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THE BULLSHEET



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Texas DX Society

An ARRL Affiliated Club

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The Texas DX Society, P.O. Box 540291, Houston, Texas 77254-0291
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ANNOUNCEMENTS

MEETING NOTICE - The Texas DX Society meets the second Friday of each month except when changed by the Board of Directors. The traditional January banquet again this year takes the place of the regular meeting. The banquet will be held on Saturday, January 9th, at Los Alamedos Restaurant, 8615 Katy Freeway. Cocktails at 7 P.M. followed by dinner at 8 P.M. After dinner there will be the ceremonial induction of the 1988 Club officers and a program of awards and honors(?) to our deserving (and/or notorious). If you forgot to send your money, call K5RC (729-6945) ASAP and we'll try to work you in. Don't forget that spouses are invited.

BULLSHEET MAILING LIST - It is the club's desire to provide the Bullsheet free to all amateurs in the area with an interest in DXing and/or contesting. Donations to defray the publication and mailing costs are appreciated. If you would like to receive our newsletter, simply send your name, call, and mailing address to the Texas DX Society, P.O. Box 540291, Houston, Texas, 77254-0291. Visitors at the regular club meeting can request the monthly newsletter by providing their mailing address on the sign-in sheet. Articles or other newsworthy items from club members and other interested amateurs are hereby solicited by your editor.

WEEKLY DX & CONTEST NET- Just a reminder that each Tuesday night at 9:00 p.m. the Club sponsors a net on 147.96/.36. Participation by non-members as well as members is welcomed. The purpose of the net is to facilitate the exchange of DX, contest, and Club information within the amateur community. Your active support of this activity is encouraged.

TDXS ANNUAL DUES - Were past due as of January 1. Send your \$25.00 ASAP. (Date the check December 31st and swear the mail was delayed.)

THE PRESIDENT'S CORNER

by

George DeMontrond, NR5M

The success of any volunteer organization is influenced by the enthusiasm of its members. Certainly it takes skill and experience to succeed in most enterprises, but, especially in voluntary activities, it is the dedication of time and effort by members beyond the minimum required that allows the organization to excel. The TDXS members have provided the kind of extraordinary dedication that is required to bring about the collective success and recognition of the organization.

That we "have arrived" as a club is confirmed by two recent events. About a month ago Rusty, W6OAT, contacted our secretary to request that we forward to him copies of our organizational papers (constitution, by-laws, etc.) so that he can attempt to clone a similar group in California. Last week Randy, K5ZD, was in town and was heard to praise the TDXS for its enthusiastic competitiveness. He was heard to say that no other group right now equals TDXS in its style of doing things.

The praise is nice to hear. The troubling question for me is "Can we build on this success or are we destined to ride our laurels to mediocrity in the future?" The seeds of our potential undoing have already been sown. There is continuing strife over our membership policy. The DXers among us complain that the TDXS is now a contest club and no longer offers DXers what they require. The number of medium sized stations in the club has decreased over the last several years effectively limiting our ability to mount a broad based response to whatever operating challenge might appear. The Houston Convention has been in decline the last several years only partially due to the depressed local economy. The convention is the major source of funds for our treasury (lest you forget how important having a successful convention is to the club's welfare).

As one's recognition for achievement generally lags behind the deeds themselves, so do the events that lead to decline often predate that decline. If we are to avoid the waning of our influence in both the local and national DX and contest community, we need to actively respond to some of the challenges the club faces before they substantially impact our performance.

What follows is my opinion. Others will disagree strongly with what I'm about to say. I hope the synthesis which follows an active debate over the issues I believe face the club will help motivate us to achieve continued success in the future.

MEMBERSHIP

The club needs to increase the number of active members upon which it can rely to provide the support and enthusiasm for whatever operating challenge the leadership elects to pursue. This can be done in two ways. First, we must do our utmost to stimulate enthusiasm on the part of the currently inactive members. The return of the spots should help get some of these guys back on the air. The improving (I hope) economy should also elevate the priority some of our members afford our hobby. (It's amazing how difficult it is to operate on an empty stomach.)

