

VHF-UHF DIGEST

April 1970

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LISTENING
GUIDE
JANUARY
1970

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William Steinberg, Music Director
Every Sunday evening from 8:00 to 10:00

- Conductor: Milton Katims, Conductor
 - Chopin: Concerto for Piano and Orchestra
 - Tchaikovsky: Symphony No. 4 in F minor
 - by Vaughan Williams: Fantasia on a theme by Thomas Tallis
 - Ravel: Daphnis et Chloe, Suite No. 2
- Jan. 11 - William Steinberg, Conductor
- Mozart: Masonic funeral music, K. 477
 - Lees: Symphony No. 2
 - Mozart: Piano concerto in C minor, K. 491
 - Brahms: Symphony No. 2 in D, Op. 73
- Soloist: Robert Casadeaus

(Continued)

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FM - FINE MUSIC

FCC NEWS & DATA

GARY A. OLSON
1203 KENTON
DEERFIELD, ILL.
APRIL, 1970

TV

STATIONS OPERATING (AS OF MARCH 1, 1970)

| | |
|---------|-----|
| UHF ETV | 107 |
| UHF Com | 181 |
| VHF ETV | 79 |
| VHF Com | 509 |

Total Authorized Stations On The Air 876

New Stations Reported On The Air:

WKOW (TV) ch. 19, La Crosse, Wis., reported on the air Mar. 7th
WSNS-TV, ch. 44, Chicago, Ill., seen testing Mar. 17th; regular
schedule due to start April 5th

Stations Authorized To Start Operation:

*KIIN-TV, ch. 12, Iowa City, Ia., 245 kw.

New Target Dates Reported:

*ch. 34, South Bend, Ind., target Nov. 1970

Stations Now Off The Air:

WJZB (TV) ch. 14, Worcester, Mass., (has been off air) will not
return to the air due to financial problems
KIVA (TV) ch. 11, Yuma, Ariz., will not return to the air due
to "lack of financial support" for the station

Miscellaneous Changes Reported:

FCC has reserved ch. 12 at Wilmington, Del., for ETV use

UHF Construction Permits Outstanding -

the following granted extensions of time to construct

WMTU-TV Memphis, Tenn. KTLF (TV) Seattle, Wash.

KCEB (TV) Tulsa, Okla. WPHY (TV) Rochester, NY

WRBT (TV) Baton Rouge, La.

the following permits cancelled

WRTU-TV Richmond, Va. KDWN-TV Cheyenne, Wyo.

KWIS-TV Wichita, Kan. WKHM-TV Jackson, Mich.

the following were granted temporary extensions, then cancelled

KUII (TV) Honolulu, Haw. WDKS-TV Toledo, Ohio

WNEC (TV) Albany, NY

FCC COMPLETED ACTION

New Grants:

*Tyler, Tex., ch. 38 (Ambassador College) 350 kw.

*Trenton, NJ., ch. 52 (New Jersey Public Broadcasting) 1380 kw.

Call Letter Changes:

WHAE-TV, ch. 46, Atlanta, Ga., granted WRHK-TV

New Call Letters Issued:

Missoula, Mont., ch. 8, KPAX-TV

Minneapolis, Minn., ch. 23, KTMA-TV

Toledo, Ohio, ch. 60, WTLX-TV

*Norwood, NY, ch. 19, WNDI-TV

*WATertown, NY, ch. 50, WNOE-TV

Other Changes Allowed:

KMSP-TV, ch. 9, Minneapolis, Minn., ant. to 1430' - ERP 209 kw.

WUTV (TV) ch. 29, Buffalo, NY, ERP to 1050 kw

WXLT-TV, ch. 40, Sarasota, Fla., ERP to 277 kw. - ant. to 530'

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

WTVJ (TV) ch. 4, Miami, Fla., ERP to 13.3 kw.

WXIX-TV, ch. 19, Newport, Ky., ERP to 141 kw.

WDIQ (TV) ch. 2, Dozier, Ala., ERP to 100 kw.

WHAE-TV, ch. 46, Atlanta, Ga., ERP to 1290 kw. - ant. to 1070'

WDRB-TV, ch. 41, Louisville, Ky., ant. to 1280'

*KTSD-TV, ch. 10, Pierre, S.D., ERP to 269 kw. - ant. to 1600'

ACTION APPLIED FOR OR REQUESTED

Applications For New Stations:

- *Montclair, NJ, ch. 77, (New Jersey Public Broadcasting) 1135.7 kw.
Farmington, N.H., ch. 12, (Woodland Broadcasting) 30.9 kw.
Daytona Beach, Fla., ch. 2 (Cent. Fla. Enterprises) 100 kw.
-- channel currently occupied by WESH-TV
- *Winston-Salem, NC, ch. 26 (U. of N. Carolina) 300 kw.
Miami, Fla., ch. 10, (Greater Miami Telecasters) 316 kw.
-- channel currently occupied by WPLG-TV (formerly WLBW)
- Jackson, Miss., ch. 3, (Lamar Life) 95.7 kw -- channel currently occupied by WLBT (TV)
- Jackson, Miss., ch. 3, (Jackson TV) 100 kw.
- Jackson, Miss., ch. 3, (Dixie National) 100 kw.
- Jackson, Miss., ch. 3, (Ch. 3 Inc.) 100 kw.

Miscellaneous Requests:

- State College of Pennsylvania has requested that channel 17 be allocated to State College, Pennsylvania
- *KOET (TV) Ogden, Utah, has requested that channel 9 be deleted as an ETV reservation and be changed to a commercial reservation in Ogden (station license to be modified to conform to the allocation change)

TIDBITS AND MISCELLANEOUS ITEMS OF INTEREST TO TV DXERS

- # KTEN-TV, Ada, Okla., has requested *ch. 15 be replaced with *ch. 42 at Hugo and ch. 15 at Hugo be changed to a commercial reservation at Hugo-Paris, Texas.
- # WKTR-TV, Dayton, Ohio, which recently became a fulltime ABC affiliate has been charged with bribing an ABC station-relations employee in order to get the affiliation with that network
- # The FCC has ordered VHF-UHF tuner parity to be reached by manufacturers by May 1, 1971. Naturally manufacturers are objecting.
- # Keep an eye out for a unique experiment by Minneapolis ETV stations KTCA and KTCI television. The stations often operate at unusual hours of the night and morning presenting educational programs (which are remotely recorded at educational institutions).
- # KWHY-TV, ch. 22, Los Angeles, has suspended morning broadcasting of stock reports. The station retains its evening schedule.
- # The FCC has announced it intends to change the ETV reservation in Terre Haute, Ind., from ch. 26 to ch. 66
- # The FCC has announced it intends to change the ETV channel reservations in Marquette, Mich., from ch. 19 to ch. 13

TV GUIDE EXCHANGE ----SOME RECENT REVISIONS

Richard Clark
4110 Bayview
Ft. Lauderdale, Fla. 33308

South Florida edition TV Guide

Randy Miltier
382 Pine Ave.
San Jose Calif. 95125

San Jose area TV editions

TV-FM DX BIBLIOGRAPHY ----- SOME ADDITIONS

Wireless World:

- "Letters To The Editor" Aug. 1969 -- has a TV DX letter
- "Long Distance Television Reception", - Sept. 1969 - article/pics
- "Guide to Broadcasting Stations" - complete list of sound and vision carrier frequencies for the various TV systems in the world (address for WJ and Guide: 300 E.42 St., NY, NY 10017)

STATISTICS

Glenn Hauser, editor APRIL
 Box 1466
 APO San Francisco 96288 1970

Greeting. Our first listing of ch. 2 TVDX records was published in July 1968. Since many of our present members joined since then, and there have been a great many revisions, it's high time we published an updated listing. Please note one slight difference. This time we're listing skip stations only. Those few ch. 2 stations not known to have been DXed ionospherically, are not listed here.

REVISED CHANNEL 2 SKIP TVDX RECORDS

| Call | Station Location | Miles | DXer, Location | Comments |
|------|------------------|--------|-------------------------------------|------------|
| WAIQ | Dozier AL | 1925 | Robert Cooper, Fresno CA | now WDIQ |
| KENI | Anchorage AK | 3100 | Richard Lowry, Temple TX | |
| KFAR | Fairbanks AK | 3125 | Richard Lowry, Temple TX | |
| KETS | Conway AR | 1215 | Bill Grant, Worcester MA | |
| KNXT | Los Angeles CA | 2150 | Robert Seybold, Dunkirk NY | |
| KTVU | Oakland CA | 2285 | Richard Nieman, Buffalo NY | |
| KTVR | Denver CO | 1495 | Ron de Neuf, Ithaca NY | now KWGN |
| WESH | Daytona Beach FL | 2540 | Doris Johnson, Longview WA | |
| WTHS | Miami FL | 1280 | Terry L. King, San Angelo TX | |
| WSB | Atlanta GA | 2180 | Doris Johnson, Longview WA | |
| KONA | Honolulu HI | 3980 | Bedford Brown, Hot Springs AR | now KHON |
| KBOI | Boise ID | 1840 | Robert Seybold, Dunkirk NY | |
| WBBM | Chicago IL | 1730 | Robert Cooper, Fresno CA | |
| WTWO | Terre Haute IN | 1160 | Fred Nordquist, White Sands M.R. NM | |
| WMT | Cedar Rapids IA | 1540 | Doris Johnson, Longview WA | |
| KCKT | Great Bend KS | 1455 | Jeff Kadet, Needham MA | |
| WBRZ | Baton Rouge LA | 2000 | Doris Johnson, Longview WA | |
| WTWO | Bangor ME | 2595 | Ed Hepp, Portland OR | |
| WMAR | Baltimore MD | tie | Doris Johnson, Longview WA | |
| WGBH | Boston MA | 2360 | Doris Johnson, Longview WA | |
| WJBK | Detroit MI | 1470 | Glenn Hauser, Enid OK | |
| KTCA | Detroit MI | 1965 | Dennis Smith, Wasco CA | |
| KTCA | Saint Paul MN | 1440 | Doris Johnson, Longview WA | |
| KFEQ | Saint Joseph MO | 1475 | Doris Johnson, Longview WA | |
| KTVI | Saint Louis MO | 1730 | Doris Johnson, Longview WA | |
| KOOK | Billings MT | 1450 | Robert Seybold, Dunkirk NY | |
| KNOP | North Platte NB | 1230 | Gary Kromer, Auburn NY | |
| KLRJ | Las Vegas NV | 1780 | Frank Hill, Gallipolis OH | now KORK-3 |
| KTVN | Reno NV | 1235 | Robert Cooper, Oklahoma City OK | |
| WGR | Buffalo NY | 2175 | Robert Cooper, Fresno CA | |
| WCBS | New York NY | 2510 | Robert Cooper, San Jose CA | |
| | | tie | Randy Miltier, Campbell CA | |
| WKTV | Utica NY | 1285 | Glenn Hauser, Enid OK | |
| WUNB | Columbia NC | 1185 | Glenn Hauser, Enid OK | now WUND |
| WEMY | Greensboro NC | 2315 | Doris Johnson, Longview WA | |
| KDIX | Dickinson ND | 1550 | James Howarth, Worcester MA | |
| WLWD | Dayton OH | 1965 | Ed Hepp, Portland OR | |
| KVOO | Tulsa OK | 1540 | Doris Johnson, Longview WA | |
| KOTI | Klamath Falls OR | 2130 | Robert Seybold, Dunkirk NY | |
| KATU | Portland OR | 2140 | Robert Seybold, Dunkirk NY | |
| KDKA | Pittsburgh PA | 2155 | Ed Hepp, Portland OR | |
| WUSN | Charleston SC | 2430 | Doris Johnson, Longview WA | |
| KUSD | Vermillion SD | 1375 | Jim Pizzi, Santa Maria CA | |
| WDCN | Nashville TN | 1145 | Fred Nordquist, White Sands M.R. NM | |
| WSJK | Sneedville TN | - 1340 | Fred Nordquist, White Sands M.R. NM | |

