaster/DX'er gives more tips on the use and abuse of tape recorders by DX'ers
M1 GREAT CIRCLE COMPUTER PROGRAM, P. Sullivan. A simple FORTRAN program for calculating the bearing from your location to any station.
M12 WWV TO TRANSMIT "A" INDEX, G. P. Nelson. The Govermment's station WWV now transmits useful geophysical information for the MW DX'er. This article gives the format of these important hourly broadcasts.
M13 YE OLDE LOG BOOKE, D. Phillips. How to keep a compact and efficient log book,

GETTING STARTED IN MW DX'ING. A 40 page booklet containing a careful selection of the best of the introductory articles from the NRC Reprint List. This handy booklet contains the following articles:
A2 D2 R8 R9 F10 N1 N4 N5 M10 and "How to Send a Reception Report"

## ORDER FORM FOR NRC REPRINTS

The articles on this list are available from the National Radio Club, Box 99, Cambridge, Mass. 02138 for a small charge to cover costs of duplication and postage. The rates are:
NRC Members-64/page via 3rd class mail, 7//paeg for 1st class.
Non-members $8 \$ /$ page "
Third class mail is usually slow and erratic, first class is reccommended.

Please circle the numbers of the articles requested. The number in parentheses is the number of pages.


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| to this order. |  |

please use a separate sheet for correspond.

## SPECIAL DX TESTS LISTED!

Mon. Sept. 13 K A R R 1400 Great Falls, Montana 4:20-4:45 E.D.T.or E.S.T. This is a regular frequency check, and will be run with a nondirectional pattern and 1,000 watts. A Test Tone will be used. Reports are welcome and should go to Mr. E. R. Kukkala, C.E., KARR, Bax 2204 - Great Falls, Montana - 59401. Info received from Jim Adams, San Jose, Cal., IRCA member.

Fri. Sept. 17 W Y RE 810 Annapolis, Maryland 12:15-1:00 E.D.T. Fri. Nov. 26 W Y R E 810 Annapoils, Maryland 12:15-1:00 E.S.T. This is for the Virginia DX Association. The TESTs will be music al, probably rock-n-roll, and both voice \& CW IDs will be given. WGY is expected to be off, as Friday is their silent morning. WYRE is non-directional, 250 watts and gets out very well. Try for this rare DX catch! Reports go to Mr. Fred Matos, C.E., Box 1551 - Annapolis, Maryland, 21404-note- the NRC Iof address is incorrect. Mr. Matos is looking forward to receiving this issue of DX NEWS, so here it is, and HI, end THANKS, Mr. Matos! Info received from Stephen Martin, of Upper Marlboro, Mary land.

Sat. Now. 27 K WY S 920 West Yellowstone, Montana 3:45-4:00 E.S.T. IRCA.
LATEST HOLIDAY INN NETWORK as of APRIL 1971


ROBERI E. FISCHER - Box 94 - Newark, Delaware - 19711
A small amount of daytime-only DXing from Cranberry Lake, N.Y. proved one point - up in the North Country, the Space Macnet (or a loon) is an ABSOLITE NECESSITY for daytime DXing. Cranberry Leke would be a DXeris paradise. No locals - yes - I said - NO LOCALs. The nearest stations are about 40 miles away, all flea power daytimers). Without the magnet, I received anvwere from 0 to about ten stations, none strong enough to move my S-meter. These were all stron Canadians from ottawe \& Montreal). With the mannet on pable sicnals were produced on about $75 \%$ of the chamels, but only the Canadians were capable of pinnins the meter in daytime hours. The NYC and Boston powerhouses were readable but weak, with the magnet. All sienals could be easily nulled out up there. Best daytime catch was WCKL 560 in Carskill, N.Y. I would like to think of the rood DX one could catch up there in Winter - with temperatures as low as $-20^{\circ}$ \& $\mathrm{w} /$ seven feet of snow piled up on the level in mid-Winter. I hope to spend more time at al dials this season. Anyone have a portable FM simal generator? (To knock out a forward to being transfereed back out West, scon. HQ reserve me a copy of the new Pattern Book. I wrote Ernie already, too. Just one more reason NRC's GREATEST!

EDITOR:
r.f.edmunds

DOX 946
wiynt. I.1. 07470
(201) $835 \cdot 6397$

Greotings gain, pooples. Due to the recent mixups with Keuffel \& Esser Co. FCC Services Division which no longer uses the name "Cooper-Irent", we've got lot of additione and out-of-order items in the accompanying updater, and, as noted therein, we'll conclude the updater in the body of DDXD, rather than start anew page for so fow items. Thus, we'll have no "+ied" items in the "changes" subsection this time - all re in updater. To clear up the entire confusion, we hope, we'll get right into the conclusion of the updater before the regular DDXD doinge. This updater represents all FCC info rec'd here to $\frac{3}{3} / 24 / 71$ from K\&E (which is now beck up to date also) \& Eroadcasting.

