



the B-VARC BULLETIN



of
BRAZOS VALLEY AMATEUR RADIO CLUB, INC.
Ft. Bend and Harris Counties, Texas

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Cable Television Interference: Your Club's Role

by Rick Palm, K1CE

On another page of this issue, Maureen Thompson, KA1DYZ, paints a portrait of a new RFI bug: CATVI. CATV is cable television, or "Community Antenna Television" as it was originally known. And the I, of course, means Interference! Here's how your club can help stamp out this new bug.

A CATV plant is a system by which television programs are carried off-the-air in a network of cables to subscribers. These CATV consumers pay fees to have the cables connected to their home TV sets. The original idea was to bring TV programming to outlying areas where TV signals are weak and reception is poor. Today, the idea has been expanded upon so that TV fans are provided with a far greater number of channels and programs than conventional broadcast TV. Thus, we're witnessing a massive influx of CATV into practically every major metropolitan area in the country! To say that cable television is a burgeoning industry is an exercise in understatement. Accordingly, CATV is not without its "growing pains."

In theory, cable plants are **closed**; FCC defines them as nonbroadcast facilities. They should not interact with the rf environment outside the cables. Given this definition, the FCC allows cable operators to use just about any frequency they choose (to carry the additional programming, many channels beyond the con-

ventional broadcast frequencies for TV are required). Amateur Radio frequencies are often employed.

As a practical matter, however, cable plants are often not completely closed. They leak at various levels. This is generally true for plants that use poorly shielded cables, loose-fitting connectors and unshielded converters, and those that are installed carelessly by cable technicians. High-quality, state-of-the-art systems generally do not exhibit leakage problems.

Leakage = potential and active interference. Amateurs are increasingly subjected to co-channel interference, most notably at 145.25 MHz, CATV's Channel E **and** a popular 2-meter repeater frequency! Conversely, cable subscribers are suffering, too, because Amateur Radio signals can enter the poorly shielded cables in violation of the cable system's "closed" definition. When complaints are issued, many cable operators blame the amateur, when in fact, the fault lies directly with the cable operator himself! Commission regulations are very strict about the "closed" nature of CATV plants.

Where does your club fit in to all of this? By forming a CATVI Committee you can coordinate local efforts to combat the problem and keep your Amateur Radio

How Clubs Can Subdue CATV!

by Maureen Thompson, KA1DYZ

The sun's heat is overbearing. You're feeling sweaty, clammy and uncomfortable, so you go indoors to relax in an air-conditioned environment with a cold glass of iced tea. You sit down in the den, grab the cable TV box, and relax. From afar in the well-cushioned armchair, you switch the channels searching for a good movie. Ah — you've found one. But wait — dah di dah dit dah da di dah — CQ ham radio. "Oh no!" you yell, "I've got cable TV interference."

This scene is common nowadays, but why is it happening? What can you do to resolve the problem? Read on.

Cable TV systems offer more programming than the 12 vhf channels authorized by the FCC. They frequently transmit on frequencies outside the normal TV range on the premise that the signal will be sent on a "closed circuit" — the cable. Following this method, there should be no interference with other frequencies. However, faulty hookups, salt, corrosion of cable in coastal communities, and unauthorized hookups cause cable leakage.

Cable TV operators are using frequencies in the range of 6.7-50 MHz for subchannel use and 121-300 MHz for mid and superband channels. The most severe interference is from CATV use of the following frequencies:

CATV Channel	Amateur Frequency
T-7	40 meters
T-8	20 meters
T-9	15 meters
T-10	10 meters
E	2 meters
J	220 MHz
K	220 MHz

FCC Rule 76.613 (b) clearly states, "harmful interference shall be eliminated promptly." Section 76.605 (a) (12) limits cable leakage to 20 microvolts per meter measured at a distance of ten feet from the cable frequency of 54-216 MHz. A Notice of Proposed Rulemaking has been released by the FCC to relax the maximum leakage requirements to a level of 100 microvolts per meter measured ten feet from the cable. This will definitely increase interference to Amateur Radio. The ARRL has opposed this measure and has also petitioned the FCC to prohibit cable companies from using amateur frequencies to carry their programming.