(more)

| | | | | |
|----------|--------------------------|------|--|----------|
| KPRC | Houston TX | 1990 | L. A. Canning, Halifax NS | was KLEE |
| KMID | Midland TX | 1550 | David Swanson, Romulus NY | |
| KUTV | Salt Lake City UT | 1695 | Norm Erint, Kenmore NY | |
| KREM | Spokane WA | 1885 | King Schafer, Kenmore NY | |
| WBAY | Green Bay WI | 1725 | Robert Cooper, Fresno CA | |
| KTWO | Casper WY | 2150 | Ross Harvey, Goose Bay Labrador | |
| CHCT | Calgary Alta | 1720 | Frank Wheeler, Erie PA | |
| "CBXAT2" | High Prairie Alta | 800 | Fred McCormack, Des Lacs ND | |
| CHSA | Lloydminster Alta | 1370 | Don Eggert, South Bend IN | |
| CHBC | Kelowna BC | 1970 | Robert Seybold, Dunkirk NY | |
| CKPG | Prince George BC | 975 | Fred McCormack, Des Lacs ND | |
| "CBUT" | Vancouver BC | 2145 | Norm Erint, Kenmore NY | |
| CKCW | Moncton NB | 2725 | Doris Johnson, Longview WA | |
| CFCL2 | Kearns Ont | 1235 | Robert Cooper, Oklahoma City OK | |
| CFCJ | Port Arthur Ont | 1745 | Gordon Simkin, Loma Linda CA now Thunder Bay | |
| CJIC | Sault Sainte Marie Ont | 1835 | Doris Johnson, Longview WA | |
| "CBFT" | Montréal PQ | 2495 | Norris Doyle, Pittsburg CA | |
| CHAU5 | Percé PQ | 800 | Wayne Plunkett, Weston Ont | |
| CHAUL | Ste Marguerite-Marie PQ | 870 | Carlton Howington, Uniontown OH | |
| CKCK | Regina Sask | 1920 | Ronald Boyd, Truro NS | |
| | Mendoza Argentina | 3550 | Robert Cooper, Frederiksted VI | |
| | Recife Brazil | 2710 | Robert Cooper, Frederiksted VI | |
| PRG3 | Rio de Janeiro Brazil | 6615 | Robert Cooper, Lafayette CA | now off |
| | Rio de Janeiro Brazil | 3180 | Robert Cooper, Frederiksted VI | |
| | São Paulo Brazil | 3130 | Robert Cooper, Frederiksted VI | |
| | Santa Marta Colombia | 2210 | Robert Cooper, Oklahoma City OK | |
| CMJA | Ciego de Avila Cuba | 1120 | Estill Thone Hall, McDowell KY | |
| CMAB | Habana Cuba | 2800 | Doris Johnson, Longview WA | now off |
| CMKU | Santiago de Cuba | 2865 | Robert Cooper, Fresno CA | |
| HIT | Santiago Dominican Rep | 1410 | Otto Morroy, Paramaribo, Surinam | |
| YSR | San Salvador El Salvador | 1410 | Steve Kamp, Irving TX | |
| XEPM | Ciudad Juarez Chih | 1270 | Don Jensen, Racine WI | |
| XHI | Ciudad Obregón Son | 850 | Stan Wigh, Kingsburg CA | |
| XHCH | Chihuahua Chih | 965 | Stan Wigh, Kingsburg CA | |
| XEWO | Guadalajara Jal | 2090 | Doris Johnson, Longview WA | |
| XEW | México DF | 2300 | Doris Johnson, Longview WA | |
| XEFE | Nuevo Laredo Tams | 1250 | Dave Janowiak, Milwaukee WI | |
| XHIA | Torreón Coah | 815 | Glenn Hauser, Enid OK | |
| XHFM | Veracruz Ver | 1275 | Glenn Hauser, Albuquerque NM | |
| | Panamá Panamá | 1150 | Robert Cooper, Frederiksted VI | |
| OAX4U | Lima Perú | 2235 | Robert Cooper, Frederiksted VI | |
| WKAQ | San Juan PR | 3450 | Robert Cooper, Fresno CA | |
| YVKA | Caracas Venezuela | 3785 | Robert Cooper, Fresno CA | |
| YVKS | Maracaibo Venezuela | 2770 | Glenn Hauser, Albuquerque NM | |

OTHER REVISIONS

| | | | | | |
|----|------|-------------------|-----|----------------------------|-------------|
| 22 | WVUT | Vincennes IN | 400 | Bill Draeb, Kewaunee WI | Olson 245 |
| 27 | WSMW | Worcester MA | 70 | Gene DeLorenzo, Hyannis MA | new |
| 30 | KHOF | San Bernardino CA | 95 | Bill Lipis, San Diego CA | new |
| 33 | WMUL | Huntington WV | 495 | Bill Draeb, Kewaunee WI | Pomeroy 115 |
| 36 | WENY | Elmira NY | 170 | Mark Lewis, Downsview Ont | new |
| 50 | WXPO | Manchester NH | 110 | Gene DeLorenzo, Hyannis MA | new |

Apologies to Pat Dyer, Fred Nordquist and Frank Wheeler who sent rank listings which will not appear this time. Suggestions on how to popularize this feature are welcomed.

NEXT MONTH: We begin MS records, with ch. 2.

until the next, 73 de Glenn

EASTERN TV DX

Dave Pomeroy
3556 Rocky Hill Terrace.
Lexington, Kentucky 40503

Deadline: April 20

From all indications (only one report was received by the deadline) DX conditions in the rest of the area served by the column must have been the same as conditions in Kentucky. That is, very bad as no stations have been seen here in the last weeks since the March deadline. There were brief periods of improved reception in the 100 to 200 mile range, but no real DX.

Before beginning our only report I would like to call your attention to the address change indicated above. The move is only two blocks so anything sent to the old address should reach me without any difficulty.

Gene DeLorenzo, 35 Sylvan Dr., Hyannis, Massachusetts 02601 (EST)
12-23 Es 1600 WUSN-2 Charleston, SC 11-24 Es 1657-WMOX-4 St. Louis, MO
12-24 1600 CJIC-2 St. Ste. Marie, Ontario 1700 WCIA-3 Champaign, IL
1600 KDAL-3 Duluth, MN 1-2 Tr 1615 WSMW-27 Worcester, MA
1615 UNID-5 west, NEC 2-4 ?? 1731 UNID-3 Newfoundland
1624 UNID-3 CBC 1745 CHSJ-4 St. John, NB
1653 KTVI-2 St. Louis, MO 2-9 Tr all evening---excellent short range VHF-UHF; 13 U's.

(Gene says that unidentified CBC station on 12-24 sounded like "CKSO." Station could possibly be CKSO-1, a channel 3 satellite of CKSO-TV, Sudbury, Ontario. Satellite is in Elliot Lake. Reception on 2-4 would appear to be Es from your description. Channel 3's in Newfoundland are CJOX-TV in Argentia and CBYBT in Port Aux Basques. CJOX is affiliated with CTV; CBYBT with CBC English network. dp)

APPALACHIA TELEVISION (WKYH-TV, Channel 57) A REAL DX CHALLENGE

WTFDA members in this part of the United States should be on the lookout a new low-power UHF station in Hazard, Kentucky--"broadcast headquarters for Appalachia." WKYH-TV, which went on the air late in October operates from a 442-foot tower on a mountain top near Hazard. Although channel 57 operates with only 15,000 watts visual and 2,900 watts aural power, station officials claim the station serves a 50-mile radius containing 400,000 people.

The station, which is owned by the Hazard Cable TV system, began in 1965 when local programming was begun on the CATV system. In 1966 owner Bill Gorman applied for a Construction Permit for a commercial station on channel 57 in order to serve viewers not subscribing to his CATV service. Gorman feels that such a station is necessary to counteract the poor image given the area by programs produced outside Appalachia. To this end, all local programming is designed to provide services which are not available from stations in Lexington, Knoxville, and Huntington which also serve the area.

WKYH-TV's schedule is not published in TV GUIDE or even in the local papers, but a schedule sent by channel 57 shows the station operating seven days a week from late afternoon to one in the morning. The station, of course, is independent but Gorman hopes to receive an affiliation from one of the national networks.

Besides having an unusually high number of technical problems, channel 57 has been bothered by some of the rougher local citizens who shoot at the tower from a nearby auger mine bench.

Hazard, which Gorman describes as the smallest town in the U.S. to have a licensed commercial TV station is also the home of WKHA-35, an ETV station.