| 650 | KYAK-AX | CP is on. | 1510 | WAYT-IN | new call (Wabaeh CP) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 700 | KBYR-AK | CP is on. | 1530 | CP -IL | delote Elmhurst listing |
| 1270 | KBYR-AK | dolet listing |  | CP -IL | Flora, 1000 D3 |
| 1390 | KFRA-LA | CP is on: 500 D 1 | 1540 | WSWG-MS | ex-WLEF |
| 1430 | CKFH-ON | $C P$ is on. | 1570 | WGLX-OH | new call (Galion CP) |
| 1490 | WCOF-FL | CP is an. |  | W:SSA-GA | $C P$ is on. |

## call applicalions

| 1170 | CP $-M N$ | req. KWAO (Wa seca) | 1310 | WKTC-NC | req. WGHB |
| ---: | :--- | :--- | :--- | :--- | :--- |
| 1240 | KBMI-MI | req. KUUL |  | 1350 | WKJG-IN |
|  |  | changes. WIAEE |  |  |  |

* 620 KIPA-HI presently on 1110, his applied for change here.
* 1080 KHAI-HI presently on 1090, has applied for change hare.
* 1600 WHLL-WV Due to money troubles, whet off air abt. 8/1, applied to FCC for permission to be off for 90 days, and permission was granted (Wes Boyd - Youngstown, Ohio)


## P/C'S

new $\mathrm{r} / \mathrm{c}^{\prime} \mathrm{s}$ or changes (denoted by " x ") in listed $\mathrm{r} / \mathrm{c}^{\prime} \mathrm{s}: \quad \mathrm{H}$ ( Hart ) 2nd. SAT. 0200-0210 KFUN-NM 1230 T (time oceasionally varies) (Paul $K$. and TUE. 0230-0245 KR2E-NM 1280 del check from liot (Hert) 3rd TUE, x0205-0215 WBUD-NJ 1260 T (time change) (RJE) (and day chg.) lat FRI. $x 0030-0045$ WTTM-NJ 920 T (delete "after let Thurs.") (RjR) 4th TUE. 0205-0215 WILK-PA 980 T (after 4th MM) (Eric DiRicco, Pgh., Pa) CHECKS HPD: (by month)
JULI: 2nd MM: WGMF-1500; KCAZ-990; WACN-1340; WANY-1390; 2nd TUE: WJMA-1340, WCKL-560, WFTR-1450, WCVA-1490, WFPG-1450, WAWZ-1380; 2nd. WED.: WGHQ920; 2nd THU: WIDG-9,40, WOTR-1370; 2nd FRI: WNJH-1580; 2nd SAT: KFUN1230; WCCR-1580: 3rd MM: KDIC-1430; 3rd TUE: WABH-1150, WAHT-1510, WVNA-1590, WMGR-930; 3rd FRI: WINS-1360; 4th MM: WCMS-1050; WCBG-1590, VTLB-1310, WNAK-730, WPPA-1360, WGOE-1590, WCVS-1450, WHYL-960; 4 th TUE: W'ATT-1510, WILK-980.
AJG. 1 st NI: KDLM-1340, WGHN-1370, WPLB-1380, WEED-1390, KNOX-1310, KBTA1340, WFTC-960; 1 st TUE: KVOL-1330, KVRP-860, WHGR-1290, WIOS-1480; 1st THU: WPAD-1450; 1 st FRI: WHBG-1360, WVBZ-1360, WSLT-1520, XFVS-960, WJLK-1310, WFHG-980, WTTM-920, KVOX-1280. (cont'd)

1st SAT: WWLE-1170, WSHN-1550, WGRY-1590, WBRN-1460, WIRV-1550; 1st SUN.: KCII-1380, WMAY-970; 2nd MM: WCAZ-990; 3rd MM: KXEO-1340, KWKY-1150, WDIC1430, KWLA-1530, WCLC-1260, KXLR-1150, WPJD-1550, WBTS-1480, WKIG-1580; 3rd FRI: WLYB-1250, WMNS-1360, WBBK-1260, KWAY-1470; 3rd SAT: KCNI-1280, KSRA-960; 4th KM: KLMS-1480, WBCB-1490; 4th TUE: ITTAX-1240,
th SUK KCKW-1480, coa 2nd WED. : WMOX-1010

3rd Ens: KWKY-1150

## mianight it sumise

WOTOML
vTDC=CT
Caught w/ET/TT, mx $0500-0530$ 8/9 (Hart)
Hrd lece 8/2 2155-2215 w/ NASA pom, nx, mx. (On for Appolzo is what VASA pem is, hi-RJE) (DiRicco)
Hrd 8/23 W/ ID into nx 0100 (Page Tarlor, Butler, NoJ.) Hrd AN on $7 / 26$ \& $8 / 2$ in/out w/ ITPAT (Wes Boyts Younsstown, Ohio) Off 1MM's 7/26 Re $8 / 2$ (Boyd)
Ditto WBENT (Boyd)
Weak rr u/ iPAT, WJAX MI 8/2, assume it may be wanted KHJ (Boyd) "97-DJ" rr $=$ INSW 0250-0332 8/2, much more readable than as WJRZ, modulation just a wee bit stronger - about 75\%, hi (Boyd) Hrd lec w/ WiSN off $7 / 25$ 0230-L10 w/rm (Diricco)
CYEX-ON Hrd w/ CBC nx, SID0300 7/25. (DiRicco
TMO -iNY Hrd s/off 0255-0300 8/2 0/1 XLOR (PI)

