

VHF-UHF DIGEST IS THE OFFICIAL MONTHLY PUBLICATION OF THE WTFDA: WORLDWIDE TV-FM DX ASSOCIATION. PUBLISHED ABOUT THE FIRST OF EACH MONTH AT HQ, MILWAUKEE, WIS., USA. ADDRESS ALL CORRESPONDENCE NOT FOR SPECIFIC EDITORS TO:

SAMPLES: 50¢ EACH, SENT ANYWHERE.

BACK-ISSUES: 50¢ EACH TO NON-MEMBERS; 35¢ EACH TO MEMBERS.

PLEASE SEND CHANGE OF ADDRESS IN SUFFICIENT TIME OR THE POST OFF-ICE WILL USUALLY DESTROY YOUR VUD UNLESS YOU GET YOUR VUDS BY FIRST CLASS. IF YOUR VUD IS DES-TROYED. THE NORMAL BACK-ISSUE FEE WILL APPLY IF YOU WISH AN-OTHER SENT TO YOU. "SUFFICIENT TIME" IS FLEXIBLE DEPENDING ON WHETHER YOU SEND YOUR CHANGE OF ADDRESS IN TIME TO CATCH THE NOR -MAL MAILING, AND DEPENDING ON THE ACTUAL TIME YOUR VUD IS IN TRAN-SIT; OVERALL THERE MAY BE A DE-LAY OF AS MUCH AS A MONTH FOR THIS PROCESSING TO TAKE PLACE. IF YOU ARE LIKELY TO BE IN TRAN-SIT WHEN YOUR VUD ARRIVES AT THE OLD ADDRESS, WE RECOMMEND THAT YOU SEND HQ 20¢ TO MAIL THAT ONE ISSUE BY FIRST, CLASS MAIL TO AVOID THE POSSIBILITY OF LOSS.

REGULAR EDITION: (FOR USA, CANADA):
\$4.50 FOR ONE YEAR
\$8.50 FOR TWO YEARS
(FOR FIRST CLASS, ADD \$2 PER YEAR.)

REGULAR EDITION SENT OVERSEAS: \$5 PER YEAR, SENT BY SEA MAIL.

OVERSEAS EDITION: (REGULAR ISSUE LESS DX REPORTS OF MEMBERS IN NORTH AMERICA):

\$1.50 FOR 5 MONTH TREAL PERDOD, (GRANTED ONLY ONCE). \$3.50 NORMAL RATE FOR ONE YEAR. WITH THE TWO CONVENTIONS NOW HISTORY, WE CAN CONCENTRATE ON MORE PRESSING MATTERS NOW. THE EXPENSE OF A NEW MIMEO MACHINE WHICH HIT US EARLIER THIS YEAR WAS AN UNTIMELY BLOW TO THE TREASURY AS MEMTIONED BEFORE. THE PICTURE PRESENTED AT THE DUNKIRK CONVENTION WAS QUITE BLEAK AND MAY HAVE WORRIED MANY OF YOU. SO YOU WILL BE PLEASED TO KNOW THAT AUBUST HAS BEEN A RECORD MONTH FOR MONEY RECEIVED. ALTHOUGH WE DON'T EXPECT THE MONEY TO KEEP POURING IN LIKE IT HAS BEEN SINCE THE SLACK SEASON IS UPON US, (FOR DX AND FUNDS RECEIVED), NEVERTHELESS THIS WINDFALL COULD NOT HAVE COME AT A BETTER TIME. IT WILL ENABLE US TO BUILD UP THE RESERVE AGAIN SO THAT WE CAN BUY SUPPLIES IN BIGGER QUANTITIES IN THE MONTHS AHEAD TO TAKE ADVANTAGE OF THE LOWER PRICES WE GET IN QUANTITY BUYING.

THERE WERE SUGGESTIONS AT THE CONVENTIONS FOR ?

NEW COLUMNS WHICH WE FEEL DESERVE ATTENTION, AND WE

ARE CONTACTING POSSIBLE EDITORS WHO HAVE VOLUNTEERES

RECENTLY OR IN THE PAST. MORE NEXT MONTH.

BETWEEN THE CONVENTIONS AND STAFF MEETINGS HERE. SEVERAL SUGGESTIONS HAVE COME UP RE WAYS TO INCREASE CLUB REVENUE -- PARTICULARLY IN THE OFF-SEASON WHICH IS JUST BEGINNING. THIS PROBLEM IS COMMON TO ALL DX CLUBS SO IT WAS DISCUSSED AT ANARC AS WELL. ANARC PLACED AN AD SOME MONTHS AGO WHICH IT DEGLARED A FLOP, AND HENCE WILL PLACE NO MORE. THIS WAS A BLOW TO WIFDA BECAUSE ALTHO WE HAVE DONE ADVERTISING ON OUR OWN, IT HAS NOT WARRANTED THE EXPENSE. I FELT THAT ANARC WAS OUR ONLY HOPE FOR LARGE-SCALE ADVERTISING AND NOW THAT HOPE HAS BEEN LET DOWN. THERE ARE MANY DXERS WHO DO NOT BE-LONG TO ANY CLUB AND IT HAS BEEN OUR AIM TO REACH THE UNAFFILIATED MEMBER THROUGH OUR PAID ADVERTISING IN MASS CIRCULATION COMMERCIAL PUBLICATIONS. POPULAR EL-ECTRONICS JUST DISCONTINUED THEIR DX COLUMNS BECAUSE THE NUMBER OF CONTRIBUTORS WAS TOO SMALL. ALTHO THE HOBBY LAMENTS THIS ACTION, IT IS BEYOND OUR CONTROL & WE DON'T BEGRUDGE PE THE OPPORTUNITY TO MAKE A PROFIT BY MEANS THEY DEEM BETTER THAN THE DX COLUMNS.

A CALIFORNIA DXER AT ANARC SUGGESTED INFORMATION SHEETS ON ANARC AND ITS CLUBS COULD BE DISTRIBUTED BY MANUFACTURERS OF DX EQUIPMENT AND THEIR RETAILERS, & THIS IS AN EXCELLENT IDEA IF THE MANUFACTURERS AND RE-TAILERS WOULD DO IT. IF ANY OF YOU ARE IN A POSITION TO DO SO, OR IF YOU KNOW ANYONE WHO IS, PLEASE CONTACT ANARC OR WIFDA HQ. THIS WOULD BE OF GREATER BENEFIT TO SWLS BUT IN THE LONG RUN IT CAN HELP US, TOO, SINCE DXERS SELDOM CONFINE THEMSELVES SOLELY TOONE BAND EX-CLUSIVELY. ANOTHER SUGGESTION IS THAT RADIO AND TV STA-TIONS THAT VERIFY CAN SEND INFO SHEETS TO THOSE WHO WRITE FOR VERIES, AND THIS CAN BE A DIRECT HELP TO US IF YOU ARE A VERIE SIGNER OR KNOW SOMEONE WHO WOULD DO THIS FOR THE HOBBY AND WTFDA, LET US KNOW. SINCE COMM-ERCIAL ADVERTISING IS TOO EXPENSIVE TO PERSUE REGULAR-LY, THESE AND OTHER METHODS MUST BE FOUND TO REACH THE DXER WHO MAY BE LOOKING FOR A CLUB TO FIND.

GARY A. OLSON 1203 KENTON RD. DEERFIELD, ILL.

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N. Bishop

R.Clark \* for column \*

\* assistance \*

\* this month \*

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Thanx To:

Your monthly FCC NEWS and DATA - TV column is devoted to reporting the latest, most up-to-date information regarding television stations in the United States. Some information regarding Canadian and other North American stations is published in this column providing it is not

covered by another WTFDA column.

Data listed herein is gathered from <u>Broadcasting</u>, <u>TV Factbook</u> <u>Addenda</u>, <u>ETV Newsletter</u>, and other miscellaneous sources as well as from members contributions (which are sorely needed to give us the most current and accurate information).

Stations with an asterisk (\*) prior to the call letters or city listing denote an educational (ETV) station. Members have generally found that this added information is helpful.

#### STATIONS OPERATING (AS OF JULY 1, 1970)

82 UHF ETV UHF Com 181 VHF ETV VHF Com

Total Authorized Stations On The Air 881

New Stations Reported On The Air:

WDHN (TV) ch. 18, Dothan, Ala., ABC, took air with tests during last week in July

KYAY-TV, ch. 39, West Monroe, La., resumed operation August 13 (had left air January 12)

WJCL (TV), ch. 22, Savannah, Ga., ABC, took air August 3rd Stations Authorized To Start Operation:
WSVI (TV) ch. 8, Christiansted, V.I., authorized testing July 16
New Target Dates Reported:

WUTV (TV) ch. 29, Buffalo, N.Y., fall 1970 (will feature movies till dawn six days a week)

Stations Reported Off The Air:

W\_XT (TV) ch. 60, Aurora, Ill., left the air July 17 WXPO (TV) ch. 50, Manchester, N.H., left the air March 13 KKBC-TV, ch. 34, Lubbock, Tex., left the air July 21 WSMS-TV, ch. 51, Ft. Lauderdale, Fla., left the air Aug. 10 Miscellaneous Changes:

WARD-TV, ch. 56, Johnstown, Pa., is now on ch. 19 WNYP (TV) ch. 26, Jamestown, N.Y., cancel CP and delete call letters

KUAB (TV) ch. 20, Houston, Tex., cancel forfeited CP and delete call letters

KXO-TV, ch. 7, El Centro, Calif., CP forfeited - delete call letters

WBAS-TV, ch. 62, Syracuse, NY, CP forfeited-delete call letters WGCT (TV) ch. 33, Miami, Fla. CP cancelled - delete call letters WTBO-TV, ch. 52, Cumberland, Md., CP forfeited-delete call letters WKHM-TV, ch. 18, Jackson, Mich., construction permit reinstated

#### FCC COMPLETED ACTION

New Grants: Battle Creek, Mich., ch. 41, (Ch. 42 Inc.) 161 kw.
Traverse City, Mich., ch. 29 (Northern Entertainment) 519 kw.
Mt. Vernon, Ill., ch. 13, (Soillcom, Inc.) 316 kw.

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FCC COMPLETED ACTION (Cont.)
   Call Letter Changes:
    *WNDT (TV) ch. 13, New York, NY, granted WNET (TV) WCTU-TV, ch. 36, Charlotte, N.C., granted WRET-TV
    *KEBS-TV, ch. 15, San Diego, Calif., granted KPBS-TV
   WIRL-TV, ch. 19, Peoria, Ill., granted WRAU-TV
New Call Letters Issued:
    *Plattsburgh, N.Y., ch. 57, granted MNE-TV
    *Watertown, NY, ch. 16, granted WNPE-TV *Trenton, NJ, ch. 52, granted WNJT (TV) *Peoria, Ill., ch. 47, granted WTVP (TV)
   Agana, Guam, ch. 10, granted KGTF (TV)
Other Changes Allowed:
      KYTV (TV) ch. 3, Springfield, Mo., ERP to 95.5 kw. - ant 2040 KNEC (TV) ch. 33, Dallas, Tex., ERP to 339 kw. WCBI-TV, ch. 4, Columbus, Miss., ERP to 100 kw.
    *WVIA-TV, ch. 44, Scranton, Pa., - ant to 1680 KCST (TV) ch. 39, San Diego, Calif., 2230 kw. ERP
    KCST (TV) ch. 39, San Diego, Calif., 2230 kw. ERP
KOAI-TV, ch. 2, Flagstaff, Ariz., ant. to 1600

KUHI-TV, ch. 16, Joplin, Mo., ERP to 852 kw.

WVNY-TV, ch. 22, Burlington, VT., ERP to 501 kw.

WYAH-TV, ch. 27, Portsmouth, Va., ERP to 1460 kw.

WNDU-TV, ch. 16, South Bend, Ind., ERP to 1955 kw.

*WGSF (TV) ch. 31, Newark, O., ERP to 4.68 kw.

*WITV (TV) ch. 7, Charleston, S.C., ERP to 129 Kw.

WPGH-TV, ch. 53, Pittsburgh, Pa., to ERP 1620 kw.

KVEW (TV) ch. 42, Kennewick, Vash., ERP to 94 kw.

*WNPE-TV, ch. 16, Watertown, NY, ERP to 525 kw. - ant. to 1214

*KESD (TV) ch. 8, Brookings, S.D., ERP to 257 kw.
ACTION APPLIED FOR OR REQUESTED
   Applications For New Stations:
      Worcester, Mass., ch. 66 (Gemini Media) 18 kw.
   Miscellaneous Requests:
      WTVG (TV) ch. 14, Joliet, Ill., requests ch. 66 @ 316 kw. South Dakota ETV Network has requested allocation of ch. 11
                      to Lowry and ch. 8 to Martin, S.D.
      Kent State U., Kent State Ohio, has requested ch. 45 for ETV use
      Protaca Industries of Chico, Calif., has requested that ch. 24
                      be added to Chico for commercial use
      U. of Maine desires that ch. 6, 13, 26, and 51 be reserved in
                   · Portaland, Maine, for TV use
      Tennessee Televentions has requested the reservation of ch. 10
                      for Clarksville, Tenn.
      Central Arizona College has requested the assignment of an
                      ETV channel for the college's Signal Peak Camous
      KZAZ (TV) Nogales, Ariz., has requested the assignment of ch.
                     11 from Nogales to Nogales-Tucson
  IDBITS AND MISCERBANEOUS ITEMS OF INFORMATION FOR TV DXERS
   The FCC proposes to assign ch. 3 and 12 in Charlotte Amalie and Christiansted, VI for ETV use
# All Cuban stations are now using the network ID "ICR".
   The FCC has approved the assignment of ch. 42 to Hugo-Paris, Okla.
  The FCC has denied Alpha Broadcasting to amend its allocation of
                     ch. 66 to ch. 26 in Terre Haute, Ind.
# The Delaware ETV Network is through; the state legislature voted
                     not to provide funds to continue its operation
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GLENN HAUSER, EDITOR Box 1466 APO SAN FRANCISCO, 96288

OR

CMR Box 1466 KORAT RTAFB NAKORN RAJASIMA, THALLAND



AS DX LUCK WOULD HAVE IT, IMMEDIATELY AFTER I FINISHED THE PREVIOUS SCENE, THE DX STARTED TO COME IN. STILL, BY STATESIDE STANDARDS, IT HAS BEEN A VERY POOR ES SEASON WITH OPENINGS CAUGHT ON ONLY FOUR DATES! THE FIRST OPENING WAS SEEN ON A MOTOROLA 23 GOVERNMENT SET; THE REMAINDER ON A SMALL 9" ZENITH PORTABLE OF MY OWN. I MADE RECORDINGS AND PHOTOS WHENEVER POSSIBLE AND SENT COPIES TO THE CLUB CONVENTION WHERE SOME OF YOU WERE ABLE TO SEE AND HEAR THEM. DX BY DATE:

22JUNE: TROPO, BRINGING HSA-E7 INTO SYNC AT TIMES, BUT NO AUDIO. RUNNING RETMA-LIKE TP AND OTHER SLIDES AT 0927-1040, TST. AT FIRST TAKEN FOR HAAD YA! (LISTED ON A9), BUT I HAVE SINCE LEARNED HAAD YAI OS ON E10. (NOTE: CHANNEL CORRELATIONS AT ARTICLE END). AGAIN AT 1700-1830 AND 2015-2130 ANS SEVERAL TIMES SINCE, I RECEIVED HSA-TV. VIDEO CARR-IER INJECTION WITH THE ALLIED PSB RECEIVER SOMETIMES PULLS THROUGH THE AUDIO. THEN ES FROM MANILLA, FULFILLING A LONG EXPECTATION, AT 1260 MILES. AT 1155, SIGNS OF SKIP APP-EARED ON CHANNELS AR AND A5--POSSIBLY 3 AND 4, ALSO. DZTM-5 WAS BEST; SEVERAL SHOTS WERE TAKEN OF DISTINCTIVE SLIDES ALTHO I MISSED THE ID AND NET LOGO. ANNOUNCEMENTS MOSTLY IN ENGLISH; IDED AS ABC, CHANNEL 5, (ASSOCIATED BC CORP), FOLLOWING THE CONCLUSION OF A MOVIE "THE SAMURAL." SMOOTH NETWORK-TYPE PRODUCTION. RECHECKED AT 1230 TO FIND IT STILL IN WITH TAGALOG-LANGUAGE MOVIE. REAPPEARED AT 2028 WITH NEWS IN ENGLISH, 2033 ID, THEN SOME CCI -- MAYBE 10 KC OR SO--PROBABLY KHON KHAEN, THAILAND. RATHER THAN A DELIBERATE OFFSET, I SUSPECT THIS IS EVIDENCE OF FREQUENCY INACCURACY IN THIS PART OF THE WORLD ... THEN AT 2040, AN ENGLISH PROGRAM ABOUT EXPO70, OUT BY 2100. MANILANS AZ (BELIEVED DZAQ, FORMERLY A3), HAD "GET SMART" AT 2048, WITH SOME DIAGONAL ROLL CCI--PROBABLY BANGKOK-E3. AT 2055, SLIGHT CCI WITH HSA-A3 AT GREEN HILL --- MAYBE CEBU CITY, PHILIPPINES? WELL OVER 1500 MILES IF IT WAS. ON FM, AT 1055 THERE WAS ES ON ABOUT 97.5 MHz, LIKLEY SABAH AGAIN. HAD AN ID AND TIME PIPS JUST EVEN WITH THE NOISE LEVEL AT 1100.

23 JUNE: ON 32.5 MHz (APPROX), 1103 AM, 2-WAY JAPANESE FM; SOME DISTORTION.

30 JUNE: AT 1710, CCI ON E3; TURNED OUT TO BE MANILA ON A? DURING BONANZA-LIKE PROGRAM. 1716-BREEZE ADV; 1732-TALK SHOW; 1740-DRAMA SCENE; 1743-LUX ADV (PHOTO); 1715-GIRL WITH HANDMIKE SINGIGNG (PHOTO)--(HIGHLIGHT OF THE CONVENTIONS, GLENN; FERDLE); THEN VARIETY ACTS INCLUDING A MAN BALANCING A GLASS OF WATER ON HIS FOREHEAD; 1754-CREDITS SUPERIMPOSED; 1755-ABS/CBN LOGO (PHOTO BUT NO GOOD); 1759 ID WITH DISTINCTIVE ITALIC-TYPE 727; 1805-SARSI ADV-(PHOTO); 1820-FADE DOWN TO LEVEL OF CCI AND OUT. ON CHANNEL A5, THE MUF BRIEFLY REACHED HERE AT 1807-13 DURING A DRAMA (PHOTO).

DURING EARLY JULY I TOOK A NUMBER OF SHOTS OF MY LOCALS FOR FUTURE REFERENCE.

3 JULY: TROPO MADE HST-14 BANGKOK (135 MILES) AUDIBLE WITH VCI (VIDEO CARRIER INJECTION).
ALSO HSTTC-E3 AROUND 2030. FOR E3 I HAD TO TUNE SO THAT AN OSCILLATOR HARMONIC FELL ON 56.25 MHz IN MY 43 MHz IF SET. A5 IN KHON KAEN (110 MILES) ALSO BETTER THAN USUAL.