What can be done to solve the CATV interference problem? Amateurs in Lufkin, TX, recently had successful results on the local level when they approached their local CATV company by letter telling them of the interference. The company's response: A high squirrel population in the area was damaging the cable. Cablecom of Lufkin now performs a "Proof of Performance" test and has asked amateurs to let them know of other problem areas in the vicinity. They also wrote that they have over 200 miles of cable in the system; to check it every week would be impossible. The CATV company has found the amateurs' cooperation to be very helpful.

The aviation industry had the FCC investigate a California company. The company was given 15 days to reply and to show how it resolved the problem. The FCC then imposed strict limitations on the cable industry interfering with aviation frequencies, and they imposed fines to \$20,000.00 for violation of the new rules.

If you have problems, these steps should be taken in an orderly fashion:

1. Approach the CATV company.
2. Contact the local government who granted the franchise to the CATV company.
3. Write the ARRL.
4. Write the FCC.
5. Write your Congressman.

Ideas to emphasize are:

1. Amateur Radio has used these frequencies for many years, and these frequencies were assigned to the radio amateur by the FCC.
2. The amateur community has played an important role in Public Service activity using these frequencies.
3. Express support for ARRL's petition #4040 calling for CATV not to use frequencies in the amateur bands.
4. This interference is causing the amateur community negative public relations though the interference is not originating with the amateur.
5. The problem of interference to other radio services by CATV is not new (e.g. FAA).
6. Amateur operators are licensed by examination to use these frequencies and are being deprived of their rights to enjoy and pursue their licensed privilege by interference that is clearly prohibited by FCC rule.

First, try to solve the problem on a local level. Being prepared as a club to handle such situations is important. Train your members in advance; discuss and act on new incidents quickly. The FCC has authority to instruct cable companies to change frequency channels, but the city has the right to order the company to correct its problems by keeping the signal within the cable. If there are no results, then contact the government and the FCC.

Credit to

Fox River Radio League, Inc IL
Deep East: TX ARC, TX
Nevada Co ARC, CA

Valley Good Guys ARC, CA
Plano ARC TX
Santa Clara Co. ARA, CA

ED NOTE - In the belief that the subject of CATVI is a rapidly proliferating problem in which the ham community will be increasingly involved, the article on this page and the one beginning on page 1 are being reprinted from ARRL's RADIO CLUB NEWS for affiliated clubs, Summer 1982 edition.

CALENDAR

Next B-VARC -- Regular membership meeting - August 12, 1982
-- Board of Directors meeting - August 19, 1982

Nets -- B-VARC 2M - Public service, Mondays, 9 PM, 147.60/00 MHz
- Emergency training, Wednesdays, 9 PM, 147.60/00 MHz
-- B-VARC 10M - Ragchew, Wednesdays, 8:30 PM, 28.700+ MHz
-- West Houston RACES, Sundays, 8 PM, 146.07/67 MHz
-- Ft. Bend County RACES, Tuesdays, 146.16/76 MHz

Conventions -- Texas VHF-FM Society Summer Meeting, call Ye Olde Editor for information
-- ARRL West Gulf Division, Oct. 1-3, 1982 in Houston
-- ARRL 1983 National, Oct. 6-8, 1983 in Houston

SPECIAL THANKS TO JAY DURYEA OF GULFSTREAM PRINTERS, AND A PLEA FOR HELP

For the last couple of years, Dick Hagerman WB5SRN has reproduced the BULLETIN for us, with Richard Shankle N5KV standing in the wings to back him up. So far this year, however, those roles have mostly been reversed, with Richard reproducing most issues.

The last couple of months -- July and August issues -- neither of them was able to do the job.

And here's where Jay Duryea of Gulfstream Printers has saved the day for us, and made it possible to continue unbroken our publication record. And for that help, Jay Duryea, the members of Brazos Valley Amateur Radio Club, nearly 80 strong, thank you sincerely. We hope that the complimentary space on page 4 that we've placed will be of benefit to you.

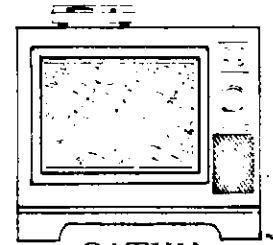
And now the plea for help with this problem

Dick tells us his work and travel requirements may make his availability to handle this job for us not quite so dependable in the future as it has been in the past; and Richard has told us that the new location of his work will prevent his being of any help in this way in the future.