KXIR-AR Unn., but hrd $7 / 260600 \mathrm{~s} /$ on (ICI) (Hart)
WRIN-KS Hrd s/off SSB $01358 / 3$, off AN?? (BOYD)
$W I X I-O H$ off by $0100 \mathrm{MA} 8 / 2$, so maybe new owners are re-instating SP ( B \% Noted off $8 / 2$, called, ensr. sez lst time in 2 yrs , NSP stin holds, d rat 1 (Hart) S/on copied weakly $05008 / 2$, and another ID 0530 in KFJZ ET w/ instr. mx \& c\&w \&c OC 0220-35 wk u/WXYZ, ete. (Boyd)
Hrd w/ET/TT, mx w/ TC 0313. (Hart) 8/9.
Had ET/TT/OC vy strons $0230-03308 / 9$, al so had 2 nd !M in April, so maybe a $\mathrm{r} / \mathrm{c}$, expect card from CE soon. (Hart) so maybe a r/c, expect card irom
Hrd well all Ar $8 / 3 \mathrm{w} / \mathrm{rr}$ (DiRicco)
Ird $7 / 26$ to $0100 \mathrm{~s} / \mathrm{off}$, leaving MIXZ \& WBAY on RS (Boyd)
ff at 0055 SSB IMT's $7 / 26$ \& 8.2 (Bora)
Noted w/ instr. $m x \rightarrow C$ \& one ID thru WPLB-r/c 0100-19 8/2 Boyd) Hrd $0200 \mathrm{~s} /$ off $7 / 20$, called, sked is $0530-0100(0200 \mathrm{se}$, ha)

H220 WHK -OH Off $00308 / 2$ leavins WOC-KTOE-NBSM; (Boyd)
WOC -IA s/off $01058 / 2$ (Boyd)
WOJ-PA Hrd lie w/ Phils BB 7/27 0015 (DiRicco)

$$
\text { ET/TT \& TV's every } 3 \text { mins 0230-0245 8/2 (Hart }
$$

Wk ID in RS $02308 / 2$ just bl above test clobbered it (Hart)

NPON-II Hrd w/ s/off 0105 8/6 (Dỉicco) Hrd 2347-0015 tune-out well atop freq. $=$ to ICMB to latter's $0000 \mathrm{~s} / \mathrm{off}$. (Boyd) Hrd on w/ TS past 0430 Mr's $7 / 26,8 / 2$, so.... (Boyd)
Hrd wh usual sT-mx prior to r/e 8/7 (PT, DiRicco)


## daylime

1600 MTY $=0 \mathrm{ll}$ Hrd s6 in WAQI null w/WHLL off $12358 / 4$ (Bogd)

## sunset \& evening

760 WGPS-NC Hrd potent w/ Mor 1945r2000 s/off w/ Fyan 8/22 (PT)
780 WCKB-NC Hrd 1945-2000 s/off 8/22 w/ NN (PT)
lBBO-NC Hrd 2000 s/off u/WCKB $8 / 22$ (PT)
1010 WSIK-VA Hrd 8/6 s/off 2015 from out of the mess (PT)
1360 WEBB-MD Promo for NNow Sound on WEBB" 1937 8/A9., NN format (PT) 1560 WSMDMD Hrd w/ Senators BB 1935886 (PT)

Well, folk, thassit. Last mimate stuff from Boyd, Lawrence is held over for next issue. W/ the students coming back again 9/13, it'll soon be back to work full-time \& overtime again, as unfortunately, the job narket mado it inpositale to io flumhow.

SPECIAL PROJRAMS


THURS. SEPT. 23 WNJJ-1360, Newton NJ, will conduct their irregular $\mathrm{f} / \mathrm{c}$ CE has been notified that we'll be watching for it, and I hope to get times by HQ deadline for BFC to insert. Reports to Harold Bawmann, CE, WNNJ, Box 40, Newton, NJ 07860. (RJE)

MON. OCT. 3 or
MON. OCT. 10

WDVL-1270 in Vineland, N.J. will be running their PoP one or the other of these two M'I's fram $0001-0045$. We may be able to pin it down next issue, but if it's 10/3, issue may not go out in time, so look both dates. Reports to Fr . Joseph Fitagerald, c/O F.E.S. Communications CO., 2046 Mercy St., Philadelphia, Pa. 19145 or c/o WDVL ( PjE )


WOFE-TN ex-WRKH
WVLREC CP: 10000/1000 U2
610 CINILBC NET: AI
6 EO WLAP=KY NET: C
WCBM-MD NET: A
CFTR-ON ex-CHFI; FWR: 10000/ 25000 U 4
CJRN-ON CP: 5000/2500 U4 (po: 1600 kHz .
90 WKON-HI CP: 5000/5000 U1
WJAC-PA SCH: 0530(0900)-0100 (0000)