FM DX column

MARCH, 1970

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

Bill Lipis P. O. Box 325 El Cajon, California 92022 EST

On the local DX scene, many of the weaker ed. stations have been coming in with the extremely foggy conditions recently. With a Finco FM-40G ant. mounted 20' off the ground it was possible to DX during the 1/19-1/23 foggy nights with the following stations: 0330 KSPC 88.7 Claremont (100 mi.) quite strong; 0300 s/off KXLU 88.9 LA (160) quite weak; 0230 KLon 88.1 Long Beach (80) slight traces w/splash from channel 6, and also either KCRW Long Beach or KSDA La Sierra with a 0315 s/off on 1/21....just too weak to ID though. On 2/4 went up to Lagune Mountains (5500') with Nord Mende portable and a LPV FM beam in a position overlooking the desert and cutting off LA stations. Received 0235 KBUZ 104.7 Mesa, Arizona (250) very solid; 0240 KGEK 104.7 Palm Springs (62) weaker than KBUZ and playing MoR mx; 0250 KNTX 102.5 Phoenix (250) very solid both horiz. and vert. w/c&w (very brassy sound); 0255 KMEQ 96.9 Phoenix w/MoR and stating that they will be 100kw very soon; 0305 KOOL 94.5 Phoenix fair signal; 0310 KDOT 100.7 Scottsdale w/beautiful mx after KFMR s/off; and 0305 and after open carrier on 93.7 must have been from KCHV-FM Coachella, CA (52) after their s/off, though no ID. Also, received a audio harmonic from ch. 9 KECC El Centro, CA on 90.5 (55) with CBS Merv Griffin after 0230..quite strong. 73. (Bill, I also get my local WGN-9 on 90.5. It is a simple mixing product of ch. 9 freq. beating with the FM receiver coming out to 90.5 RWW

Frank Wheeler 6580 Wattsburg Road Erie, Pennsylvania 16509

My wife gave me a table model AM-FM Panasonic Radio. I've picked up 6 new FM stations as follows: CJOY 106.1 Guelph, Ont. 12/26 8:00PM; CFCA 105.3 Kitchener, Ont. 8:00 PM; CHIC-102.1 12/29 at 5:00 PM; CKFM 99.9 Toronto 1/15 0108; WZAK 93.1 Cleveland, Ohio @0130; and CKDS 95.3 Hamilton, Ont. @10:43 PM. My totals are now 74. I only have the Radio's power line as an antenna. I don't have an outside antenna. I'll send another report, when I have anything to report on. 73's. (Welcome to the column Frank. It is nice to correspond with you again)

Roger Gravelle 35 Aldborough Avenue St. Thomas, Ontario

2/7 tropo at 11:17AM WKJG 97.3 Fort Wayne, Indiana new at 280 miles. At 11:53 WPTH 95.1 Fort Wayne also hrd. Best opening on FM since 1/26. Detroit in solid, 2/6-7-8 even on my 11 transistor Holiday AM/FM portable inside the house with the bunnyears down. So many stations in stereo the stereo indicator only flickered slightly as you moved across the dial. (Roger, your information on CHLO is apprec. I am a member of the National Radio Club. If you would like their address, contact me on this. RWW)

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

No report of anything new since last time. I'm up in Milwaukee typing this, as Morrie, Gary and I drove up to help with publication and also to meet Dave and Ferdie for the first time.

NO CHANGE IN THE FM DX COLUMN;
THE STATUS QUO IS MAINTAINED.

73 FROM HQ STAFF.

AUSTRALASIAN SCENE

Glenn Hauser APRIL
Box 1466 1970
APO San Francisco 96288
 OR
CMR Box 1466 DO
Korat RTAFB MIX NOT
Nakorn Rajasima Thailand

This column is a further step forward for the Worldwide TV-FM DX Association. Any member residing in the Asian or Pacific area should send any and all VHF DX observations here (including radio). Contributions from anyone else regarding stations operating in this area (e.g. clippings), are also welcomed.

We've already heard from Bob Bundy of Truk, East Caroline Islands. Bob is thinking about setting up for VHF DX after returning from the states next fall. We hope you do, Bob...the absolute lack of locals is the DXers' dream... Some years ago, one Gordon Simkin (remember him?) successfully DXed Honolulu and Manila TV stations from Eniwetok. You should also look for TE scatter from Down Under; also Japan, China and Korea.

I'm sounding out known DXers in this part of the world for any spark of VHF interest, without too much success. It is particularly surprising that in a nation like Japan there is little if any interest in TV or FM DX.

Any word from our member in India would be most welcome. Speaking of India, I sent an inquiry to All India Radio TV about future development of TV in that country. A reply from Mr. J. N. Mathur, Director, Frequency Assignments, sheds some light: Of the projected stations, Srinagar (Kashmir) and Bombay are to operate on ch. E4, as does the only station now on the air, New Delhi. Poona is to be a relay station on ch. E5. The Bombay and Poona centres may be commissioned by the end of 1971 or in early 1972. The centre at Srinagar is expected to be commissioned by the end of 1972. Madras and Calcutta centres are also to operate on ch. E4; Kanpur on ch. E5, but no target date has been established for these. The new stations will probably operate for two hours in the evening, possibly 1800-2000 IST (GMT + 5.5h). Most of you have heard of the plan to establish a synchronous satellite to serve India. This project probably takes priority over local stations.

Sabah presently has no TV, but a temporary TV complex is under construction behind the Radio House in Kota Kinabalu, and is expected to be ready very shortly for launching of TV in Sabah...according to Mr. Peter Pragas of R. Malaysia there.

China. A fascinating article on TV in China appeared in the 31 January 1970 TV Guide. Welles Hagen of NBC describes how they monitor Canton TV from Hong Kong. Some pertinent points for DXers: Transmissions are usually on Tuesday, Thursday and Saturday only, opening around 1900 local (GMT + 8h). Synchronized sound is a rarity but camera work is good. Program begins with--quotation from Chairman Mao, then "news"--live reading of propaganda tracts. A revolutionary ballet is often presented. The last item of the evening is usually an old movie, WWII vintage...sometimes a dubbed Albanian film, or an ancient Lenin-period Russian flick. Sign off comes around 2230-2300.

A DX report appeared in--of all places--a recent issue of the Far Eastern Economic Review (clipping sent by Lars Ryden): "Television viewers in Malaysia are being provided with a new entertainment--a ghost programme sometimes visible at 2.30 am (1930 GMT). In all probability it has just been a freak reception from a transmitter somewhere to the west of Malaysia's time zone but rumour soon had it coming from Peking or from a base in Yunnan which is supposed to be the support centre for revolutionary guerilla movements in Southeast Asia. Significantly enough, one Chinese girl claimed that she could see fighting--which just had to be a film of Kuala Lumpur's May 13 riots. ...Highly sophisticated equipment is needed to track down such a radio and Malaysia does not have it. A portable transmitter with a petrol generator could easily be responsible and it has been thought for some time that the Malayan Communist Party guerillas on the Thai border possessed something of the kind. Some attempts may even have been made to jam the broadcasts. Recently, after the "Peking television" episode,

(more)

the military guard on Malaysia's own television complex at Angkasapuri in Kuala Lumpur was sizably increased."

In Thailand, I have heard second hand reports of a Chinese speaking TV station, presumably in China, being received in extreme southern Thailand on "ch. 10". This would be an excellent tropo haul even from the nearest part of China; no highband stations are known to be operating there. Somewhat better documented is this report from the Bangkok Post, 10 March 1970; headlined Freak TV Reported in South (remember when TVDX made headlines in the USA? Ed.); "TV viewers in Yala and Narathiwat claimed to have watched programmes of Army Television Channel 7 which is operating at a power of 200 kilowatts, the TV station spokesman told the Post. Four letters were received recently by the station's director Col. Prasit Chuenboon claiming that both colour and black and white programmes could be viewed very clearly in the two provinces. The radius of broadcasting was only 100 kilometres under the present transmitter's capacity, and during this extraordinary reception of programmes in such remote places no increase in transmitter power was made, he said." I also saw a European-style TP from this station one morning, 24 January at 0825 TST (GMT + 7h), at well over 200 km away.

Singapore already has TV, but a Post item from AFP, 11 January 1970, headlines: S'pore to Have Huge TV Station. "A multi-million dollar television station will be set up in Singapore shortly by the Friedrich Ebert Stiftung for the promotion of adult education in Southeast Asia...The foundation will provide training facilities to (7 SEA countries) and production of adult education programmes, to be distributed free to the member countries." Evidently a production center, not a transmitter.

My own VHF DXing has been limited greatly so far by lack of my own TV equipment, or any exterior antennas. Nevertheless, some DX has been observed:

12 Jan. My F1000T FM tuner with only a short piece of wire for antenna, picked up an hour of good Es from R. Malaysia Sabah, Kota Kinabalu. This 100kw station on 97.5 MHz, at the ideal distance of 1135mi, is one I had anticipated DXing. Reception lasted from 1600 to 1700 TST, with Chinese news, ID at 1614, and program in local languages. My report was verified by letter, but the accompanying card succumbed to force of habit, indicating 4970 kHz SW, which I specifically stated I had not received.

12 Jan at 2215, waltz music on about 97.8 MHz. Probably weak tropo from a Thai station. Kongbanchakam Kongphon Thii Nung, is listed in Bangkok at 1kw on 98.0.

15 Jan. Typical Es reception on ch. A2 or E3, newscast with commercials at 1615; fade by 1627. Not enough audio to decide on language, but probably was Johore Bahru, W. Malaysia, on E3. This was on my landlady's set, with a ch. A3 yagi antenna, intended for reception of the Green Hill relay of Bangkok's ch. A7, between here and Bangkok.

20 Feb. On a base set with rabbit ears, as are all of the following. Skip on ch2, at least two stations interacting, very broken video and a trace of audio; seemed to be on non-American standards. Perhaps TE, from Bob Cooper's description. Determining exact frequency and direction as yet impossible.

27 Feb. At 2045, ch 2, vertical hold required adjustment. Video and occasional traces of audio; sometimes synced but noisy and fadey. Seen thru 2100, but gone by 2120; also perhaps some video hash on ch 3.

9 Mar. At 1905, fadey skip on ch 2, rather strong at times, but very distorted video, no audio. Gone by 1955 recheck.

16 Mar. At 2106, ch 2; broken up A & V, like overlapping MS bursts.

20 Mar. Same effect. On ch 3, at 2200, at least two stations of different standards interfering, until 2230 fade out.

The lack of good audio leads me to believe that these are not 4.5 MHz separations, but 5.5 (European standards) or 6.5 (Australian). No Aus ch 0 or 1 stns are known in Western Australia, however, the most likely area for TE. There are two on Aus ch 2, roughly equivalent to A3, in the Perth Area, some 3400-3650 mi away at a heading of 163°. No ch. A2 stations are known in Philippines; there are some in South Korea (double hop Es range). Observations have not yet been made on a regular basis, so dates on which no activity is reported should not be regarded as inactive dates. A number of interesting 30-50 harmonics and 2-way Russian stations have been heard on the Allied PSB rx. By next month I should be all set for proper VHF DXing. 73/Glenn

WESTERN TV DX

April 1970

Dennis Park Smith
321 Santa Barbara St.
Santa Barbara CA 93101 USA
Deadlines: 12th of each month

There were some Es openings in February, but apparently didn't make much of a dent. Even with some TE skip on the 50-54-MHz ham band, TV reports showed nothing beyond the usual extent of single-hop Es. Feb. Es dates: 2, 5, 8, 10, 11, 15, 26, 27.