5 JULY; BRIEF ES FROM EAST ON A?, PROBABLY MANILA. 0952 ADV FOR AFISCO; OUT 1000.

12 JULY; BEST OPENING TO DATE. MANILA-A? AT 1425 WITH ADV SERIES IN "CHINESE THEATER":

1435 MALERVA PRO MO SLIDE WITH "2" (PHOTO BUT VIDEO FLIP PRODUCED DOUBLE IMAGE). FADED
ABOUT 1518, BUT AT 1523 WITH VCI, WAR DOCUMENTARY IN ENGLISH. LOTS RECORDED. ON A4, COLOR BARS AT 1428 WITH "TP MUSIC" IN AND OUT FOR AN HOUR. AT 1530 I RECORDED THE SIGN-ON,
MENTIONING AUTHORIZATION OF BOARD OF CENSORS TO SHOW MOVIES. CALL BELIEVED DZXL. INTO
PARIS TRAVELOG AT 1533. THIS IS MANILA"S "NEW" CHANNEL 4, THE RESULT OF DZAQ MOVING TO

FROM 3. FOUR WAS THE WEAKEST OF THE MANILA CHANNELS. A5 WAS ALSO IN, OF COURSE, NOTED
WITH TRAVELOG AT 1448, FADEOUT 1455, AND MOVIE AT 1505 WITH VCI; AFTER 1600 WITH ADS FOR
LUZON MUSCLE CEMENT, BAGUIO OIL, LUCKEY STRIKE FIETERS DURING AN OLD AMERICAN MOVIE. IN
FAIR AT 1640 WITH NO VCI NECESSARY. PARAMOUNT PICTURES ENDED AT1642 WITH SPONSOR BILLSOARD FOR "THE BEST FROM HOLLYWOOD". INTO A FILL FILM TIL "6:00" ABOUT JUNGLE PEOPLE, IN
CASTILLIAN SPANISH. OPENING ENDED 1650. CCI SIGNS ON 13 AROUND 1430, ALSO.

AT 1430 I CHECKED THE FM BANDAND FOUND THREE SKIP SIGNALS AROUND 100 MHz, WHERE MANILA STATIONS APPEAR IN FBIS...BUT THE FREQUENCIES DIDN'T MATCH. AROUND 101 (NO CHANCE TO MEASURE IT) A STATION FLAYING MUSIC, AND ALSO ONE ON 101.9 MHz. ON 102.5 A SERMON IN ENGLISH AT 1438. MUST BE DZCH IN MANILA (OFTEN HEARD ON 1599 AM ANNOUNCING ALSO AS 102.5 MHz, A RELIGIOUS STATION.) HAD FOP MUSIC AT 1450 AND A DISCUSSIONABOUT RUGBY AT 1506. MUF DESCENDED BELOW FM SOON AFTERWARBS, BUT AT 1536 THERE WAS SCMETHING ON 94 MHz---PROBABLY HON KONG SINCE MANILA TV WAS IN A FADEOUT AT THE TIME; JUST MUSIC NOTED AGAIN AT 1608. AMERICAN FORCES PHILIPPINE NETWORK IS SUPPOSE TO HAVE A STATION AT CLARK AFB (NEAR ANGELES) ON 94. TAPE/PHOTO REPORTS WERE SENT TO 3 TV AND 1 FM STATIONS; NO REPLIES YET.

28 JULY: AFTER A LONG DRY PERIOD WHICH UNDERSTAND ALSO OCCURED IN NORTH AMERICA, TROPO AT LEAST CAME IN: KHON KAEN WAS IN WELL AT TIMES ON A5, BUT TO MY SURPRISE THE SAME PROGRAMMING, INCLUDING IDS FOR 5, WERE ALSO ON A9 FROM THE NE. I PHOTOED THE ID SLIDE AND MADE LOTS OF RECORDINGS, INCLUDING A VTR PROGRAM "THAI REPORT FROM WASHINGTON" ENDING 2055. I NOTED BOTH ON 5 AND 9, VIDEO EVERMODULATION (TOO MUCH WHITE WITH AN AUDIO HUM) WHEN ON LOCAL SLIDE/FILM CHAIN, BUT NOT DURING THE VTR PROGRAM WHICH HAD EXCELLENT VIDEO BALANCE. AFTER "MOD SQAUD" ENDED, THE STATION WENT OFF ABOUT 2225; (SQUAD IN THAI, OF COURSE.) I HAD NOTICED STRANGE WEAK SIGNALS ON 8 AND 10 BEFORE, WHICH I HAD THOUGHT WERE IMAGES OF THE LOCAL ON 12. BUT WITH THIS TROPO ON 9, IT BECAME EVIDENT EVIDENT THAT THERE WERE SOME STATIONS IN THAILAND THAT FBIS AND WRTVH DIDN'T KNOW ABOUT.

SO A WEEK LATER I PAID A VISIT TO BANGKOK, INCLUDING THE STUDIOS AND PUBLIC RELATIONS DEPT OF HST-TV. THERE I GOT TO SEE A COPY OF THE PR DEPT ENGINNEERING MAGAZINE WHICH LISTED QUITE A FEW TRANSLATORS THROUGHOUT THE COUNTRY. POWERS ARE SUPPOSE TO BE ABOUT 100 WATTS EACH, ACCORDING TO MY HOST KHUN JARERN CITTASING. THE STATION I SAW ON A9 WAS PHUTTAISONG, 72 MI FROM HOME. THESE TRANSLATORS FORM AN OFF-THE-AIR NETWORK, RELAYING PRDS ORIGINATING STATIONS IN BANGKOK-A4, KHON KAEN-A5, AND LAMPANG-A8. HERE FOR THE FIRST TIME IN DX CIRCLES ARE LISTED THESE STATIONS, ALL PRESUMABLY ON AMERICAN-SYSTEM CHANNELS:

RELAYING HST-4: Khao Yoi-8; Krong Pai-10 (?-TRANSLITERATED SPELLING AND LOCATION UNCERTAIN); KORAT-12 (MY LOCAL, SUPPOSE TO COVER OUT TO TO BURIRAM, 65 MILES AWAY, SO IT MUST BE HIGHER POWER; ALSO THE ONLY ONE LISTED BY FBIS); LOPBURI-13; NAKHON SAWAN-11, VIA LOPBURI; SATTAHIP-9 (TO CHANGE TO 13); RAYONG-8; VIA SATTAHIP; CHANTHABURI-13 VIA RAYONG.

RELAYING LAMPANG-8: DOI SAKET-10 (NEAR CHIANGMAI); NGAO-13; PHAYAO-11 VIA NGAO; THOEN-10;

BANTAK-12 VIA THOEN.

RELAYING KHON KAEN-5: UDORN-13; Nong KHAI-7 VIA UDORN (THIS IS NEAR VIENTIANNE, LAOS); ROI ET-13; YASOTHON-8 VIA ROI ET; KHUANG NAI-13 VIA YASOTHON; PHUTTHAISONG-9; BURIRAM-13 VIA PHUTTHAISONG; SAKON NAKHON-7.

KHUN JARERN ALSO SHOWED ME AROUND THE EXTENSIVE BUT AGING HST-TV STUDIOS. FOR A FEW HOURS EACH DAY, THEY ALSO FEED PROGRAMS ON E9: SOME DUPLICATED ON A4, SOME NOT. THE NEWS GOES THROUGH AN OPTICAL 525/625 LINE CONVERTER. A4 IS TO BE PHASED OUT BY 1973. THE HST-4 ANTENNA IS AT THE STUDIOS IN DOWNTOWN BANGKOK AT BANGKHUNPHROM PALACE. E9S ANTENNA IS IN THE SUBURBS AT BANG KAEN. IN ITS OLD BUIDLING, HST HAS TWO RCA 15 YEAR OLD VTRS, AND YOU CAN IMAGINE WHAT SHAPE THEY RE IN. ALSO A NEWWER AMPEX IN WORKING ORDER. THEY HAVE TWO STUDIOS: ONE LAREG AND ONE SMALL. ALSO TWO AUDIO BOOTHS FOR "ADAM AND EVE" AS MCLUHEN CALLS THEM, WHO TRANSLATE ENGLISH SOUNDTRACKS INTO THAI. THE ORIGINAL SOUNDTRACK GOES OUT UNCHANGED ON AN FM CH.

IN THE PUBLIC RELATIONS DEPT BUILDING A FEW BLOCKS AWAY, BESIDES STUDIOS FOR THE HOME AND OVERSEAS RADIO SERVICES, THERE IS A ROOMFUL OF FM TRANSMITTER LINKS TO THE AM SITES. A 1KW UNIT, AN ITA FM-1000C, IS USED FOR A STEREO PROGRAM ON 92.5 MHz. OTHER TRANSMITTERS ARE GATES SUCH AS AN FM250C (250 WATT) ON 103.5 MHz, ANOTHER 250 WATTER ON 93.5 MHz, AND 3 50 WATTERS ON 95.5, 100 AND 105 MHz. THERE IS ALSO A 1 KW LINK CARRYING OVERSEAS AND RADIO FREE ASIA PROGRAMS ON 96.5 OR 97 MHz. EACH FM STATION SEEMS TO PARALLEL A DIFFERENT AM FREQUENCY DEPENDING ON THE TIME OF DAY; THE SITUATION IS QUITE CONFUDSING!

47	7 : 5	4	61	68		ız)	174	Ü	NT IL 188	THE N	EXT,	73 DE	GLENN 2	16	230
	E 2	E 3	E 4			COLR CHA		E 6	E 7		E 8	E 9	E 10	E .	E 12
	,	A 2	A 3	A. 4		CAN CHA		A 8	A 9	A. 10	A 11	A 12	A 13		
	E	4 6	0 (	66	72. (N	MHz)	174	1	86	1	98	2.	10	AV.	

\*\*AMERICAN (NTSC) CHANNELS 5 AND 6 NOT SHOWN BECAUSE THEY HAVE NO PARALLEL IN CCIR CHANNELS.

Pat Dyer 327 Solar Drive San Antonio, Texas 78227 Deadline: 15th of month

#### NOVEMBER 1970

With the F2 season upon us there's been plenty of new DX.

Ferdinand Dombrowski at HQ in Milwaukee got in on some of the first F2 with a Sept 20, 1320 CDST catch of WWA 335.

Hank Holbrook, 7211 Chestnut Street, Chevy Chase, MD 20015 has been at it again. Only QSLed stations reported, GLT used.

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July
                                    New York, NY (Queens fire HQ)
        0249, KEB 526
   4:
                          154.40
                                    38050'N-76025'W (GALVESTON, container, 20w)
Annapolis, MD (BALTIMORI, container)
North Flatte, NB (state police, 3 kw)
   9: 2328, KBGA
                           157.3
                           157.3
    17: 0021, WSIS
   18: 2357, KAB 313
20: 1058, NMY
21: 1227, KM 5619
                            42.46
                           157.1
                                    New York, NY (USCG, 60 w *)
                           161.64
                                     Washington, DC (WWDC traffic-copter, 35w)
                                    Houston, TX (pager, 250 w)
    24: 1531, KKI 445
                           .35.58
                                    39011'N-76P29'W (KIKUKO MARU, freighter, 10w)
Trenton, NJ (FAA ILS, cw, 120 w)
                           156.8
    27: 0118, JQYT
    0937 ITIN
29: 0054, KSA 774
                           111.3
                                     Sterling, IL (state police, 3 kw)
                           42.52
                                     Baltimore, MD (WFBR traffic-copter, 18w)
    31: 2026, KL 4315
                           166 /
    August
                                    Alexandria, VA (fire, 120 w)
                           154.43
    2: 1232, KIL 943
                                   Gaithersburg, MD (fire, 250 w)
        0052, KGC 334
                            33.78
        1401, KIA 753
                                   Paris, TN (police)
                            37.26
                                     Tiptonville, TN (police)
Union City, IN (police, 60 w)
Hartsville, TN (police, 50 w)
        1404, KIJ 712
                            37.26
                            37.26
        1405, KIB 406
         1408, KIT 663
                            37.26
                                     Gallatin, TN (police, 60 w)
         1412, KIC 419
                            37.26
                            35.58 Oklahoma City, OK (pager, 500 w)
***** 1424, KKM 248
                                     Rogers, AR (police, 60 w)
        1438, KEM 672
                            37.10
                                     Rolla, MO (state highway pairol)
                            42.06
         1454, KAA 958
                                     Willow Springs, MO (state h-p, 3 kw)
         1456, KAA 522
                            42.06
                                     Rock Hall, ND (DUCHESS, 451 aux. cutr, 25w)
    15: 0130, WB 6305
                           157.3
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\* NMY QSL stated this was a near record for them on VHF distance. 25-foot whip on top of a Manhattan 50-story building is used.

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Sep 24: 1420, WWA 335
Sep 18: 0735, WWA 335
                                          Sep 25: 1450, WWA 335
Sep 26: 1055, WWA 335
Sep 27: 1030, WWA 335
         1930, KUA 217
Sep 19: 1320, WWA 335
          1930, KUA 217
          KSC 645 (Es)
2015, KIY 508 (Es)
                                                     1530, KUA 217
                                           Sep 29: 30:
                                                    1025, WWA 335
                                                    1450, WWA 335
         2045, Long Beach (Es)
                                                     1825, KUA 217
          2100, KIN 645 (Es)
                                                     1450, WWA 335
                                           Oct 1:
          2120, KFL 936 (Is)
                                                     1905, KUA 217
Sep 20: 1100, WWA 335
                                                     1725, KUA 217
                                           Oct 2:
     23: 1550; WWA 335
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#### \* fire department, \*\* mobile-phone, all others pagers

KOX 792 is a pager of the type unlike the common 35.22 etc variety. This second type of pager does not run continuous tape loops but rather transmits short message names and numbers; preceded by tones; a large number of this type operate in the 30-33 MHz range, with no ID's ever being noted on them. -- Mobile phone links use a wide variety of calling tones and rings; very few ID with call letters (and then only via 2 Morse).

Literally scores of other fire departments have been logged with calls only. When the locations/freqs are determined, these will appear in future listings. The best time to catch ID's is on the local 6-pm test, when 33-34 MHz becomes a mass of shrieks and squeals. One must hear it to believe it. Another good time is the local noon test. On the hour tests are made by some departments.

Again a reminder, the mobile-phones are covered by the Secrecy of Communications Act

Stations noted using A2 Morse ID this period: RAI 927, KFL 936, KIN 645, KOP 393. The latter is particularly fast speed sent.

There's ample DX in the 30-50 range to keep anyone busy. F2 wont always be with us on this band.

73, Pat WASIYX/5

FCC news - data:

Bellaire Inc., Mobile, Ala., gtd WMOB-FM

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NEW STATIONS
FINAL ACTIONS
              92.9, 5.9 kw., Ricardo vega, AAI 20, 102.3, 3 kw., Lewis County Broadcasting Co., AAT 175 ft.
                 92.9 , 5.9 kw. , Ricardo Vega , AAT 205 ft.
Aguadilla, PR.
Canton, Mo.
*Maryville, Mo. 90.5., 100 kw., Northwest Missouri State College, AAT 510 ft.
Norway, MED: 105.5, 2.5 kw., Oxford Hills Radio Communications Inc., AAT 324 ft.
                 100.1 , 3 kw. , Redwood Empire Stereocasters , AAT 282 ft.
Santa Rosa, CA.
*Stockton, Ca. 89.5, TPO 10 w. San Joaquin Delta Junior College, AAT 82 ft.
                 101.7 , 3 kw., Bethany Broadcasting Co., AAT 300 ft.
Thomson, GA.
Waverly, Ia.
               99.3 , 3 kw. , Cedar Valley Broadcasting Co. , AAT 179 ft.
AUTHORIZED STARTS
WDSK-FM Cleveland, Miss., 92.7, 3 kw., AAT 225 ft.
WMLP(FM) Milton, Pa. , 100.9 , ERP 760 w. , AAT 540 ft.
WKMS-FM Murray, Ky., 91.3, 13 kw., AAT 490 ft.
KLIS(FM) Palestine, Tx., 94.3, 3 kw., AAT 300 ft.
CALL LETTER APPLICATIONS
Ricardo Vega, Aquadilla, FR. req WTPM(FM)
Lewis County Broadcasting Co., Canton, Mo., req KCTM(FM)
Falmouth Broadcasting Inc. , Falmouth, Mass. , req WUCV(FM)
Cape & Island Broadcasting Inc. , Falmouth, Mass. , req WCIB(FM)
HamptonCounty Broadcasting Inc., Hampton, SC. req WJBW-FM
Manistee Radio Corp., Manistee, Mi., req WMTE-FM
Hudson Broadcasting Corp., Middleton, Wisc., req WMAD-FM
Radio Fiesta Inc., Tucson, Az., reg KXEW-FM
Cedar Valley Broadcastiong Co., Waverly, Ia., req KWAY-FM
NEW STATION APPLICATIONS
*Charlotte Amalie, VI. seeks 88.1 , TPO 10 w. (ST. Peter and Paul Catholic Church)
Durand, Wisc., seeks 95.9, .93 kw., AAT 500 ft. (Pepin County Broadcasting Co.)
*Geneva, NY., seeks 91.3, TPO 10 w. (Colleges of the Seneca)
*Henniker,NH., seeks 91.7, TPO 10 w. (New England College)
Lincoln, Ill., seeks 100.1, 3 kw., AAT 201 ft. (Virginia Broadcasting Corp.)
*Longview, Wn., seeks 89.9, TPO 10 w. (Lower Columbia College)
Morrow, Oh., seeks 88.1, TPO 10 w. (Little Miami Local Schools)
Muskegon, Mi, , seeks 104.5 , 50 kw. , AAT 499 ft. (Multi-Com Inc.)
*Norfolk, Va., seeks 89.5, 28.8 kw., AAT 400 ft. (Virginia Cultural Foundation)
Porterville, Ca., seeks 99.7, 15.06 kw., AAT 689 ft., (Gateway Broadcasters Inc.)
San Francisco, Ca., seeks 89.5, TPO 10 w. (Poor People's Radio Inc.)
Scottdare, Pa., seeks 103.5, 325 w., AAT 781 ft. (Stanley Wall)
*Seattle, Wn., seeks 89.5, TPO 10 w. (Nathan Hale High School)
Sheldon, Ia., seeks 105.5, 3 kw, AAT 97 ft. (Sheldon Broadcasting Co.)
*Sioux Falls, SD., seeks 90.1, TPO 10 w. (Sioux Falls College)
Sonora, Ca., seeks 92.7, 3 kw., AAT 64 ft. (Herold Broadcasting Co.)
Springfield, Vt., seeks 93.5, 3 kw., AAT 174 ft. (Connecticut Valley Bdcstg Co.)
West Palm Beach, Fla., seeks 92.1, 3 kw., AAT 155 ft. (Guy S. Erway)
Winston-Salem, NC., seeks 89.3, 3.18 kw., AAT 117.4 ft. (Bible Moravian Church Inc.)
CALL LETTER ACTIONS
Andrews Broadcasting Corp. , Berrien Springs, Mi. gtd *WAUS-FM
DeWitt Broadcasting Inc., DeWitt, Ark., gtd KDEW-FM
Glendale, Broadcasting Corp. , Glendale, Az. , gtd KXTC(FM)
Helena Vocational Center, Helena, Mt., gtd *KHTC(FM)
Hendersonville Broadcasting Corp., Hendersonville, Tn., gtd WHVT(FM)
Albert S. Medinsky, Lancaster, Ca., gtd KOTE(FM)
Raymond A. Plank, Ludington, Mi., gtd WKLA-FM
Radio Medford Inc. , Medford, Ore. , gtd KMED-FM
Mission East Co., Miami, Fla., gtd WIGL(FM)
Miami Bible College, Miami, Fla., gtd *WMCU(FM)
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FCC-FM NEWS AND DATA SEPTEMBER 1970 PAGE 2 CHARLES A. DOBBINS
University of Oklahoma, Norman, Ok., gtd KGOU(FM)
Mountain State Proadcasting Co. , Princeton, WV. , gtd WHGC(FM)
Southern Color do State College, Pueblo, Colo., gtd *KTSC-FM
Thomasville Broadcasting Co., Thomasville, Ga., gtd WRTG(FM)
Copiah-Lincoln Junior College, Wesson, Miss., gtd *WWCL(FM)
EXISTING FM STATIONS
CALL LETTER APPLICATIONS
WCMI-FM Ashland, Ky. req WAMX(FM)
                                     KBKN Broken Arrow, Ok. reg KTBA(FM)
WIXX-FM Ft. Lauderdale, Fa. req WAXY-FM WBSM-FM New Bedford, Mass. req WCGY(FM)
CALL LETTER ACTIONS
                                         KZYM-FMCape Girardeau.Mo. gtd KFMP(FM)
KERN-FM Bakersfield, Ca. gtd KLYD-FM
                                         WMRI-FM Marion, Ind. gtd WMRI(FM)
KRKD-FM Los Angeles, Ca. gtd KFSG(FM)
                                         WLDR-FM Traverse City, Mi. gtd WLDR(FM)
KPOK(FM) Portland, Ore. gtd KPOK-FM
CHANGES TO ALREADY EXISTING STATIONS
KPFA(FM) Berkley, Ca. new aux. ant. ERP 29.5 kw. AAT1,110 ft.
KUDE-FM Oceanside, Ca. chge xmtr location, ERP lo kw., AAT 950 ft.
KPPC-FM Pasadena, Ca. chge xmtr location, ERP to 25.5 kw., AAT 660 ft.
WLCY-FM Tampa, Fla. , chge xmtr and ant. , ERP to 160 kw. , AAT 390 ft.
WWEL(FM) Chicago, Ill. chge xmtr location , ERP to 6.2 kw. , AAT to 1,150 ft.
WMKY-FM Morehead, Ky. chge freq to 90.3 new xmtr and ant. , ERP to 50 kw. , AAT 510 ft.
WCCM-FM Lawrence, Mass. new xmtr and ant. , ERP to 50 kw. , AAT to 400 ft.
WJGS(FM) Houghton Lake, Mi. chge xmtr , ERP to 64 kw.
WPAY-FM Portsmouth, O. new xmtr and ant (no further details given)
KNUS(FM) Dallas, Tx. chge xmtr location, new xmtr and ant. ERP to 100 kw., AAT 520 ft.
KDNT-FM Denton, Tx. new ant, , ERP to 100 kw(hor.) ,44 kw(vert.) , AAT 265 ft.
*KTAI(FM) Kingsville.Tx. gtd licence for non-commercial educational station
*WGTB-FM Washington,DC. chge type xmtr and ant. , ERP to 14.5 kw. , AAT to 45 ft.
KPIP(FM) Roseville, Ca. new FM ERP 3 kw., AAT 130 ft.
WKWL(FM) Belvidere, Ill. chge xmtr location, chge ant, vert. to ERP of 2 kw.
WWL-FM New Orleans, La. new FM ERP 95 kw., AAT 830 ft.
WBCM-FM Bay City, Mi. chge type xmtr and ant. (no further details given)
*WALP(FM) Corinth, Miss. chge type xmtr and ant. AAT to 170 ft.
WHP-FM Harrisburg, Pa. chge type xmtr and ant., ERP to 6.5 kw., AAT 810 ft.
WIFI(FM) Philadelphia, Pa. new xmtr and ant., ERP to 50 kw., AAT to 500 ft.
KJAM-FM Madison, SD. chge xmtr location and make chges to ant. system
WJIZ(FM) Albany, Ga. chge type xmtr and ant., ERP to 100 kw., AAT to 380 ft.
*KICC(FM) International Falls, Minn. gtd licence for new non-commercial educ. station
*WRCU-FM Hamilton, NY. gtd licence for new educational FM station
KTEN-FM Ada, Ok. chge type xmtr and ant. (no further details given)
WGLF(FM) Tallahassee, Fla. gtd licence for new FM station
WAUG-FM Augusta, Ga. chge type xmtr and ant., ERP to 50 kw., AAT to 83 ft.
WOTW-FM Nashua, NH. new xmtr and ant., ERP to 3 kw., AAT to 165 ft.
*WOBC-FM Oberlin, O. gtd mod. of CP to chge ant. and xmtr location
KBKN(FM) Broken Arrow,Ok. chge xmtr location chge ant. system , ERP 3 kw. , AAT 245 ft.
KMWT-FM Mineral Wells, Tx., chge ant system, AAT to 200 ft.
WLLL-FM Lynchburg, Va. chge type xmtr and ant., AAT to 240 ft.
KLYN-FM Lynden, Wn. chge type xmtr and ant. ERP to 30 kw., AAT to 89 ft.
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FH DX for S eptember 1970