CP -BC Penticton, 1000 U 3
WRNL-VA NET: Ai
WKBQ-NC $C P$ is on
KOMJ-CA
CP -OH
SPM: 24 hrs,
KIXL-TX NET: dolete
KNNN-TX delate it
WPNSWW CP is on
KRLD-TX SCH: SP MM 0200-0545 CP: 10000
Takima, 98902, 1000
915 So. 31 st Ave.
SGH: MM s/on 0600
Rd., ZIP: 6411
CP: $1000 / 500 \mathrm{U} 4$
SCH: S/off MM 0105
CP: 1000/250
SCH: $0745(1000)-0000(2200)$
SCH: 0600(0700)-2310
ADD: Box 1780
SCH: $0530(0615)-0015(0005)$
SCH: $0900(1045)-0100(0300$
SCH: $0900(1045)-0100(0300$ Fri, Sa., 2300 Su )
new call (Sun - 0830-0100) 2300-0100 SCH: 0700-1000; 1245-2300 Eil. Sunday
KBIZ-IA SCH: $0455(0700)-0000(2300)$

WFTN-NH SCH: 0545-0000
WPNF-NC SCF: 0600 (0700)-2200(1900)
CNO SCH: 0559(0729)-2315(2215) Box 580
. 0600

TFLI-CR SCH: 0900-0300; ADD: 351䨌 son
SCH: 0900(1000)-0200(2300)
1250
1270 WWJC-WI delete listing
1200 WMRU-IL NET: M
1310. KWCK-AR ox-KWCB

CFGM-ON $\begin{array}{ll}\text { new Call } \\ \text { SCH: } \\ \text { SP: }\end{array}$
1290 WFBG-PA
1320 WEET-VA
CP: UR
NET:
AO
(CP) Page, Az. : 1000/250 U1 ( to replace deleted prev. deleted)
KQII-CO CP is on; SCH: 24 hrs .
KSEK-KS SCH: s/off 0200
WDCR-NH SCH: SP MM 0130-0230
WTSB-NC SCH: 0545(0725)-0035(0010)
WOOW-NC SCH: 0600-0100
WOXF-NC SCH: 0600 (0730) -2200(1830)
ADD: Box 1111
SCH: 0530(0600 Sa, Su)
SCH: 0900-0100(0000) KOCY-OK SCH: 24 hrs , SP MM 01000700
WOKE-SC SCH: 0455-0015 $\begin{array}{lll}\text { KLBK-TX } & \text { SCH: } 24 \text { tre, SP MM 0100- }\end{array}$ 0700 KIHN-OK CP is on. KTEO-TX CP is on.
SCH : s /of WSAI-OH SCH KFRO-TX SCH: s/off 2330 daily KYNKK NET: Ac WTVR-VA NET: C

