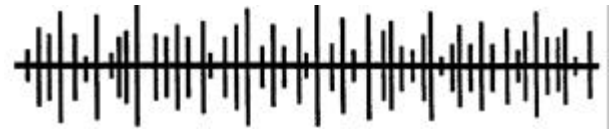


# WHITE NOISE



Volume 10, Number 4

April, 98

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## **I was disappointed at the speed of 1200 baud Packet:**

By Marvin Kaskawits KD2CK

Are you being overwhelmed by email and tired of the slow speed of 1200 baud packet? Some people would rather switch than fight.

I chose to stay with packet and change the baud rate to 9600 Baud. At the time I did this, Terry was deep into the problem of disproving Icom's claims of a 9600 Baud ready rig. But as Terry W5JFM so astutely pointed out in his series of articles, it was just not true. I chose a different path, one that required me to have an older commercial Motorola VHF radio modified. The model I acquired was bought at the Palm Beach Hamfest and it is a Mitrek mobile radio. I paid \$35.00 and these units put out anywhere from fifty to a hundred watts. These and other surplus rigs are readily available at most Hamfests. I was extremely fortunate to have had the skills of the Dynamic Duo, John WB4MOZ and Doug WB4KGY offer to come to my rescue. These units require technical skills and test equipment in order to be modified for the ham bands. In addition, they had to have crystals made since they are crystal controlled and two specially cut crystals are required, one for transmit and the other for receive. In summing up the inconvenience of modifying a single band single frequency commercial rig for 9600 baud packet, at the time it was the only show in town and worth it. Now it is much easier to get started, there are several 9600 baud rigs available in the Ham marketplace that are just "plug and play". The major improvement in the readily available rigs now on the market are that not only are they ready to go but they are dual band and synthesized for all

the frequencies and do not require crystals. This is the way to go if a new rig fits into your budget.

In order for me to get started at that time, it was necessary for me to convert my TNC to being 9600 baud from the more common 1200 baud. It may not seem like much of a speed change to those of you that are accustomed to the current Internet modem speeds, but believe me it is. Please do not lose sight of the fact that packet is a text base system and the system is not delayed waiting for graphics. Therefore, you will be impressed with the speed of 9600 baud. At that time, I was in possession of an AEA 232 MBX. I found that it could be upgraded to 9600 but once again it was complicated and needed a lot more time of the "Dynamic Duo" so I swapped with Stu NF2N for his AEA 900 (fathers can do that). The AEA 900 is able to accept a modification board that just plugs into the motherboard and after a quick tune up by John WB4MOZ it was ready to go. I am pretty sure that the modification boards are also available from Time Works Inc. They are the people that bought the digital communications part of AEA. Now they also sell as well as Kantronics and PacComm 9600 baud ready TNC's. These last two companies had a very enlightening display at the Miami Hamfest and showed their new models for 9600.

Now that you are aware of how I got to 9600 baud, please let me indulge in how wonderful it can be. However, before I go any further let me address the skeptics among you that are heavy in to the speeds of Email. I am also on email and they follow two different paths. Packet is informal and enlightening especially when you query the BBS's, it can be used for direct keyboard to keyboard QSO's. It can also be amusing when you just copy the mail. We in

South Florida are fortunate to have an extensive 9600 baud network, which didn't just appear by its self. It is the culmination of extensive efforts of many dedicated hams of both their time and moneys. I would be one of the first to admit that I am not on the skill level of those hams who have made these fantastic networks available to all of us. It is imperative that we do our part to use and extend the valuable mode to others. The Packet Radio Network is there for our enjoyment and as has been said before that, "use it or lose it." Most of all try 9600 you will like it, I most certainly do. Lets get a 9600 baud Rag Chew going keyboard to keyboard. The West Palm 9600 baud packet frequency is 145.63 MHz. Check local BBS's for information on Packet Frequency lists for 9600 baud in other area's.