So --- we hope there are one or two of you out there who can help with this job in the future. If you think you might be able to do so, please call Ye Olde Editor about what details are involved.

JULY WAS A GOOD MONTH FOR US

To start it off, we had the most successful Field Day we've ever had, and Henry Freedenberg N5HF tells us about it on page 5. (Yes, I know that Field Day actually was on June 26-27, but it was almost July!!)



CATVI Role (continued from page 1)

activity from being unjustly blamed. Solutions **do** exist. When an interference situation occurs, your committee should file a report and complaint to the cable operator (his name and address are on any converter!). Describe the nature of the problem, and if possible, specific origins of leaks: poles, drops, terminals, and so forth. Remind him of his obligations under FCC rules to clean up leaks (Section 76.605 (a) (12)) and harmful interference (Section 76.613 (b)). The cable operator should know these regulations and respond accordingly. If the cable operator does not act satisfactorily, proceed to the next level of recourse. Contact the ARRL CATVI Desk for liaison with national industry representatives: Peer pressure can often work wonders! A report form is available from ARRL Hq. for this purpose.

In stubborn cases, appeals can be made before municipal governments, and state and federal officials, for intervention and enforcement. Normally, however, problems can be resolved at the earliest stage. It is in the best interests of the cable operator, and the industry as a whole, to nip problems in the bud. Fines for the individual operator and harsh regulation across the industry are possible if problems persist. In summary, a well-organized committee presentation to a noncompliant cable operator is a very effective avenue of approach to CATVI.

But what if our town doesn't have CATV? This represents the opportunity for preventive medicine. If

the tentacles of cable TV have not yet reached your community, **now** is the time to create a CATVI Committee. A CATVI presentation to a town considering a cable system can go a long way in reducing the potential for interference. A town council educated in CATVI, and a cable operator who knows there is a committee out there waiting for the first hint of trouble, are two very valuable assets to the local amateur community and to the general public.

The ARRL CATVI Desk stands ready to assist you in the formation of your committee. A package of CATVI resource materials is available for the asking. Let's hear from you!

QST References

"CQ HBO"

January 1982 QST

"Entertainment and Interference: The Two Faces of CATV"

February 1982 QST

"Cable Television Regulations"

February 1982 QST

"A New Strain Of RFI Virus"

February 1982 QST

"League Asks Commission to Ban CATV Use Of Amateur Frequencies"

March 1982 QST

"ARRL Opens Channels With Cable Industry"

June 1982 QST

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For any and all of your industrial printing needs,

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July Was a Good Month (Cont.)

And next was the regular membership meeting, where Don Busick K5AAD did a great job of updating us on ham gear and service, now and in the probable future.

The final event was another super picnic, where the weather was very pleasant, Wade's (WN5TEN) cooking great, we got to meet a bunch of each other's families, and even got in the movies! Wade had some of his goodies left over, and a bunch of us helped out the Club treasury and brought some of it home to be enjoyed later.

FIELD DAY -- 1982

Henry Freedenberg N5HF

The last weekend in June saw B-VARC celebrating Field Day behind the Missouri City Fire Station on FM 2234. 15 - 20 members turned out. We ran a maximum of 3 stations simultaneously operating on 10-40M. SSB and on 20M. CW. All states except Alaska were worked, in addition to American Samoa and Puerto Rico. All in all, we had 994 QSO's for a total score of 2,040 points, a score at least 50% greater than any of our previous efforts.

Our performance was primarily due to the outstanding effort put forth by Club members. Too, the duo-band beam, donated by Mike Tussey KB5TN and operating at 30 feet, proved quite valuable.

A post-mortem will be held during the August Club meeting, during which planning for next year's Field Day will begin.

(Advertisement)

MADISON ELECTRONICS SUPPLY

1508 McKinney Houston TX 77010 Fone 658-0268

B-VARC Members --

We carry in stock or can order for you any item you want, from any major manufacturer of Ham gear, including all line accessories and Kenwood service manuals. Call me, identify as a B-VARC member, and I'll quote HOT SPECIAL prices available to you.

73, Don Busick K5AAD

PROGRAMS AND ACTIVITIES IN THE WORKS

Ron Bolyard KA5GYG

AUG. -- 8/12 - Regular membership meeting. Fellowship at 7 PM, call to order at 7:30 PM. Speaker will be Ken McAninch KA5DAS on "Living and Working in New Guinea".