| 1400 | KXIV-AZ | SCH: 24 hrs , SP MM 03000800 | 1450 | WFBS-NC KLBM-OR | SCH: $24 \mathrm{hrs}, \mathrm{NSP}$ <br> SCH: 0900 (1100)-0200(0000) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | RSLI-CA | CP is on. |  | KAMP-TX | delete listing |
|  | KAOK-La | SCH: $24 \mathrm{hrs} \mathrm{SP} \mathrm{MM} \mathrm{0100-}$ | - | KAYC-TX | SCH: 24 hrs, NSP |
|  |  | 0600 |  | KDXJ-UT | SCH: 0800-0100 |
|  | KBMI-NV | CP: 1000/250 U1 |  | CP -BC | Summerlend, 1000/250 U1 |
|  | WBRI-NH | ADD: 40 Ma in St. | 1490 | KBUR-IA | SCH: $0600(0700)-0100$ |
|  | KARR-MT | SCF: 24 hrs, SP MM 02000730; ZIP: 59403 |  | KRIB-IA | SCH: $24 \mathrm{hrs}, \mathrm{SP}$ M 01000630 |
|  | KCOG-IA | SCH: 0643(0759)-2305(0105 |  | KRUS-IA | SCH: 0600(0700)-0100 |
|  |  | Fri, $\mathrm{Sa}, \mathrm{Su}$ ) |  | WSTP~NC | SCH: 0500(0700)-0000 |
|  | KVFD-IA | SCH: 0645(0700)-0100 |  | WRMT-NC | $\mathrm{SCH}: 24 \mathrm{hrs}$ |
|  | KXGN-MT | SCH: 0800(1000)-0000; ADD: |  | WHSL-NC | NET: M |
|  |  | 210 So. Douglas |  | KRNR-OR | SCH: 0800 (1000)-0000 |
|  | WGBG-NC | SCH: 0500(0645)-0100(0000) |  |  | ADD: Box 668 |
|  | WTSL-NH | SCH: 0600-0000 |  | CP -BC | Hope, 250 U1 |
|  | WKDY-SC | ex-WHCQ | 1500 | KВВ ${ }^{\text {a }}$-CA | PWR: 10000/1000 |
|  | KB.JM-SD | ANT: SH1 |  | WKXO-KX | CP in on. |
|  | KTFS-TX | SCH: 0600(0700)-0200(0100) | 1510 | WLCN-OH | NET: M |
|  | KUNO-TX | SCH: 0530-0100(0200 Sa,Su) |  | WLAC-TN | SCH: SP MM 0230-0530 |
|  | WWOC-VA | ex-WHIH; SCH: 24 hrs SP MM |  | CP -MO | Iramton; 250 D3 |
|  | CP -BC | Princeton, 1000/250 U1 | 1520 | WINW-OH | ADD: 4111 Martindale Rd., |
| 1410 | KAFL-NB | ex-KNOP |  |  | N.E. |
|  | WIZM-WI | ex-WKBH | 1530 | WCKY-OH | SCH: MM s/off 0040 |
| 1430 | WNJR-NJ | SCH: $24 \mathrm{hrs}$, |  | WTHO-GA | CP is on. |
|  | WV AM-PA | NET: M |  | CP -PA | McCannelsburg, 1000 D1 |
|  | KLO -UT | CP: U2 | 1540 | KISA-HI | new call |
|  | KCLK-WA | $C P$ is on. | 1550 | WOKJ-MS | SCH: $24 \mathrm{hrs}$, SP MM 0200- |
| 1440 | KOKY-AR | NET: M |  |  | 0600 |
|  | WBJW-FL | -x-WABR |  | CBE -ON | SCH: 0500-0110 |
| 1450 | KPSI-CA | SCH: 24 hrs ; |  | WNDI-IN | ex-WKQV |
|  | KOWN-CA | CP: 1000/250 U1 | 1570 | WBUX-PA | NET: M |
|  | WiWJB-FL | SCH: 0630(0800)-1830; CP: |  | WHII-MS | CP is on. |
|  |  | 1000/250 \$H 1 | 1580 | WPIV-VA | NET: Ai |
|  | WSTU-FL | CP is on. | 1590 | KXEM-CA | CP is on. |
|  | WTHU-MD | SCH: $0500(0700)-0000$ | 1590 | WEEZ-PA | SCH: 24 hrs |
|  | WTBO-MD | SCH: $0600(0800)-0000$ |  | KEND-TX | ex-KCBD |
|  | KVCK-MI | SCH: 0800 (1000) -0000 (2200) |  | WGOE-VA | ADD: 159 E . Belt Blvd. |
|  | KUDI-MT | SCH: $24 \mathrm{hrs}, \mathrm{SP}$ MM 02000700 | $1600$ | WPOM-FL | $e^{v-W X V I}$ |
|  | KOBE-AM | CP is on. |  | NEXT UPDATER WILL APPEAR IN MID |  |
|  | WHIT-NC | SCH: $24 \mathrm{hrs}, \mathrm{SP}$ MM 00000500; ZIP: 28560 |  | OCTOBER | 1971. -RjE |
|  | WIZS-NC | SCH: 0600-0000; ADD: Box 1299 | LAST-MINUTE INFO FROM K \& E : |  |  |
| 660 | KWKA-NM | CP is on | 1240 | WTWA-GA | CP is on |
| 780 | KNOM-AK | CP is on $x$ | 1230 | KGRO-TX | CP is on |
| 790 | CP -NF | Port aux Choix, 1000 U3 $x$ | 1400 | WHDF-MI | CP: 1000/250 U1 <br> CP: $1000 / 250 \mathrm{U} 1$ |
| 990 | KTRG-HI | deletelieting ${ }^{\text {d }}$ |  | KCAT-AR | CP: 1000/250 U1, po1530 |
| 1110 1170 | WGRG-MA | ex-WIOM (CP) | 1340 | KOHU-OR | CP: 1000 U 2 , po: 1570 |
| $11 \%$ | CP -Mi KJNP-AK | Wa seca, 1000 D1 CP is on: 50 kw U2 | 1360 | KZI2-CA | ex-KRCK |
| 1210 | CFFB-MWT | CP: 250 U1, po: 1200 kHz . | 1400 | WBMA-NC | CP is on. This list |
| 1240 | WSEW-PA | CP is on (really !) | 1470 | K2IQ-CA | $\begin{aligned} & \text { CP: ON } \\ & \text { ex-KPLC } \rightarrow \text { concluded } \\ & \text { last DDXD } \end{aligned}$ |
|  | KWJB-AZ | new call | 1470 | KLCL-LA |  |

```
1st of Month
0505-0520 KqNB ND 1550 T
Irt. Mordar
* 0015-0030 UKED INC 1390 ?
< 0015-0030 UEED LIC 1390 %
C 0135-0150 WBCN IM 1230 % S
x 0045-0100 MRVA VA 860 % &
```



```
1st Tuesder
0600-0610 WJBM IL 1480 TO
18t Wedmoning
0415-0430 *KANE LA 1240 T
1st.Thuradery 
1st Saturdey 
0215-0230 *KDOK TX 1490
2nd Kondar
2nd Nond!Y WIXY OFI 1260 T0
2nd Thuredsy
2nd Ihurgday 
0020-0035 WGHQ NY 920 TO
0100-0115 *KXIT TX 1410 T
3nd Thuradar
0105-0120 VIIQ MI 1490 T.S
Ind Eatumiay
0.440-0455 EKBLO Lh 1230 =
4th Mooder
0100-0110 "KILE IX 1400 I
x 0110-0125 *ROZA TX 1230 T (250 w. XR)
    0145-0200 *NHYL PA 960 M
    0415-0430 *WNAT NS 1450 TM
Lagt Mondar
    0330-0345*KTNM NM 1400 T ( 03,6,9,12)
4th Nondey (eont'd)
4.th Friday *KPOS TX 1370 T
(delete "Q3" as prev. listed)
NEW ABBREVIATIONS : Capital "S" denotes check is made on standard time all
    yoar round. This notation should be
    added to nll checks originating from
    the state of Michigan, and also, ill
    from Indianm, both of which have given
    up on "Daylight" time.
2nd Snturdar 
    2nd Sundar 
    \20 Tuagday 
    0010-0020 WESB PA 1490
* 0045-0100 *WHOL PA 1600 T
    (re-correct)
```

SPECIAL NOTICE FROM GILFER ASSOCIATES. We have received a letter from NRC member and Gilfer President Perry Ferrell asking us to publish the fact that Todd Graves of SWL GUIDE is not and never has been a representative of Gilfer Associates. According to a letter from an unhappy Graves customer (a copy of which was forwarded to NRC HQ), this individual has claimed to be a Gilfer sales agent. This is not the case and NRC'ers should please take note...