### FPAC SYSTEM INSTALLATION

by Doug Welcker WB4KGY

You have been reading about it for some time now but have you tried using it lately? On Saturday April 18th John (WB4MOZ) and I set out to update the Vero to Stuart backbone to 9K6 and to install FPAC at the Stuart switch. Unfortunately due to problems with the replacement radio, the Vero update was not able to be completed. Moving down US-1 to Stuart we had lunch with Joe (K1VAO) and continued to the ROSE switch location.

As with any major operation a lot of coordination had been accomplished before we arrived. Bill (N4XEO) had acquired a mini-tower 486 from the Tampa group, a four port communications card with high interrupts had been purchased and installed, and various interconnect cables located. John (WB4MOZ) supplied several KISS EPROMS for the TNC's and distributed the updates for SYSOPS to install in their ROSE or FPAC systems if we were successful. Bill (N4XEO) had previously rearranged the cabinet to include the computer but the monitor had to reside on the top of the cabinet. Sounds like

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everything is done. Just hook up the cables and go home. Never happens.

Included with this change is the conversion to the new LAN frequency, 145.53 Mhz, which involved a radio change to a MAXAR50. Since that was easy we started there. Next one by one the TNC's were converted back to their original configuration and KISS proms installed, assigned serial cables were connected, and deviations and frequencies were

checked and adjusted. The old network cabling was removed and system checkout began. The returned out to be two real problems to overcome.

First, to gain maximum performance from the system the serial ports need to run as fast as possible which means getting the TNCs switch to 19.2k baud. This minimizes the delay in moving the packets between TNCs. With the old system either a diode matrix or a coax LAN connected the serial ports of the TNCs together allowing communications between only two TNCs at a time. As it turned out not all communications ports were running at the proper speed even though the program comments indicated they were. Eventually John had to go into the program to correct the problem. Fortunately, previous experience with this problem saved a lot of time.

The second problem was much more difficult due to brain fade. The last TNC we had to deal with was a new SPIRIT from PacComm which is a DSP design and very versatile. The only trouble is we forgot the BOOK! About this time Bill (N4XEO) stopped by after taking his son to a scouting event. He didn't have a manual either. We sent him home (a forty minute drive to go 9.8 airline miles - don't go to Port St. Lucie/Ft. Pierce/Stuart area and expect to get anywhere in a hurry). Not having anything better to do, we started moving jumpers and hoping for the best. This thing has more jumpers than you have ever seen and of course they are unmarked as to function. After we exhausted most combinations without success Bill called us on the Stuart repeater and after many starts, stops, and retries the TNC came alive.

Finally we had the system running. Now we checked out all the ports with connections to other locations with the help of Bill who by the way is running FPAC at the Ft. Pierce switch. So now what - push all the cables inside the cabinet, close the doors, and run. That only took five hours!

Now for the best part. Its QUICK!!! Its real QUICK. From my QTH in West Palm it is just a tick slower communicating through the Stuart SWITCH than operating through West Palm. Using the Ft. Pierce switch is nearly as good and operational speed is something we never had before even with these SWITCHES connected at 9K6 baud. The conversion from ROSE is not stopping here. John King, Emergency Management Coordinator for Indian River County, has supplied a 486 computer for the VERO SWITCH which John (WB4MOZ) now has on his bench for conversion. Hopefully in the next month plus Vero will be FPAC.

If you haven't connected yet give it a try. Send "C NODE V (your local switch K4PKT-9 for WPB), 561220" then send "I9" for SWITCH information and enjoy.

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### **Spectrum Protection Bill Introduced in the U.S. Congress**

From ARRL Headquarters  
Newington CT March 30, 1998

At the request of the ARRL, a bill has been introduced in Congress to ensure the availability of spectrum to Amateur Radio operators. The bill, HR 3572, the Amateur Radio Spectrum Protection Act of 1998, would protect existing Amateur Radio spectrum against reallocations to or sharing with other services unless the FCC provides "equivalent replacement spectrum" elsewhere. The bill was introduced March 27 by Rep Michael Bilirakis of Florida, a Republican, with the cosponsorship of Rep Ron Klink of Pennsylvania, a Democrat.