Robert Grace, PO Box 309, Franklin, Texas 77856 (New underlined) (Jan-Feb 1969)(CST)

| | |
|---|--|
| <u>J3</u> Es 1930 CKCK- 2 Regina, Sask. (J.Gleason) (28)(Tr) 0730 | KLBK-13 Lubbock TX (CBS News) |
| <u>6</u> Es 1800 WESH- 2 DaytonaBeach FL (Lucy) <u>F1</u> Tr 2230 | KWEX-41 SanAntonio(NuCarrousel) |
| <u>WTHS</u> - 2 Miami, Florida | KHTV 39 Houston(David Susskind) |
| <u>WEDU</u> 3 Tampa FL | KDTV 39 Dallas TX (movie) |
| <u>WTVJ</u> 4 Miami FL (Red Skelton) | <u>K76CL</u> 76 Bryan TX (Bill Menefee) |
| <u>WPTV</u> 5 PalmBeachFL(MovieGame) | <u>11</u> Es 2100 <u>XHFM</u> - 2 VeraCruz, Ver. (detective) |
| <u>12</u> Es 1530 <u>KWGN</u> - 2 DenverCO (What'sMyLine) | <u>18</u> Tr 0730 <u>WBRZ</u> 2 Baton Rouge, La. (Today) |
| <u>24</u> Tr 1730 <u>KTUL</u> - 8 Tulsa, Okla. (FlyingNun) | <u>WLB</u> T 3 Jackson, Miss. (Today) |
| <u>25</u> Tr 0800 <u>KACB</u> - 3 SanAngeloTX (TestPatt.) | <u>KALB</u> - 5 Alexandria LA (") |
| <u>KRBC</u> - 9 Abilene, Tex (TestPatt.) | <u>WDAM</u> - 7 Laurel-HattiesburgMS (") |
| <u>KTXS</u> -12 Abilene TX (Sign on) | <u>KNOE</u> - 8 Monroe LA (CBS News) |
| <u>28</u> Tr 0730 <u>KFDX</u> - 3 WichitaFallsTX (Today) | <u>WAFB</u> - 9 BatonRouge LA (CBS News) |
| <u>KGNS</u> - 8 Laredo TX (Today) | <u>KTVE</u> 10 El Dorado, Ark. (Today) |
| <u>KRBC</u> - 9 Abilene TX (Today) | <u>WTOK</u> -11 Meridian MS (CBS News) |
| <u>KTXS</u> -12 Abilene TX (CBS News) | <u>WJTV</u> 12 Jackson MS (CBS News) |
| <u>KBCD</u> -11 Lubbock TX (Today) | <u>WLOX</u> -13 Biloxi MS (Morning Show) |

Several new openings—log total now 103, thanks to Fla. & Miss. openings. Best of DX. (Thanks, Robert; these appear to have been rather good months in your area. dps)

Pat Dyer, 327 Solar Drive, San Antonio, Texas 78227 (February) (Times CST)

Receiver: 1968 RCA color model GJ721W. Antenna: Wards 11-element high-low band VHF, about 15 feet up, fix aimed at south-southeast.

11 Es 1955 XHY - 3 Merida, Yuc., Mexico (18)(Tr) 0003 KHOU-11 Houston TX

18 Tr 0002 KFDM- 6 Beaumont, Texas 19 Tr 0015 KGBT- 4 Harlingen TX

Excuse the skimpy loggings; it wasn't due to a lack of Es since 50 MHz had nine days during the month open with it. The Feb 11 opening provided me with a 50-MHz contact into Peru (OA4C) via Es linking up with TE. I didn't check the TV too much, but the CCI from Mexico probably covered any S. Americans. Feb 26 & 27 did the same trick on 50 MHz with OA4C in again. There was stateside Es around, too, so CCI probably buried anything beyond Mexico (which may have hit Ch 4 MUF on 26th). 50 MHz also came up with Uruguay (CX8BW) the night of the 27th. Someone less addicted to 50 MHz might have grabbed some good TV-DX those nights.

A small plug for those interested. The VHF column of QST is scheduled to run an article on my past six years of 50-MHz Es observations in the April issue.

With Es season proper just around corner (if April isn't good we won't have much hope for better summer than last year) I hope to present a little larger log soon.

(Thanks again for all the information, Pat. No one caught any TV TE. dps)

Bob Cooper, Jr., 6220 Norman Road, Oklahoma City, Oklahoma 73122 (7 Feb- 7 Mar) (CST)

About the only DX here this past 30 days has been some off-season Es over the southern quadrant. During February, we had Es on the 2nd, 5th, 10th, 11th, 15th, 26th and 27th, with some on 8th that I wasn't home for.

Feb 10 1910, Es first noted ch. 2 & 3, Mexican; in & out until 2158; weak, no IDs.

Feb 11 1924, Es first noted ch. 3, then ch. 2 after 2000, Mexico; signals mostly weak with heavy fading. All faded by 2052.

Feb 15 Es, first signs to east, ch 2; WUSN-2 Charleston, S.C., faded by 1240; heavy QRM at times.

Feb 17 tropo, 0915, brief break to due north with KHNE-29 (345 mi) and KCIT-50 (297 mi) at grade-A levels.

Feb 24 2100, looked for new KPTS-8, new ETV in Hutchinson, Kansas, now on regular service. They have good signal here, easily as good as KAKE-10 and KTVH-12.

Feb 26 1945, Es to Mexico ch. 2 at tune-in (no telling when it started); fair at times through 2155 with stations to SW first, due south later in opening.

Feb 27 1930, weak Es noted ch. 2, Mexico; signals weak and in/out all evening

thru 2158; best reception 2140-2158 fade out; probable XEW, judging from ads noted.

Mar 3 0750, WJYY-14 Jacksonville (500 mi) with poor video, fair audio through 0850; nothing else beyond 300 miles noted.

Mar 4 0800 KMEG-14 Sioux City IA (485 mi) & KVFD-21 Ft Dodge IA (515) both good A/V thru 0930; KGLD-11 Garden City KS good A/V. 0840 KHNE-29 Hastings (345) good A/V. KYNE-26 Omaha (400 mi) good A, fair V; this one had eluded me for nearly a year. They operate different hours than other Nebraska ETVs and were NOT parallel to KHNE when logged. Considering they were between local KOKH-25 are super-strong KTSB-27 it's a wonder they made it in here at all! This was last of under-400-mile UHFers I needed. Total UHF now 55 stations. 0850, KTWU-11 Topeka ETV with RTMA chart, into Sesame Street at 0900. 0932, KCIT-50 Kansas City (297 mi) fair A/V.

This tropo opening was typical of about 90% of those seen here in past 11 months. UHF stations typically are farthest stations logged (i.e., VHF was good to no more than 350, FM was dead beyond 350 and UHF was in the 500-mi range). It's one thing to suggest that VHF is so loaded with QRM that you can't log the further-out stations; however, when FM (with clear channels) was also dead beyond 350 miles, it makes you stop and think about it, anyhow.

Mar 7 0105, MS burst, WJBK-2 Detroit with "TV2" call slide.

I do have a new antenna system up for a trial, and a new pre-amplifier-filtering system, on VHF. I now have stacked Finco 6-element ch.2-6 broad-band yagis on low band (stacked 12 feet apart) and stacked Finco ten-elements on high band. The pre-amplifier/bandpass filtering system is the culmination of six months work. With this system I now have completely clear (i.e., no local signal slop-over) on all channels but the four locally occupied (4, 5, 9, 13). 73.

(Sounds like near-ideal set-up, Bob. All you need are more DX openings. dps)

Sporadic-E causes are still a mystery. Here is interesting info from Pat Dyer.

The "wind shear" idea of Es formation has been around since around 1962. Wind shears are winds which have variable velocities at different heights. In a height range of a few km. these winds can change from, say, 100 meters/sec. in one direction to about the same speed in the opposite direction. The formation of Es ionization is often noted in this region of wind reversal. The information about these winds has been gathered mainly by rocket flights.

Now, the big "breakthrough" on Es came in 1966 with the discovery that Es clouds contained an abnormally high concentration of metallic ions (e.g., singly ionized, positive, species of sodium, magnesium, and iron, etc.). It was also found that the normal positive ion of the E-region, nitric oxide (NO), was conspicuously absent.

The key to this is the fact that metallic ions (such as sodium) have what are known as very low recombination coefficients. That is, they don't readily recombine with free electrons. Thus, wherever a high concentration of metallic ions is found, a high concentration of free electrons will also tend to gather. It is believed that the wind shears collect these metallic ions into thin sheets and the subsequent gathering of electrons results in the high density Es ionization phenomena.

It is believed that in order for the Es to last any appreciable length of time, the wind shear must be kept up for nearly all the life of the Es. The failure of the wind shear will result in the Es cloud dissipating in the order of 10 minutes or so.

The prime source for these metallic ions is believed to be meteors. The summer maximum of Es coincides with the large number of daytime meteor showers during June and July. The October openings can be linked to the Draconids; November, the Leonids; December, the Geminids and Ursids; and January, the Quadrantids.

The hourly rates of some of the daytime summer showers (more correctly called storms) are much higher than most of the well-known night-hour showers.

The above is the general idea of the latest Es theories as advanced at a conference in Colorado in June 1968. Much background information can be readily found in issues of the Journal of Geophysical Research, particularly in the last five years. The articles are complete with bibliographies for even more background.

Other books with extensive Es information are: NBS Monograph 80 (US Government Printing Office); NBS Circular 583 (GPO)*; Ionospheric Sporadic-E (Pergamon)*; CQ magazine, June 1962, November 1964. All of these contain very good bibliographies.

* - These have TV-DX sections and are listed in January's DX Bibliography. Thanks, Pat.

Best of DX to all

Dennis

APRIL 1970

TECHNICAL

David Janowiak
3661 So. 46 St.
Greenfield, Wisc.
53220

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THE HEATH COLOR TV AND CONSUMER REPORTS CASE

The subject of Consumer Reports' (CR) evaluation of Heath color TV sets and Heath's recent "in-production" changes that seem to correspond to faults discovered by CR was a popular topic here. In addition to conversation between the staff, I've received a few letters asking "what's up?" A bit of judgement (guessing) seems in order so if the court will come to order, the horrible -- make that honorable -- Judge Janowiak will review the case and pass judgement as the events occurred.

Chapter 1 - After CR rated Heath color sets not acceptable because of poor color and black and white resolution, annoying color, and lack of a-c interlock, CR was deluged with letters from irate Heathkit buffs. Some who had sworn by CR ratings now were swearing at CR. "You're crazy" seemed like a mild comment.