INTERNATIONAL
DK DIGEST PROPAGATION Gordon Nelson, 19 Irma Ave., Wotertown, Mass. 02172

## REPORTEDLY IN OPERATION

SOUTH KOREA. HLSA noted in New Zealand on 968 kHz . (NZDXRA)
PHILIPPINES. DXSY noted on the amusing split freq of 1205 in New Zealand; just might make it to the West Coast on such a nice clear channel. (NZDXRA)

IRAN. Test transmissions consisting of music and relays of Tehran Home Service programming are currently being aired on $841 \mathrm{kHz} 0825-2030$; the location and power are unknown but it appears to be a fairly powerful outlet. (Editor)

CLANDESTINE (EAST PAKISTAN?). Radio Bangla Desh is audible over much of the Indian Subcontinent on about 820 kHz ; further information is requested. (Editor)

MALTA. Radio Malta has begun test transmissions on $998 \mathrm{kHz} u \operatorname{sing}$ a transmitter supplied to the Malta Government by the German station Deutsche Welle. Another MW station is to begin testing on 1570 kHz soon; it will be a DW relay. (SCDX)

CUBA. A verification letter has been received in New Zealand for CMW signed by Engineer Joel Rarell, Department Principal, Technical Control. Might be a useful contact for U.S. reception reports? (NZDXRA)

PLANS, RUMORS, AND GOSSIP...
ZAMBIA. Fifteen vehicles carrying the first two superpower radio transmitters from China to boost Zambia's broadcasting services are now in Dar el Salaam on their way to Zambia. The Minister of Broadcasting said they will arrive any time now but would not give an exact date; he added that a third transmitter will follow later. The buildings, 13 kilometers from Lusaka on the old Mumbwa road, were completed in January. A four man Chinese survey group arrived earlier in the year; while the area is still off limits, towers are going up and the press will be invited in to watch the work when the transmitter convoy arrives. When this one takes to the air we'll have our first really good shot at East Africa if they choose a favorable channel... (Editor)

JAPAN. The summer supplement of WRTVH shows JOUB - 770 as 500 kw ; it's not clear if this power is in use now or is projected; for further info on the upcoming Japanese power boosts, see recent issues of DX NEWS. (Note to New Jersey DX'ers: forget it...)

SPACE PERMITting, WE PLAN TO RUN THE ENTIRE EBU LIST OF EUROPEAN MW STATIONS NEXT ISSUE. This is not the public Quarterly Report, but the actual internal monitoring report for September showing the exact frequencies for all stations monitored. What better way to start out what promises to be the best Transatlantic season in several years?
sometime around May. It operated on 1097, 1268 (hrd in Europe ard No. America-rew) and 1439. This is evidently the first of the heralded closings of MW stations in South Africa which was announced 10 years ago. I wrote S.A. than and they said, "don't worry, it won't be done for 10 years yet. But time flies and the 10 years are up. As more medium wave stations there close down, South Africa will become one of the finest DK locations in the world from the standpoint of local QRM. But you wouldn't think it, judging from some blatantly fake reports I have seen at several U.S. stations coming from South Africa. (Wood, Louisiana) unID, likely African, noted with feeble signal and no detectable audio 7/12 and completely out by 0630. GPN suggested Niger but an ESE DF angle make Angola worth considering. (Schatz, Fla)
1358 Nigeria. Ibadan noted several times with tone, s/on chimes and news at 0430, excellent signals, $7 / 19$ was notable. (Taylor, NJ)
1402.7 Guinea. Conakry noted with best signal ever and good audio during a newscast in French $06057 / 15$; was better than at any time last season. (Schatz) (Hopefully a good sign portending an improved DX season this yr-ed)
** 1405 unID. South American, likely Peru, Ecuador, Colombia and Bolivia in that order of probability. Noted AN Sunday $7 / 18$ and Tue $7 / 20$, was off $7 / 19$ and 21. Signal was quite weak with heavy rading and was hard to ID. Deejay type show with all Andean music including some Peruvian valses and suspect Iquitos, a place that looks quite enticing (?-ed) on the map.
** 1418 China, P.R. unlisted, very weak, detectable only
(Schatz) by using lower sideband mode, man talking in Chinese and was // 560 , $580,645,980,1340$ and 1518. (Bundy, Truk)
** 1432 Mali? Bamako believed to be the one with west African mx noted $7 / 15$ to 0630 fadeout. DF bears out suspected location. Much QRM from HJBH which was near 1431. Logged some time ago but nice to hear again. (Schatz)
** 1,440 Marshall I. Regarding my recent report on WSZO their s/on anmt on 6/29 seemed to give 1000 watts rather than 10,000 . This would explain their poor reception here. Either my ears were playing tricks on me, or they may have been trying out their new jingles. I believe WSZD-1450 on Ponape is still 1000 watts despite WRIVH listing them as 10 kw . I am writing both stations and getting info on these. (Bundy, Iruk)
** 1457 England, tentative. 2 stations very weak, fading together at 70 beats min (About 1.2 Hz-ed) at $19407 / 15$, pop $m x$ then chimes and "BBC World Service hrd. Could not make anything else out with the local dawn coming. At 1911 on $7 / 16 \mathrm{hrd}$ operatic mx under JOWF splash using LSB mode If this is Englan, then it is the longest reception of the summer. uondon is 8,025 miles from Truk. (Bundy)
Senegal. Dakar relay noted here at $5 / 0 n 06007 / 2$, good in French. (Taylor)
1538 Senegal. Regional outlet noted fair to good $06157 / 19$, French. (Taylor)
** 1554 Gabon. Libreville probably the one noted by GPN and myself on $7 / 19$ (see last months DX News-ed) with tone on at 0424 folo by patches of Is and an apparent s/on by 0030. Bearing was correct; traces of Nice under. (Taylor) Ivory Coast. Abidjan presumably the one here with traces of IS, s/on 0555-0600, fair on 7/2, better on 7/30. DF accurate for Abidjan and fadeout occurred about 0210 which jibes with E-20 time for Ivory Coast. Did not get a positive ID so will not count it. (Taylor, NJ)
** 1595 Philippines. DYDR varying about $\# 1 \mathrm{kHz}$ from about 1000 to $1.600 \mathrm{~s} / \mathrm{off}$ witn girl deejay in Eng with pop mx and ads. S/off ID gave assigned fred of 1590. First hrd on $7 / 6$ and nightly until $7 / 12$ and not hrd since; it is possible that they received my report on $7 / 12$ ! (Bundy, Truk)