If approved, the measure would amend Section 303 of the Communications Act of 1934 to preclude reallocation of any primary Amateur Radio allocations or diminution of any secondary allocations, and would block any additional

allocations within such bands that would substantially reduce their utility to Amateur Radio, unless the Commission at the same time provides "equivalent replacement spectrum" to the Amateur Service.

The bill points out that a basic purpose of Amateur Radio is to provide "voluntary, noncommercial radio service, particularly emergency communications," and that Amateur Radio has "consistently and reliably " provided emergency communication during and after disasters. The measure notes that the FCC has "taken actions which have resulted in the loss of at least 107 MHz of spectrum to radio amateurs."

HR 3572 has been referred to the House Commerce Committee. An effort is under way to enlist additional cosponsors for the measure.

The full text of the bill is available at <http://thomas.loc.gov/cgi/bin/query/z?c105:H.R.3572>.

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### **ELIMINATE FORM 610 PROPOSED**

ARRL Bulletin 20 (ARLB020) March 23:

In a sweeping Notice of Proposed Rulemaking the FCC has suggested several rules changes that could affect Amateur Radio, including replacement of the venerable FCC Form 610. NPRM Docket WT 98-20, "To Facilitate the Development and Use of the Universal Licensing System in the Wireless Telecommunications Services," seeks comments on proposals to replace Form 610 with FCC Form 605, to permit automatic reciprocal licensing of foreign hams wishing to operate in the US; to privatize the issuance of club station licenses; and to require applicants and licensees to supply a taxpayer identification number (TIN) and to file electronically. The FCC also plans to consolidate the application procedures for all Wireless Telecommunications Services into a single set of rules. All of these proposals are part of the FCC's

efforts to implement the Wireless Telecommunications Bureau's Universal Licensing System.

The new Form 605 would apply for Amateur Radio and other services "not presently required to submit extensive technical data to receive a license." The Wireless Telecommunications Bureau is trying to drastically cut down the number of forms for the various services it administers, and to include all of its services under the ULS. The FCC last November began initial collection of licensee data to populate the US. Using the US, applicants and licensees will be able to file, modify, and renew electronically. Ultimately, the FCC intends to require all applicants, as appropriate, to file all applications and notifications electronically.

The FCC says it's tentatively concluded that there is "little or no need to continue issuing the reciprocal permit" (FCC Form 610-AL) for alien amateur licensees because the license from any foreign country with which the US has a reciprocal agreement would stand as the proof that the foreign operator is qualified for the reciprocal operating authority. Reciprocal operation under the new regime would be "by rule," which means no special action is necessary on the applicant's part, and the elimination of Form 610-A.

For club station licenses, the FCC proposes to accept the services of VEC like organizations as volunteer club station call sign administrators. Prospective organizations would have to complete a pilot autogrant batch filing project before being authorized as call sign administrators.

Under the US, applicants or licensees would have to supply a TIN, usually a Social Security number, or "its functional equivalent." The FCC says this is "consistent with the requirements of the Debt Collection Improvement Act of 1996." To allay fears of misuse of TINs, the FCC says the US system would be designed so that TINs will not be

available to the public and "only a small number of Commission employees would have access to TIN information in conjunction with their work." The FCC says a Privacy Act submission would be published in the Federal Register "to obtain the requisite public and Congressional comment and Office of Management and Budget approval prior to implementation of the US system."

A text version of the entire rulemaking proposal is at <http://www.fcc.gov/Bureaus/Wireless/Notices/1998/fcc98025.txt> (or see the link from the FCC home page).

The proposal was released March 20. Comments are due to the FCC 30 days after publication in The Federal Register. Reference WT Docket 98-20. The FCC will not accept email comments on Docket WT 98-20.

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**Bob Bruninga WB4APR  
to Receive the  
Hamvention Technical Excellence Award**

The AMSAT NEWS SERVICE (ANS) reports that it has learned the 1998 Dayton Hamvention Technical Excellence Award has been given to Robert E. Bruninga, WB4APR. Bob Bruninga, known as the father of APRS, garnered his award for his work in the creation and development of the automatic packet reporting system used by many amateurs around the county.