Secondly, I believe we ought to aggressively recruit potentially active members in our community. Certainly it is important to induct the seasoned contesters and DXers into our club. It is, however, imperative that we discover potentially active interested hams and offer them the support required to turn that potential into a reality. This is almost impossible to do when our constitution refuses to allow us to take novices or techs as members and requires that those we do consider for membership attend six meetings out of twelve. We don't even hold our current members to that kind of standard of participation.

Novices and techs have privileges that allow them to both contest and hunt DX. Most general, advanced, and extra class licensees started out as novices/techs. What should determine a person's eligibility for TDXS is their enthusiasm (as witnessed by their participation in any number of activities) and interest in our club's shared interests (namely: contesting, DXing, antenna design/construction, computer interfacing to radio, etc.).

We should require that a potential member attend only four meetings before being actively considered for membership. (We require our current members to attend four per year to stay full members.) If we can't spot a turkey after four meetings then we deserve him/her. Furthermore, once a person is put up for membership and approved by the Board, a ballot should be mailed out immediately. Why make him/her wait for another two to three months before we vote?

And we should elect a new member by majority rule. Period. The current system is confusing and discourages some from even trying to get in. We still don't have to take a 2 meter FM ratchet-jaw whose only interest is drive-time weather and traffic advisories. But lets ENCOURAGE the good potential club activists that ARE around to actively pursue membership.

THE TDXS: a DX and CONTEST CLUB

DXers and contesters have a symbiotic relationship. Contesters have a way of stirring up DX activity and DXers can provide invaluable help to multioperator contest stations with multiplier QSTs. From a multiop contesters' viewpoint this is where our club's dwindling membership has hurt. It is difficult to search/pounce multipliers at NR5M while the running station is going. In the last several contests, DXers K5YCP, KC5CP, N5DC, NY5L, and others provided important multiplier help. If we had had five times as many active DXers on during these contests we could have gotten the support we really needed to do a first class job in each.

On the other hand, a well staffed multi contest station can do a real service for the local DX hounds as well. At NR5M due to lack of personnel we were often unable to man all the radios much less put out every piece of juicy DX we came across. I wish we had had two tech/novice operators just to help on 2M. And what better on-the-job training could an aspiring contesteer/DXer have than 2M multiplier exchange duty during a contest?

In part for the selfish reasons alluded to above, I believe we need to pay special attention to the needs of the DXer. I plan to do all within my power to encourage those who felt left out to become active again.

SINGLE OP STATIONS

Too many stations have disappeared in the last 3 years. Certainly we have some big aluminum multis up, but where have the tribanders/wire stations gone? (Attn: N5EA - Let's get rid of your TVI.; AA5Y - Need some help after your windstorm?; NZ5I - You have plenty of property now!; K2UA - It's time!) I propose that we make a major all out TDXS-style effort this year in sweepstakes. We should set out to eclipse our previous club best in this contest. If we make this a major focus for 88 then maybe we can get some aluminum back in the air (out of moth balls?) and encourage some new hams to join our ranks. In the long run this will help the DXers also. More single-op stations mean more QSTs for everyone.

THE HOUSTON CONVENTION

For a number of reasons, the convention has gone downhill the last several years. I would not presume to speculate on the reasons. The convention, however, is important to the TDXS. The level of services we provide (outgoing QSLs, Bullsheets), the operating events we sponsor (F.D., Armadillo Run, XE2FU, DXpedition support for KP5), and the 96/36 repeater operation all require money. Only about one-third of each year's budget comes from dues. The balance is generated by convention proceeds (raffle, flea market, etc.). We need a successful convention if we are to maintain the standards we have set for our club operations.

I have asked Joe Staples, W5ASP, to make recommendations as to what the club's future role in the convention should be. I hope that we can build a consensus within the club to support this critically important event.