- Modification of CP- KYUK, Bethel, Alaska. Broadcast Br. grtd mod. of CP to add 5 k nighttime operation, change hours to unlta., change studio and remote con5 nightime operation, change hours to unla., change studio and remote con-
trol location to Unit 109 , Bethel Heights, Bethel. Action $7 / 30$. (Broadcasting $8 / 16$ )
- Final Action- KKON Kealakekua, Hawaii- Broadcast Bureau grtd CP to increase
pwr to 5 kw , change xmtr, install remote control. Action 6/22. (de Brdcg 7/5)
- Call letter application= Hagadone Capital Corp, Honolulu requests KISA. (Brdg 7/5)
(BBC Cyprus Relay station according to EBU - GPN)

Goombay Changes in the Bahamas.

1) Before the end of the year, ZNS 1540 will boost power to 20 kw and go directional with a 2 -tower array. Major lobe $130^{\circ}$. Signal toward Miami and the USA not expected to change much
2) A new station for Freeport, Grand Bahama, running 10 kw and highly directional to $100^{\circ}$ with a 4 -tower array, to serve Grand Bahama and Abaco. Location is 60 miles east of West Palm Beach which will be in the heart of the station's null. Possible calls are ZFP or ZGB, freq yet to be determined.
3) A relay of ZNS-1540 for Exuma, also 10 kw with a 4 -tower array beaming ESE to cover the southern Bahamas. Frequency yet to be determined.
4) ZNS2 on 1240 has already reduced power to some 750 watts to avoid interference via external mixing to a local Coast Guard emergency frequency. Sked is 0700-2300 local time (s/on 8 AM sundays, IT) but carrier is never off. Incidentally ZNS-FM (107.1) and NZS2-FM (107.9) are only 50 watts each and are used as STL's.