FM DX = SEPT

Roger W. Winsor 718 N. Fremont Road Valparaiso, Indiana 46383

Joseph Fela, Jr. 150 Robert Pl. South Plainfield, N.J. 07080

After getting my membership straightened out so that I'm back in the club, I'd though I'd send in a report. 1970, to date, has been a good Es season here, but trops leave a lot to be desired. Best Es catch of the season has been KPFT 90.1 TX. The best trops DX has been WNOB 107.9 Ohio which I hardly consider good. DX for the season goes like this (all times EDT): 6/11 first Es of the year @549P WCPC 93.3 Ms assumed to be the one w/spots mentioning Houston and Calhoun City; 5:51 WJNS 92.1 Ms strongest station of the opening; 6:01 spot on 103.3 mentioning Nacagdoches, taped tentative to KEFN TX produced a vl after 5 or 6 XXXXXX weeks; 6:14 WQST 92.5 Ms thru WIFI; 6:50 KFBD 97.7 Mo. briefly, but well heard; 7:01 KORU 103.3 OK good for 20 minutes and KFAV 92.1 Ark. @7:18PM. 8/4 a good Es day w/a two peak opening .1:18P WOCN 94.9 Fla; 1:30 KANU 91.5 KS; 1:41 KCUR 89.3 Mo; 1:42 cw mx on 94.1 assumed to be KCKN; 2:04 KOWH 94.1 w/R&B; 2:29 Wis. net station on 91.3 assumed to be WHHI, but it only carried the WHA ID. Is this normal? (No Joe, most likely just an accident.RWW) Now the second peak of the day. 6:00 WDYN 89.7 TN v1 sez they upped power from 10w to 62kw in April, so correct various log books; 6:07 spot for Morgan Storage in Corinth o/WJLK so assumed to be WKCU Ms. 6:21 country s tatio n generally well o/local (?) WEVD 97.9 assumed to be WSIX', but couldn't catch an ID and tentative which included s everal spots failed to net any kind of answer from station; 6:29 WPIN 90.5 ID; 6:32 promo for Cards BB on 98.5 or 98.7. I just missed the call, but Chris Lucas tells me he caught the same promo from WELO Ms on 98.5; 6:38 WIZO 100.1 TN very good for a few minutes; 6:52 two stations in/out one had a spot mentioning Paris, Ky so WPDE, the other had a PSA mentioning the Tupelo VFW, so probably WSEL; 6:55 WRSA 96.9 w/mentions on Decatur, the Tenn. valley and Alabama. VI from the owner of the station is a bit odd. his parents live here in So. Plainfield not very far away. 6:59 WMOT 89.3 TN for my lowest powered Es @780w. 7/6 more Es w/WOI 90.1 Iowa @6:45PM plus lotsa unIDs including // on 88.3, 88.5 (??? No Wis. stn here Joe RWW), 90.3 and 91.3 assumed to be Wis. net stns. 73 for now. (Welcome back Joe)

Fred Nordquist 302 Sandra Lane North Syracuse, New York 13212 EDT

FMDX has picked up considerably here. Totals now at 151 logged in 20 states, DC and 2 ctys and 2 prov. Two Es openings noted on 7/11 & 7/15, several new loggings noted on the air. Here's the rundowns 7/11 Es to SW KNBY 105.5 Ark w/nx/wx 1043; UNID 105.7 either KUOA or KLUE w/relig. prog 1046; WFAA 97.9 TX MoR mx 1052; UNID 101.9 L&C probably KFNB OK 1053; KBHS 96.7 Ark promo 1058; UNID 97.3 w/TSN nx 1068 (Most surely KETZ Fred RWW); UNID 101.1 L&C prob. WRR 1110, UNIDs from Tex on 99.7 and 102.1 1115; KXOL 99.5 TX w/cw mx 1116, Es fadeout at 1120. 7/15 Es to So, WGCO 102.3 Ga cw mx 1842, W???? 101.5 Pensacola, FL w/rr & sunshine report 1847. VJ doesn't list this one. (Yes it does Fred as WONF RWW). WCOA 100.7 FL nx 1904, with Es fadeout at 1910. WQIX 100.9 Horseheads, N Y noted w/cw mx..new stn 2024. 7/19 WCED 102.1 Pa MoR mx 2230, 7/23 WMRV 105.5 Endicott. ny noted on air w/MPX & nx 2148. 7/25 WKSN 101.7 NY very weak w/MoR mx 2152; 7/30 WDRC 102.9 CT weak sig 0118; 7/31 WEOK 101.5 NY MoR mx 2200; WGBI 101.3 Pa o/WNYR fade 2300. 8/1 WJAC 95.5 Pa RR &SID // to AM 0005; WVNY 92.9 VT noted w/slow fading sig. MoR mx before local WDDS s/on (state #20) 0630, WHYN 93.1 Mass. local nx 0632, WBOS. 92.9 o/u WVNY w/local nx 0634. Call changes noted were WSFW ex WSEF 93.3 and WNCQ 97.5 ex WOTT.

Larry Vogt 8309 Greeley Blvd. Springfield, Virginia 22152 EDT

Fisher 500TX w/Finco FM4G at 40. Did manage to catch Es on 3 days in June and 2 in July in stite of a very heavy load of homework and fulltime school. 6/1 2044 KOTN 92.3 Ark and relog KGCC 89.7 TX @ 2100. 6/4 2024 KAKC 92.9 OK and relogs 2017 KGCC 89.7; 2019 KWGS 89.5 OK; 2030 KSOZ 88.1 Mo. 6/28 1243 KTRM 95.1 TX; 1244 WQNZ 92.5 Ms state #34; 1259 KHOM 104.1 La; 1300 KPFT 90.1 and KQUE 102.9, both Houston; 1307 WCCA 94.1 Ms; 1310 KSMB 94.5 La; 1316 KBPO 94.1 and 1331 KAYD 97.5 both Beaumont; 1333 KBCL 96.5 La; 1336 KSHN 96.7 Sherman, TX; 1530 KRVN 93.1 NB and relogs 1250 WQXY 100.7 Baton Rouge 1431 KRDO 95.1 CO; 1432 KJRG 92.3 KS; 1452 KANU 91.5 KA; 1500 KWBE 92.9 Beatrice, NB and 1501 KFIA 94.3 Scott City, KS. 7/11 1006 KCKN 94.1 KC, Mo earliest FM Es I've heard; 1008 KFMU 94.9 Mo; 1020 KEYN 103.7 Ks; 1032 KRCB 98.5 Council Bluffs, Iowa; 1037 KABI 98.3 Ks; 1040 KLCO 98.9 Leavenworth; 1056 KOFO 95.7 Ottawa, Ks; 1111 KWHP 97.7 Edmond, OK; 1123 KFNB 101.9 OK and relogs 1014 KJRG 92.3; 1005 KWNS 93.1 Ks; 1015 KBFL 90.3 Buffalo, Mo; 1029 KOIL 96.1 Omaha; 1030 WOI 90.1 Ia; 1058 250 watter KMUW 89.1 Wichita; 1059 KSOZ 88.1; and 1100 KANU 91.5. 7/16 1607 KXJK 93.5 Forrest City, Ark tent. w/ E. Ark wx; 1711 KTXN 92.1 Victoria, TX; 2330 KIVY 92.7 Crockett, TX latest Es I've hrd and relog KITY 92.9 TX @1724. Logged a few new trops also: 6/3 @2100 WTAP 103.1 WVa and WYSU 88.5 Ohio @2230. 6/12 1824 WHNC 92.5 Hendersonville, NC. 6/15 0200 WEOK 101.5 NY. 6/16 1833 WHBC 94.1 Canton, Ohio. 6/24 0830..0930 WKES 88.9 and WDYN 89.7 both Chattanooga, TN @525 miles. 6/26 1800 finally got WCEM 106.3 in Cambridge, Md. 7/3 0800 WRPI 91.5 Troy, NY; 0808 WENY 92.7 NY and 0815 WAER 88.3 Syracuse. 7/10 0605 WRLB 107.1 Long Branch, NJ. 5/19 2345 very weak WCWP 88,1 Brookville, N Y w/rock, listed as 100 watts. And on 8/1 @0203 WXKW 104.1 Allentown, Pa ex WAEB I guess. It's true that you never know what to expect, but I'm not holding my breath waiting for more Es this year. Latest in the season I've heard it so far is 8/1. August to October have produced some out of sigh trops here in the past, so will be watching for them. Can't complain about this season ... 5 new states and 1 new country brought the total to 34/4. I still need 3 states under 600 miles in VT. NH and Me. Hope I can get those 3 before moving to Ft. Lauderdale next summer and starting all over! Till next time 73 and DX. (Tnx for the kind comments. RWW)

Pat Dyer 327 Solar Drive San Antonio, Texas 78227

I am not really very active with FMDXing due to poor equipment. I've got a Stewart Warner AM FM PHONE combination of 1949 vintage. Some of the tubes in it are originals! The FM part of it wasn't operative until 1962 and I tried a little bit of DXing w/indoor twin lead. All I could ever manage to get was up to about 200 mile trops. Thru the years since then I have given the band a try for Es whenever the MUF hit ch. 6 well. I am currently using an indoor pair of rabbit ears. Finally on 7/11 around 1050 CST I gave another try at Es (noting 500 MHz had very short skip) and promptly noted a host of signals up to at least 100MHz. At 1130 logged WAYL 93.7 MN. It was as strong as one of our 60kw locals. No reply as yet to a report sent to them. I made a tape anyway coconcer I've been holding off sending this report to you in hopes that I might snag some more Es. However, all I'm getting now is trops with Houston, Austin and New Braunfels. San Antonio back about 10 years ago was pretty devoid of locals, only 3, but now there are plenty, (9) to fill up the band. Shortly after the Es catch I decided to check out the tube lineup on a tester. It turned out that two of the IF and two of the audio tubes registered virtually dead! That's pretty bad when the set has only 9 tubes in it. After TVDXing for over 10 years, it was a thrill to catch that FM Es. You can count on me sending in any future DX I manage to come across down here. (Welcome Pat and good luck) Bob Cooper, Jr. 6221 Norman Road Oklahoma City, Oklagoma 73122

FMDX report July 8 thru August 7, all times CDST. July was a disa ppointing month here. Tropo all but disappeared from the southwest as weather got hot (100 plus virtually every day) and dry and stayed that way. Es was erratic at best with only disappointing breakthroughs on a couple of dates. Only managed 61 new stations during month, about half of the May and June increases, pushing past 600 logged and onward to the 700 mark. 7/8 I got in late on this one after it had started. From 2130 tune in until 2223 on Es from California were KXOA 107.9. KFIG 94.5, KFRE 93.7, KNBR 99.7, KIOI 101.3, KVEZ 107.7, KZAP 98.5, KDFM 92.1, KFOG 104.5, KJAX 99.3, KPIP 93.5 and others. 7/9 0704 WHIA 90.3 on meteors (multiple bursts). 2200 KWWL 107.9 on tropo, only sig in outside of normal. 7/10 0740 KSIS 92.1 on trope. 7/11. best Es. of the period...starting at 0921 and lasting thru 1231 or so to NE states area and eastern Great Lakes, including WING 92.1, WSTW 93.7, WFIN 95.7, WMMM 107.9, WCHA 95.1, WBYO 107.5, WAYZ 101.5, WXTC 107.9, WGET 107.7, WDVR 101.1, WZFM 98.3, WNAV 99.1, WFRE 99.9, WEER 107.7, WOUB 91.3, WLPL 92.3, WPGC 95.5, WBPZ 92.1, WLVH 93.7, WFMM 93.1, WFBG 98.1, WSIP 100,1, WHBN 99.3, WQXE 106.3 (Roger where's this one?) (no idea Bob. Any help from somebody else?? RWW) WHFM 98.9, WBRE 98.5, WJFH 101.5, WIEX 98.1, WCPA 92.1, WHBC 94.1, WSIU 91.9 (shortest Es of the season here about 550 miles, heard frequently on tropo, but not on Es before), WDAO 107.7, (previously hrd on tropo), WSRW 106.7, WRED 104.1, WWSW 94.5, WFEM 92.1, WBBW 93.3, WKBN 98.9, CHFI 98.1 and WBLK 93.7. Around 1422 the Es returned to the NW w/Nevada, Idaho KNEV 95.5, KVLV 99.3, KBBK 92.3, KBOI 97.9, KBGN 94.1 and KSNN 93.7. 7/12 2105.2110 brief Es break to NW w/CFMQ 92.1 and CJUR 89.7. 7/14 0455 KCFM 93.7 on best tropo AM of month (and that wasn't muchs) 7/16 Es to SE area from 1524 to 1617 briefly again 1707 to 1710. Logged were WRLJ 96.9, WJAX 95.1, WQIK 99.1, WIVY 102.9, WJAT 98.3, WDEC 94.3, WTOC 94.1, WEAS 93.1, WMCD 100.1, WPGA 100.9, WLOP 105.5, WTMA 95.1. 2008 to 2034 brief FM Es break to NE w/signals in/out. Caught were WOUB 91.3, WFRE 99.9, WTRF 107.5, WBZI 95.3, and WKJF 93.7. 7/17 FM Es to west and SW w/KVWM 93.5, KFCA 91.5, KOGO 94.1, KRFM 95.5, KOOL 94.5, KMND 93.3, KARL 95.9, KDIG 98.1, KFMX 96.5, KCHV 93.7, KFIG 94.5, KKOP 93.5, KFAC 92.3, KUSC 91.5 and new KYNO 95.5 (Hit Parade 70 format) - 7/18 1858 to 1924 another brief Es break to NE w/signals in/out including WSEN 92.1, WONO 107.9, WMIV 95.1, WBIV 107.7, WHFM 98.9, WWFM 99.9 and WBLK 93.7 and then the long drought until 8/1 0523 WFBC 93.7 on Ms. 0600 WFCJ 93.7 s/on Ms. 8/2 0615 WKJF 0628 WDJC 93.7, both Ms. 8/4 I either caught one weak break into FM via Es, or the end of this one at 1130 WSAI 94.1. Weak Es from NE also in out at 1354, during fairly good TV opening. 8/5 A fairly good FM opening for so late in the year from 0950 until about 1127 to NE area. Logged were: WFMD 99.9, WSNJ 107.7, WAYZ 101.5, WHTR 100.7, WJLK 94.3, WKSL 94.3, WSTW 93.7, WCST 93.5, WMMR 93.3, WCTX 92.1 (4th and last Pa. for me on 92.1), WNOW 105.7, WRVR 106.7, WPAC .106.1, WBYO 107.5, WMMM 107.9, WBAB 102.3, WLVH 93.7, WING 92.1, WVOX 93.5, WKOK 94.1, WINE 95.1, WBMI 95.7, WUPA 93.5, WFCR 88.5, WHXN 93.1 and Boston's WGBH 89.7 (1490 miles) Hope we saw you in Dunkirk over the weekend of the 7th to 9th. I left for same evening of the 5th, so my month is a few days short this time. 73 Bob. (Nope, I couldn't make it due to extremely tight finances and work schedule which would involve me taking 3 days off work. Being 3 just a railroad switchman; I can't afford such luxuries. I really did want to make it, so that I could meet all you personally and also to see that outfit of Bob Seybolds. I hope you had a massive Es and trop opening all day long! Hi hi. RWW)

with the Group selfate and their emissions

The second secon

Fred McCormack Des Lacs, North Dakota 58733

July was a rather poor month for FMDX with only one day of good Es and only one of fair tropo. I guess auroral is not as uncommon in summer as I had thought, since I continue to hear it. DX by date and times follow. New stations underlined: 7/7 via Es WOUB 91.3 @1507, WHOK 95.5 OH @1522, WCOL 92.3 @1526 and WMMS 100.7 OH @1755. On 7/9 via AS KGVM 99.1 Idaho Falls, ID @0715. Trops on 7/13 produced KFAM 104.7 MN @0634, KSJR 90.1 MN @0731, KWOA 95.1 @0932, KWIM 102.5 @1002, KEEY 102.1 @1015, WIOL 99.5 @1023 all MN. By AS on 7/24 KNWC 96.5 SD @2213. On 7/25 via treps KLIZ 95.7 MN and by Es WROW 95.5 Albany, NY @2314. I heard WDHF 95.5 Chicago @2352 on 7/27 via MS. On 7/29 via AS; KNWC 96.5; KSTP 94.5@0632, WAYL 93.7 both MN @0633, WBAY 101.1 WI @0645, KBRK 94.3 SE @0716. WBIZ 100.7 @0721. WHA 88.7 Madison, WI @0754 and by trops KSJR 90.1 @1035. I heard KDSU 91.9 Fargo, ND @0037 on 7/30. I had waited a long time for this one. It was the only ND station I had not logged out the grand total of 11, one now off! During my four years at NDSU I spent some time at the studios of KDSU, and up to this spring, they claimed to not have received a single reception report since they came on in 1966. I noted in the August VUD that Bill Bens logged them on Es. He is probably one of a very small number of DXers who have heard them. 73 and good DX.

