



THE READOUT

The Stanislaus Amateur Radio News

20 YEARS OF SERVICE TO THE COMMUNITY

SEPTEMBER / OCTOBER 1996

The Official Newsletter of the Stanislaus Amateur Radio Association

ARRL NEWS!

New RF standards

New FCC RF safety standards effective January 1, 1997, could affect the way some hams operate, perhaps especially those using vehicle-mounted antennas. As a result of a Report and Order adopted by the FCC on August 1 (ET Docket No. 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation), Part 97 will require hams running more than 50 W PEP to conduct routine RF radiation evaluations to determine if RF fields are sufficient to cause human exposure to RF radiation levels in excess of those specified. "Measurements made during a Commission/EPA study of several typical amateur stations in 1990 indicated that there may be some situations where excessive exposures could occur," the FCC said in ending the blanket exemption for Amateur Radio. Amateur operation at power levels of 50 W PEP or less is "categorically excluded" from the exposure requirement in most cases. Where routine evaluation indicates that the RF radiation could be in excess of the limits, "the licensee must take action to prevent such an occurrence," the Report and Order stated. The FCC said this could mean altering operating patterns, relocating the antenna, revising the station's technical parameters--such as frequency, power or emission type--or "combinations of these and other remedies."

"Exactly what is involved in conducting a 'routine RF radiation evaluation' is not yet clear," observed ARRL Executive Secretary David Sumner, K1ZZ, adding that the FCC has promised to release a revised OST/OET Bulletin Number 65, "Evaluation Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation."

continued page 6

REFLECTIONS OF A MAD MAN Found in Patterson!!!

Where is this country going?

Sure seems to me that a lot of changes have taken place in the last 40+ years that I have been around. When I went to grade school and high school I was asked to learn things, but I guess that is not the case anymore. I have here on the walls some maps of the world. Over the last few months I have asked some high school age children to point out different countries. It is simple to do, I am a ham radio operator and I mention I have talked to this country or that country and so I ask if they could tell me how to get there. Not many can tell me. I remember taking geography and history classes in school, both of which the student would need at least the very basic knowledge of to point out where England is located. When a high school age student can not locate their own state on a world map, this is very sad. I will not even try to tell how high-school age children think our government is supposed to work. (I know, I know, government doesn't work the way the books tell us it should, but at least they should know the difference.)

Pride in personal appearance sure has slipped by most of our school age children now days. I always thought it was kinda embarrassing to have my underwear showing, even when playing sand lot games we might have sweated some but our underwear stayed inside. Guess now days these kids hafta let their underwear show so everyone will know that they are at least wearing underwear. I have seen some girls walking around in the mall showing more than most wives would show a few years back on their wedding night. I can remember the hippie days and it seems to me that even with all the long hair, the beads,

continued to page 5

MINUTES OF 8/96

STANISLAUS AMATEUR RADIO ASSOCIATION August 20, 1996 The regular meeting of Stanislaus Amateur Radio Association was called to order at 7:40 P.M. by President Mike AC6PQ. Introductions were performed and there were 22 people in attendance. Treasurers report-Mike AC6PQ acting as Treasurer Pro Tem gave the report. Total to date income \$3340.26. Expenses 2123.87. Check book balance 3658.67. The equipment fund has 628.20. Technicians report-None Communications-None Secretary's report-None

Old Business-

Mike AC6PQ gave a brief summary of the action it would take to obtain a new call sign for the club. Another option is open to have an additional call sign that may be used at events. Ernie K6UVI, made a motion to apply for an additional call sign for the club as a vanity call, Jack KE6SUO seconded the motion. Motion voted on and passed.

New Business-

Ernie K6UVI was introduced and presented a list of possible call signs
continued page 2

In this Issue

- > NEWSLINE REPORT frim newsln.
- > ARRL BULLETINS frim w1aw
- > SARA MINUTES frim ke6sum
- > SARA TECH RPRT frim nv6s
- > DIGITAL NEWS frim. ke6fse
- > HAM PLATES? frim kc6vwo
- > MEMBERSHIP APPLICATION
- >

MINUTES OF 8/96 from pg 1.