- Ron (Goombay Nassau) Schatz

7/18 (avT) Overseas Mailbag
MM $7 / 18$ (GMT) or, $7 / 19$ local time - truly a just miserable night, should have stayed in bed. Highest atmospheric noise level of the summer. (Interestingthis was around the time that GPN and PT were getting good African reception -ed.) I now have a space magnet but am not about to discard the long wire as it enables me to pick up WSZD, Ponape and WSZA, Yap without crossmodulation from local WSZC. It seems to pick up more noise and less signal than the long wire. The nulls dont seem to be deep enough to do any good. Of course most of the stations I listen to are in the same general direction. Another development on the local scene is a water pump with worn brushes. The noise is traveling along, and being radiated by, the power lines. I am tempted to do a little "wire cutting" but there are several families, including myself which need the pump for water. I'll probably have to shell out another 65 dollars for the noise blanker..... I wonder if you could recommend a Middle East expert who could make out the ID of my 1106 mystery, which I have recorded on a tape cassette. ... WSZO-1440 and WSZD-1450 were still 1000 watts, per anmets, as of July; WSZO is a slow verifier. ... Gear is a SPR-4 with 250 foot LW: the Space Magnet is used with backup rcvr, a Realistic DX-150. - Bob Bundy, Box 114,
Let it never be said that summer DX has died. Had some splendid openings to West Africa and a minor opening to DSA. Revr is a SX-130 and a Space Magnet and after 20 years of DXing I have finally concluded that one can hear just about anything if they listen at the right time (emphasis original-ed.) with some degree of scientific planning. A set of IRCA worldwide SR/SS maps certainly helps, as does a self-made list of signmon times for the Africans. -Page Taylor, Butler, New Jersey 07405. Page, I put your remarks on the Overseas Mailbag because your QTH is so "far out", at least, from NYC anyway, hi -ed. I wish if I may, to draw comparison between these 2 reports. Both Page and Bob are using Space Magnets. The presence of a powerful local on one case and the absence of one in the other make a great deal of difference here, the factor that is involved here is the susceptibility to uverload in the presence of locals that can be exhibited by bipolar transistors. These points have been covered in detail in past issues of DX News (12/19/70, $1 / 23 / 71$ etc.) but this seemed to be an apt illustration of the "remoteness" factor involved in using these antenras.
If there is sufficient interest I can arrange a couple of VoA-1178 SM tests for the EC this fall, have been talking to George Jacobs who is in charge (Jacobs is W3ASK, if I recall; Foss is W9BG - Ed.-who is K2EUH but inactive) and the ops at Okuma; they think we should wait no loncer. Have wrothen an official letter of request to George's office. We COULD try for 10/31 about 0900; Gordon and Fcorge car. figure i= out. -Ross Harsch, Wise.

IONG WAVE DXers will be interested in an item appearing on page 45 of the July 26 issue of Broadcasting magazine concerning the Decision Information Distribution System, called DiDS. This would comprise a national warnigg system wh the abiry the ially at those times that stations are ofi the air, a move that the National Association of Broadcasters has gone on record as opporing.

Technical particulars as described in the article call for a prototype transmitter to be built at Edgewood Arsenal, Md by Westinghouse at a $\$ 2.7 \mathrm{mil}$ cost. It calls for the construction of a 50 kw transmitter on 179.0 kHz and a 700 foot antenna by July 1972 to transmit voice, teletype or triggering tones over a 3 kHz (bandwidth) channel, according to Broadcasting. The contract also calls for installation of 500 special receivers in an area ranging from West Virginia to Connecticut, with 1600 additional receivers to be operationsl the following summer. Two other stations, in Arkansas and Colorado, are being planned. Existing plans call for installation of special DIDS receivers in television sets, "estimated to cost about \$8.70 at the factory under mass production" that would respond to tones broadcast from DIDS stations, even when the TV set at home is turned off. The FCC reportedly is looking for a way to include this ability in radio receivers, in addition to TV sets.
(Can you imagine the havoc caused by your friendly neighborhood bootlegger with homebuilt Iw xmtrs and an audio oscillator or two in the basement? No tnx)

Presstime- Uruguay. Radio Oriental, 770 , listed as 135 kw in $1 D \mathrm{XD}$ \#31, is probabl the combined total of several transmitters (MW, SW and FM) and not the 770 pwr. such power claims are often made in Latin America. (Wood, La.)
** Mali. Yes, regular s/on, as observed on SW, is 0500 now, not 0600 . (Wood, La.) Comments on GMT vs. EST
From QST magazine, November 1970 - No doubt we are going to have confusion regarding what time it is as long as man insists on connecting, although in a general way, the hands of his clock to the position of the sun in the sky. Some years back the Board of Directors ordered all references to times in QST and other League publications to be in GMT. In complying with this, a number of difficulties were encountered and much confusion ensued. Added to the confusion was the fact that there is no "Daylight Saving GMT". That is, if you are stating time in GMT you can't just say that you use the same time by your clock when the nation ad= Vances its clock an hour to kid itself that it is doing everything at the sane time as before. GMI says you are doing it an hour earlier, and no nonsense about it. Thus you do things by the same time on your local clocks, but an hour earlier by GMT. It's bad enough that we have standard time zones (seven of 'em in the U.S. alone) without moving all of them one zone East every October end moving them all back west every April. We amateurs (read: DYers-ed.) don't deal in local commuications and should be aloof from all this. The airlines and the broadcast networks have to show their schedules in local time because they deal exclusively with the general public. We don't. In amateur-to-amateur work and talk we should talk GMT. In other words, we amatuers should be bi-1ingual in time so that we can immediately state the time in either local time or GMT, depending on whom we are talking to - and we should be aware of the date and day that go with the time expressed. There is no "trick" to it. All that it requires is practiee. Electric clocks are relatively inexpensive; why not two of them in your shack, one on local time and one on GMT? Then do some practicing of instant couversion of AM-PM times to the 24 -hour version, converting to and from GMT and stop thinking of terms like morning, afternoon etc. when you go GMT. For example, 2100 EST is not 0200 "the next morning" by GMT, it's just 0200 the following day. In the EST zone, 0200 just happens to fall in the evening; elsewhere it might be "afternoon" or "morning". The position of the sun in the sky has no effect on GMT. No one can really learn a foreign language if he has to translate it to his native language before he can understand. You are not going to master GMT, either if you have to translate it to local time. You have to train yourself to think GMT, until you are as at home with it as with your local clocktime. (This was
from QST magazine; of course the comments were for amateurs but readily valid here)