Roger W. Winsor 718 N. Fremont Road Valparaiso, Indiana 46383 CDT

I haven't had too much time for DX this last month, due to an extremely active recreation schedule with Budweiser, the beach, my wife and kids. Only new additions were on 7/15 via Es when I logged WFIA 93.3 Tampa, FL in \$ @2150 w/ID "surrounding sounds of Tampa Bay", WVFM 94.1 in \$ w/BB Baltimore Orioles @2155 w/ID and local promos. WOCN 94.9 in \$ 2200 ID, and WIOD 97.3 both Miami in \$ @2205 just ending nx. Now 335 logged.

John H. Shannon 478 E. High Street Kittanning, Pa. 16201 EDT

Well, I didn't get my new antenna system up during July so as I said my DX was just about nil. Also one of the fellows at WPIT quit, so I have been working extra. All that not to mention we have been having our troubles with the transmitters at WPIT and WPIT FM, and I have been working on them quite a bit. I did manage 7 new stations and one new country as follows: Es 7/6 2000 ZBM FM 89.1, a real surprise since TV skip was only on ch. 2 and 3, and otherwise the FM band was dead. Trops 7/9 0301 WJFM 93.7 Mich/ 7/14 0100 WBRB 102.7 Mich. The next loggings are from Aurora, I guess. My first experience w/aurora, so not sure just what it is like on FM. 7/9 0148 WIFI 92.5 Pa., 0159 WKCR 89.9 NY, 0230 WIL 92.3 Mo., 0222 KGNC 93.1 TX. And that is my DX for July. Total now 159 stations. Good DX to all. I hope everyone has more time to DX than I do.

Robert Seybold Bennett Road Dunkirk, New York

Winegard TV antenna and preamp and rotor. 7/27 evening 1900 to 2200. WAUP 88.1, WHPR 88.1 Highland Park, Michigan, WIAA 88.3 WMUB 88.5, WAPS 89.1, WGSU 89.3 Geneseo, NewYork, WOSU 89.7 Columbus, Ohio, WMBI 90.1 Chicago, WKAR 90.5, WBFZ 91.5 (Bob, not possibly them, as they are off the air during the summer, and never are on so late in the evening. Perhaps you misread the ID for WBJC Baltimore off back side of the antenna RWW) Finally WMHE 92.5 Toledo. (Welcome to this part of the section of VUD Bob, and I am very glad you decided to put in whatever yeu hear. It is amazing the amount of FM DXers around, and I remember when I thought I was the only goof in the country who would log radio stations!! RWW)

Joe Fela, Jr. 150 Robert Place South Plainfield, N. J. 07080

DX continues from last report (all times EDT): July 8th 10:37pm s/off of WDVL 92.1 NJ (almost rare here); 11:04 WCEM 106.3 Md. o/WHTG at times. July 9th a good New England trop opening. 9:27pm WCRB 102.5 Mass. fair; 9:41 WSRS 96.1 Mass. excellent; 9:49 WKOX 105.7 Mass.; 9:58 WCRX 102.1 spotty w/WFIL 102.1 Pa. making things tough; 10:05 WFGL 104.5 Mass.; 10:10 WWON 106.3 even and o/a mix of WHTG/WVIP; 10:17 WCOP 100.7 Mass. excellent, completely wiping out WINA NY (and that was with the antenna pointed towards WINA); 10:30 WBOS 92.9 Mass. July 10th a continuation of the previous eve w/the 12:03am s/off of WMTW 94.9 NH (to return @0600); 12:05 s/off WPFM 100.3 NH very good and 1:00 s/off WOTW 106.3 NH w/a YL DJ who completely messed up the s/off. July 11th a good Es opening 10:01am KAKC 92.9 OK w/Hit Parade '70 (v/1 sez they were still on the old power of 4100 watts on this date, but hope to go to 100kw soon); 10:12 rocker at times breaking thru WIDB 96.5, a taped tentative to KRAV produced a verie (the DJ who I had on the tape... I had caught his name.., sent the v/1); 10:29 KBFL 90.3 Mo.; 10:30 KTB C 94.7 OK easy thru local WFME Neward; 10:33 KOFM 104.1 OK; 10:35 KKMA 104.5 Oklahoma (v/1 sez they are at 200kw ERP....this right?). Also lotsa UNIDS like two on 92.5, 101.3, 101.5, etc.). July 16th rather late evening Es w/KPFT 90.1 TX varying between nil and local signal at 11:30PM. Other unIDs on'88.5 or 88.7 (ideas anyone?) and 94.1. July 17th WRBS 95.1 Md. s/off @12:12AM, rarely heard here. July 18th 12:15pm WKRT 99.9 NY. Some trops in the evening with KCKN 94.1 Kansas at 7:54pm and KCUR 89.3 Mo. at 8:07pm (Trops Joe??? RWW) July 19th 12:30am WOR 100.5 NY and WKOP 99.1 in/out at 12:35am. That evening produced some good trop with the following: 9:29pm WFOG 92.9 Va.; 9:33 WTID 104.5 Va. completely wiping out WRCP Pa.; 9:48 WNOR 98.7 Va., local WOR 98.7 not withstanding; 10:05 WBCI 96,5 o/WWDB Pa,, which has enough signal here to just about qualify for a local also; 10:30 WRVA 94.5 Va. very strong; 11:06 WDOV 94.7 Del. thru local WFME. More next time. 73s.

Waldo F. Bishop P. O. Box 1678 Tallahassee, Fla. 32302 EDT

July 14 Es @0135 88.9 & 89.9 both Mexican, both unID. 89.7 w/acid rock. 90.5, 92.1 unIDs in/out until 0153. July 15 unID Es 88.1 & 88.9 12:40 to 12:42hrs. July 16 Es began approx 2200 @2235 WKAR 90,5 MI w/"Jazz Horizons" w/CJ ??? Bryan. They stayed irreg. to 2340. At 2352 my 1st positive ID of WSB Service (???RWW) WHWK 89.3 Chilton, WI, programming rel. mat. prepared by Riverside CH. in NYC. At 2355 relog from 6/28 of WBGU 88.1 Bowling Green, Ohio. At 2329 WDMJ 95.7 Marquette, MI w/ Tiger BB w/ad for Morrison's Pharmacy. At 2333 WCCW 92.1 Traverse City IDed. July 17 1835 to 1850 Mexican unID 88.7. 1856 to 1910 unID 90.5, bunch of unIDs 88.9 and 90.5 until 2030. I need to know ID of 89.5 with "Relic Rack" DJ show @2033 hrs? At 2042 WICN 90.5 Worcester, Mass listener supported station of Holy Cross College IDed w/req. for more listener support. At 2058 WGBH 89.7 Boston w/ann ct of demise of Tanglewood bdcsts unless donations received at once. July 18 Es in progress @2005 when tuned in. WKAR again. At 2010 WSSU 91.3 Superior, WI. And that is the end of Es from Tallahassee to date. Heve been, constant in monitoring and it has died. Tropo non existent. Tonight 8/11 2051 hrs. to 2151, MS count 44 pings, 26 bursts, 8 super bursts, . 6 super super bursts totalling 84. Antenna to NW. I was sitting on 90.1 hoping for WMBI, WIAN or WOI, or even KSJR, but nothing IDed at the right time. Had snatches of Chopin Concerto No. 2 for Piano and Orch. at 2117 and 2125, andwar rel. program: RWW, my belated congrats on your reception of Es, and appreciate the fine job you do on the FM DX section. (Waldo, thank you very much for the kind comments. It has been a fun thing doing this, and I really have picked up a lot of tips from typing this column. RWW)

to the nau fra-

Mike Bugaj 197 Boston Road Middletown, Connecticut 06457

Hi. Going way back to 5/11 CKDY 105.3 Ottawa @8:21 w/nice, clear ID and \$ music. 5/19 WINH 98.3 Laconia, NH @9PM w/ID/CBS News, 5/21 WOTW 106.3 Nashua @7:30PM w/YL DJ and cw mx, WWON 106.3 in Woonsocket 7:40PM in/out w/WOTW. 5/30 First Es of the season here. WHMS 92.1 Hialeah @1027 also other unn Floridians. 5/31 WRTI 90.1 · Phily @1200 w/jazz. 6/11 Good Es to SW, WQMV 98.7 Vicksburg, Miss. @6:43PM, WCPC 93.3 Houston @7:05 in \$, KSMB 94.5 Lafayette @7:10 PM 1307 mi most distant replacing CJOB w/s, WFOR 103.7 Hattiesburg @7:44 WWOM 98.5 New Orleans @8:20, WJNS 92.1 Yazoo City @6:36, WKYV 106.7 Vicksburg @6:52, KKEG 92.1 Fayetteville @6:50 w/"K..KEG" ID. 6/14 WICN 90.5 Worchester @9:16PM in \$. 7/1 WOUR 96.9 Utica @10:00PM. prog. rock in \$. 7/3 two loggings from new state WVNY 92.9 Burlington @6:05PM in \$ (a powerhouse) and WNHV 95.3 White River Jct., VT @... 7:05 also in \$. 7/4 super Es with a touch of trop. WNCT 107.7 Greenville, NC .@12:40AM strong in \$ for a new state, WLPL 92.3 Baltimore @0103 w/rock, then Es in the afternoon with KCUR 89.3 in Kansas City @1:59PM new state, WFLA 93.3 Tampa @2:40PM \$, WVFM 94.1 Lakeland @2:44 also \$, then skip died down and was reborn again at 6:15PM WDRM 102.1 Decatur, Ala., WJOF 104.3 Athens @6:17, WIVK 107.7 Knoxville @6:20 w/rock, WCNA 98.3 Scottsboro @6:52, WWWB 102.5 Jasper @6:57, WREC 102.7 Memphis @6:59 (wrecking local WDRC 102.9!) WNDA 95.1 Huntsville @7:04 \$, WERH 92.1 Hamilton @7:08, WRSA 96.9 Decatur @7:29, WEIO 98.5 Tupelo @7:30, WENN 107.7 Birmingham @7:40, \* WAFB 98.1 Baton Rouge @8PM w/Hit Parade '70, WQXM 97.9 Clearwater @8:19, WCKW 92.3 La Place @8:34 w/c&w, WBAQ 97.9 Greenville @9:36, in \$ and back at 6:25PM new state WDOC 95.5 Prestonburg, Kentucky. 7/6 Es again w/KCMW 90.9 Warrensburg, Mo @5:56PM, KANU 9d.5 Lawrence @6:06 and verie sez they welcome reports from DXers, KRXL 94.5 in Kirksville, Mo @6:33, KRCB 98.5 Council Bluffs @6:37 w/rock, KWMT 94.5 (a busy channel) Ft. Dodge @6:44, WOI 90.1 Ames @6:53, WBLR 92.1 Batesburg, SC @8PM, WXLM 97.3 Savannah, Ga @7:42PM. 7/9 trop to NE w/WPOR 101.9 Portland @9:30pm w/C&W mx. 7/11 more Es to SW, KWFC 97.3 Springfield @1025, KWTO 98.7 Springfield @1030 and new state KMOD 97.5 Tulsa @1031 topping local WALK 97.5. 7/14 trop w/WNOR 98.7 Norfolk @7:45pm w/YL DJ first time ever heard topping WOR, WDVL 92.1 Vineland @9:07pm weak w/nx. 7/15 more Es, WSIX 97.9 Nashville @6:02PM in \$, WSTO 96.1 Owensboro, KY @6:28 in \$, KARK 103.7 Little Rock @6:50 w/Hit Parade '70 in \$, KCAB 102.3 Dardenelle @6:56, WAPI 94.5 Birmingham @7:04 \$, KASU 91.9 Jonesboro @7:05, WELR 95.3 Roanoke, Ala @7:23, WCHK 105.5 Canton, Ga. @7:29, WTCV. 104.5 Memphis @7:40 BB game, WJIN 104.7 Birmingham @7:38 pm soul mx, WKDA 103.3 Nashville @7:50 rock. 7/20 trop WCME 98.9 Brunswick, Me. @9:12pm in \$. 7/22 new WBRK 101.7 Pittsfield w/ID and BB game. Receiver is a Realistic STA 65. Antenna is ten element Rinco FM5 up about 30 feet on top of the house, with a Alliance rotor. Missed an all day opening on 7/16 because of work. Came home at 4 to find TV Es and WQMV 98:7 blasting in, but fade soon followed. Es hit TV here (but not FM) on June 2/9/13, July 2,12,18. FM skip was on May 31 and 6/1, but no new loggings. Last half of June stunk for Es. New states verified this summer are Vermont (which completes NE), Oklahoma, Kentucky, Missouri, Louisiana, Mississippi, Kansas with WOCN, WMUM, WHMS, KRCB, KANU, WDOC, WWOM, WQMV, KCMW, KMOD, WNHV & WVNY. I have no answer from WNCT, CKDY, WCPC, WPEX, KCUR. Totals: states logged 29 with 27 verified, with 332 stations logged from US and Can. Best frequency is 94.5 with eleven loggings. That's all for now. 73.

# September 1970

Dennis Park Smith
Music Department
University of California
Santa Barbara, California 93106
Deadlines: 12th of each month

There have been quite a number of Es openings through July, but most have been reported as erratic and inferior to those of May and June. Usually July is also a big Es month but this year's good season started and ended earlier than usual. Best July openings were considered to be early in month, such as 5th, 7th & 8th, also leading up to the 19th. After that, even the number of openings slacked off markedly. July Es dates in Western reports: 2,3,4,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21, 22,23,25,26,27,28,29,30; so far in August, 1,3,4,5. Only a little tropo activity, starting in Texas around 9 July and spreading north through Oklahoma, Nebraska and North Dakota by the 12th. California tropo conditions to more than 200 miles are slightly above normal this summer due to a stable weather pattern which is usual—though the last two summers had frequent unsettled conditions upsetting the stability.

Robert H. Baker, Humboldt, Iowa

DXers interested in UHF TV may like to know that KUFD-TV (formerly KQTV) ch. 21 Fort Dodge, Iowa has completed a new 1200' tower at Brodqute, Iowa (27 mi NW of Fort Dodge) and has installed a 900+-kW (FRP) transmitter. The old Ft Dodge tower was 650' and ERP was 300 kW visual. They should be testing the new equipment during the next month, between midnight and 6 AM.

(Areas west of Mississippi River are steadily gaining more powerful UHF voices.

Thanks for information, Robert. dps)