WB4APR, an amateur for 36 years, was first interested in the hobby at a very young age when he and a group of neighborhood kids constructed a telegraph system. A retired Navy Communications Electronics Specialist, Bob is now the contractor in charge of the satellite ground station at the Naval Academy in Annapolis, Maryland.

WB4APR says that APRS had an interesting beginning. "We first presented the idea at the Digital Communication Conference in 1992. And one of the first things we did with it was track the running of the Army/Navy game football. They run it for 18 hours, from the Naval Academy in Annapolis to the stadium in Philadelphia, about 150 miles. And so we put a GPS unit in a football helmet, put it on a guys head and we demonstrated with just that one watt transmitter that we could track the runner and the football all the way to Philadelphia. We have now done that every year since. That is a lot of fun. We've also tracked all of the Naval Academy Boats up and down the Atlantic. We track those with APRS via a high frequency setup.

There is also one truck driver, W7LUS, and you will see him on an APRS map every hour of the day and night. He is driving around with an APRS installation in his truck all over the country. He puts his schedule in his beacon text and people can see where he is headed and they will go out and catch up with him at the next truck stop," said WB4APR.

Bruninga will receive his award at a banquet in Dayton the evening of May 16th.

Interested amateurs can learn more about APRS and view an APRS map on the Internet using the following URL:  
[www.aprs.net](http://www.aprs.net)

[ANS congratulates Robert E. Bruninga, WB4APR, and thanks Newsline for this information]

(The Palm Beach Packet Group joins the AMSAT News Service is extending its

congratulations to Bob Bruninga WB4APR - ed).

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## GULLIBILITY VIRUS SPREADS

### FROM THE HUDSON LOOP

WASHINGTON, DC -- April 1 -- The Institute for the Investigation of Irregular Internet Phenomena announced today that many Internet users are becoming infected by a new virus that causes them to believe without question every groundless story, legend, and dire warning that shows up in their inbox or on their browser. The Gullibility Virus, as it is called, apparently makes people believe and forward copies of silly hoaxes relating to cookie recipes, email viruses, taxes on modems, and get-rich-quick schemes.

"These are not just readers of tabloids or people who buy lottery tickets based on fortune cookie numbers", a spokesman said. "Most are otherwise normal people, who would laugh at the same stories if told to them by a stranger on a street corner". However, once these same people become infected with the Gullibility Virus, they believe anything they read on the Internet.

"My immunity to tall tales and bizarre claims is all gone," reported one weeping victim. "I believe every warning message and sick child story my friends forward to me, even though most of the messages are anonymous."

Another victim, now in remission, added, "When I first heard about Good Times, I just accepted it without question. After all, there were dozens of other recipients on the mail header, so I thought the virus must be true". It was a long time, the victim said, before she could stand up at a Hoaxes Anonymous meeting and state, "My name is Jane, and I've been hoaxed". Now, however, she is spreading the word. "Challenge and check whatever you read," she says.

Internet users are urged to examine themselves for symptoms of the virus, which include the following:

-- The willingness to believe improbable stories without thinking.

-- The urge to forward multiple copies of such stories to others.

-- A lack of desire to take three minutes to check to see if a story is true.

T.C. is an example of someone recently infected. He told one reporter, "I read on the Net that the major ingredient in almost all shampoos makes your hair fall out, so I've stopped using shampoo."

When told about the Gullibility Virus, T.C. said he would stop reading email, so that he would not become infected.

Anyone with symptoms like these is urged to seek help immediately. Experts recommend that at the first feelings of gullibility, Internet users rush to their favorite search engine and look up the item tempting them to thoughtless credence. Most hoaxes, legends, and tall tales have been widely discussed and exposed by the Internet community.