"May it please the court...The not acceptable rating was, most assuredly, because of the lack of a-c interlock. CR has always been a proponent of safety. In the past, devices reviewed that otherwise performed the best have been rated not acceptable because of high leakage current, for example, or an other unsafe condition in one or two test samples. Yes, the poor color and test pattern resolution found by CR didn't help, but the lack of a-c interlock was the killer.

"Also, CR is highly reliable, an organization that would never accept "payoffs", etc. when checking any device. Its general condemnation of all cars (foreign & US) is no surprise to anyone with a dab of mechanical know-how. Cars are unquestionably the poorest engineered devices known to man (due primarily to public stupidity), but they represent a sizable market, and CR makes no friends among car manufacturers with their reviews.

"So CR did indeed find poor color and test pattern resolution and made every attempt to correct, if possible, the two test sets, even by returning one set to Heath."

Chapter 2 - Heath announces "in-production" changes of all Heath color sets and modification kits for owners who want to bring their Heaths up to the latest. Modifications will improve test pattern resolution by 16% and make Heath even more safe, Heath claims.

"To this judge, this appears as acknowledgement indeed that CR was correct. To those (including the judge) who have never seen non-Heath sets deliver color pictures as good as Heaths, there can be only one answer: Non-Heaths just aren't aligned correctly, whereas the kit builder will fuss for hours getting his Heath up to 100% performance. In continuing, the fault here is really the non-Heath owner. He doesn't realize that color sets, like cars, aren't factory aligned. For correct performance, a color TV must be aligned when delivered, then realigned a few weeks later, and then as often as dictated due to tube and component drift. But, typically, when the set is delivered, you're usually greeted by a couple of yokels who can barely determine the living room from the can, let alone align a set. They are delivery men who will connect that 15 year old conical (or, "You don't need anything but rabbit ears here, lady"), plug in the cord, turn set on, and in 30 seconds go through the epistle that "this is ON-OFF, this adjusts the color, etc." Ask for alignment and you'll get it .. for an extra stipend, of course. Guilty in part, therefore, is John Q. Public.

"And it seems not only possible, but quite logical, that the 100% aligned Heath, with an owner who knows the importance of correct antenna, etc., will realize a better picture than our friend John."

Chapter 3 - Consumer Reports reviews large screen, top-of-the-line color TV sets in the January issue. Zenith finally makes it to the top, although it rated as the top B & W

set for over 15 years. Curiously, Heath sets are not rated, but a special section is devoted to Heath at the top of page 21. In short, CR installed the modifications, and the sets are now "acceptable". However, says CR, color picture was still below that of any set checked in the January Review. CR comments that "Heathkit customers must be among the most loyal of consumers, for a goodly number bothered to write and take issue with our findings." Many writers had built Heath TV's, obviously.

"Alas, I think this was discussed adequately after Chapter 2."

Chapter 4 - The latest Heath catalog arrived with some interesting developments. Like page 2, filled with restatements about the latest color improvements and testimonials from the housewife who never soldered a joint (maybe smoked one) to magazine editors who claim Heath leads the way (like the AIPA?). Curious of all, however, is the latest decrease of color TV prices, which Heath claims is due entirely to lower CRT prices, \$15 to \$55 lower, in fact.

"Order in the court. This latest development seems to shed additional light on the caper ...ah, case. Obviously, the lower cost of CRT's cannot account for the decrease in Heath prices. No one in this day passes on lower component costs to the buyer. They just automatically cancel the late inflationary increase. But the price drop must be due, in the humble opinion of the judge, to one or a combination of these reasons:

(1) "The CR article scared several possible Heath buyers. CR is a powerful force in consumer product review; so Heath, by its modifications and price decrease, may be trying to win back a few. Of course, some kit building fanatics would sooner lay out 500 beans and spend several hours building a set even if they knew they could purchase a better set for less. Also, since Heath sets now are actually "sale" priced, that's reason enough to buy!

(2) "1971 Heath color sets surely will include modifications. My guess is that changes will be many. Certainly a circuit similar to the Magnovox TAC (Techni/Corner, Aug., 1969) will appear in Heaths. Pushbutton tuning might appear, at least in most expensive models. (Varactor tuning was predicted in the August Techni/Corner to appear in 1970 TV's. However, "bugs" delayed this US innovation, although the British have had it for years. Only Canada's Electrohome has had success with varactor touch-tuning.) Lower Heath prices will certainly clear out the stock.

(3) "Heath sets are just not competitively priced. Several years ago, a top-of-the-line Zenith, RCA, etc. with fairly good cabinet (enter wife) cost \$500 to \$600. Heath color sets with same size CRT cost \$200 less with no cabinet. Still, with cabinet, Heath was less expensive, and you had all the advantages of built in alignment, workable chassis, etc.

"However, non-Heath sets have dropped slightly in cost through the years, but Heath sets increased by 3 to 5% each year. Now a top-of-the-line non-Heath in low price cabinet can be purchased at discount price below the most expensive Heath plus cabinet. One, therefore, must determine if it's worth it to pay more for a Heath and still build and align it, and maybe run into a "tough dog". This has hurt Heath, no doubt. In summarizing, Heath has not been competitive. To become competitive, lower the cost."

"In the humble opinion of the judge, point 3 seems the most logical, but all three do bear consideration.

"In summary, if it pleases the court -- in fact, even if it doesn't -- these are my conclusions:

(1) CR is exonerated of any wrong-doing. It just "calls 'em as it sees 'em," an almost unknown trait in America today. (2) Heath, however, is found only partially guilty. Guilty of building the best kits available, the finest line of inexpensive quality Hi-Fi, and the very best top quality Hi-Fi equipment (AR-15, AJ-15, AR-29, etc.), and an extremely adequate complete line of electronic goods. For color TV, however, it has capitalized a little on its previous impeccable record by allowing (a) a few short cuts, (b) poor market analysis, (c) its lack of circuit updating to tarnish an otherwise fine color TV. Sentence will, however, be stayed, pending Heath's attempt to offer the very best color TV for less cost.

(Of course, the judge has been wrong in the past. Anyone who has stared for hundreds of hours at a blank screen in the hopes of seeing 1/2 second of a test pattern is suspect indeed!!!)

BOB'S TECH NOTES

BOB'S TECH NOTES
April 1970

Page One

A REALLY LOW NOISE PRE-AMPLIFIER

The wonderful world of solid state devices keeps producing better and better transistor-type devices. With each improvement in gain and noise figure, we get closer and closer to being able to build and/or use a pre-amplifier that rivals even the best equipment now in use in the space exploration program.

This session of TECK NOTES will describe the latest such device, and suggest a circuit or two which the more intrigued TV or FM DX'er may wish to try in his own DXing installation.

The gain and noise figure characteristics of the Siliconix brand J-FET (junction field effect transistor) 2N5397 are such that it is (without any exceptions) better than any RF (or pre-amplifier) stage you are now using in ANY TV receiver or FM tuner/receiver.

Moreover, the device has been designed for grounded gate operation. This means that you have NO tricky neutralization circuits to fool with and worry about, and, that you can design a multiple channel RF pre-amplifier without ANY concern for re-neutralization as you tune to another channel or part of the spectrum.

The 2N5397 in grounded gate configuration is capable of from 10 to 15 db of real gain, with a noise figure of under 2 db right up through channel 13 (216 MHz). The circuit for a single stage of this J-FET as an RF pre-amplifier is so simple that even a first-time builder can make it perk the minute power is applied to it. Talk about simple!

The 2N5397 is useful at UHF also. In test circuits I have tried it in, 8-10 db of gain up through channel 50 is commonplace, with a noise figure no higher than 5 db and usually around 4 db. A pair of 2N5397 (in a two stage device) give 15 db or more gain with a noise figure under 5 db. This two-stage pre-amplifier, placed ahead of a typical Blonder Tongue BTX-11 UHF converter, literally dissolves the snow from 250 mile away UHF stations under non-DX conditions.

Finally, because this is a J-FET device, and with the grounded gate type of design, the pre-amplifier is virtually impossible to overload with strong local signals. Thus here at last is a transistor type device that lets you have your cake and eat it too!

Before we get into a VHF pre-amplifier circuit with construction details, it should be noted that the price of the 2N5397 is in the so-called mid-range. It is \$8.50 each in small quantities, which is well below the price of \$50.00 - UP usually associated with exotic transistors, but it is more than the typical \$2.-\$3. devices such as the 2N4416.

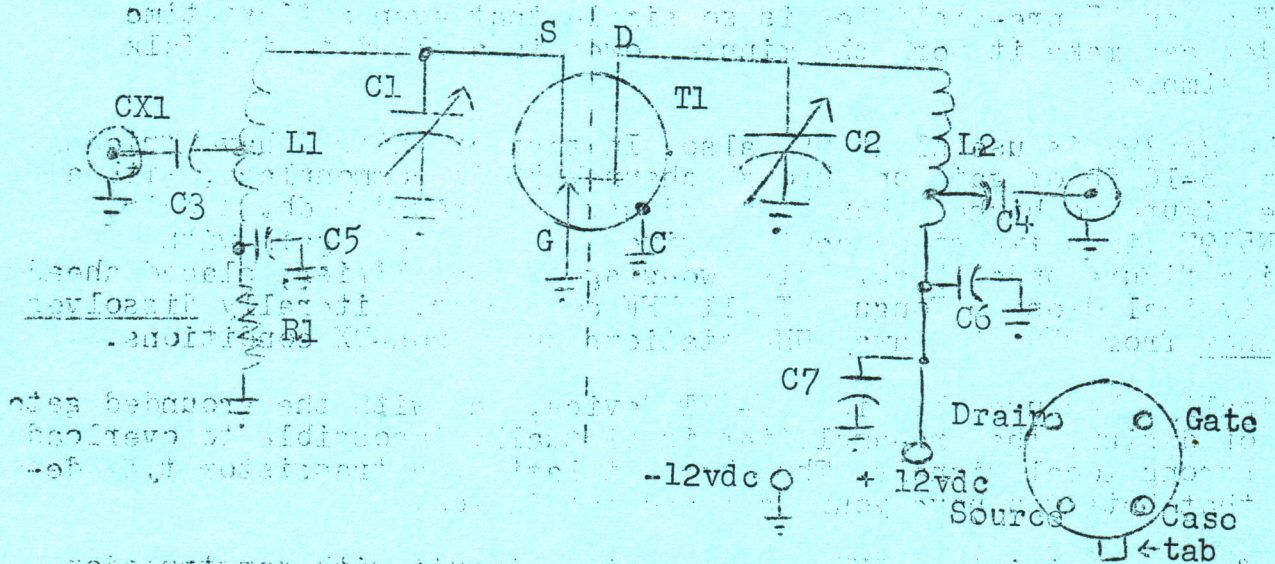
However, the circuit is so super-simple that the slight extra amount you pay for the transistor is offset by the amount you do NOT spend for other components in the pre-amplifier. Total cost should be under \$15.00, and total construction time less than two hours.