that are not in use at the present time. A vote was taken on each call sign and the most popular call signs were then voted on to establish the order in which they will be submitted. Jim N6KMR made the motion to accept the call sign list as presented, John KE6IVV, and Duane KF6BPA seconded the motion. Voted and passed. Ernie will submit the list and request a supplementary call sign for the club. Gripes/complaints-Mike AC6PQ asked if there were any gripes or complaints to be discussed. None reported. Open discussion- Jim N6KMR, reported that his BBS is up and running. Everyone is invited to log on and look around. Barbara KE6SUM, has some discount passes for Pacificon 96 and a brief explanation of Pacificon was given. Ernie K6UVI asked for volunteers on October 5, 1996 for the American Diabetes Association Walktoberfest. Communication volunteers are needed for 3 to 4 hours on that Saturday. Mike AC6PQ reminded everyone that the VE test is on Sept. 14 at the Prescott School. Jim N6KMR made the motion to adjourn, the meeting was adjourned at 8:35 P.M.

Respectfully Submitted by Barbara KE6SUM, Secretary

From n6kmr@n6kmr.ampr.org. Wed Aug 21 22:01:07 1996t

NOTICE... URGENCY.. READ THIS

I have heard that a BBS in the Taft area is going qrt for lack of use. As most of us know, operating a BBS requires time and maintenance skills. He's not the first, nor will he be the last! I know of several BBS' that have gone belly-up.

The current bandplan on 2 meters was designed and orchestrated by the BBS interest groups back in the early 80's. Packet Bulletin Board Systems was for the most part, PACKET RADIO. Now as time & technology has changed, internet access & telephone modems have taken over the packet station hardware. You can find a good deal of 2 meter 1200 baud packet stations for sale. I think the time has come to reevaluate our purpose. The current bandplan has different frequencies for different packet interests. EXAMPLE, 9 frequencies for BBS LANS, 3 for keyboard to keyboard, 1 for

APRS, 2 for TCPIP and 3 for DXCluster. For the most part, some systems require backbone forwarding ports and they only serve the special interest of the sysop. What needs to be done is do lake a large group on the East Coast has developed over the years. Create low level user ports, link each one by HTS Free backbone radios, have servers linked to the network, so you connect to your local user port, then you have ALL services available to the users. I might add that the NEDA network has to date around 1,200 trnc's to link the East Coast, London, England, Canada and with internet links, most of the World. They dont have BBS, tcpip, dxcluster & keyboard using different frequencies, just one user port that serves a given area. THis actually keeps users centered around one or two frequencies and not scattered all over the place. I realize that slow speed packet has came and gone, but I doubt very many folk are going to spend five to six hundred dollars to do 9600 bps, for what! If we give the people a fast, efficient network that does everything for one connect, allow internet gateway & conferencing, you'll see a lotta people stick around and use the network. Instead, all we have now is special interest groups that could care less about anything else except their platform. Well, their demise is near. If we dont all hold hands and form a network and INCLUDE everyone, then our number is just about up. This old stuff of high level KA-Nodes, digipeaters, Net/Rom nodes that screaming high on a mountain top without a backbone link to another site is nothing but packet barf. THis is inefficient to say the least, will quite working when user traffic is moderate and just a step above a set of bongo drums. We NEED to NETWORK. Pool our time and talent into buliding something that works. It can be done. Very easy in fact. Let's have a meeting, invite all the sysops in our area, sit down and plan how to do things right. Pulling the plug is a easy way out when you have no answers. We can do it, TOGETHER. de Randy Anderson, KI6AG

This article was entered via the modesto switch tcp/ip system... most of you have not tried this system. We have on line conference, internet ham radio connection, newslire, ari bulletins, valley wide 4 sale column. We hope you will take the time... de the editor....