CONCLUSION

I would hope that each member cares enough about the club to take the time to form an opinion on each issue raised here. I for one have sharpened enough pencils writing this to last several contests. But, please don't take my frequency.

CONTEST CORNER

by

Dave McCarty, K5GN

December is gone; January has already begun its fleeting passage, and with it, the passing of the torches in the "appointed office" gang. For contest chairman, you're stuck with me now, as NT5D returns to the honey-do list. We should all thank Brent for sticking it out last year despite his status as the "club newlywed."

Now, on to 1988. Two things: Spots are up. Activity is up. What does this mean for TDXS? Fun is up! Things are getting better on the air, especially in the contests. Don't let these winter DX doldrums fool you -- the vernal equinox is coming, with the seasonal improvement all the way up to six meters.

THE LONG PATH

About this time every year, the social director gets out the cute new calendar she bought back in December and tries to plan the year out completely and in advance of all possibilities. This is the time, guys, to prepare her for all possibilities, including the Sprints, CQ WW, and that DX vacation you've been daydreaming about. So get out your CQ and your QST and work on that schedule of events. There are major contests and minor ones. There is at least one for just about every weekend. I list the majors as:

ARRL DX (Ph and CW)
FD
SS (Ph and CW)
CQ WW DX (Ph and CW)

Arguable additions to my list of majors are:

NA Sprints (Feb and Sept; Ph and CW)
CQ WW WPX (Ph and CW)
IARU HF
and the ARRL 10M, ARRL and CQ 160 Tests.

Popular minors are:

NA QSO Parties
73 Magazine Single - Band SSB's
County-Hunter Contests
CAN-AM
and a few of the foreign DX tests, like CQ-M, WAE, AA.

Of course, moderation is advised. However, advance warning seems to be one of the best defenses: that little scribble from way back in January goes a long, long way in explaining the latest weekend absence. At least, you told her once...

CLUB ACTIVITIES

It has been suggested that the TDXS choose three or four contest events in which to put a concentrated effort for strong team competition entries in 1988. We have the horses and the stations to make a strong showing in any of the events which sponsor club/team competition. The major events sponsoring team scores are:

North American Sprint--four hour domestic contests on Saturday nights. We are still the only real club team to have won the CW event. We have never won the SSB event. Improved 20 and 40 meter conditions for the Northeast guys should buoy the activity. Contest dates:

CW on February 7,
Phone on February 14,
CW on September 11,
Phone on September 18.

ARRL DX--With conditions improving, we should get good opportunities for running the boys on all continents, and be able to work a lot of good DX multipliers. Since the DX only works W/VE, the QRM "over there" is reduced to the point where we midwesterners can get in the thick of it. K5ZD reports that the amateur radio boom in Europe is showing no sign of slowing; so participation from that quarter should continue to rise. I think the fun on this scene is just beginning. Contest dates:

CW on February 20, 21,
Phone on March 5, 6.

CQ WW WPX--The phone test almost coincides with the vernal equinox; the CW test is later in the spring. That's prime time propagation conditions for the midwest. Stateside participation is light; DX participation is terrific. Contest dates are:

Phone on May 26, 27.
CW on May 28, 19 (Memorial Day Weekend)

Field Day--The club needs to decide its course for FD 1988. The date is:
FD on June 25, 26.

Sweepstakes--The granddaddy of domestic championships is still getting better. It is also a contest that favors the midwest. We have a gavel or two in this one from past efforts. We can win it again, if we want it. Contest dates.

SS CW on November 5-7,
SS Phone on November 19-21.

CQ WW DX--The king of contests. This is the contest that brings out the best of everything. Autumn propagation, the top operators, the DXpeditions, the rare multipliers. It is also probably the toughest HF contest for midwestern operators. We can be tops in the midwest, if we try. We can't really compete with the clubs in the Northeast because of their geographic advantage. Contest dates are:

Phone on October 30, 31.
CW on November 26, 27.