This is a FAMILY NITE. Bring your spouses, girl friends, boy friends, your children, neighbors, and others who would enjoy hearing about a little-known part of the world from one who spent a bunch of time living and working there.

IN ADDITION, on display will ^{be} snapshots of the Club's demonstration activity at Sharpstown Center and at Field Day.

ALSO, Bob Spradling W5UBD and Dale Williams WD5AJC joined forces and equipment and took a bunch of video tape footage at the July picnic, and they'll be showing it at the meeting. It's rumored that they have been offered several bribes to edit out some of the footage, and it's also rumored that they refused to do it!!

SEPT. -- 9/9 - Regular membership meeting. Speaker will be Tom Casey WA5ACF on "Traffic Handling".

OCT. -- 10/14 - Regular membership meeting. Speaker will be Lloyd Phelps WD5HEH on "Ham Radio and the Computer Age."

MANY, IF NOT MOST, HAMS ARE IDing TOO MUCH!

A new FCC rule, adopted in October, 1981, provided that amateur operators need only to transmit their station call signs at the end of each communication and at 10-minute intervals during such communication. Previously, an operator was also required to identify his station at the beginning of transmission as well as transmitting the call sign of the station with which it was communicating.

In its Order - FCC 8249 - PR Docket 80-136, the Commission stated that ".....transmitting a concluding phrase, after the call sign is given, would not be a violation of the rule."

--W5YI Report


REMEMBER the Club get \$2.00 if you join or renew your ARRL membership thru the Club. Also, if you're over 64 or under 18, you can save \$5.00 per year! Call Harold Parker KC5HZ, Club Treasurer, for details.

EMERGENCY COMMUNICATIONS

In the past month the Ft. Bend County ARES has come closer to reality. The Ft. Bend County ARES Emergency plan has been revised, and an emergency training net has been established. This net meets on Wednesday evenings at 9 PM local time on the 147.60/00 repeater. It is hoped that more of you will participate. It may be sooner than we think that we may have to turn our hats around and participate in a real emergency.

The ARES registration form printed below is provided so that you may register your station. I would urge you to fill it out and mail it to me as soon as possible. If you previously registered, please do it again. Those forms have not been passed on to me.

Ed Harwell, N5WV

1. Name:				2. Call:				
AMATEUR RADIO EMERGENCY SERVICE								
REGISTRATION FORM								
								
3. Address:								
4. City:			5. State Prov.:			6. Zip:		
7. County:			8. Home phone:			9. Bus. phone:		
10. License Class:			11. Primary radio interest:					
12. (Circle bands you can operate)								
	CW:	160	80	40	20	15	10
	PHONE:	160	75	40	20	15	10	6 2AM 2FM
	MOBILE:	160	75	80	40	20	15	10 6 2AM 2FM
13. Can your home station operate without commercial power? <input type="checkbox"/> YES <input type="checkbox"/> NO								
If yes, what bands? 160 75 80 40 20 15 10 6 2AM 2FM								
14. Request FULL membership <input type="checkbox"/> LIMITED membership <input type="checkbox"/>								
15. Signed:				16. Date: 19.....				
Detach and send this card to ARRL, 225 Main St., Newington, CT 06111 or directly to your EC (if known) CD9S (377)								

EMERGENCY OPERATING FREQUENCIES

In the event of a public emergency, called at the state or national level, -- not a Skywarn operation -- the following operating frequencies will be used by District 21 DPS and Houston-Harris County E.O.C. stations:

75 meters: 3.915 MHz LSB 40 meters: 7.251 MHz LSB 146.43 MHz Simplex

Monitor as many of these frequencies as you can. Each will have a Net Control Station, and your participation should consist primarily of LISTENING. If invited to checkin by the NCS, do so; if not, don't.



PROPAGATION
Bob Cox AB5X

Been unable to find a net lately? Lost a WSO in the middle of it?
Thought your antenna fell down?

We are supposed to be far on the downside of an 11-year sunspot peak, but the alignment of all planets has done a little realignment of the 11-year cycle. On April 19 the Solar Flux (SF) was only 146. It must be up to about 170 for 10 meters to be fairly open.

During the QCWA Party in February, the SF was 210 and the absorption (A) was 24. An absorption above 40 can shut down the 80, 40, and 20 meter bands. The SF and A indexes are given at 18 minutes past each hour and are revised about twice daily.