TECH REPORT

Hello to all from the shack of NV6S,

There is not a huge amount to report this month. The Six meter machine is up and running on 51.800. It is operating pretty well now but will improve as I have time to make improvements. Due to a small problem the pl is not operative at this time but will be as soon as I go back up the hill again. I originally planned to use the 114.8 pl on this machine as that is the pl used by all of the six meter repeaters in the area. A Santa Clara group was opening our machine up for a few days and I decided to use the 136.5 pl to avoid that problem. The propagation was apparently very unusual on those days and when I attempted to install the pl I encountered a problem. Now I'm back considering the 114.8 since the propagation has subsided. The auto patch failed a few weeks ago. When I attempted to install the 6 meter pl, I also checked and got that working. A wire had simple become disconnected. I also noted the pl was not working properly on the two meter machine and repaired that problem. Alex K6LPG, accompanied me on this trip and he did some tune up work on the system. If you hear him on the air you might ask him about my hamburger buns. It seems that I promised to barbecue hamburgers for lunch but discovered that I had left the buns on the counter at home. Sea bee ingenuity prevailed as we had our hamburger patties sandwiched between a slice of onion and a slice of tomato. Apparently the system performed as expected during the recent power outage. I was at Disney Land at that time doing a little vacationing with the family. They have generators that take over in a power outage. I would have liked to see the system as it must be quite impressive. They were down for a while as the computers running many of the rides crashed during the 3 second lag between line power and the generators picking up the load. That is all that I have at this time. I once again wish to thank the members who have helped with the technical chores. I thank the members for being patient while I fit the repairs into my schedule.

73 to all and cul. LeRoy, NV6S

NEWSLINE

P.O.Box660937Arcadia,California 91066

This ends the closed circuit with Newsline report number 990 for release on Friday, August 26th, 1996 to follow.

The following is a QST,

SAFEX SPACE REPEATER IS ON

THE AIR

A European built FM repeater is now on the air from space. This, according to word passed down from the Mir space station by United States astronaut Shannon Lucid who says the repeater known as SAFEX came to life at on July 17th at 14:05 UTC. According to astronaut Lucid, SAFEX is using the call sign RR0DL with an uplink or input of 447.750 MHz and outputting on 437.950 MHz. Access requires a 141.3 Hz Continuous Tone Coded Squelch, better known to United States hams under the Motorola trademark of PL. Lucid says that the repeater is located in Mir's Priroda module. She adds that its wise to check 437.925 MHz for the beacon voice recorder that announces that Mir is within range of your QTH. If you happen to hear RR0DL and want to try a QSO though it, initial reports indicate that it takes at least 25 watts output into a pretty good antenna to make the trip. Dave Larsen, N6LJH, was one of the first to hear and use RR0DL. He reports on the AMSAT bulletin board that it required his use of a 35 element beam and 25 watts to access the space repeater and he has not been able to work through RR0DL with a mobile rig and a 5/8's wave antenna. This says Dave, even though Mir was in a 75 degree high elevation pass. Dave Larsen also says to remember that the Mir moves very fast across the Earth - so make your contacts as short as you can. Also remember that this is an orbital repeater so there will be discernable Doppler shift as it approaches and departs your ground location. Doppler shift is estimated at as much as plus or minus 5 kHz. And oh yes. RR0DL is one of the few repeaters that offers a QSL card for contacts made though it. DF0VR in Germany is its QSL Manager. His address is good in almost any late callbook or directory.

W0CY's WIDOW, FAMILY MEMBERS, FOUND DEAD

Salina, Kansas, police are investigating the apparent murders of Delores McKim, the widow of Jim McKim, W0CY, her daughter and a great-grandson. The three died sometime over the weekend of July 20th at the McKim residence in an upscale neighborhood of Salina. A friend notified authorities to check the house after she had been unable to reach Mrs. McKim, who was 80. Lt. Mike Sweeney of the Salina Police Department said someone forced their way into the house intending to burglarize it. He identified the other victims as Carol Abercrombie, 56, and her grandson, Christopher Abercrombie, 5. Carol Abercrombie was from Chattanooga, Tennessee. Sweeney would not say how the victims died. Reports in the Salina Journal say all three were found inside the house. The killer apparently took Jim McKim's car, still bearing his W0CY call sign license plates, but the vehicle was recovered about a mile away where it had been abandoned at an apartment complex. The car reportedly had not been driven since Jim McKim died on February 14 at the age of 80. According to the ARRL Letter, Jim McKim, W0CY was a longtime AMSAT member and, until only a few months prior to his death, served as net control for the Mid-continent 75 meter AMSAT Net. He was a life member of AMSAT, ARRL and QCWA, and was regarded as a pioneer on the VHF and UHF bands.