Siliconix has many regional field engineering offices throughout the USA (their home office is Sunnyvale, California). I happened to get my 2N5397 J-FET's through Charlie Williams, Siliconix Inc., 777 So. Central Expressway, Room 7T, Richardson, Texas 75080.

Understanding the Circuit

The basic circuit, shown below as diagram one, consists of the following:

- 1) Section A (on the left hand side of the diagram) is the tuned input circuit. The combination of L1 (The coil) and C1 (the capacitor) tunes the input of the device to the desired channel or frequency. The size of the coil, L1, and of the capacitor, C1, (ie. the amount of inductance in the coil plus the amount of capacity in the capacitor) equals as resonant or working condition for a certain frequency or channel.)
- 2) The dashed line drawn vertically down through the center of the 2N5397 indicates that a shield is placed between the input circuit and the output circuit, to keep any stray energy in the output circuit from radiating back into the input circuit and causing feedback or oscillation of the amplifier.
- 3) The right hand section, B, is the tuned output circuit. It also consists of a coil (L2) and a capacitor (C2) to allow you to tune the output of the amplifier to the channel you want (the same channel as the input is tuned to).



Parts List

- CX1,2Chassis mounting 'F' series female coax fitting
- C1,C2Miniature tuning capacitor; see text following
- C3,4500 pF ceramic disc capacitor, 500 volt or smaller
- C5,6Centralab FT-500 feed thru ceramic capacitors
- C70.1 Mfd ceramic disc by-pass capacitor, 500 volt/smaller
- R1100 to 270 ohm 1/2 watt carbon resistor (SEE TEXT)
- L1,L2Coils; see text following
- T12N5397 Siliconix Transistor

Lead identification 2N5397

April 1970

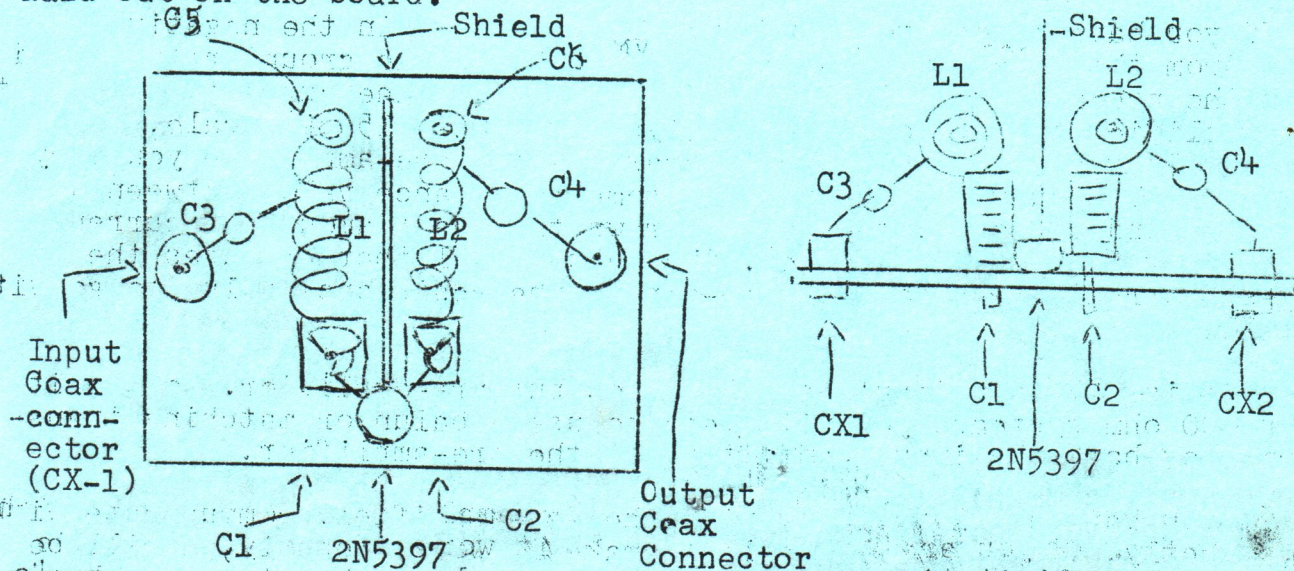
As shown in diagram one, this circuit can be built on a 2" x 2-5/8" piece of copperclad glass-epoxy printed circuit board, with a 1-3/4 inch high by 1-1/2 inch long shield (seperating input and output circuits). The completed pre-amplifier board can then be housed in a 2-3/4" x 2-1/2" x 1-5/8" minibox.

As noted earlier, the choice of L1,L2 and C1,C2 determines what frequency range the pre-amp will tune to (and through). The following table shows what capacitors and what size coils to use for various channel groupings. Select the proper size capacitor and coil to suit the channel(s) you want to cover. At the present state of the art, with this simple circuit, it is NOT possible to cover both high and low band with a single pre-amp.

| Channels | C1,C2 | L1,L2 |
|----------|--|---|
| 2-6 | E.F. Johnson 148-5 3.9 - 75 pF Type S single section | 8 turns no. 14-16 1/2" diameter, 1" long |
| 7-13 | E.F. Johnson 160-110 2.7-19.6 pF Type M single section | 4 turns no. 14-16 3/8" diameter, 5/8" long |
| FM | E.F. Johnson 160-130 3.0-32 pF Type M single section | 6 turns no. 14-16 1/2" diameter, 3/4" long |

Resistor R1 in diagram one is typically 100 to 270 ohms. Start out with a 270 ohm 1/2 watt and after tuning C1 and C2 for maximum gain (using a weak off-the-air signal) start changing R1 going down to 220 ohms, 180 ohms, 150 ohms, etc. One of the values will give maximum pre-amplifier gain and the gain difference should be quite obvious even without a field strength meter. If in doubt, leave it at 220 ohms which is a typical value.

The following diagrams attempt to show how the parts should be laid out on the board.



Note that capacitor C3 (the input coupling capacitor from the input coax fitting to the input coil, L1) is 'tapped' onto the input coil at a point approximately 1 to 1-1/2 turns UP from the cold end (ie. the end of the coil where R1 attaches). Capacitor C4 is 'tapped' onto the output coil (L2) at a point approximately 1/4 to 3/4 turn(s) up from the coil end where C6 and C7 attach. These tap points should be varied 1/8th turn at a time until the point of maximum gain is found. If in doubt, leave the tap on L1 at 1 turn up and the tap on L2 1/2 turn up.

The 2N5397 is NCT mounted in a socket. Rather it is turned upside down at the end of the shield, with the gate and case leads soldered directly to the shield. The source lead goes to C1 and the drain lead goes to C2 as shown in the schematic. Use a low power (25-40 watt) small hand soldering iron when soldering the 2N5397 leads to anything, using only the minimum amount of heat necessary to make the connection. Use a pair of small needle nose pliers to hold the lead you are soldering in place, and place the pliers between the transistor and the soldering iron tip so that the pliers act as a 'heat sink' to absorb the heat before it gets to the transistor proper.

The power supply should be a 12 volt pure DC source. The positive 12 volt lead goes to the +12 volt point on the schematic, and the negative 12 volt lead from the power supply goes to the circuit board ground. A small 12 volt battery will run the device for as long as the battery will have normal shelf life (the total current drain is less than 5 mA).

If you have access to a VOM or VTVM, place it in the negative lead from the power supply (ie. in series with the ground return lead from the pre-amp and the power supply) and read the current drain of the pre-amplifier on the low current (typically 0 to 15 mA) scale, DC of course. If you watch the current drawn by the pre-amp while you vary resistor R1, you will find that at some resistance value between 270 ohms and 100 ohms, the device draws the least amount of current (typically 5 mA or just above). The value of R1 that produces the lowest current drain for the pre-amp is the resistance value to go with for R1.

This is a 75 ohm input and 75 ohm output pre-amplifier. To use it with 300 ohm systems, you will need to use a balun or matching transformer at both the input and output of the pre-amplifier.

If you have any difficulty with the pre-amplifier, communicate with me directly. If you are not able to make it work properly, I will be happy (within limitations of time) to tune and check out any member's unit, certify it working, and return it to you. I have a few sets of photographs available which show how the parts layout. For a set of these (please ask for these only if you intend to build the pre-amp), send a self addressed stamped envelope to my attention.

For members interested in a UHF version of this pre-amp, or two-stage pre-amps, communicate with me directly for schematics. I would suggest the UHF version and the two-stage units only to those who have built VHF-UHF equipment previously,

ADDENDUM - REALLY LOW NOISE PRE-AMPLIFIER

Subsequent work with several versions of the 2N5397 pre-amplifier just described makes it possible to give more commonly available parts numbers for both the tuning capacitors and the air-wound coils.

The fore - going material, describing the pre-amplifier design and construction, was prepared late in January. This post-script is being added in early March, for publication in April.

For the low band versions, I suggest that in lieu of the capacitors (C1,C2) and coils L1,L2) noted on page three here, that you utilize the following:

- C1, C2 E.F. Johnson 160-130 single section Variables (2.7 to 30.0 pf). Available from Allied.
- L1 6 turns B & W (brand name) no. 3007, tapped up from ground end (where capacitor supports it) 2.5 turns.
- L2 5 turns B & W 3007, tap up from ground end 1/4th turn. (NOTE: One B & W 3007 coil form, with many turns, will provide both L1 and L2 with extra coil left over.)

For the high band versions, I suggest the following parts.

- C1,C2 E.F. Johnson 160-102 single section variables (1.5 to 5.0 pf). Allied.
- L1 3 turns B & W no. 3002, tap up 1.5 turns from ground.
- L2 2 turns B & W no. 3002, tap up 1/8th turn from ground. (NOTE: You can also get both L1,L2 from a single 3002 coil form.)

Subsequent tests have also shown that if you start off with a first stage of 2N5397, you can follow it with a second stage of the less expensive 2N4416 in an identical grounded gate circuit. The first stage establishes the noise figure and subsequent stage(s) add only gain. Typical two stage gain is 22-25 db on either low or high band.

To cover FM, use the values given for low band, but change L1 to 5 turns and L2 to 4 turns, tapping up from ground the same amounts noted for low band television.

Pre-amplifiers with up to 50 db gain (4 and 5 stages) have been successfully built up using this basic circuit, and are now in operation in this DX'er's den.