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James N. Pizzi, 812"B" South Pine St., Santa Maria, California 93454 (10May-19Jul)(PDT?)
Equipment includes use of Jerrold PIX-225 and Sony Trinitron Color receiver at work.
10 Es 0930 KOOK- 2 Billings MT (endHerald) (17) (Es) 1450 XHCH- 2 Chih (testcard w/ Indianboy)
                                                  18 Es 1857 KMID- 2 Midland TX (id)
22 Es 0848 KATU 2 Portland OR (id)
                                                          1930 KENS- 5 San Antonio TX (id)
       0850 unID2 (CBUT?) (Canad. Brdcstg Talk)
                                                         Unids ch2: 1637 ESE RETMA TP, 1931
ESE NBC, 2002 ESE ABC Tom Jones, 2020
ESE CBS J.Gleason(diff.fr.KCOY CBS),
31 Es 1202 WOAI- 4 San Antonio (Astro Net)
J6 Es 1100 KREM- 2 Spokane WA (id)
             CHBC- 2 KelownaBC (promoUnderdg)
 8 Tr 2230 KEBS-15 San Diego CA (id)
                                                          2110 N Vietnam war movie;
       2302 KCST 39 San Diego (id in movie) <u>ch4:</u> 2115 N News.
2330 KIØ?? 10 Santa YnezCA(xltrKCOY12 19 Es 0829 KDIX- 2 Dickinson ND
                                                                                           (id)
14 Es 0850 KMID- 2 Midland TX (Spanish pgm)
                                                          0830 KGNC- 4 Amarillo TX
                                                          0859 KACB- 3 San Angelo TX
       0859 KWAB 4 BigSpringTX(KBSTRadio prom)
       0900 KACB- 3 San Angelo (into Death V.Day)
                                                          0900 KMID- 2 Midland TX
                                                          0929 WOAI- 4 San Antonio TX
                    2 Spanish under KMID(XEPM?)
       0917 XEJ - 5 Ciudad Juarez (id slide 0930 KROD- 4 El Paso (ad lawn sprinkler
                                                          0930 KOAA- 5 Pueblo CO
                                                          0931 KHAS- 5 Hastings NE (s/on IHTP)
       1000 XEPM- 2 Ciudad Juarez (id)
                                                          1000 KOA - 4 Denver CO (id)
       1100 KRLD- 4 Dallas (D.Bd. of Realtors
                                                          1000 KREX-55 Grand Junction CO (id)
                                                          UnIDs: 5,0832 E Face Nation; 2,0833
IHTP-s/on0845-USAsta; 3,0846 E Span-
       1130 KGNC- 4 Amarillo TX (TVS Net)
       1138 WKY - 4 Oklahoma City (TVS Net.id)
       2000 KOOK- 2 Billings MT (id)
                                                          ish-man at deskw/KING-Galvon behind him;
                                                          3,0855 E CBS Face Nation; 5,0904 E
       2005 KLNE- 3 Lexington NE (id)
                                                          SpanishUSAsta; 6,0910Estrongumerlcl6
J5 Es 1202 XHCH- 2 Chihuahua, Chih (id)
             ? 2&4 Spanish, manat desk w/phone)
                                                          1000 KWGN- 2 Denver CO
10 Tr 2330 KMST 46 Monterey CA (id)
11 Es 1130 KTWO- 2 CasperWY (on Sony&ears)
                                                          1030 <u>KOMO- 4</u> Seattle WA
1030 <u>unID 5</u> N (NBC)
16 Es 1130 KOOK- 2 Billings MT (id)
                                                          1100 KATU 2 Portland OR
17 Es 1100 KNOP- 2 North Platte NE (id) ,
                                                          1130 KROD- 4 El Paso TX
       1130 KTWO- 2 Casper WY (id)
                                                          1255 KOAI 2 Flagstaff AZ (RETMA TP,
       1145 KOOK- 2 Billings MT (id)
                                                                         id 1300; 500 miles)
       1400 KMID- 2 Midland TX (id)
                                                 Log total is now 82 including 11 new.
      (Very good, Jim. Quite a trick with CHBC-2 as it is sandwiched between stronger
ch-2 stations. KOAI 2 is surprise as it is a short distance for skip. dps)
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Fred McCormack, Des Lacs, North Dakota 58733 (1-31 Jul) (Times CDT) Equipment: Heathkit GR-25 color TV rx, Winegard CW-48 antenna 3 Es 1400 KIEM- 3 Eureka CA 0225R (9)(Es 1400 KV00- 2 Tulsa OK 3444R 4 Es 1700 KMID- 2 Midland TX 3033R 12 Es 1429 KORK- 3 Las Vegas NV 3444R 1700 WGR - 2 Buffalo NY 1459 KTVN 4 Reno NV 4043R 3033R 1728 USYR- 3 Syracuse NY 1928 KOMO- 4 Seattle WA 4433R 3335R 1758 CKVR- 3 Barrie Ont 3435R 2058 KFDX- 3 WichitaFallsTX 3135R 1828 KYW - 3 PhiladelphiaPA 3322R Tr 2158 CBKMT 4 Moose Jaw Sask 3435N240 5 Es 0958 KATC 3 Lafayette LA 4235R 13 Tr 1858 KFME 13 Fargo ND 2035N240 1159 KTVI 2 St. Louis MO 17 Tr 0856 WIRT 13 Hibbing MN 4435R 3445R400 1859 WAVE- 3 Louisville(IN) 3333R 1028 KCMT 7 Alexandria MN 4444R330 18 Es 0005 WSVA- 3 HarrisonburgVA 3333R 7 Es 1256 KDKA- 2 Pittsburgh PA 3033R 1358 WSAZ- 3 Huntington WV 0032 KYW - 3 PhiladelphiaPA 3334R 4444N1150 1429 WSYR- 3 Syracuse NY 3433R -0043 KDKA- 2 Pittsburgh PA 2322R 1430 WLW-D 2 Dayton OH 4043R 0048 WKYC- 3 Cleveland CH 3334R 1458 WDTV 5 Weston WV 3333R Oll5 WTAE- 3 Pittsburgh PA 4445R 1515 WLW-T 5 Cincinnati OH 4444R 0132 WJBK- 2 Detroit MI 3022R 1528 WTVN- 6 Columbus OH 3342R 2029 WEDU 3 Tampa FL 4435N1695 1558 WHIS- 6 Bluefield (VA) 4445M240 2159 WGR - 2 Buffalo NY 3033R 1559 WOAY- 4 Oak Hill WV 22 Es 0900 KMID- 2 Midland TX 3433R 4032R 1604 WFBN- 6 IndianapolisIN 4433N940 25 Es 2259 CFCL2-2 Kearns Ont R 1758 WTAE- 4 Pittsburgh PA 3333R 27 Es 1928 KARK- 4 Little Rock AR 4233R 1800 WEWS 5 Cleveland CH 3435N1060 1929 WREC- 3 Memphis TN 4233R 2330 KPRC- 2 Houston TX 30 Es 1429 WPSX- 3 Clearfield PA 3035R 3035R 8 Es 1300 KREM- 2 Spokane WA 3034R 1454 KYW - 3 PhiladelphiaPA 3035R Es 1329 KFDX- 3 WichitaFallsTX 2333R Log total now 182.

July was a very poor month for Es, with the 7th being the only good opening and one of the best this summer. The only day out of the ordinary trops was 17th. Highlight of month was logging of WEDU 3 for my first Florida and my only US double-hop reception. I finally logged KFME 13, my last needed ND station. That and WIRT 13 reception was made possible by local KXMC-13 being off with transmitter trouble. I received a veri for my tentative last month of KNGN-2. I hope to see some trops in August as I don't expect much skip. 73.

(Good double-hop logging, Fred, as it is "in-between" distance not usually seen

by either single or double hop. dps)

Bob Cooper, Jr., 6221 Norman Road, Oklahoma City, Oklahoma 73122 (8Jul-7Aug) (Times CDT) July was a disappointment here. Tropo took a bad nose dive (hot and dry all month) and Es was erratic at best. Last week in July was particularly unusual for almost complete lack of substantial Es activity. Left here late on 5th to east and winding up at convention in Dunkirk over weekend of 7th-9th. Hope we saw YOU there!

Jul 8 Es, 0935 on, in & out most of period, WUND-2 WFMY-2 & others until 1220 fade-out; 2130 Es open to west when I turned gear back on, strong to California &

Nevada including KCRA-3 KTVU 2 KTVN 2 & others until 2230 fade-out.

Jul 9 Es 0925-0933 weak ch 2 east, no ID; 1210-1225 ch 2 east, Girl Talk, no ID. Jul 10 Es 1143-1245 east, WUND-2 WFMY-2 WTAR-3 and others.

Jul 11 Es 0907-1600 good opening started NE, moved closer in towards me, then reappeared to west before dying, WSAZ-3 WSJK-2 WLW-D2 WAVE-3 WJBK-2 WGR-2 CKVR-2 WKYC-3 KSIL-3 WCBS-2 KTVN 2 KUTV 2 KBOI-2 & many others (spent most time closely watching FM).

Jul 12 tropo 0701-0730 KQTV 2 (335 mi) before KVOO sign-on. Es 1159-1305 KOOK-2; 2015-2110 CKCK-2 CKSA-2.

Jul 13 Es 0850-1410 in & out with WUND-2 WESH-2 WUSN-2 WSAV-3 logged; 1700-1930 XHY-3 in & out.

Jul 14 0455-0609, up for meteors, poor results.

Jul 15 Es 2230-2300 west, KNXT 2 XHBC-3 and others in & out.
Jul 16 Es 1200, started weakly to east, built up during PM with WESH-2 WUSN-2 XHFM-2 (with TP) XEFB-2 XEWO-2 KDKA-2 WWAY-3. Had a Mexican ch-3 identifying as "First TV in Victoria" (rough translation). Any ideas? Call slide looked like XEHR. Band finally out at 2215.

Jul 17 Es 0828 WUND-2 WESH-2 WTHS-2 ICR-3 (Holguin, Cuba-ex-CMKJ) KORK-3 KTVN 2

(with TP) KOAI 2 KBOI-2 KTVK 3 XETV 6, until 1430 fade-out. 1538-1900 XEW-2 (on TP until 1559) and mystery ch-3 with "Cornucopia type call slide," U.S. programs including Superman and The Untouchables (dubbed in Spanish), suspect TGBOL-3.

Jul 18 Es 0727 WESH-2 in until 1120 or so; 1530 ICR-2 Habana on test pattern, apparently signing on at this time, in for 30 minutes; 1820 WUSN-2 KORK-3 KID-3 WGR-2 KYW-3 KBOI-2 WMAR-2 in & out until 2235 fade-out (WUSN first in and last out).

Jul 19 Es 0831-1230 in & out most of period with WWAY-3 XEW-2 XEZ-3 KORK-3 the Jul 19 Es 0831-1230 in & out most of period with WWAY-3 XEW-2 XEZ-3 KORK-3 to dominant signals; 1908, 2009, 2015-2055 Es to NW with no IDs.

Jul 20 Es 1150-1210 WESH-2.

Jul 21 Es 1103-1122 to SE, ch 2, no IDs.

Jul 22 Es 0950-1117 in & out with WMAR-2 KORK-3 KBOI-2 noted.

Jul 23 Es 0853-0905 WESH-2.

Jul 24 MS 0450 WSB-2 color-bar pattern with call 'super'; 0602 WBAY-2 on TP

(back using old TP again); 0615 WMT-2 on TP. Jul 25 nothing all day here. Jul 27 nothing all day here.

Jul 26 Es 1326-1420 XEW-2.

Jul 27 nothing all day here.

Jul 28 Es 2031-2230 in & out chs 2 & 3 with KOOK-2 identified.

Jul 29 Es 1025-1032 weak Spanish SE, chs 2 & 3, no ID; 1641-1646 weak ch 2 NE,

no ID; 2100-2110 weak, ch 2, could not pin down direction.

Jul 30 Es 0824-0828 weak ch 2 CBS, no ID or direction; 1815-1840 weak to north, NE, WBBM-2 identified at 1830; 2010-2020 weak to NE, ch 2, no ID.

Jul 31 Es 2010-2015 weak ch 2, NE, no ID.

Aug 1 MS 0523 WFBC-4 on IHTP, then 'static flag' display with call; 0614 WCR-2 on TP. Es 2000 ch 2 SE, no ID.

Aug 2 MS 0545 WFBC-4 on static flag display; 0616 WTWO 2 on modified IHTP (it has taken one year of trying to nail this one down!), channel 2 number 51.

Aug 3 Es 0830 weak ch 2 at tune-in; 0900 WESH-2; 1155-1255 XEW-2.

Aug 4 Es, a very stable opening, if not exciting, for this late in season. Started around 1124 here with WMAR-2 WSAV-2 KDKA-2 WSAZ-3 KYW-3 WPSX-3 WKYC-3 WLW-D2 seen in and out until 1635 fade-out.

Aug 5 Es, a more exciting if not so stable opening than 4th, spent most time on FM; but KYW-3 WMAR-2 and others noted from NE area from 0930 thru 1130. 73. (Yes, conditions are poor, Bob, when your report is only one page, hi. dps)

Don Ruland, 3219 Burnside Drive, San Antonio, Texas 78209 (11Jul- 8Aug) (Times CDT) 11 Tr 0600 KSLA-12 Shreveport LA (19) Es 1030 WBAY- 2 Green Bay WI 20 Tr 0600 KAIB- 5 Alexandria LA 0700 KNOE- 8 Monroe LA 0700 KLFY-10 Lafayette LA 0600 KGBT- 4 Harlingen TX 0700 KLTV 7 Tyler TX 0600 KNOE- 8 Monroe LA Es 1200 WMT - 2 Cedar Rapids IA 0630 WDAM- 7 Hattiesburg MS (new) 0630 WAFB- 9 Baton Rouge LA 1200 KGLO- 3 Mason City IA 18 Es 1600 ?? 2&3 TP, "6"in center; Cuban? 0630 KFDM- 6 Beaumont TX 19 Tr 0700 KNOE- 8 Monroe L1 Present log total is 76. (Thanks, Don; hope things will pick up there, too. dps)

Pat Dyer, WA5IYX/5, 327 Solar Drive, San Antonio, Texas 78227 (7Jul- 7Aug) (Times CST) Receiver: 1968 RCA color model GJ721W. Antenna: Wards 11-el hi-low VHF, 15' up, aimed SE 7 Es 2129 KTWO- 2 Casper WY Mi: 1015 16 Es 1529 WEDU 3 Tampa FL 8 Es 1159 KNXT 2 Los Angeles CA 1190 1559 WESH- 2 Daytona B Tr 07/2 KUHT- 8 Houston TX 185 17 Es 0859 KTVI 2 St. Louis 1559 WESH- 2 Daytona Beach FL 1055 9 Tr 0742 KUHT- 8 Houston TX 185 <u>17</u> Es 0859 KTVI 2 St. Louis MO 790 10 Tr 2340 WVUE 8 New OrleansLA (new) 510 1059 WESH- 2 Daytona Beach FL 1055 KHOU-11 Houston TX 185 1254 KORK- 3 Las Vegas NV 1070 185 2345 KTRK-13 Houston 1259 KOAI 2 Flagstaff AZ (new) 850 11 Tr 0045 XHX -10 Monterrey NL, Mex. 290 19 Es 1055 XHTV 4 Mexico City (new) 690 OO45 KPRC- 2 Houston 185 (TP over local)
s 1159 KNOP- 2 North Platte NE 820 29 Es 1259 WMT - 2 Cedar Rapids IA 950
r OO30 KRGV- 5 Weslaco TX 215 A3 Es 1155 XEW - 2 ? (XEW net, s/off) ?
Unid TV Es noted July 9, 14, and August 4. 50-MHz Es all days in July except 14 Es 1159 KNOP- 2 North Platte NE 13 Tr 0030 KRGV- 5 Weslaco TX 23, 24, 26, 28, and 31. KUHT-TV noted for the first time in about 8 or 10 years. Nice to get WVUE on its new channel. July 19 XHTV over local at about 27 miles is a rare thing here.

Hurrican Celia took its tool of Corpus Christi TV stations. All three were off in early morning of Aug 3. Late Aug 4 KIII 3 made it back on using emergency power and very limited studio equipment. Good live color programming nevertheless. They were using a temporary camera tripod for their STL microwave dish. KRIS-TV 6 lost its very large STL tower. KZTV 10 had transmitter damage. So, KIII is all that is on. 73. (Thanks again for interesting news and conditions, Pat. dps)

Randy Miltier, 882 Pine Avenue, San Jose, California 95125 (8Jul- 7Aug) (Times PST) Jul 8 Es 1845 heavy bars on chs. 2, 3, 4 but no penetration. Jul 19 Es 0821 unID ch. 3 (CCI); 0901 KMID-2 Midland TX 1170 mi. with audio only; 1125 unID Spanish station ch. 3 weak video and audio (CCI); 1225 unID ch. 4 with audio only (CCI).

Moderate to heavy bars have been seen on ch. 3 lately in the southerly direction; I suspect KEY-T in Santa Barbara (235 mi). KSBY-6 San Luis Obispo has also been seen with fair picture at times indicating that tropo is present; unfortunately my strong locals run a 19 - 20 hour day making tropo catches almost impossible. The only decent tropo catch here was KNXT 2 Los Angeles at 300 mi. It would be of interest to hear from other California DXers to compare conditions from other parts of the state. Only two stations seen this season, KWGN-2 & KHPL-6, both verified. Totals 63. Good DX.

(California certainly does have its limitations and contrasts, tropo-wise. As this indicates, central-Calif. coastal-area tropo condx have been better than normal.)

Marvin Garber, 2539 Kessler Blvd, Lincoln, Nebraska 68502 (7Jul- 9Aug) (Times CDT)

Jul 7 Es weak all afternoon on ch.2 only, CKPR-2 (650) & CJIC-2 (735), both new. Jul 8 Es 2045-2315 really intense opening to S-SW. First definite logging of Calif: KNXT 2 KNBC 4 (both 1300 mi) plus KPHO-5 KOAI 2 and unid Mexicans on 2,3, & 5. Skip reached FM for a while but unfortunately I don't have FM DX gear except portables. There was so much CCI on 2-5 that it was impossible to ID anything.

Jul 10 tropo 1600-0000 up to 300 mi or so: KYTV 3 (315) KOAM-7 (265) KMNE-7 (200)

KTVO 3 KARD-3 KTTS-10. T-storms moved in at 0000 and that was that.

Jul 11 Es 1150 t/in, in from E-SE but had to leave so no IDs. Returned 1450 and got a beautiful picture of KORK-3 (1080) for a newie. Skip faded shortly afterwards. Jul 12 tropo t/in 0000 good to 300 mi SW: KAYS-7 (200) and KLOE-10 (290) new.

Jul 14 Es 1700-2000 weak ch. 2 in/out, WCBS-2 IDed (1155).

Jul 17 Es 1900-2200 more weak ch. 2 in/out, WSB-2 in all evening.

Jul 18 Es late opening E-NE starting 0005 with CBFT 2 CBOT 4 (TP, 1085) CHCT-2 (1125) & tent. CFRN-3. Es returned 1800 E-NE: WCBS-2 WNBC-4 WSYR-3 KDKA-2 WTAE-4.

Skip gone by 2000.

Jul 25 a sort of 'hash' developed @ 0030 on chs. 2-6 straight north—the strangest thing Ive ever seen. Patches of audio/video seen but absolutely nothing identifiable. Then Es to NE & NW @ 0130 right through this hash: CHCT-2 CFCN-4 CBFT 2, tent. CBXT 5 & CFRN-3. Can anyone explain this 'hash' to this novice? (Marv, it is DX by aurora propagation. No matter what direction the transmitter is, the receiving antenna is pointed north toward the aurora, but it has that jumbled hash as its characteristic. dps)

Jul 30 tropo good to north: KDLO-3 (285) KORN-5 (215) KELO-11 KSOO-13 (200)

up to 1230 CDT, then WMT-2 (280) @ 0000.

Aug 4 tropo weak to south: KOTV 6 (330) only new one & 0038 s/off. Es started

1430 with WSB-2 (820) WJXT 4 (1085) & tent. WSAV-3, all gone by 1700.

Aug 5 Es 1100-1230 to E-SE: WUND-2 (1140) WMAR-2 (1050) & WBTV 3. Very good tropo conditions developed to SW & NW with a stationary warm front running east-west through Nebraska. Temperatures were over 100 on the south side & in low 80's to the north of the front—ideal tropo CK! Starting @ 2200: KHPL-6 (235) KMNE-7 (200); from 0020-0100 (Aug 6): KRNE-12 (305) KTNE-13 (340) KTVS 3 (excellent-350) KDUH 4 (340, KOTA-3 (415) KHSD-11 (good-450) plus tentatives KSTF 10 (375) & KFBC-5 (435). Many more stations to west within 200mi. were local-like (ie, KHOL-13 KHAS-5 KHTL-4 KHQL-8 KOMC 8 KNOP-2 KLNE-3). Aug 7-9 conditions mostly dead. 73 & Good DX. (Well, Marv, you saw a few things there, including California, finally. dps)

### WHE BADIO

Pat Dyer 327 Solar Drive San Antonio, Texas 78227 Deadline: 15th of month

#### SEPTEMBER 1970

The question of QSL's from pagers has come up. I haven't personally tried to do this. You have to be careful about the Secrecy of Communications Act, and I'm not sure how it applies to paging messages. Some give company ID with the call. They should be easy to write to (e.g., KIF 653, Alexander Radio Page, Memphis, TN). Most give only call-city so a report addressed that way might be OK. A check with the phone directory (or thru the free long-distance information service) for the city in question might get an exact address.

Hank Holbrook, 7211 Chestnut Street, Chevy Chase, MD 20015 does his DXing from a cottage at Fair Haven, MD. A Regency DR-200 is used with indoor antennas, 8-foot for 30-50 MHz and 19-inch for 152-174 MHz. Hank only reports stations that have QSLed. GMT used.