Courses in critical thinking are also widely available, and there is online help from many sources, including:

Department of Energy Computer Incident Advisory Capability at  
<http://ciac.llnl.gov/ciac/CIACHoaxes.html>

Symantec Anti Virus Research Center at  
<http://www.symantec.com/avcenter/index.html>

McAfee Associates Virus Hoax List at  
<http://www.mcafee.com/support/hoax.html>

Dr. Solomons Hoax Page at  
<http://www.drsolomons.com/vircen/hoax.html>

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The Urban Legends Web Site at  
<http://www.urbanlegends.com>

Urban Legends Reference Pages at  
<http://www.snopes.com>

Datafellows Hoax Warnings at  
<http://www.Europe.Datafellows.com/news/hoax.htm>

Those people who are still symptom free can help inoculate themselves against the Gullibility Virus by reading some good material on evaluating sources, such as:

Evaluating Internet Research Sources at  
[http://www.sccu.edu/faculty/R\\_Harris/evalu8it.htm](http://www.sccu.edu/faculty/R_Harris/evalu8it.htm)

Evaluation of Information Sources at  
<http://www.vuw.ac.nz/~agsmith/evaln/evaln.htm>

Bibliography on Evaluating Internet Resources at  
<http://refserver.lib.vt.edu/libinst/critTHINK.HTM>

It is possible to design responsible alerts for people to circulate on the Internet. Here is a how-to that draws positive conclusions from long experience with the evils of badly designed alerts:

Designing Effective Action Alerts for the Internet at  
<http://weber.ucsd.edu/~pagre/alerts.html>

Lastly, as a public service, Internet users can help stamp out the Gullibility Virus by sending copies of this message to anyone who forwards them a hoax.

73 de Brent Venis, KB0SPN  
forwarded by Mike Reed, N7ZEF  
(mreed@trib.com)

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#### OPEN REMARKS / REPORTS

The meeting was bought to order @ 19:35 hrs. by Pres. Doug Welcker (WB4KGY) There was 10 members and guests. Introductions were made.

Treasure's Report: Marvin (KD2CK) reviewed the Treasure's report. The report appeared in the March *"The White Noise"*.

The Technical Committee report was given by Doug (WB4KGY). First item on interest was the conversion of APRS to the new frequency. The frequency was changed on March 19 with the installation of new EEPROMs on both GE Delta radios. The second radio is used for 1200 baud LAN on 145.03 Mhz. Crystals for the Boca APRS Digi (KF4DXY-1) were installed and the unit returned to service by John (WB4MOZ) on April 6th. This conversion is to remove the interference potential to future Shuttle and Space Lab 2 meter operations.

The SWITCH developed a problem a few days after the last meeting becoming sluggish and eventually halting operation. The problem turned out to be the original 2 port comm card. When the card was replaced the next evening operation improved dramatically over previous performance. This confirmed that the old board probably was defective since installation and may have been responsible for unexplained computer lockups. While investigating this problem the 223 Mhz secondary link to Boca was found to have a bad TNC.

We are still awaiting release of Tom Ringate updated version of the FPAC code now running on the Tampa LAN at 813962. You can review this new version by connecting to node at 813962.

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**PALM BEACH PACKET GROUP MEETING**  
APRIL 12, 1998

**OLD BUSINESS**

Agenda items completed per the PBPG Board Of Directors' meeting held in February include moving the club PO Box to West Palm Beach. The new address is:

PALM BEACH PACKET GROUP, Inc.  
P.O. BOX 16471  
WEST PALM BEACH, FL 33416-6471

Also it was found that "HAMWEB", a system to broadcast all the messages on the BBS to all listeners during the midnight hours, was not compatible with the BBS operating system. The next BOD agenda item was the Internet Gateway interface. Joe (WB4TEM) has been working on this for some time but only recently found help from a Sarasota ham who volunteered to come to Boca to work on the system interface.

White Noise was mailed on April 3rd but still was not receive in Coral Springs till April 15th!

Secretary BillyBob (KE4GUM) has several packet books available from the club library. If you would like to check these out send him a message at WB4MOZ or give him a call. (his phone number is listed on the second page of this issue)

Included with the usual handouts this month is the SWITCH list which has a new asterisk (\*) column to denote the accessible SWITCHES and ROSE sites connectible from the PBPG LAN.

**NEW BUSINESS**

Marvin (KD2CK) discussed a packet message he had received from a friend in West Central Florida about maintaining packet radio systems and BBS's. The author reflected on the need to continue to update and improve on the packet system as it is radio based and will be there when the phone lines are gone!