THE PROPAGATION WAND*****

GENERAL DX FORECAST 4/1/70-5/15/70

E SKIP

E skip openings should begin around April 7th in the southern and western USA, occurring late in the afternoon/early evening period. The first openings are apt to be weak, affecting only channels 2 and 3. As we approach the middle of April there is a good chance that a more general opening over the area roughly south of a line from Norfolk, Virginia west to San Francisco may occur, and it may well begin in mid-morning. By the end of April (25th and after) there is an excellent chance for Es as far north as the Canadian border over virtually any part of the USA except the extreme NE states and the Dakotas-Montana.

The first week in May should bring a flurry of several openings, some occurring around noon local standard time, others peaking late in the afternoon.

Openings late in April and early in May, if they occur south from your location, should be watched carefully for reception from central and south American stations, as well as stations from the Caribbean. This period, as late as the end of May, have produced more than 90 percent of the reception (over the past 15 years) from stations south of Mexico and east to Venezuela. The most opportune time period for such reception is between 5 PM and 8 PM local time.

AURORAL SKIP

Early April, through the 15th and perhaps as late as the 21st, may yet produce strong auroral displays with the attendant possibility of auroral induced E skip along the extreme north of the USA and southern Canada. See the March PROPAGATION WAND column on this subject.

TROPIC (Ground Wave)

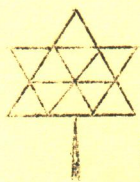
We are entering the annual spring tropo season. This is especially productive for TV and FM DX'ers along the Gulf Coast and as far north as a line from North Carolina west to Oklahoma. There will be one or more truly excellent tropo sessions extending from Texas east to Florida, across the Gulf of Mexico, during April, and depending on how substantial the warm/moist air mass is, moving north out of the Gulf into the United States, the opening may get as far north as the North Carolina/Oklahoma region before it peters out. There will also be a general improvement in tropo conditions throughout the Great Lakes, from Wisconsin east into western New York, by mid April, and along the eastern seaboard from Virginia north into New England.

After the middle of April (the 10th on) there will be several good opportunities for north/south tropo openings between Iowa/Minnesota/Wisconsin south into southern Missouri, Kansas, Arkansas, Oklahoma and perhaps as far as northern Texas. DX'ers in this region should watch for warm/moist air from the Gulf pushing north into the upper mid-west. This "bulge" of warm air will produce tropo reception in the 400 to 800 mile range, with high band VHF and UHF most affected.

METEOR ACTIVITY

The annual major shower, the Lyrids, is due April 19/23. Watch for much improved FM-low band TV MS bursts on north/south paths 0230, and 0530 LST; NW to SE paths 2330/0100; and SW to NE 0700/0830 LST. The annual major Aquarids shower is due May 1-6. Watch NW/SE paths 0830/1000; East/West paths 0630/0830; and SW/NE paths 0500/0630 LST.

There are NO random MS mornings considered above average in April. The next above-average morning periods are May 11th (25) and 12th(26).



NORTH OF THE BORDER REPORT

MARK L. LEWIS
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CANADA

THERE'S A GREAT DEAL OF CRTC NEWS THIS MONTH, SO WE'LL GET RIGHT TO IT..
WITH THE RAPID APPROACH OF THE DX SEASON, HERE IS SOME TV NEWS:

SHERBROOKE, QUEBEC- AMEND LICENCE OF CHLT-TV, CHANNEL 7, FROM PRESENT OPERATION,
CH. 7 170 KW ERP VIDEO, 100 KW ERP AUDIO, DIRECTIONAL ANTENNA EHAAT 1920 FEET;
TO CH. 7 154 KW ERP VIDEO, 36 KW AUDIO, DIRECTIONAL ANTENNA EHAAT 2400 FEET.

AMEND CFON-TV-1 OVEN, ALBERTA, FROM CHANNEL 2 MINUS, 1200 WATTS VIDEO, 600 WATTS
AUDIO, DIRECTIONAL ANTENNA EHAAT 365 FEET; TO CH. 2 MINUS, 540 WATTS VIDEO, 270
WATTS AUDIO, OMNIDIRECTIONAL ANTENNA 365 FEET.

CALDONIA, NOVA SCOTIA- NEW BROADCASTING STATION TO RECEIVE PROGRAMMING FROM CJCH-TV,
HALIFAX, N.S., VIA MICROWAVE AND RETRANSMIT THOSE PROGRAMS ON CHANNEL 6 PLUS, ERP
51,500 WATTS VIDEO, 10,300 WATTS AUDIO, DIRECTIONAL ANTENNA EHAAT 633 FEET.

KAMLOOPS, BRITISH COLUMBIA- NEW BROADCASTING STATION TO RECEIVE PROGRAMMING FROM
CHAN-TV, VANCOUVER VIA MICROWAVE AND REBROADCAST THOSE PROGRAMS ON CHANNEL 6 PLUS,
WITH ERP OF 4 KW VIDEO AND 1 KW AUDIO, WITH DIRECTIONAL ANTENNA 536 FEET EHAAT.

KELOWNA, BRITISH COLUMBIA- NEW BROADCASTING STATION TO RECEIVE PROGRAMMING FROM
CHAN-TV, VANCOUVER VIA MICROWAVE AND REBROADCAST THOSE PROGRAMS ON CHANNEL 5 MINUS,
WITH ERP 4 KW VIDEO, AND 800 WATTS AUDIO, DIRECTIONAL ANTENNA EHAAT 1,631 FEET.

VEPNON, BRITISH COLUMBIA- NEW BROADCASTING STATION TO RECEIVE PROGRAMS VIA 'OFF THE
AIR PICKUP' FROM A NEW STATION IN KELOWNA, B.C. (ABOVE) AND RETRANSMIT THOSE PRO-
GRAMS ON CHANNEL 12, WITH ERP 231 WATTS VIDEO AND 23 WATTS AUDIO WITH DIRECTIONAL
ANTENNA EHAAT 584 FEET.

PENTICTON, BRITISH COLUMBIA-- TO RECEIVE PROGRAMS VIA "OFF THE AIR PICK UP" FROM
KELOWNA, B.C., AND REBROADCAST THEM ON CHANNEL 10 , ERP 440 WATTS VIDEO AND 88 WATTS
AUDIO, DIRECTIONAL ANTENNA 1,181 FEET.

THE OWNER OF THIS NEW NETWORK OF STATIONS IS THE BRITISH COLUMBIA TELEVISION
BROADCASTING SYSTEM, LTD.

THE BIG NEWS IN TORONTO IS THE GRANTING OF CHANNEL 19 FOR ETV PURPOSES. THE STATION
WILL TRANSMIT WITH A POWER OF 425 KW VIDEO AND FROM FACILITIES SHARED WITH CBLT AND
CBL-FM; THE TOWER IS 373 FEET TALL. TARGET DATE IS SEPTEMBER 1, 1970. LOOK FOR TEST
TRANSMISSIONS BEFORE THAT DATE. AT FIRST THERE WILL NOT BE ANY LIVE PROGRAMMING.
CBLT'S VTR'S WILL BE USED.

THE CRTC IS CRACKING DOWN ON THE IMPORTATION OF AMERICAN NETWORK PROGRAMMING. THEY
HAVE DENIED PERMISSION TO IMPORT U.S. STATIONS VIA MICROWAVE TO AREAS IN THE NORTH
YET WITHOUT CATV. IN ADDITION, 'OFF THE AIR' PICKUP OF U.S. STATIONS HAS BEEN OPPOSED.
IN MONTREAL, SEVERAL CABLE SYSTEMS HAVE BEEN DENIED RECEPTION AND DISTRIBUTION OF ABC
AFFILIATE WVNY-TV, CH. 22, BURLINGTON, VT. HENCE, ANTENNA SALES WILL PROBABLY EXPAND
IN THE AREA.

IT WILL BE INTERESTING TO SEE WHAT HAPPENS WITH WUTV-29, IN BUFFALO, NY. THEY WILL BE
ON THE AIR BY AUGUST 26, 1970 WITH ERP OF ABOUT 1 MEGAWATT AND A 900 FOOT TOWER.
SINCE CABLE SYSTEMS NOW CARRY TEN CHANNELS (IN TORONTO) AND CHANNELS 6 AND 9 ARE
UNUSABLE FOR CATV PURPOSES IN THIS AREA, DUE TO CBLT AND CFTO LEAKING INTO THE LINES.
ONE EXISTING VHF CABLE CHANNEL WILL HAVE TO BE DROPPED FOR CHANNEL 19 AND AN ADDI-
TIONAL ONE FOR CHANNEL 29--THIS POSES LITTLE TROUBLE, AS SEVERAL OF THE STATIONS ON
THE CABLE ARE NOW CARRYING CBC AND CTV. THE CRTC SAYS THAT A SYSTEM MUST CARRY ALL

CANADIAN STATIONS IN THE AREA BEFORE CARRYING U.S. CHANNELS....IT IS THOUGHT THAT THE CRTC MAY DEMAND THE DROPPING OF THE BUFFALO CHANNELS IN FAVOR OF THE CANADIAN CHANNELS. A MAJOR HASSLE LOOMS LARGER EVERY DAY. THIS WILL CERTAINLY BE A DO-OR-DIE ISSUE FOR CATV IN THE METROPOLITAN FRINGE AREAS.

A MAJOR CATV BATTLE WAS JUST CONCLUDED WITH THE CRTC....AND THE CABLE COMPANIES LOST. IT WAS ON THE ISSUE OF FOOTBALL BLACKOUTS. IN TORONTO, ARGONAUT GAMES ARE BLACKED OUT BY CBC AFFILIATES CBLT AND CKVR (IN BARRIE, 50 MI. NORTH). HOWEVER, CHEX-12, PETERBOROUGH, ONTARIO IS OUT OF RANGE OF TORONTO VIEWERS. VERY POOR SIGNALS ARE RECEIVED ON MY ANTENNA SYSTEM, WITH WICU-12, ERIE, PA USUALLY WINNING OUT. UP 280 FEET ON WILLOWDOWNS CABLEVISION'S ANTENNAS, WE GET A VERY GOOD SIGNAL ON CHEX, THUS TORONTO FOOTBALL RECEPTION. ON MARCH 3, 1970, THE CRTC RULED THAT INDIVIDUAL CABLE SYSTEMS MUST BLACK OUT CHEX DURING SUCH FOOTBALL TELECASTS.