The choice should be made by the membership. I'll be taking a straw poll at the banquet; results will be published in the next issue of the Bullshead. I'm for choosing the Sprint, FD, SS, and one of the DX tests. Let me know your preferences!

THE SHORT PATH

January opportunities abound with the 73 Mag tests and other events, but February is the more important month:

1/9	15M 73Mag SSB
1/10	20M 73Mag SSB (Banquet night!)
1/16-17	160M 73Mag SSB (yuk) Texas QSO Party
1/23	40M 73 Mag SSB
1/24	75M 73 Mag SSB
1/23-25	Jan VHF SS
1/29-31	CQ WW 160 CW REF (French DX Test) CW
1/30-2/7	Novice Roundup
2/7	NA Sprint CW
2/14	NA Sprint Phone
2/20-21	ARRL DX Test CW

73 Magazine contests-- Dec. QST p.86, Dec. CQ p. 118; 15-75M are 24 hour 0000Z-2359Z, 160M is 48 hour, all are SSB only, S/O and M/S, exchg RST + State (province/country).

Score=[5 pts/N.America + 10 pts/else] x [states(48 max) + VE provinces/terr. (13 max + DXCC (except W, VE)]

Texas QSO Party-- Jan. QST p. 87, Jan. CQ p. 82; 0000Z 1/16 to 1800Z 1/17, both modes, S/O only, valid Q's on each band and mode plus mobiles in new countries, exchg serial number and State/Province/County(TX). 65 up on CW. Score = [1 pt phone, 2 pt CW, 5 pts phone TX mobile, 7 pts CW TX mobile] x [states + provinces + countries TX counties]

****Note:** KD5SP will be on the road, TDXS style, in the TQP. Rumor has it that he'll be doing it right (?) towing a trailer with a generator and an SB-220 on 20 and 40. Don't forget to get on and work him.

ARRL VHF SS-- 1900Z 1/23 to 0400Z 1/25, Rules are very complex. See page 80 of December QST. There is some interest in this within the club. Talk to W9AGH for details.

CQ WW 160M CW-- Nov. CQ; This is the best of the 160 tests. CW--you can hear the weak ones--and lots of DX. All continents were active last year. 2200Z 1/29 (yes, Friday AFTERNOON) to 1600Z 1/31. CW only (Phone at end of Feb.), S/O, M/O, exchg state or country only (RST optional).

Score=[2 pts/W, 5 pts/N. America (excl. W), 10 pts/DX (excl. N.A.)] x [states(48) + VE provinces/terr.(13) + DXCC(no W)]

NA Sprint-- Last time out we had a fairly good showing but were beaten on both modes by hand-picked teams. On phone, we've never won it. On CW, we've done it before and I think we can do it again. We need to put together crack teams and get ten good scores to take either mode. I don't think any team has won both modes in the same month. Let's give it our best shot. Call K5GN to get on the teams for CW.

ARRL DX-- Dec. QST p. 81. See note in "Club Activities," above. Novice Roundup-- Jan. QST p. 81. See related article.

THE SKEW PATH

Rumor of club scores and operations.

- '87 VHF QSO Party: WB5N 66x17 on 144 MHz.
- '87 VHF WPX: WB5RUS (MOSB) #2 world (high-claimed)
- '87 CQ 160 CW: K5NA #2 NY, #4 USA, #5 World.
- '87 ARRL 160: K5LZO and K5WA were on but no numbers.
- '87 ARRL 10M: KG5U CW 900x79 (MAYBE #1 US)
 - K5WA CW 835x76
 - N5EA casual
 - W5ASP M/M 600x??
 - KC5CP M/M 145K
 - KE5FI PH 2100x115 ?
 - NR5M M/S 2640x195 (MAYBE #1 US)
- '88 73Mag 10M: NR5M M/S 1330x110

THE FINAL

Well, folks, as one mummy-wrapper said to the other mummy-wrapper at the end of a long day at the pyramids, "That about wraps it up!"