Memberships this evening are being accepted by Marvin (KD2CK).

Interesting BBS subject of the month "W" command. Do a "W" after connecting to your local BBS for a list of topic concerning many different facets of Amateur Radio.

**ADJOURN / BREAK / WORKSHOP**

Next meeting May 14, 1998. The program this evening was presented by Doug (WB4KGY) on how easy it is to get on 9600 and enjoy the many benefits.

Meeting was Adjourned @ 21:10 hrs.

Respectfully submitted;  
Doug Welcker (WB4KGY)

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**APRIL BARDS MEETING MINUTES.**

The meeting was called to order at 9. There were 18 attendees.

The meeting started off with the program. The program was a review of the ARRL MicroSmith program by Bob, N4CU. This is a smith chart program that allows a person to develop a 5 component circuit to match an input to an output impedance. It is a DOS program that requires only 272 K of ram and no coprocessor. However it has lots of features. It will do any matching expected of a smith program, L-network, Wideband matching, and transmission line stub and transform matching. It has a swept feature and frequency dependent loads can be used.

We took a break after about 40 minutes and then continued for about 20 minutes longer. We covered most of the features in the hour we spent on the program. Once again using the LCD projector panel to put a computer screen on a display so a room full of hams can see it made going through the computer program features very interesting.

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There was some discussion of antenna design and John, KN4HX, volunteered to show us an antenna design program in May. Carl will be giving the April presentation.

The next meeting is April 18. The program will be by Carl.

Minutes by Bob N4CU

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### **TREASURE COAST PACKET GROUP MINUTES**

The January Minutes were accepted. as posted on the Local BBSs and as printed in White Noise, on a motion by Bill N4XEO and a second by Tom,N4LRV. The Treasurer; Andy W8BIX reported that after a reimbursement to Bill N4XEO of \$84.95, the Treasury balance was \$ 1334.74. The report was approved on a motion by Jim, WA1COA, and a second by Don K8BXT.

New Business: a Letter received from FADCA indicated that we are now fully coordinated under the Band Plan with Joe K1VAO as trustee.

#### **TECHNICAL COMMITTEE:**

Bill N4XEO reported that 2 attempts to set up Vero at 9600 baud were made, but the Radio at Vero has phase modulation which is not compatible with 9600 baud. Therefore the Vero Port was put back on at 1200 again.

K4VGI, on the west coast has some Phoenix Radios which might serve. Bill, N4XEO is also working on setting up the FPAC system. He has obtained 4 Port Com Cards, a Case etc and WA9IRD donated a Hard Drive, 386 board and a Video card. Kevin, W4KKK, donated a 286 setup. which we are not able to use at this time, but will be used for parts.

A bad battery had to be swapped out, which has eliminated "burps" on the 145.050 port, which was

causing packet rejects. It seems that the 440 port transceiver was drawing so much current on key up that it caused the "burps".

Com cards are available at \$45 bought in quantity of 5 or more. Also VHF and Uhf radios are available for \$75, and if they are multi channel and can be programmed, then they would be ideal since xtals are expensive. and we would have spare radios in standby. These are GE Phoenixes.

W2KGV made a motion, which was seconded to purchase the cards, but N4XEO would rather wait until he has had a chance to check out the one he has before he buys additional cards.

One of the 2 radios that the PBPG had obtained for us is the one on the 145.530 that would run out of memory, is now at N4XEO's QTH awaiting resolution of the problem. The other radio still at PBPG will eventually be used on the 9600 baud link at OKE.

Tom, N4LRV reported that the Vero PG was awaiting info from the county, so that they could continue, modifying their set up. He said when Joe, KC4IBT was in town, he said that the Vero 440 radio could be modified for 9600 baud use and is using 2 himself.

With no further business the meeting was adjourned at 9:58 AM on a motion by Bill, N4XEO and a second by Tom, N4LRV.

Attending; K8BXT W8BIX K1VAO N4XEO  
N4LRV WA1COA W2KGV

Respectfully submitted,  
Ladd Sajor W2KGV Secy.