N6NHG HEARING DATE SET

A federal magistrate has set an August 12th hearing date for convicted computer hacker Kevin David Mitnick, N6NHG. This, to hear arguments in a probation violation matter. According to word on the air in Los Angeles, the hearing was originally scheduled for July 15th. It was delayed when Mitnick petitioned to have an attorney identified as Richard Sherman to represent him. But federal prosecutors are rumored to oppose Sherman taking on Mitnick as a client. They say that he has a conflict of interest because he represented an alleged Mitnick co-conspirator. N6NHG has already admitted violating his probation by leaving the Southern California area and then allegedly hacking into computers from an apartment in Raleigh,

North Carolina.

W5YI

Fred Maia, President of the W5YI VEC has tendered his resignation and that of his organization to the National Conference of VECs. In a letter to the members, Maia sighted differences between the direction that the NCVEC is taking and those that he feels to be the most important. Maia says that he will continue to serve on the question pool committee, but will no longer be associated with the original aspect the NCVEC Group.

FCC CREATES A NEW LOW POWER RADIO SERVICE

The FCC has adopted rules creating a new Low Power Radio Service in the 216-217 MHz band. The July 25th action means that LPRS will be authorized as a Personal Radio Service under Part 95 of the Commission's rules. The commission says that LPRS devices will be authorized on a secondary, non-interference basis. This, for short-range, lower power communications including auditory assistance devices for persons with disabilities, health care assistance devices for persons with illnesses, law enforcement tracking systems, and point-to-point network control communications for Automated Maritime Telecommunications Systems.

(***** MORE FCC HAM APPLICATIONS AVAILABLE ON THE NET

FCC Forms 610A which is the application for permit of an Alien Amateur Radio Licensee to Operate in the United States and Form 610B -- the application for an Amateur Club, RACES or Military Recreation Station License, are now available from the FCC's forms page on the Internet. They can also be had via the FCC's fax-on-demand service, at (202) 418-0177. They join Forms 610 and 610V which have been available from these sources.

FRANK MAGGIORE, N3FGN, SK

Some sad news to report. Word that Frank Maggiore, N3FGN, the president of Maggiore Electronic Lab in West Chester, Pennsylvania, died on June 25th at age 59. According to Frank's widow, Darina, KB3AJC, Frank suffered a fatal

stroke after he was hospitalized for heart problems and had been scheduled for bypass surgery. Sadly, at the same time, Darina Maggiore was recuperating from a broken hip in another hospital and was unable to attend her husband's memorial service. Maggiore Electronic Lab has been in the repeater business for 18 years and in the electronics business for 26 years. Darina Maggiore says the couple's son, Paul, will continue the business. Two other children also survive.

ALINCO LOWERS PRICES

Alinco Electronics Corporation says that it is again lowering its prices. This time an average of 8.6 percent across its product line. Actual decreases run from 4% on their DJ-191 hand held to as high as 17.5% on the very popular DR-130T two meter mobile. The new Alinco pricing structure also means that the companies High Frequency plus 6 meter all mode radio now lists for well under a \$1,000 with street price probably quite a bit lower. Alinco says it was able to lower the price of its merchandise because of positive international currency fluctuations in the value of the United States dollar versus the Japanese yen.

NEW DX PUB

Things are a lot better for those selling periodicals to hams. The Island Hopper DX Bulletin is a new publication from N2AU and is published 26 times a year and shipped by first class mail. For a sample copy send a number 10 SASE to:

Terry Long 1385 Hauptstrasse Berne, Indiana 46711

ORT REPLACES GYSI

Harold Ort, N2RLL has replaced Chuck Gysi, N2DUP as editor of Popular Communications magazine. Ort has held several positions with Popular Communications parent company CQ Communications including that of editor of the annual Communications Buyers Guide and the now suspended CB Radio magazine. Gysi will remain with Popular Communications as one of its writers

DARA NAMES 1996 SCHOLARSHIP WINNERS

The Dayton Amateur Radio Association has announced its 1996 scholarship winners. They are:

Dakota Derr, AA0NB Teresa Hensley, KA8YTO Sandra Saunders, AB4KS Lindsay Schoettinger, KB8ZJT Melissa Schweikhart, KB8EPO Eric Shook, KF8DF Matthew Thomas, N8TWF Kurt Zoglmann, KB0TMQ

Each of the eight scholarship is for \$2000. Awards are based both on individual achievement and financial need. The scholarships are initially open to high school seniors in their graduating year. Applicants must be FCC licensed Amateur Radio operators of any class. Those wanting to apply for the 1997 awards may request scholarship applications from:

Stan Kuck, NY8F 45 Cinnamon Ct Springboro, Ohio 45066

Please include a SASE.