DX ROUNDUP

by

Jim Lane, N5DC

Sorry to report the passing of W7PHO. I am not a fan of DX nets, but if it is a necessary evil, his net was one of the better ones.

BULLETIN BROWSING

VP8 SOUTH GEORGIA VP8BPZ after 1/1/88 will sign VP8BPZ/P or A. QSL to GW8VIH.

VP8 SOUTH SANDWICH If the Uruguay DX Group is able to make it (transportation problems). QSL to CX2CS P.O. Box 20063 Montevideo, Uruguay.

3C EQUATORIAL GUINEA 3C1CR due January. Callsign 3C3CR.

ZS8MI MARION ISLAND Continuing saga of VE3FXT. Says he will operate from Marion probably in March WFWL.

4MOAVR Cards are in the mail!

T5GG Docs are at Don Search's hands. He reports "it looks good."

9N NAPAL Lloyd and Iris are active there now.

4S7 SRI LANKA DK1ZN/4S7 now thru 1/28/88. 10,15,20 all modes including RTTY.

KP4 DESECHEO NJ7D and others trying shortly to follow our gallant crew to KP4. (Ed. note (KP5??) If they make it, they will be active on CW, Phone & RTTY.

This year Evie and I plan to offer an "Elusive QSL Address" service. We subscribe to most of the DX bulletins, and have W6GO/K6HHD, QSL lists, as well as '88 and some older Callbooks. So if you need help finding the elusive one possibly we can help. Please don't ask for us to run down 20 or 30 at a time! Reasonable requests only.

I plan an interview with Don Search which will be published at a later date. I would appreciate (preferably in writing) any questions you would like to see put to Don. He is the whole ballgame when it comes to DXCC. I believe that we should get his views and he get ours. So get your thoughts and questions down, and get them to me. We will see what Don has to say.

I would also appreciate any input for future columns.

In closing, watch 20 meter longpath from about 1300Z to about 1400Z conditions have been very good. I had a good QSO yesterday with AP2SQ on RTTY longpath. (He offered to QSY to Packet.)

CURING TVI AND HI-FI INTERFERENCE

by

Bill Schrader, K2TNO

I have tried recently to cure a very bad case of TVI, etc. in my own QTH. Since the ham rig is on a city lot with my house stuck into the antenna farm, my HF kilowatt did a terrific job of trashing the TV, the stereo and the telephones. With the fixes below, there is no longer any interference on any band. Let's take them one at a time; I believe from my experience that you will find that each step adds a little to interference reduction. Since the objective is to have the interference gone completely, I suggest you do all the changes, not just some of them.

I. Telephone:

- A. Symptoms: very loud thumping on CW totally unable to hear a phone call.
- B. Equipment: All Bell phones. The cheap plastic phones from Radio Shack, drugstores, etc. are a disaster because they contain a bunch of IC's in an unshielded plastic housing.
- C. Cures:
 1. Put 0.01 μ f disc ceramic capacitors across each mike and each earphone on every telephone in the house. Bell phones have screw terminals at the elements, and no soldering is needed.
 2. If you insist upon using the cheap phones, try the following.
 - a. Remove entire guts of the phone and spray-paint insides of the plastic case with EMI/RFI black spray paint (available from GC; City Electronics carries it).
 - b. Add 0.01 μ f caps as with regular phones.
 - c. Add Amidon Ferrite beads to both sides of the input line. Use beads #FB-73-801, the highest inductance rating available. NOTE: This type of bead is not a good insulator so use care not to short them to anything.