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June 28:

\[
\begin{align*}
\text{Olo9, KAA 985 37.10 Marshalltown, IA (police)} \\
0118, KAF 228 37.10 Manchester, IA (police) \\
1730, KAA 203 42.06 Kirkwood, MO (state police; 2 kw) \\
1734, KAB 302 42.06 Jefferson City, MO (state police, 3 kw) \\
July 2:
\[
\text{Olo0, KGA 845 37.2 Washington, DC (Potomac Electric Power; 75 w)} \\
0125, 6ZKL 156 \( \) Annapolis, MD (Oswego Independence, ore and coal ship at anchor) \\
\text{July 3:} \\
0230, KEB 523 154.43 New York, NY (fire; 350 w) \\
\text{July 4:} \\
0317, KGC 220 154.31 Baltimore, MD (fire) \\
1435, KSB 235 42.52 Maryville, IL (state police; 2 kw) \\
1647, KAA 243 42.06 Springfield, MO (state police; 2 kw) \\
\text{July 5:} \\
0401, KDD 601 156.90 Baltimore, MD (Baltimore Maritime Exchange) \\
\text{Hank considers trop more challenging, with KEB 523 the best catch of the above.} \end{arrange}
\]
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Well, it's my turn again. Allied A-2586 with built-in whip and 30 feet of indoor random wire. All Es unless noted otherwise. 50-MHz Es deleted. CST used.

```
      Jul 20: 1110, KIQ 999
      Jul 25: 1320, KDN 492

      1125, KSC 645
      1325, KFL 936

      1235, Long Beach
      1415, Long Beach

      1845, WWA 335 (F2)
      Jul 27: 1000, KIN 645

      Jul 21: 1100, KOE 257
      1120, KIY 508

      1110, Long Beach
      1300, KIE 367

      2215, KIF 650
      1800, KDN 492

      Jul 24: 1330, KFL 936
      Jul 28: 1310, Long Beach

      1930, KIY 508
      Jul 29: 1100, Mexico City

      Jul 25: 1245, KAD 931
      1120, KAD 931

      1315, Mexico City
      1125, Oklahoma City
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Jul 29: 1130, KIY 508
                                    Aug 3: 0900, KIF 650
        1205, KSC 645
                                            1140, Mexico City
        1215, KIE 367
                                         4: 1055, KOE 257
                                    Aug
        1220, KIQ 999
                                            1330, KSC 645
        1225, KIF 650
                                            1735, KIF 650
                                            1740, KIM 905
              KIG 300
                                         6: 1400, WWA 335 (F2)
        1240, KIF 653
                                  Aug
                                         9: 1800, Long Beach KDN 492
        1325, KDN 492
1410, KSC 644
                                    Aug
        2330, KFL 936
                                             2135, KSC 645
                                   Aug 11: 0905, KIY 508
Jul 30: 1145, KIY 508
                                            1040, KSC 645
        1535, KIM 905
                                            1220, KAD 931
        1550, KIF 650
                                            1230, KSC 644
Jul 31: 0750, KIF 650
              KIY 508
                                            1725, WWA 335 (F2)
                                             2025, KFL 936
        1450, KIM 905
     1: 1140, KIY 508
                                             2030, Long Beach
Aug
                                 Aug 12: 2120, KIM 905
        1735, KIN 645
     2: 1215, KIM 905
                                             2125, KIF 650
Aug
                                   Aug 13: 0800, KAD 931
        1320, KAD 931
        1450, KIF 650
                                            0810, KIM 905
    1505, KIY 508
3: 0600, KSC 645
                                            0830, KIE 953
                                            0840, KIF 650
Aug
                                            1200, Long Beach
        0700, KSC 644
                                            1540, KIE 367
        0715, KIY 508
        0735, KIF 653
                                                   KIY 508
         35.58 Kansas City, MO
                                  KIY 508 35.22 Orlando, FL
KAD 931
KIE 367
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43.58 Miami, FL KOE 257 43.58 Phoenix, AZ 35.58 Atlanta, GA KSC 644 43.58 Chicago, IL:
KIE 953
                                         KSC 645
                                                      35.58
          35.58 Birmingham, AL
KIF 650
                                         WWA 335 35.22 San Juan, PR
          43.58 Memphis, TN
43.58 Atlanta, GA
KIF 653
                                          - 35.58 Long Beach, CA
- 43.57 Mexico City
- 35.58 Oklahoma City, OK
          43.58
KIG 300
           35.22
                  Charlotte, NC
KIM 905
KIN 645
           35.22 Miami, FL
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KDN 492, KFL 936, and KIQ 999 all ID by Morse tone (A2).

The summer 1970 Es season is quickly drawing to a close. As far as 30-50 MHz I can't make comparisons with other years. In 1968 I didn't keep a log, and last year I had no equipment.

F2 on 35 should perk up in the next 30 days or so with WWA 335 assuming its daily role here. Unlike Es, there isn't much variety on F2 with 35-MHz pagers with only about 10 different ones that make it in here. Those members on either coast have a much wider variety because of their larger range of skip distances.

With the more consistent F2 coming up, I hope that I might be able to get more reports to the column. At least Es wont be keeping

everyone at the TV.

This summer I noted a lack of pagers from Michigan. KQD 303 in Detroit use to be very common. Any members with information on pagers that have left the air, please report it. Also, locations for most of the A2 code IDing stations are lacking. Many times these are in for hours with nothing else. It would be nice to know where they are.

73, Pat WA5IYX/5

Dave Pomerov

Deadline: September 14

TV-DX reports coming in from eastern DX er's reflect the end (or at least weakening) of the summer skip season. Fortunately, an upward trend in trops openings has kept DXer's busy through the first week of August. The reports show only 3 days of skip up to 11 August; ten of those days produced trops reports. Eleven days of skip were reported in the last three weeks of July, with the 14th, 15th, 16th, 18th and 19th the most productive.

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Gene DeLorenzo, 35 Sylvan Dr., Hyannis, Mass (EDT)
 6-1 Es 1600 WSJK-2 Sneedville 6-19 Es 1030 WSIL-3 Harrisburg
6-3 1900 KARD-3 Wichita, KS 7-2 Tr 1600 CBHT-11 Halifax, NS
6-8 Tr 2328 WXEX-8 Petersburg, VA (exceptional trops to north-
2350 WITN-7 Washington, NC WLBZ, WABI, & WEMT in well)
6-9 0105 WTVD-11 Durham, NC 7-3 1700 CKLT-9 N.Brunswick
0728 WTOP-9 Washington, DC 2330 UNID-11 French
 0800 WWBT-12 Richmond, VA 7-4 Es 1259 WSAV-3 Savannah, GA 1000 WBTW-13 Florence, SC 1800 WMC-5 Memphis, TN 6-11 Es 1730 WEDU-3 Tampa, FL 1829 WDCN-2 Nashville 1730 WPBT-2 Miami, FL 1830 WREC-3 Memphis, TN 1800 WPTV-5 W.Palm Beach 1907 WSM-4 Nashville 1801 WTVJ-4 Miami, FL 2002 WLBT-3 Jackson, MS 1016 WNTVJ-4 Miami, FL 2002 WLBT-3 Jackson, MS
                      1946 UNID-6 Miami?? 7-7 Tr 2052 WHYY-12 Wilmington
  Some good trops, but no UHF since UHF tuner not working. Best Es
  on July 4. (Looks like you may have missed some good UHF. dp)
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Ronald J. LeBlanc, 2524 Arizona Dr., Marrero, La. 70072
7-10 Tr 2100 KHOU-11 Houston, TX 7-18 Tr WOAI-4 San Antonio (510)
                                                                                                  2105 KLFY-10 Lafayette, LA7-19 Es 1100 XEW-2 Mexico City
     2105 KLF1-TO Larayette, LA7-19 Es 1100 XEW-2 Mexico City 2130 KATC-3 " (122) 1115 YSR-2 SanSalvador 2145 KALB-5 Alexandria 1210 XHGC-5 Mexico City 2200 KENS-5 San Antonio 7-30 1800 KDKA-2 Pittsburgh 2205 KPLC-7 Lake Charles 1830 WSJK-2 #123 (610) 2210 KPRC-2 Houston, TX 8-1 1830 WSJK-2 (1132 mi) 2230 KLNI-15 Lafayette 8-4 0700 KBMT-12 Beaumont 2340 KONO-12 San Antonio 2400 KTBC-7 Austin, TX 0730 WJTV-12 Jackson, MS 7-16 Es 2205 KDKA-2 Pittsburgh KLFY-10 Lafayette 2230 WGR-2 Ruffalo NY 8 5 TX 2230 KUTY 20 Houston TY
                                                           Es 2205 KDKA-2 Pittsburgh 2230 WGR-2 Buffalo,NY 8-5 Tr 2230 KHTV-39 Houston,TX 2235 WHEN-5 Syracuse 2245 KLNI-15 Lafayette 2425 WMAR-2 Baltimore 2100 WJBK-2 Detroit,MI 8-7 2200 WDAM-7 Hattiesburg 2200 WMAA-29 Jackson,MS to KTRK-13 Houston,TX 2330 KHOU-11 Houston,TX 0200 WTOK-11 Meridian 0200 KPRC-2 Houston,TX 0200 WTOK-11 Meridian 0200 KPRC-2 Houston,TX NATC-3 Lafayette 8-8 2100 KLNI-15 Lafayette KATC-3 Lafayette 2105 KLFY-10 Lafayette 2105 KATC-3 Lafayette 2106 KATC
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Bob Seybold, Bennett Road, Dunkirk, New York (EDT)
Bob reports following stations seen most days since August report:
 WNEP-16 WSYE-18 WDAU-22 WBRE-28 WBJA-34 WENY-36 WINR-40
 WKBD-50 WTVS-56 WXON-62 WDHO-24 WJIM-6
                                             WILX-10
 7-13 to 16 (skip in this period) WTHS-2 WEAR-3 WJAX-4 WPTV-5
 WDBO-6 WDSU-6 KTBS-3 WBRZ-2 WKRG-5 WLBT-3
 7-19 Es CFCN-4 CBHT-3
                                          WHTN-13
                                                   WDTV-5 WJZ-13
7-22 Tr WKZO-3
                WOOD-8
                                 WZZM-13
                        WJRT-12
                                                   1. 0.44
                                 WKNX-25
                                          WSBT-22
                WTTG-5
                        WGAL-8
        WRC-4
                                          WKZ0-3
                                                   WOOD-8
                                                           WJRT-12
        WFBM-6 WDTV-5
                        WMAQ-5
                                 CKSO-3
 7-23
                                 WTVN-6
                                                   WHTN-13 WLWI-13
        WZZM-13 WWTV-9
                                          WLWC-4
                        WBNS-10
                                          WUCM-19
                                 WKNX-25
                                                   WKJG-33
        WSBT-22 WWNS-44 WGTE-30
                                                   WCHS-8 WGAL-8
 7-24
        WHTN-13 WHIZ-18 WTAP-15
                                 WRC-4
                                          WDTV-5
        WJZ-13 WFIL-6 KYW-3 & all Columbus, Ohio stations
                                                   WSBT-22 WUTR-20
                                          WHTN-13
                        WTTG-5
                                 WCHS-8
 7-25
        WLS-7
                WRC-4
                                                   WHIZ-18 WOOD-8
                                          WKJG--33
        WHP-21
                WTPA-27 WTAP-15
                                 WANE-15
                                          WTTG-5
WNAC-7
                        KYW-3
                                                   WLWT-5 WFBM-6
 7-26
        WGN-9
                                 WRC-L
                WKZ0-3
                                                   WMAL-7
                                                           WXEX-8
        WITI-6 WTVR-6
                        WFIL-6
                                 WRGB-6
                                                   WHTN-13 WLWI-13
                                          WJRT-12
        WGAL-8 WCHS-8
                        WOOD-8
                                 WKRC-12
        WJZ-13 WBAL-11 WCAU-10
                                 WHP-21
                                          WTPA-27
                                                   WJAN-17 WUCM-19
        WHIZ-18 WANE-15 WKJG-33
                                          WKNX-25
                                                   WGTE-30
                                 WSBT-22
                                          WHTN-13
                                                   WCHS-8 WQEX-16
 7-27,28 WTAP-15 WRC-4
                       WTTG-5
                                 WFIL-6
                                                   WKNX-25 WDTV-5
         WKJG-33 WSBT-22 WUCM-19
                                 WHIZ-18
                                          WANE-15
         WJAN-17
 7-29 Ms WDBO-6 Orlando, Florida
                                                   WHTN-13 WFBM-6
                WTTG-5 WBBM-2
                                 WMAQ-5
                                          WLWT-5
      Tr WRC-4
        WFIL-6 WTAP-15 WHIZ-18
                                          WKJG-33
                                 WSBT-22
                                                           WLEX-18
         WTAP--15 WANE-15 WKTR-16
                                 WJAN-17
                                          WUTR-20
                                                   WHP-21
 8-1,2
                                                   WPGH-53 WCPO-9
                                 WLKY-32
                                          WSW0-26
         WKYT-27 WTPA-27 WKJG-33
                                                   WSAZ-3 KYW-3
                                 WHTN-13
                                          WCHS-8
         WLWT-5 WFBM-6 WFIL-6
         WRGB-6 WRC-4
                        WCDC-19
                                 WUCM-19
                                          WHNB-30
 8-3
                WFIL-6 WRC-4
                                          WHTN-13
                                                   WCHS-8 WJZ-13
         KYW-3
                                 WTTG-5
         WMAL-7
                                 WKZO-3
                                          WOOD-8
                                                   WJRT-12 WZZM-13
                WTAP-15 WHIZ-18
                                                   WANE-15
         WWTV-9 WKNX-25 WUCM-19
                                 WSBT-22
                                          WSJV-28
 8-4
        WJRT-12 WOOD-8
                                                   Maybe next year.
 (Sorry I couldn't make it to Dunkirk this summer.
  Didn't make it to Chicago last year either. dp)
Fred Nordquist, 302 Sandra Land, N. Syracuse, New York 13212 (EDT)
                                  7-15 Es 1900 WTVY-4 Dothan, AL
              UNID-2&4 to SW
 7-7 Es 2159
                                          1932 WSB-2 Atlanta (780)
         1215
              WKY-4 Oklahoma Cty
 7-11
                                          1729 WAIQ-2 Dozier, AL
         1230 KV00-2 Tulsa, OK
                                  7-16
        2130 KMOX-4 St. Louis, MO
                                          1900 KV00-2 Tulsa, OK
                                           1928 KETS-2 Little Rock
         2132 KETS-2 Little Rock
                                          0145 KDIX-2 Dickenson, ND
         2135 KTVI-2 St. Louis, MO 7-18
         2325 KQTV-2 St. Joseph
                                              (1315 miles)
                                          0147 UNID-2,3,& 4 west
         1822
 7-15
               WJXT-4 Jacksonville
                                           2238 KQTV-2 St. Joseph
         1830 KTVI-2 St. Louis, MO
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Charles Spellman, 5411 Walther Ave., Baltimore, Maryland 21214 "Thanks to TV DX'ing I am able to watch my Baltimore Colt football games when they are blacked out here in Baltimore. I watch the Colt games over WTVR-TV, Richmond, Virginia (channel 6) a distance of 148 miles from Baltimore. I use a Winegard "Colorceptor" with a power pack and an Alliance U-100 rotor. My TV is a Motorola (1962) 19-inch black and white portable. I would like to have a list of club members who are amateur radio operators."

(Will look foreward to receiving regular reports of your TV-DX for this column. Was going to ask why anyone wanted to see the Colts games until Baltimore beat the Kansas City Chiefs last week. do)

EASTERN TV DX	Page 3	September 1970
7-2 Es 1800 KTI		45 KMTV-3 Omaha (1150)
7-4 Es 1330 WC' 1430 WE		14 <u>KLNE-3</u> Lexington, NB 25 <u>KQTV-2</u> St. Joseph, MO
1430 WSI 1800 WD	B-2 Atlanta, GA 7-19 Tr 22	00 WXEX-8 Petersburg
2007 WC 2100 WE	IX-6 Miami, FL 23	00 WCVE-23 Richmond, VA
1830 WRI 1905 UNI	EC-3 Memphis, TN 23	25 WDCA-20 Washington
1850 UN	ID-4 "Wagon House"	26,WAVY-10,&WVEC-13) WWBT-12 Richmond,VA
17-6 1820 UNI	ID-2,4,& 5 7-20 07 LO-3 Mason City,IA	OO WCDC-19 Adams, MA WBOC-16 (160 miles)
1830 WW	r-2 Cedar Rapids 07	05 WNEP-16 Scranton PA
1930 WL	LO-3 Watertown,SD BT-3 Jackson, MS SH-2 Daytona Beach 19	22 & 28 Scranton, PA 10 WSBK-38 Boston(200)
TACH TO ISSUE 2000 WE	SH-2 Daytona Beach 19 BT-3 & UNID-2(ABC) 19	10 WKBG-56 Boston, MA 15 WNAC-7 Boston, MA
7-8 Tr 2010 WY 2115 WH	AH-27 Portsmouth, VA WCMC-40	,WTEV-6,& others Tr 17 stations
2315 WV	EC-13 Norfolk, VA 7-29 Es 19	50 UNID-2,3,& 4
WBo	OC-16 & WCMC-40 10	00 WMT-2 Cedar Rapids 05 KGLO-3 Mason City,IA