On July 4, the SF was 106 and the A was 9. On July 10 the first of a series of major flares occurred at 2013Z. By July 13 the SF was 260 and the A was 80. By July 14 the SF was 262 and the A was 100. The A fell back to 20 on Saturday, July 17 when another major flare occurred. With absorption at 80 and 100, you won't get through on 75 and 40 meters, but don't take that 10-meter beam down yet.

My prediction is that one month from now, on August 17, the SF will be high, and if the A has cooled down to from 7 to 10, the conditions on 10 and 15 meters will be great. The other bands will be great, also (we hope!).

NCS SCHEDULES FOR AUGUST-SEPTEMBER

2M Pub. Serv. - 8/9 KC5HZ 8/16 WA5CEN 8/23 WD5DRB 8/30 KA5GYG
 9/6 KC5HZ 9/13 WA5CEN 9/20 WD5DRB 9/27 KA5GYG

10M - 8/11 WA5ACF 8/18 WA5CEN 8/25 KA5GYG
 9/1 N5CIQ 9/8 WA5ACF 9/15 WA5CEN 9/22 KA5GYG 9/29 N5CIQ

ROSTER --- Only 2 changes to report this month: Tom Casey WA5ACF has a new work phone number. It's 499-9671.

Mark McGrath -- The FCC has issued him 3 call signs. The last and hopefully it'll last until he upgrades is KA5NYI.

COMMUNITY SERVICE OPTION PROGRAM

June 3, 1982

Brazos Valley Amateur Radio Club
c/o S. L. Lamkin
7401 Heilig
Houston, Texas 77074

Dear Members of the Brazos Valley Amateur Radio Club:

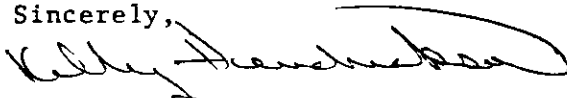
We at the Community Service Option Program would like to take this opportunity to thank you for your contribution to our First Annual Fleet Feet Fun Run. The event was a big success and you helped make it happen.

Without contributions such as yours, the Community Service Option Program and many other community service organizations would not exist. Your involvement is deeply appreciated.

If you are ever in the area of our office, please stop by and see us.

We look forward to working with you next year!!!

Sincerely,



Kelly Hendrickson
1982 Race Coordinator

KH:cr

The "I Don't Know What Hoppened" Department

On page 8 of the July BULLETIN there was an article on the current trend to smaller sizes and prices of personal computers. In some way, the title and source credit for the article did not reproduce from the master copy. Shown below is what was missing:

PERSONAL COMPUTERS ARE GETTING SMALLER AND LESS COSTLY

Adapted from W5YI REPORT, issue of June 1, 1982

ED NOTE -- We wonder if anyone reads this rag! We haven't heard a word from anybody about this obvious omission.....

NO-CODE LICENSES?

How do you feel about such? If you're like most hams and think it would be terrible to have a horde of CB-types loosed on some, if not all, of the ham bands, you'd better be ready to put on your mad hat and respond when the FCC's proposal to do just that is issued shortly.

The FCC has instructed its staff to prepare such a notice of proposed rulemaking. Since there are some individuals on the Commission and its staff who are in favor of it, it'll probably be upon us soon with a shorter than usual response time.

So start thinking about and discussing the subject now so you'll be ready to express your views promptly.

WANTA MOVE TO NEWINGTON?

The ARRL has issued calls for applicants for a couple of pretty good jobs. Both of the positions are in the Club and Training Department, and require, among other things, the holding of an Amateur Radio license and the possession of better than average writing skills.

For copies of the Hq notices, send us a 4½" X 9½" SASE.

B - S - S MART

(We'll be happy to list your desire to buy, sell, or swap any ham-related gear, shack equipment, etc. at no cost to you. Just send us your copy by the 3rd Thursday of each month for insertion in the following month.)

* * * * *

FOR SALE - S1T 2-meter HT with all kinds of extras, such as chargers, small amplifier, speaker mic, carrying case, adapters, etc. which equip the rig to be used as mobile, fixed station, or HT station.

Stu Lamkin WB5IGG
fone 777-3345

THOUGHT FOR THE DAY

Why is there never enough time
to do a thing right --
yet plenty of time
to do it over?

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