II. Hi-fi stereo receiver

- A. Symptoms: loud thumping; worse on phono position but majority of noise is independent of the volume control.
- B. Equipment: Separate turntable, Heathkit AR1500A receiver, two speakers about 15 feet from the amp.
- C. Cures:
 - 1. Install shielded speaker leads, with the shield grounded to the amp chassis only. Use two wire #18 twisted pair with shield; don't use the shield for a signal lead.
 - 2. DO NOT bypass the audio output terminals of a solid-state amp, contrary to the diagrams in some publications. The capacitive reactance can cause the output transistors to oscillate and self-destruct.
 - 3. Internal changes to amp: Open the case and install a ferrite bead on each speaker output lead. Also, put beads on each audio input lead for the phone and other inputs (such as the tape input). The beads are cheap and easy to install, so put them on all leads you can. Then, bypass the terminals with 0.001 μ f disc ceramic capacitors. (By adding the beads as RF chokes, the capacitors are on the speaker side of the chokes and not directly across the amp output transistors.)
 - 4. Wrap the cable from the phono around a ferrite rod or toroid. Choose high-permeability core, over 900 μ . This keeps the phone leads from picking up RF.

III. Television set:

- A. Symptoms: all HF band transmissions cause severe picture problems. On some bands the screen goes black. Problem is worst on channel 2, but even channel 13 is affected.
- B. Equipment: Ten-year old Zenith 19 inch portable color set, rabbit ears (on cabinet).
- C. Cures:
 - 1. An external antenna fed with 75 ohm coax makes a big difference. The added signal levels are very worthwhile. Place a two-hole ferrite bead on the balun twin-lead right at the TV 300 ohm antenna terminals. (Put a bead inside if set has 75 ohm VHF coax input already).
 - 2. Internal changes.
 - a. Build a high-pass filter from the ARRL Handbook. Assemble on a small piece of perf board, and install right at the VHF tuner input terminals. Put another ferrite bead at the antenna side of the high-pass filter. Commercial units can be purchased, but they are more bulky usually. The internal location for the filter is much preferred and neater, since the filter is right at the tuner itself.
 - b. Remove guts of TV from plastic cabinet, clean the plastic thoroughly and spray with RFI/EMI paint. This step provides the equivalent to having the set in a metal box. It's a pain in the neck to remove the TV, mask the unpainted parts of the cabinet and re-assemble, but worth the effort.

- c. Wrap the TV power lead around a 6" ferrite rod right at the set. I found that despite the rod some RF entered on the power cord, so I also added to the power cord a small minibox containing a brute force line filter. The filter circuit is in the Handbook.

IV. Rig itself

- A. Equipment: 100 watt exciter, KW amp, coax feedlines to miscellaneous dipoles, vertical and triband quad.
- B. External changes:
 1. Power lines to rigs: Install brute-force line filter on the amp power line right at the chassis. Be sure to wind the coils out of at least #14 enameled wire to carry the current.
 2. Ground wires should run from the exciter to amp, tuner to amp. Then a heavy wire to an earth ground rod from the amp. Use braided copper strap for the leads.
 3. Coax connectors, baluns: Ancient coax and improperly-soldered coax connectors just add to the headaches. Baluns, once overheated, lose their characteristics and become good RFI radiators.
- C. Filters:
 1. Use a good quality low-pass filter on the amp output, and also use one between the exciter and the amp.
 2. Use individual band harmonic filters made of coax on each band, switched to the proper band by the antenna switch. Details of the filters I have designed have been published in the Bullsheets before. In general, each one consists of a pair of coax stubs 1/2 wavelength long at the 2nd harmonic frequency. The stubs are shorted at the far ends. These filters provide an additional 25-35 dB of harmonic attenuation. For 1500 watt amps, I recommend the coax be coiled inside a 1 gallon paint can and filled with transformer oil (available in 5 gallon drums from Gulf Oil Company, "Transcrest H").
- D. Rig tuning:

Amplifier splatter puts out junk all over the spectrum. Be sure you know how to tune and operate your rig so it does not have key clicks or splattering on SSB. Borrow a scope monitor from somebody as a check. Trapeziod patterns are the only way to tell what's going on; a Heath monitor scope or Kenwood monitor will work fine.
- E. Antennas:

Resonant antennas with low SWR are the best you can do to prevent TVI. I assume you've already gotten your antennas as high as possible anyway! Random wires (i.e., non-resonant) fed with a transmatch have high SWR on the transmission line. My own experience is that these antennas are far worse offenders than resonant ones.
- F. Other rig considerations:

Be sure the amplifier cabinet makes good electrical contact to the chassis all the way around. Scrape paint off the inside surface of the cabinet at each screw hole to improve the RF-tight enclosure.