0220 WH	DH-5 Boston, MA 10	25 UNID-2 WHBF?
1755 WC 1800 WS		23/AUNID-2,3,4,& 5 OO WRBL-3 Columbus,GA
2020 WM	HT-17 Schenectady 09	09 WEAR-3 Pensacola 06 KTBS-3 Shreveport
(Phila., Boston	, & Providence) 8-6 Tr 06	30 WBRE-28 Scranton, PA
	ST-13 Albany(162) 8-9 00	50 WCDC-19 Adams, MA 10 WSBK-38 Boston, MA
7-11,13 Es UN 7-14 Es 2050-23	00 Many UNID's	57 WMPB-67 Baltimore OO WDAU-22 Scranton, PA
2130 WM	T-2 Cedar Rapids 8-10 A YN-40 Springfield, MA (WBAL-1	M 20 stations
WB	OC-16 Salisbury,MD Es 13 LP-22 Springfield,MA 13	10 KDAL-3 Duluth, MN
7-15 AM WW	LP-22 & WHNB-30 (first sta	tion from Manitohal
HS (XOC)-20	35 Many	OS CDUM S (+ont)
7-16 1300 WF	CB-3 Chattanooga (heard Hal MY-2 Greensboro, NC 8-11 10	26-1125 UNID-2,3,& 4
1600 WL	VI-2 St. Louis, MO BT-3 Jackson, MS TC-3 Lafayette, LA	Market Company (1997)
That's it so fa	r. Not counting tentatives m	y log is 114 sta-
	s, 2 provinces, and the Distr b Seybold received more in on	
have logged in	4 years. (Yes, Ms DX'ing is bad about Bob Seybold. That	more demanding
seen in 17 year	s. dp)	The transport of the control of the
C. 11		

The number of reporters is down slightly from August, but it could be that some reports have been delayed due to the change in address. If you have sent a report that doesnIt appear this month, it will probably make it next month. If not, it might be lost in the shuffle. If so, send in a duplicate report.

Since I am now living in the "west" I will be sending my reports to Dennis Smith. (Only a few UHF trops so far)
One station note too late to get to Gary Olson. KBMA-TV (channel 41) will be on the air in Kansas City by the middle

## CONVEDTIONS-1970

FERDINAND S. DOMBROWSKI, JR.

THE TWO CONVENTIONS ON SUCCESSIVE WEEKENDS WERE A BIT OF A STRAIN TO THE THREE CLUP STAFFERS WHO MADE BOTH CONVENTIONS, BUT WE FEEL BOTH WERE WELL WORTH THE EFFORT. BOTH WERE CONSIDERABLY LARGER AND IMPROVED OVER THE 1969 EFFORTS, AND THAT ALONE MADE THEM WORTH THE EFFORT. THE CHICAGO ANARC CONVENTION WAS MUCH BIGGER AND BETTER ORGANIZED THAN THE PREVIOUS YEAR'S CONVENTION, AND ALTHO SOME LAMENT THE ACTIVITIES OF ANARC, UNTIL THE MEMBER CLUBS PROVIDE IT WITH MORE FUNDS, IT WILL NEVER BE TO THE DXER AS ARRL IS TO THE HAM. BUT ON TO THE CONVENTION.

THE USUAL THREE WTFDA MEMBERS ATTENDED BOTH CONVENTIONS: BILL HEUSMANN, MORRIE GOLD-MAN, AND FERDIE DOMBROWSKI. THE ANARC CONVENTION HAD ABOUT 30 IN ATTENDENCE ALTOGETHER, AND BESIDES THE 3 MENTIONED, NEW MEMBER JOE SARFF OF PECATONICA, ILLINOIS WAS ALSO THERE. BILL AND JOE ARGUED ABOUT THE MERITS OR LACK OF MERIT OF PAST VUD COVERS, GLENN HAUSER'S PICTURES WERE PASSED AROUND FREELY (SEE AUSTRALASIAN SCENE), MORRIE GAVE A SHORT LECTURE ON TV DX WITH THE AID OF HIS VTR (VIDEO TAPE RECORDER), THERE WERE A FEW INTERESTING CONVERSATIONS AND LECTURES INCLUDING A TALK BY DON JENSEN OF NASWA (NORTH AMERICAN SHORTWAVE ASSN) ON DX WRITING FOR MAGAZINES AND NEWSPAPERS. OFFICIAL ANARC MEETINGS OPEN TO THE GENERAL ATTENDENCE AND THE PRIVATE MEETING FOR ANARC REPRESENTATIVES ELLICITED LIVELY CONVERSATIONS. THERE WERE HOWEVER DISTRACTIONS, NAMELY THE BEACH ACROSS THE STREET, SO WE DIDN'T CATCH EVERYTHING THAT MIGHT HAVE BEEN OF INTEREST TO US.

THE DUNKIRK, NY CONVENTION OF WTFDA, HOSTED BY BOB SEYBOLD, WAS THE HIGHLIGHT OF THE SUMMER FOR THOSE IN ATTENDENCE. WHAT MOST OF US CONSIDER DX WAS IN GREAT ABUNDANCE, BUT IT WAS AVERAGE EVERYDAY STUFF TO BOB, I GUESS. HE HAD THE USE OF AN EMPTY HOUSE UP ON THE MOUNTAIN AND INSTALLED ANTENNAS FOR THE OCCASION AS WELL. HE ALSO PROVIDED A NEW FM RECEIVER. AND A PORTABLE TV, AND THE MEMBERS WHO WENT UP ON THE HILL PROVIDED ANOTHER FM AND 2 TV PORTABLES, AND A COUPLE 30-50 MHz RECEIVERS. TV WAS SEEN OUT TO PEORIA, ILLINOIS AND I WAS PERTURBED. THAT HE GOT FORT WAYNE, INDIANA BETTER THAN I DO FROM WILWAUKEE! DOWN AT THE ACTUAL CONVENTION SITE, A TENT IN BOB'S FATHER'S YARD, THERE WAS ALSO TV, FM AND VALUABLE, AND JUST AS WE WERE LEAVING ABOUT NOON SUNDAY THE SKIP BEGAN COMING IN. THE OLD FAMILIAR OKLAHOMA CITY PAGING STATION WAS HEARD, FAMILIAR TO MORE OF US THAN JUST BOB COOPER WHO WAS IN ATTENDENCE.

DX TAPES WERE HEARD PROVIDED BY BRUCE ELVING AND GLENN HAUSER, GIVING US A GOOD DEAL OF FM DX BY BRUCE, AND TV-FM DX FROM GLENN'S LOCATION IN THAILAND. ROGER BUNNEY'S TAPES WERE ALSO PLAYED BUT I MISSED PART OF THEM DUE TO SIDE CONVERSATIONS ABOUT TV IN EUROPE.

BOB COOPER GAVE AN INTERESTING TALK ABOUT HIS EQUIPMENT WITH AMPLE SUPPLY OF COLOR SLIDES TO ILLUSTRATE THE ANTENNA AND EQUIPMENT SET-UP HE HAS. SLIDES AND MOVIES OF DX WERE ALSO SHOWN BY BILL, MORRIE AND I (FERDIE). A NUMBER OF MEMBERS IN ATTENDENCE ALSO HAD VERIES, QSLS, AND PHOTOS, AND THERE WAS AN AMPLE SUPPLY OF LITERATURE FROM NUMEROUS MANUFACTURERS ON HAND. THERE WAS ALSO A NEVER-ENDING SUPPLY OF BEER, SOFT DRINKS, AND FOOD FOR US TO KEEP OUR APPETITES SATISFIED. ON SATURDAY AFTERNOON THERE WAS AN INFORMAL BANQUET, TOO.

THE FARTHEST ANYONE CAME FROM APPEARS TO BE OKLAHOMA CITY--BOB COOPER. DICK CLARK CAME FROM FORT LAUDERDALE, FLORIDA WHICH IS ALSO QUITE A DISTANCE. THE MILWAUKEE-CHICAGO AREA WAS -REPRESENTED BY THE PREVIOUSLY MENTIONED BILL, MORRIE, FERDIE, AND DAVE JANOWIAK AND BRUCE ELVING, (WHO IS NOW STATION MANAGER OF WUWM-FM HERE). FROM CANADA, MARK LEWIS. JOEL ROSENBERG, WAYNE PLUNKETT, ALBERT ELLIS, ROGER GRAVELLE, AND NON-MEMBER TENNENBAUM (FROM TORONTO). FROM DOWNSTATE ILLINOIS, BILL ECKBERG WAS PROBABLY THE 3RD FARTHEST TO COME. From Ohio Came Carlon Howington, New Jersey was represented by Dick Barth, Mass by Bill GRANT AND ROY BARSTOW, AND NEW YORK STATE BY A NUMBER OF MEMBERS: JERRY PULICE FROM THE FAR END -- STATEN I SLAND, AND FROM NEARER: FRED NORDQUIST, DAVE SWANSON, HOST BOB SEYBOLD AND THE QUITEST MEMBER DAVE LONG. SURPRISINGLY A FEW MEMBERS WHO LIVE WITHIN 50 MILES OF THE CONVENTION WERE NOT PRESENT, BUT THEY MUST HAVE GOOD REASONS OR THEY CERTAINLY WOULD NOT HAVE MISSED THE BIG SOCIAL EVENT OF THE YEAR. SO WE MET SOME OLD ACQUAINTANCES AND SOME NEW. THE TIME WAS SO SHORT THAT WE DIDN'T GET AS WELL ACQUAINTED AS I WANTED TO. BUT THERE'S ALWAYS NEXT YEAR .. I AM LUCKY TO HAVE BEEN THERE AT ALL. UNTIL TWO WEEKS BEFORE THE CONVENTION I DIDN'T EXPECT TO BE ABLE TO GO, BUT THEN BRUCE ELVING MOVED TO MILWAUKEE AND THE TRANSPORTATION PROBLEM WAS SOLVED. IT WAS ROUGH ON BRUCE BECAUSE I DON'T DRIVE AND HE HAD TO DO ALL THE DRIVING HIMSELF -- 1200 MILES IN 2 DAYS. BUT I THINK HE ENJOYED IT, TOO.

73. FERDIE

Conducted by David T. Janowiak

TECHNI/CORNER September 1970

3661 South 46 Street Greenfield, Wisc., 53220

BART IV ATTENUATORS, PADS, ETC.

#### WHAT THEY ARE

The textbook definition of an attenuator is a group of fixed and variable resistors used to reduce the strength of audio and radio frequency signals by a desired amount. Attenuator impedance should match the circuit it is connected to so as to produce very little distortion. Since these devices are purely resistive, they attenuate both high and low frequencies equally.

A non-adjustable attenuator is correctly called a "fixed attenuator", or "pad". However, I often hear people call any pad an attenuator. Rather than get into a hassle over semantics, the devices discussed here will be called pads if they are non-adjustable and attenuators if they have provision for switching to two or more attenuator values (or, of course, if they are continuously adjustable).

#### USES

Intentional reduction of signal strength has several uses, some of which may apply to the DXer.

#### TV Overload-

If the radio frequency (RF) or automatic gain control (AGC) circuits of a TV receiver (RX) are incorrectly designed, overload on the desired channel is common in strong signal areas. An overload can produce one or more of the following: (1) extreme contrast, (2) severe distortion, (3) buzz, (4) horizontal and/or vertical roll. Simply, the signal is amplified more than one or more amplifying stages can handle. (Applying excessive input voltage to an rf amplifier often changes important operating parameters of the device.)

Typically, inexpensive portable suffer from overload. Some have local/distant (L/D) switches in the AGC circuit, but even in the L position, overload is common in strong signal areas. A serviceman might clip a pad between antenna and RX to reduce signal. Hopefully, no TV DXer has this problem.

#### Cross-Modulation-

Any two signals (A and B) beating together in a tube or transistor can produce the (1) original A and B signals, (2) A + B, and (3) A - B. This process, called modulation, when intentional, produces a process vital to most radio equipment.

However, undesirable cross-modulation or cross-mixing (CM) can occur if many high energy signals arrive at a mixer or amplifying device. What happens is that the device losses its ability to amplify (if an rf amplifier) or modulate the desired (intended signal and local oscillator) signals. The device literally quits because of the mass of input, the result being modulation of several signals. On FM, you might have Bach & rock; on TV you might have Hoss chasing a bandito and Ellie Mae.

CM process is a function of many things: gain, selectivity of tuned circuits, physics of amplifier or mixer, etc. In fact, two identical FM RX's fed by identical antennas can produce different CM when tuned to identical frequencies, depending upon the nonlinearities of various stages.

Many members have a false idea that transistors alone are the culprits responsible for CM. This is not entirely correct. True, transistors are small-signal devices, and early versions could not handle large signal levels. Consequently, when solid state FM RX's appeared several years ago with conventional rf transistors, CM was a major problem. Cause was a combination of (1) high stage gain, (2) rather broad (with respect to 0.2 mhz channel width) coil/capacitor tuned circuits that permitted considerable voltage pickup from stations other than that desired, and (3) low signal handling ability (compared to tubes) of these early transistors. The transistor alone was not at fault.

TECHNI/CORNER Page 2

NOTE: To illustrate my point, a close friend and once very active and successful 6 meter ham recently showed a bit of Morrie Goldmanism by purchasing an elaborate tubetype Collins communications receiver intended for government use. He paid a few hundred dollars, although original cost was about \$2000. In addition to double or triple conversion, bandspread that spread a mhz over about 20 feet, etc., a high gain dual-rf stage was used. He got quite a bit of CM (not images) due to local AM stations in 5 to 10 mile range, and these are not 50 kw type.

Improvements in field effect transistors (FETs), both metal oxide silicon (MOSFET) and junction (JFET) types, however, reduced most CM problems. These devices had noise figures equal or better than the best tubes and could handle larger signals better than conventional transistors. Gain, however, was modest, at, best, but often two FETS were used in rf design for added gain.

Yes, you'll still get plenty of CM with A FET type FM RX if you point your high-gain FN DX array at several high power locals a few miles away, primarily because of poor rf selectivity (coil/capacitor). Readers should not confuse rf section selectivity with intermediate frequency (if) selectivity. Heath made the major leap several years ago by replacing unselective coil/capacitor tuned circuits with crystal filters in the if of their incomparable AR15 FM RX. This made if slectivity better. Other "almost as good" quality FM receivers today also use crystal filters. However, rf selectivity needs improvement. Bandpass tuning would help greatly. But odds are that FETs will improve to a point where CM will be even less a problem. We'll just have to wait until "tomorrow" to see.

What all this means is that if CM makes your RX go crazy, easiest solution is to connect an attenuator. True, all signals are reduced, but the DX station might still be strong enough to ID, whereas it would have been lost in the CM. Trick is to determine just how much attenuation you need to eliminate the worse case of CM. Then connect a pad as needed.

Of course, if only one or two stations cause CM, you can trap them. But traps will also trap stations several mhz away. If you're "surrounded" by several high power locals that cause CM in several directions, an antenna with high F/B and F/S ratio plus an attenuator are needed. Or, you'll have to wait for locals to sign off!

For TV, CM seldom occurs especially in tube models because of the less "total"voltage pickup from locals (fewer TV stations in 10 mile range). However, the same rules apply as described previously.

#### Preamps-

The same overload and CM problems that plague TV and FM RXs are more common with preamps, especially non-tunable broadband types. The tuned circuits here are "flattened" so they accept signals across the band. This enhances CM when these preamps are used in strong-signal areas.

Tube models suffer less from CM than transistor types since manufacturers have been slow to use state of the art devices (FETS). However, I remember well how I purchased a Winegard Twin Nuvistor (tube) type of ch 2-13 preamp many years ago that "could not possibly overload under the severest of conditions", the ad claimed. Tried out in my Milwaukee site, it had CM and overload problems in almost every direction! Also, since the gain was low anyway, but most important, the Nuvistor noise figures were no better than that of my rf amplifier in my quality Zenith chassis,— the device helped very little when tried before locals signed on. Exit one preamp to my bulging junk box!

If overload and CM are common with your preamp, you can: (1) live with it, (2) switch it in and out (tough with a mast mounted type), or (3) add an attenuator or pad. Even if attenuation is greater than amplifier gain on some channels, you might benefit if the noise figure is improved, ie, lower or if the preamp is narrow band.

Sometimes a little attenuation between amplifying devices in series will eliminate interaction, overload, or CM.

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#### Measuring-

11.1

With a S meter and attenuator, you can measure gains and losses. Gain of a preamp, for example, on a given channel can be computed by noting signal increase when preamp is connected, then adding attenuation until signal drops to what it was before preamp was added. The amount of attenuation equals gain of preamp.

Similarly, gain, front-to-back, front-to-side, and directivity differences of antennas can be measured. For gain, rotate each antenna toward station and note differences in signal. Add attenuation to equalize signals and compute gain differences.

Exact antenna gain can be computed by building a dipole or folded dipole (described in another portion.)

Continued next month, ATTENUATORS & PADS, Buy 'Em, Make 'Em.

### CONVENTION '70

The 1970 WTFDA Convention is history. Host Bob Seybold ran the show, and I'm sure all who attended appreciate the time, effort, and dollars spent making this convention a success. Turnout was good, especially from Easterners.

Bob's hill as a DX site is beyond description. Any one interested in a partnership, here's the deal: We buy one of those hills, plant a few grapes and towers with 7 ft. dishes and cut to channel yagis, and DX while we sip the juice of the grape.

While it was great meeting new DXers, the old timers of the DX Convention trail were evident. Seems that some DXers would somehow make it to the moon if a TV/FM DX Convention was held there. This should serve as an excellent example for those who continually "just can't make it this year".

#### . . . CHANNEL ONE OPINIONS

Since then, I've received a few interesting letters from members. I'm grateful to all those who contributed. I'll assemble the info into a "follow-up" article that should appear in a few months.

13's

Dave

SEPTEMBER.

Roger Eunney, Trelawne, Cupernham Lane, Romsey, Hants, SO5 8JH, England

The smoothed mean sunspot value for the month of July was 112.5. Predictions for the next six months are as follows (smoothed): August, 95; September, 93; October, 91; November, 89; December, 85; January, 85.

The past four weeks has produced continued openings in the European area, and at the time of writing, 15th August, these openings still continue. Of note have been the openings into Communist countries, many of these being evening openings. Long skip has not predominated, for a number of short skip Es have produced good signals, and a new test card, detailed later.

The middle and end of July tended to be more quiet than that of the

past two weeks:

WG, E2; TVE, E2+ un IDs. 18 July

SR, E2; TVP, O1 + many unIDs. 26

28 Trops, NOS, E4.

- 31 NOS, E4; DFF, E3,4; Swiss, E2; SR, E2,3,4; NRK, E2,3,4; BAI, IA, IBx2; TVP, O1, O2; Czech, O1; USSR, O1, O2; TVE, E2, 3; RTP, E3: WG, E4 + un IDs.