THE LATEST PROPOSAL BY THE CRTC MAKES EVERYONE UP HERE IN BROADCASTING SHAKE. THE FIRST IMPLEMENTATION WILL TAKE PLACE THIS FALL AND WILL REQUIRE TV STATIONS TO CARRY 60% OF PRIME TIME PROGRAMMING AS CANADIAN CONTENT....THE PROGRAMS MUST BE PRODUCED IN CANADA, ACTED BY CANADIANS, ETC. CHANGES IN NUMBER OF COMMERCIALS DURING PROGRAMS AND NEWSCASTS WILL FURTHER RESTRICT TV. PUBLIC SERVICE ADS, I.E. CANCER SOCIETY, WILL BE INCLUDED AS SEPARATE COMMERCIALS AND THUS BROADCASTERS WILL NOT BE ABLE TO SHOVE THEM IN IN ADDITION TO REGULAR ADVERTISEMENTS. SOME OF THE OUTPOURINGS FROM THE CBC IN THE FORM OF CANADIAN DRAMA HAS BEEN SO POOR THAT ONE WOULD LONG FOR HOSS OF BONANZA. AS IT IS NOW, I WATCH VERY LITTLE CANADIAN PROGRAMMING, AS U.S. OUTLETS OFTEN PROVIDE BETTER MATERIAL, AND WHEN A U.S. SHOW IS TELECAST ON CBC OR CTV, IT IS USUALLY AT A POOR TIME....I.E. MERV GRIFFIN IS AIRED AT 1:00 IN THE AFTERNOON ON CHCH-11. HAMILTON AND DICK CAVETT IS SEEN AT 3:30 IN THE AFTERNOON ON THE SAME STATION. BUFFALO LOCAL WKBW-7 AIRS CAVETT AT 1:15 A.M., SO ANYWAY YOU LOOK AT IT, THE TORONTO VIEWER LOSES. UNLESS YOU LIKE HOCKEY, THE 60% CANADIAN CONTENT WILL PROBABLY MEAN POOR LOCAL VIEWING AND A FIELD DAY FOR BORDER U.S. STATIONS.

SIMILARLY, THE 60% CONTENT RULE WILL APPLY TO AM BROADCASTING. RIGHT NOW, FM WILL NOT BE AFFECTED BY THE RULING, BUT FM RADIO IS IN A BETTER POSITION THAN AM, AS THERE IS MORE UNDERGROUND MUSIC BY CANADIANS AND LOTS OF BACKGROUND TYPE MUSIC COULD BE PRODUCED FOR SOME FM OUTLETS.

HERE IS A STATEMENT CONTAINED IN A BRIEF BY THE CRTC, CONCERNING SPACE BROADCASTING: "SPACE BROADCASTING TO SPECIALLY AUGMENTED HOME RECEIVERS IN RURAL AREAS COULD BE TECHNICALLY FEASIBLE APPROXIMATELY BY 1975. THE TV RECEIVER WOULD REQUIRE A PARABOLIC ANTENNA ABOUT TEN FEET IN DIAMETER AND A SPECIAL FRONT-END CONVERTER. ALTHOUGH POLITICAL, ECONOMIC AND ALLOCATION PROBLEMS COULD DELAY IT CONSIDERABLY BEYOND THAT TIME, IT IS FAR FROM CERTAIN AT THIS TIME IF THIS TYPE OF SYSTEM WILL BE IMPLEMENTED IN NORTH AMERICA. IT IS PROBABLE THAT SUCH A SYSTEM WOULD SUPPLEMENT, RATHER THAN BE AN ALTERNATIVE TO CABLE SYSTEMS, AS CABLE SYSTEMS WOULD BE NECESSARY TO OBTAIN A SATISFACTORY GRADE OF SERVICE IN THE NOISY CITY ENVIRONMENT. THE FUTURE FEASIBILITY OF DIRECT-TO-HOME SPACE BROADCASTING USING UNAUGMENTED RECEIVERS IS INDEFINITE AT THIS TIME DUE TO THE VERY LARGE AND VERY EXPENSIVE SATELLITES AND ROCKET LAUNCHERS REQUIRED." THUS THE BROADCASTING INDUSTRY MAY TURN TO WHAT IS NOW CONSIDERED TV-DX TO GET NORMAL, EVERYDAY RECEPTION. WE DXERS, THEREFORE, ARE AHEAD OF THE TIMES.

73's AND LOTS OF DX IN THE COMING MONTHS,

A MYSTERY SOLVED!

BACK IN OCTOBER OF 1969, JEFF KADET OF BETHESDA, MD, REPORTED A RATHER STRANGE LOGGING. ON AUGUST 22ND AT 0314 JEFF SAW A STATION TESTING FROM THE DIRECTION OF WASHINGTON, DC WITH A TEST PATTERN AND CALL LETTERS "VV28444" ON CHANNEL 7. IT WAS INDEED A MYSTERY. IN THE PAST MONTHS, CAREFUL INQUIRIES HAVE BEEN MADE, AND THE ORIGIN OF THE STATION IS NOW KNOWN. THE TRANSMISSION WAS A (CLASSIFIED) AIRBORNE TEST OF TV EQUIPMENT BY THE DEPARTMENT OF DEFENSE FOR PROBABLE USE IN VIET NAM. WORD OF THE RECEPTION FILTERED BACK TO THE FCC AND THEY WERE APPARENTLY ANGERED RE TWO POINTS: A) THE TEST WAS AUTHORIZED FOR JULY - NOT AUGUST, AND B) THE CALL SIGN WAS AN UNAUTHORIZED ONE! (M. GOLDMAN)

April 1970

BY THE NUMBERS - 1970 E_s SEASON LOOKS GOOD!

The bulk of the information that makes this report possible comes from propagation watcher and club member Pat Dyer of San Antonio, Texas.

By the numbers, the first 2 months plus of the 1970 E_s season (January and February) looks pretty good.

If you live north of the mason/dixon line and you haven't seen much if any E skip since late in December, you probably wonder what I could possibly be talking about.

Each winter the E_s season goes "south" for the winter. When E_s dies its predictable death over most of the USA around 1 September, things slow down all over. However, early in the year things start all over again south of us over the Caribbean and Central America. And if you live far enough south in the USA, and far enough west, you can enjoy many so-called "off-season" E_s openings to the south of you.

Pat Dyer, in San Antonio, is so located. This writer, in Oklahoma City, is on the edge of the "southern E_s zone" (the northern edge), and between our observations and Pat's record keeping, we are able to draw some comparisons with past years.

Now there is no definite correlation between early-year "southern E_s" and our spring-summer variety over most of the USA and Canada, but there is evidence that suggests very strongly that the two are indeed related. How closely the relationship is we may not know for many years yet ... but it looks good enough now to go out on the limb and predict just what type of summer 1970 should be.

If the 1970 season really gets started in December of 1969 (as many suggest), this past December suggests a bang up summer. By Dyer's numbers, 11.6 of ALL E_s occurring in ALL of 1969 occurred in December. The next best December was back in 1966 when 7.05 % of all year's E_s for the year occurred.

In the measurement period, stretching back to 1964, January was one of the three best years (for January). By interpolation of Pat's figures and my own, February was one of the two best years. So we are batting in the upper 25 % of all January and February periods measured to date.

One particular item has stood out so far in the new season; the grouping or bunching of openings. All openings observed to date over the "southern region" have grouped in tw-four day segments.

This suggests that if the trend continues through the summer, we can expect openings to run in "batches", several days at a time, followed by down periods until the next "batch" begins.

the 1970 season looks good. Let's get those antennas in shape, new equipment installed and our DX'ing eyes and ears in tune!

DX MAILBAG

P.O. Box 5001
HARBOR STATION
MILWAUKEE, WISCONSIN
53204

Surprises from all over the globe in recent months. Correspondence has reached WTFDA from Chile, Argentina, England, Italy, Holland, and Germany among others. News about us is getting out despite the iron curtain, language barriers, etc. I guess this marks another large step in growth for this organization in its less than three years of operation. Keep those cards and letters coming!

Newcomers to the membership as of late include:

Mike Guerin, 1348 N. Grove Ave., Upland, Calif. 91786
Richard D. Stein, 456 Barrymore Pl., North Brunswick, NJ 08902
Marion E. Dannels, WPE9DAU, 5404 Mathews Rd., Apt. 5,
Middleton, Wis., 53562

Jesse Marx, 1505 Marlowe Ave., Cincinnati, Ohio 45224
Leslie J. Prus, 1615 Pierre St., Manhattan, Kan., 66502
John Robertson, 6065 Gardner Lane, Craswell, Mich., 48422
Edward Dunkeson, 421 S. Russell St., Odessa, Mo., 64076

Renewals number the following:

| | | |
|----------------|----------------|------------------------|
| Mark Kozlowski | Larry Vogt | Richard Clark - 2 yrs. |
| Dan Knepper | Wayne Plunkett | Bob Cooper |
| Rod Luoma | Bill Migley | John Dyckman |
| Dave Pomeroy | Randy Miltier | Joe Gragg - 2 yrs. |
| | Frank Wheeler | |

From the members:

Bill Fait is another of our TV-oriented members who's giving VHF radio a spin. Bill notes "I got an Allied Model 2660 (6 band) for Christmas. I have since logged KQC 881 by tuning offset; images from local lowband TV stations 3 and 5, and 5 different police stations in the 30-50 mhz. range".

Word comes from out Iowa-way from Jerry Dee. In response to inquiries from his many fans Jerry states "No, I haven't died, or lost interest in the hobby, but it seems that the new addition to the household --- a girl --- born October 1st, seems to have kept my correspondence to a bare minimum the last several months." (Congrats from HQ Jerry!) He adds "From now on I'll try to be a contributing member like I ought to be". Incidentally Jerry has been developing a top-flight receiving set-up for UHF, so watch out for some new record receptions in his log this summer. His log is now resting at 235.

David Long is another of our new additions. Dave became interested in TV DX when "a teacher told how his relative DXed Denver on a summer day at 11 A.M." Since that early baptism the 16-year-old Mr. Long has become fond of SV and AM DX as well. He's also active on CB with the call KCV 4672.

Also a newcomer is Gene DeLorenzo who heard about us from the National Radio Club's "DX News". He's seen 30 states on TV and heard 23 on FM in five years of TV-FM DXing. Gene notes he'll "be active in WTFDA" which we're glad to hear (there's no member like an active member -- when it comes to DX clubs - hi!).

Mark Lewis -- one of our former editors -- sends word that he's learning the FM radio business at CKFM, 91.9 mc. Mark says he'll likely be operating the board from 6 to midnight on Saturday nights. If anybody logs this Canadian gem on Saturday eve -- you know who to call for an "on air" verie, Right!

Next month we'll have more news about your fellow members. Between then and now keep your eyes open for that early morning trop. Some neat catches are often logged from spring DX!

73's