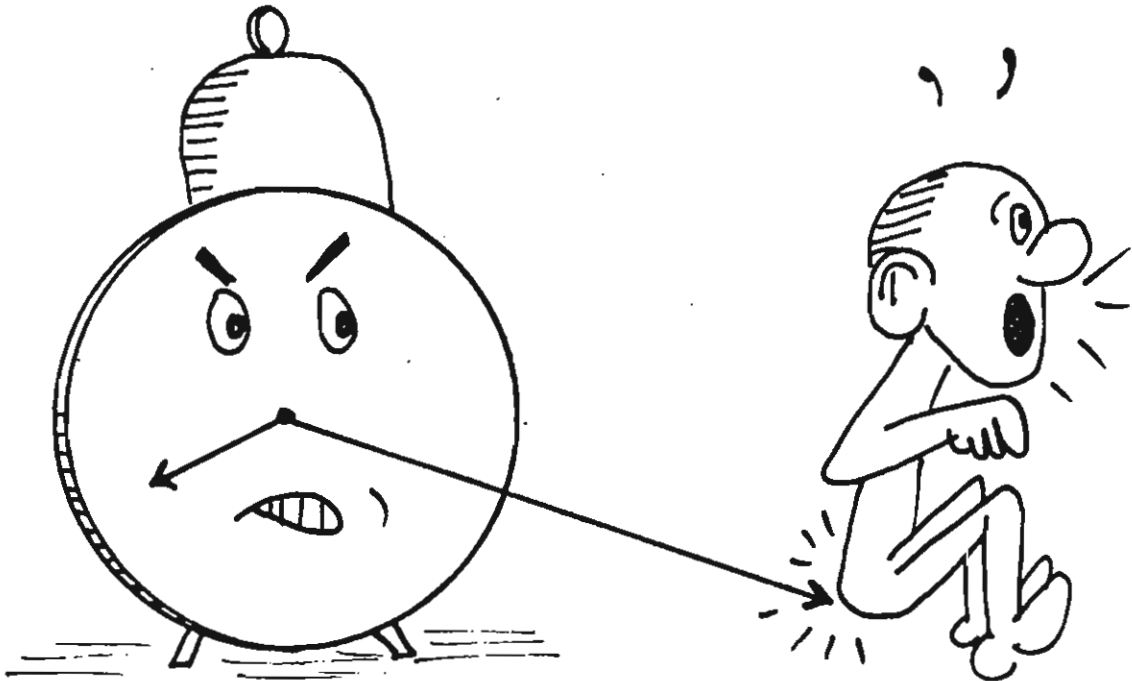
V. Recent developments:

The new RFI federal law has resulted in dramatic improvements in televisions and other electronic gear as far as interference is concerned. Several neighbors with new TV sets get no interference to the unmodified TV set, whereas my own older set was eaten alive by HF overloading.

I have had no trouble with RF in my Fisher VCR, which is packaged with a metal top and metal bottom. If a VCR is used as the TV tuner (the usual case these days), put a high-pass filter on the TV antenna input of the VCR also.

VI. Summary

There is nothing that gets the neighbor's attention as well as showing him or her the clean bill of health at your own place. The changes above take time and patience, but have certainly been worth the effort. To operate an entire Sprint and not have my wife bitch at me once was reward enough!



WAVLI

**TIME IS SHORT
PAY YOUR DUES!**