  - Trops- ORTF, Brest 21, Caen 25, Rennes 45, Cherbourg 59, Le Havre 1 Aug. 43, Rouen 33, Vannes 56; Channel Islands, B9; BRT, E2. Czech, O1; USSR, O1; BRT, E2 + unIDs.
  - . 4 TVP, O1,2; Czech, O1; SR, E2 + unIDs.

DFF. E3 + unIDs.

DFF, E3,4; USSR, O1; WG, E2; NRK, E2,3,4; SR, E3; RTP, E2,3; TVE, E4; + un IDs.

9 USSR, O1; Czech, O1; RAI, IAx2

10 " RAI, IAx3, IB; NRK, E2x2, E3, E4, WG, E2,3 + unIDs. USSR, O1; TVE, E2,4 + unIDs; BRT, E2.

11

13 USSR, O1; Czech, O1.

14 USSR, 01,2; TVP, 02; MT, 01 + un IDs

Romania, 02; JRT, E4; RAI, IB + un IDs. USSR, 01,2.

European DXers, please note: RAI, Italy have been noted using a variation to their normal card. Usually the RAI test-card IDs its own transmitter from the number in the top right hand circle, each transmitter having a different number. It has been noticed that the number 8 is present on some cards, with a letter S in the top left hand circle. On 10th August, the number 31 transmitter (Mt. Nerone) was seen to switch to the new version, together with all other transmitters seen in that opening after 0840 GMT.

A new test pattern was noted on 31st July on E3,4. Carrying a number of squares, the characteristic short skip ghosting/smearing was noted. Suspected DR. Following this mystery pattern, on the 8th August at 0807 GMT, the NOS type card (Philips electronic) was noted on E4 via Es, and a little later on E3. This, too, is suspected DR (Denmark). Although TVE are using a new test card, I am noted from Finland, that TVE do use a variation of the old version, just before a children's programme. This carries the name of

the programme that follows.

I am also advised from Finland that the USSR are now putting out several hours of colour programming daily, over one of their programme chains.

There is cause to believe that the high-powered transmitter in Lebanon, at Maaser el Chouf on E4 is out of action, and has been for at least one year. The story goes that the mast has collapsed and has not been replaced resulting in the CLT covering Beirut only. The commercial company, Tele-Orient are unaffected, being from another transmission site. We cannot confirm if this story if correct, but as soon as more definite news comes to hand, I'll pass it on.

Good DX, Roger

September 1970

Roger H. Brown 624 Evergreen Avenue East Lansing, Mich. 48823 Next Deadline: September 15

FOR TV-DX REPORTERS IN WI, IL, IN, MI, OH, PA AND ALL EASTERN CANADIAN PROVINCES

And thus endeth the season????? Things certainly slacked off for TV fanatics in these parts during the just ended reporting period. Several of the gang note a general lack of tropo for the entire season. Except for those few Very good openings...particularly the doozy of late June, early July....I'll have to agree. However, don't give up hope!!

Though our Es season is definately on the outs, keep a steady eye on the conditions for late summer-early fall tropo. Note Bob Coopers discussion of high pressure tropo in the May Digest...and watch your weather maps for LARGE STAGNANT high pressure areas with a SLOW moving front moving in from the West. Those present for the super opening over the first weekend of October 1969 know!! Us to 5 and 600 miles were noted from Wisconsin to New England to Tennesee....for up to three SOLID days.

The number of reports reaching East Lansing during the past session were fewer...and several cover rather long periods. Here goes.....

#### John Parillo, 400 Market Street, Girard, OH 44420 (EDST) July

7-2 Tr 0944 WKNX-25 Saginaw, MI 2230 on, Cincy, etc. plus WTAP-15 Parkersburg, W.Va.

7-3 Tr 0058 WXIX-19 Cincinnati

7-4 Es 1259 WBRZ-2 Baton Rouge 1300 WABG-6 Greenwood, Miss KTAL-6 Shreveport 1301 KARK-4 Little Rock

7-7 Es 2300 KUSD Vermillion. SD and tent. KDUH-4. 0002 on 7/8, KTWO-2 Casper.

7-11 Es 1029 KCEN-6 Tent. 1030 KARK-4 1059 KDFW-4 Dallas, 1128 KFSA-5 Fort Smith, Ar. 1129 WBAP-tent. 1223 WKY-4 OKC.

7-13 Es 1129 WDSU-6 New Orleans 1329 KATC-3 Lafayette

7-16 Es 1345 WTVJ-4 Miami 1829 KPRC-2; 2000 WWL-4; 2100 KWAB-4; 2329 WDIQ-2 2330 WKRG-5 Mobile

7-17 Es 2200 KPRC-2. Houston

7-18 Es 1929 KQTV-2 Saint Joseph; 1930 KCKT-2; 2000 WKY-4; 2003 KV00-2 Tulsa

7-30 Ex 1455 Unids from NE 1512 KDIX Dickinson, ND

"...from south of the lake on 7-2,3, conditions were better than usual but not as good as others seemed to experience." (This opening had a STRANGE pattern John. I have a feeling things stayed to the North of Erie. RB)

#### Frank Wheeler, 6589 Wattsburg Road, Erie, PA. 16509 (EDST) 28 June-27 July

6-28 Es 1200 KPRC-2; 1315 WBAP-5 1325 KOAA-5 Pueblo; 1328 KDFW Dallas; 1600 KOTA-3 Rapid City 1630 KV00-2 Tulsa

7-7 Es 2100 KMTV-3 Omaha; 2101 KNOP-2

opening for a guy who must have watched

7-4 Es 1201 WBRZ-2 Baton Rouge; 1215 KTBS-3 Shreveport; 1730 CKCK-2 Regina; 7-11 Es 0900 WBRZ-2 Baton Rouge 1728 CHAB-4 Moose Jaw, Sask. 2000 WESH-2 Daytona Beach; (interesting

North Platte; 2200 KDUH-4 Hay Springs

0925 KTBS-3 Shreveport 0930 KTAL-6

LOTS of TV on that holiday!!)

7-11 Es 0943 KV00-2: 1000 KDFW-4

7-16 Es 1430 WESH-2; 1500 WEDU-3

"... I was quite glad to getthese Texas and Oklahoma stations as I was in Dallas, Tulsa and Waco from July 17-23. I saw the studio and towers of several of the stations." (Hey amigo....don't worry about a calendar months reception!! I'm glad to have reports dated from mid-month to mid-month. RB)

Ray Bell, 413 Burton Ave., Washington, PA. 15301 (EDST) July-early August arrada e a a Albarda

7-18 Es 1900 KCKT-2, KARD-3, KTVC-6 7-19 Tr 0800 WUAB-43, WKBF-61 Cleveland all Kansas.

(Ray also notes improved tropo on 8-6. Thanks for the report. Keep !em coming. I'll take anything...long...short...upsidedown...) MON TO THE PROPERTY

Mark L. Lewis, 224 Honiton Street, Downsview, Ont. (EDST) July 4-July 16

7-4 Es 1430 KTVI-2 St. Louis voa bur...test

7-11 Es 1230 KFSA-5 Fort Smith the sales 1300 KFDX-3 Wichita Falls who add

7-11 Es 1115 KTBS-3 Shreveport 1200 WBAP-5 Fort Worth

7-15 Es WCSC-5 Charleston, SC

The second state of the state of the state of the days the

"...totals here now 198 plus on TV. Please note...CICA-19 will sign on 9-27 with programming on a 12 hour schedule from 0855 to (sob) 2100." (Good to know Mark. RB)

J. Joel Rosenberg, 47 Pannahill Road, Downsview, Ont. 475 (EDST) June-July

6-11 Es first in at 1615. At 1831, WESH-2; 6-30 Tr 2300 WAKR-23 Akron; WDHO-24 Toledo; 2330 WJAN-17 Canton 2003 KETS-2 Little Rock; 2031 KATC-3 Skip weakening to 0230

also tent. translator of WTVS-56

6-14 Es weak, no ids at 1810

6-15 Es noted at 1200. 1258 un-id ch 4 1329 KOTA-3 Rapid City 7-1 Tr 0059 WFMJ-21 Youngstown; WKNX-25 Saginaw; 0135 WJW-8 Cleve; 0140 KDKA-2 Pittsburg; WKBN-27 Youngstown; 0156 CFPL-10 London; 0753 WJAC-6 Johnstown; 0830 WYTV-33 Youngstown

6-16 Es 1959 tent CFCN Calgary

6-17 Es 1930-0030 Un-id

7-2 Tr 0839 WSYE-18 Elmira; 1100 WDAU-22 Scranton; WNEP-16 Scranton; 2330 WSKG-46 Binghamton; WVIA-44 Scranton

6-18 Es weak, 1000-2230

7-3 Tr (no time) WCDC-19 Adams MA To a laborate field.

6-19 Es weak again. No ids

married to 7-4 Es noted at 1200 state and the same 1800 WWAY-3 Wilmington, NC

6-22 Es again weak at 1020.

6-23 Tr in evening, CKSO-5 noted 7-5 Tropo improved

6-28 Es 1230 WEAR-3 Pensacola

7-6 Es 1829 WDCN-2 Nashville

6-30 Tr 1945 WBRE-28 Wilkesbarre 2030 WENY-36 Elmira plus Cleveland,

The second of the second second

7-7, 8,9,11 weak skip noted

Erie, etc.

on side and is the highest that one was a Say, the

7-12 Tr 0845 WHIZ-18 Zanesville

7-14 Es 1730 WEAR-3 Pensacola

7-15 Es 1905 WUSN-2 Charleston, SC 2033 WESH-2 Daytona Beach

7-15 Es 1838 CJBR-3 Rimoxuski, PQ

(Thank you for the VERY complete report Joel. Has Mark Lewis turned green with envy yet?

Roger Gravelle, 35 Aldborough Ave., St. Thomas, Ont. (EDST) 20 May-1 July

5-20 Tr 1900 on 11, 13 and 53 Pittsburg all 7-2 Tr 0700 WXIX-19 Cinci; 0730 WHIZ-18 Zanesville plus many OH, NY, PA excellent Us and Vs. 5-21 Es 2030 WPBT-2 Miami 2300 WENY-36; WSYE-18 Elmira;

WHNB-30 New Britain, CT. (500)

6-1 Es 1900 WTVY-4 Dothan

6-2 Es 1930 WPBT-2; 1945 WRBL-3 Columbus. Ga: 2000 WTVJ-4 Miami

6-4 Es 1915 WBRZ-2; WDIQ-2 KFDX-3

6-18 Es 1700 WBAP-5; 1730 KTXT-5

7-4 Es 1800 WPBT-2; 1815 WCIX-6 Miami; 1830 WJXT-4

7-7 Es 2000 KRMA-6 Denver, KOA-4, KWGN-2, KNOP-2, KHAS-5, KLNE-3 Lexington, KTVS-3 Sterling.

"...moved to the cottage for a few weeks and equipment suffered. Would have added a page if I'd been home." (That WHNB logging sounds like the kind of suffering we can all endure Rog. Tnx. RB)

Harold Cooper, 29800 Ann Arbor Trail, Westland, MI. 48185 (EST) 25June-25 July

6-28 Es 1100 KIII-3; 1130 KENS-5; 1200 WBAP-5; 7-3 Fr 0900 WCET-48, WXIX-19 1204 KAUZ-6; 1330 KATC-3; 1335 WLBT-3; 1400 KTVC-6 Kansas; 1406 KFDX-3; 1445 7-6 MS 0516 WSB-2 Atlanta KARD3; 1500 KOAA-5; 1530 KTVS-3; KDLO-3 So. Dak.

6-29 Tr 0520 WISH-8 Indy; 0805 WMBD-31 Peoria (340) 0830 WICS-20 Springfield (380); 0845 WAND-17 Decatur (340) Es 1000 KBTX-3 Bryan; 1030 KENS-5

6-30 Tr 0555 WKBW-7 Buffalo 7-9 Tr 1600 WILL-12 Urbana Es 1900 KOTA-3 Rapid City; 2030 KFBC-5 Cheyenne

7-1 Tr 0445 WFBG-10 Altoona; 0455 WLWT-5 Cincy; 0537 WJAC-6 Johnstown, PA. Buffalo Vs perfect.

7-2 Tr 0530 CFTO-9 Toronto; WJAC-6, WFBG-10, plus So Bend, Youngstown, Erie, Peoria all good to perfect. 0810 WBRE-28 Wilkes Barre; 0830 WSYE- 7-12 Tr 0130 WHTN-13 Huntington, W. VA. 18, 1000 WUTR-20 Utica (400); 1300 CKNX-8 Wingham Es 1545 WEDU-3 St. Pete.

Tr 2145 WXIX-19 Cincy (Another look at a good Tr session, RB.)

Tr 0539 WLS-7 Chicago plus Cincinnati and Rockford Us.

Es 1600 KXGN-5 Glendive, Mt.; KDIX-2 tent. over local WJBK. 1630 KYUS-3 Miles City; 2130 KTVS-3; KFBC-5; 2200 KLNE-3; KNOP-2 again over local 2

7-10 MS 0515 KV00-2 Tulsa 0553 WDSU-6 New Orleans

7-11 Es 0900 WEAR; 0930 KALB-5 LA; 1000 KFDM-6; 1030 KENS-5, KTBS-3; 1100 WBAP-5, KCEN-6; 1130 KBTX-3, KDFW-4 (over local: WWJ-4) 1200 KFDX-3.

0930 WBOY-12 Clarksburg, W. VA.

7-13 Tr 0040 WTOM-4 Cheboygan, Mi 0045 WREX-13 Rockford; 0100 WLUK-11 0800 WMUB-14 Oxford, OH Es 1000 WEAR-3 Pensacola

7-16 MS 0512 WMAR-2 Baltimore Es 0215 C??? -6 Habana, Cuba Positive ID w/TP seen (several other seen from FL. during day inc. new 7-18 Es 2000 KIII-3 Corpus Christi WESH-2)

7-17 MS 0553 KMOX-4 St. Louis; 0557 WKY-4 CKC

7-21 MS 0500 WESH-2; 0510 WBZ-4

7-17 Es 0500 WESH-2 Daytona Beach

(Hey fellas, that wasn't such a bad month after all... as witnessed by this very enthusiastic and patient guy!! With locals on 2 and 4, 7 and 9, yet | Nice going Harold. RB)

Charles A. Dobbins, 12851 Longacre, Detroit, MI 48227 (EST) 26 July-17 August

7-26 Tr 2100 WVIZ-25 Cleveland

8-9 MS 0522 WCBS-2 NYC Tr 0617 WANE-15 Ft. Wayne

7-27 Tr 0532 WSBT-22 So. Bend plus several CHi, Buffalo, Pittsburg Vs. 8-16 Tr 0510 Pittsburg and Dayton

8-8 Tr 0500 on Chicago, Pittsburg Vs 8-17 MS 0505 WUSN-2 Charleston, SC

plus tropo same as above

(Chas would like a VHF pre-amp for a man on a tight budget. Anybody help???)

Gary Olson, 1203 Kenton Rd., Deerfield, IL. 60015 (CDST) 28 June-21 July

6-28 Es 1145 XEFB-3 Tent., KRIS-6 KFDX-3; KIII-3; 1200 KRLD-4 Dallas w/ nx anner noting call letter change to take place 7-1!! 1225 KATC-3; 1230 KAUZ-6 MS 0628 Un-id 4, Retma TV and RES

7-6 Es 1830 WKTV-2 Utica over local WBBM-2

Es out by 1430 Tr 2000 KCRG-9, KDUB-40 Chart to south w/ no IDS

7-8 Es weak to west at 2145 no ids

6-29 Tr 2034 to 2315 CFPL-10, WJRT-12 0630

7-7 Tr 0625 WWJ-4

6-30 Tr/WWJ-4; WTTV-4 Es 2300 KFDX-3: 2130 KTXT-5 7-16 Es 2015 first noted 2200 WEDU-3; WTVJ-4; 2210 WDBO-6 2230 WCIX-6

"...still a rotten DX season. Sure hope August better." (we'll get things together yet Gary. RB.)

William Draeb, Ellis St. RR#2, Kewaunee, WI 54216 (CDST) 14 July-9 August

7-14 Tr 0545 Indy, Columbus, Terre Jaute, etc. (3-400)

7-21 Tr 0530 WLFI-18 Lafayette 2200 Ft. Wayne Us

7-16 Tr 0605 WMBD-31 Peoria Es 1930 KJAC-4; 2013 KFDM-6; KPRC-2; 2048 WEDU-3; 2200 WCTV-6; 2210 WTVJ-4

7-24 Tr 0635 WGEM-10 Quincy (373)

7-22 Tr 0600 Same as 7-14

7-26 Tr 0800 to Central IL., later to OH

7-17 Es 2305 KRTV-3; KXLF-4

7-19 MS 0638 WWL-4 New Orleans

- 7-27 Tr 0600 Same as 7-14 plus WHAS-11 (437), WICU-12 (405), KHQA-7 (368) Es 1930 KUTV-2, KCPX-4; 2030 KSL-5
- 8-4 Es 1225 KATC-3, KJAC-4, KPRC-2 8-7 Tropo to Cincy at 400 miles in am

- 8-1 Tr am to IL, MI; in pm to KY...incl WKYT-27, WLEX-18 at 473 miles.
- 8-8 MS 0525 WWL-4

8-2 Tr to Ohio, St. Louis in am

- Tr up to 0830, to Cleveland at 355
- 8-3 Tr 0545 CFTO-9 (410); CHCH-11 (394)

"No new stations this month. Mostly run of the mill (! ed) stuff with practically no surprises. Looks like Es is gone for another year; I'm not disappointed though as I saw my share. Aside from the good trops open last June, there hasn't been much here since." (That about sums it up Bill. We're still hoping though....RB)

Roger H. Brown, 624 Evergreen, East Lansing, MI 48823 (EST) 9 August

8-9 Tr? Es? MS? 0300 Unusual occurance. Had STRANGE reception that could not be accounted for until investigation at antenna. Large stork perched on 7' dish. No wonder!! Daniel Hiram Brown born at 0300. Weight 6 1/2 1bs. Cost about as much as a new tower and set of Cooper IPAs. Mother, father and son (our 1st child) doing fine.

"What more can I say except lets hope condx pick up a bit. Hope the convention was . a good one!!" 73s, best DX Rog.

LATE HEADQUARTERS, CONTINUED:

MEMBERS COMMENTS ARE SOMETIMES HEARD RE THE DETAILED OR NOT DETAILED REPORTS IN THE VUD. OUR JANUARY, 1970 SURVEY SHOWED THAT THE FM MEMBERS PREFERRED THE PARAGRAPH FORMAT AND THE TV MEMBERS PREFERRED THE FORMAT AS USED IN THE EASTERN TV COLUMN AT THE TIME, WHICH WAS MORE OR LESS OF A LISTING WITH COMMENTS SEPARATED FROM THE BULK OF THE REPORT. . HOW MUCH CHATTER AND COMMENTS ARE INCLUDED ARE UP TO THE EDITOR AND HIS FOR-MAT IS FLEXIBLE DEPENDING ON THE WISHES OF HIS REPORTERS AS WELL AS HIS OWN PERSONAL PREFERENCE. HQ DOES NOT DETERMINE THE EXACT FORMAT, ALTHO WE DID AT ONE TIME. WHEN THE CLUB WAS IN ITS INFNACY WE HAD PLENTY OF ROOM AND THERE WAS NO PROBLEM AT ALL, BUT AS THE CLUB GREW IT BECAME NECESSARY TO LIMIT THE SIZE OF THE VUD SOMEWHAT AS WELL AS THE SIZE OF SOME COLUMNS WHICH WERE MONOPOLIZING SPACE OR USING IT POORLY IN THE OPINION OF HQ. SO WE ASKED THAT UNIDENTIFIED PROGRAMS BE RESERVED FOR THE CCI COLUMN AND LEFT OUT OF THE DX REPORT COLUMNS; WE ALSO ASKED THAT UNNNECESSARY INFO ABOUT STATIONS RE-CEIVED BE ALSO LIMITED WHEN OF NO PRACTICAL USE: E.G., WTMJ-4, WITH JOHNNY CARSON AT 2230+, AND ADS FOR FURPLE'S BEER, NURN COOKIES, ETC. COMMERCIALS AND PROGRAM CONTENT ARE NOT OF ANY USE UNLESS WRITING FOR A VERIE, OR FOR THE CCI COLUMN. SINCE THE STATION THE WAS IDED IN THIS CASE, THE ADDED INFO WAS OF NO USE AND WAS WASTING SPACE IN A DX REPORT. SOME DX REPORTS WERE FULL OF THIS INFO AND COULD HAVE BEEN REDUCED TO HALF OF THEIR SIZE WITHOUT IT. HENCE WE HAD TO IMPOSE THESE LIMITATIONS BECAUSE OF TIME AND SPACE PROBLEMS IN THE VUD AND ITS PUBLISHING OPERATION. WE RECEIVED A COUPLE ADVERSE COMMENTS BUT WE HAD TO TAKE THIS STEP SO THE COLUMNS WON T BE FIGLED WITH INFO OF USE OR INTEREST TO QNLY ONE OR TWO PERCENT OF THE MEMBERS. IF YOU WANTE TO WRITE THIS INFO TO ANYONE IN PAR-TICULAR, SEND A LETTER. WE ENCOURAGE PERSONAL! CONTAGT BETWEEN MEMBERS.

#### ADVERTISEMENT (Paid for by CADCO - The TV People)

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..... Typical Delivery 3-4 Weeks - Plan Ahead for DX Season! .....

With CADCC's line of CATV gear selling at such a fast clip, the Cooper's have to move to a location closer to the plant. And I've decided to dispose of (sell!) much of my present TV and FM DXing gear since it may be a year before I can be real active again. This is your big chance - first come, first serve: (1) Connac AV-12E receiver with Dage 14 inch monitor. Both mounted with rack - superb condition - \$250.00 FCB CKC; (2) Heath AR-15 receiver - got me 650 plus stations in 43 states in 15 months - \$300. FCB CKC; (3) Ampex 755 tape deck with rack mount - \$75.00 FCB CKC; (4) Heath EUW-20 super deluxe chart recorder with boxes of new (spare) chart paper - \$200.00; (5) My own chart recorder with boxes of new (spare) chart paper - \$200.00; (5) My own personal IPA DXing system - two units channels 2-6, two units channels 7-13, just like those in August Ham Radio. Rack mounting, beautiful - the very best - \$80.00 each, any two for \$150.00. These are the original units, with power supplies added - 75 ohms in and out. When these are gone, there will be no more! (6) Winegard 220 N Nuvistor antenna mounting pre-amp with P220N power supply (2-13) - new - \$15.00 postpaid; (7) Heath ID-22 Electronic switch (dual trace machine) - new - wired - \$20.00 postpaid; (8) Two (2) Blonder Tongue MCS-D 20 db gain channel 2 amplifter strips with AGC! \$20.00 Blonder Tongue MCS-D 20 db gain channel 2 amplifier strips, with AGC! \$20.00 each. Blonder Tongue CVP-30 distribution amp, solid state - new - \$20.00. For all CCOPER items - make checks out to Bob Cooper, Jr. at CADCO address above. (Send self addressed stamped enevlope for big list!)