KR0Y-K1TO TEAM TOPS WRTC-96

In news from the contest world, the team of Jeffrey Steinman, KR0Y, and Dan Street, K1TO, operating as W6X wound up at the top of the heap in the second World Radiosport Team Championship. The event featured 52 team stations operating 18 hours of the IARU High Frequency World Championship contest July 13th and 14th from the San Francisco Bay area of California. Steinman and Street operated from the QTH of WA6AHF. All teams had similar 100-W stations and used comparable antennas. In the case that meant a Hy-Gain TH6 at 50 feet and a pair of ICOM IC-765's. The 40 meter dipoles of at least the first three finishers were wire inverted Vs made by WRTC-96 for the host stations. K1TO called the accomplishment the highlight of his ham radio career.

1996 MEETING OF PAPER CHASERS

The annual meeting of the Ten Ten Paper Chasers takes place at The Circus Circus Hotel in Reno, Nevada from August 15th to the 17th. For further information please contact:

Betty Becker, KB6AN 2170 Forest Lake Drive Rancho Cordova, California 95670

If you plan to attend, reserve a room on the 5th floor.

TACOMA INTERNET TAX

Finally, if you are a ham living in Washington State you probably have

heard that Tacoma, Washington is the latest city to impose a six percent tax on companies that connect people to the Internet. In addition to the tax on gross receipts generated within city limits, Tacoma wants Internet Providers to obtain a \$72 annually renewable Internet business license. The taxes apply not just to Internet access firms in Tacoma, but any that have customers in the city. In other words, if your internet provider connects you to a site in Tacoma, it would be liable for this tax, which would probably be passed along to you. According to news reports, six states and two other cities also have taxes on Internet connection services. Ironically, Tacoma sits adjacent to Seattle which is the home of the worlds largest software provider, Microsoft. Microsoft has already set its legal department to work to stop the new Tacoma Internet tax. Hams do have an alternative, at least in messaging. It's called packet radio. Its slower than the internet, and not as reliable. Then again it is tax free. At least it is, right now!

That's all from the Amateur Radio Newslines. You can write to us at:

NEWSLINE P.O.Box 660937 Arcadia, California 91066

Editorial comments, news item and all other business should be directed to:

Bill Pasternak, WA6ITF Newslines Producer & Editor

Internet E-mail: newslines@ix.netcom.com
America Online: billwa6itf@aol.com
Phone: (805) 296-7180 Fax: (805) 296-7180 (Fax senders wait for voice prompt.)

Hardcopy comments or complements can be directed to:

Dale Cary, WD0AKO Hardcopy Distribution for Newslines

Internet E-mail: wd0ako@rrnet.com
Phone: (218) 236-6324

For further information about the AMATEUR RADIO NEWSLINE, please write to us with an S.A.S.E. at:

NEWSLINE c/o Andy Jarema-N6TCQ
P.O.Box 660937 Arcadia, CA 91066

Thank You, NEWSLINE

by n6kmr@modesto.n6kmr.ampr.org -- 44.2.8.129

mad man found in Patterson

from page 1

the peace symbols and the bra burning;

most of the time a persons private body parts were covered. This writer will admit that at Woodstock this was not the case. It would be so hard to be a teenager now days. So many of these girls walking around in public do not leave much to the imagination.

Where is all this infringement on personal freedoms going to stop. It is getting so hard to be a pack-rat now days. Even if all of your valuable collection of widgets is keep out of sight someone will find out and come up with some environmental hazard for having so many widgets. Along this same line of personal freedoms are the helmet laws. Personally I think a person is not to smart not to wear a helmet, but that should be the riders decision. Where is it written that the government needs to tell us every little move to make. Have we become such a mindless society that we need big brother to lead us by the hand through each day. I think it will be a very sad day in this country when we will need permission to lean sideways in our chairs to fart.

Other subjects to think about: Where have all the good drivers gone? Are please and thank you a foreign language? Is the almighty dollar so important? How come if you beat your dog the government takes the dog, but if you beat your child the child stays in the home? How come the ATF can come into your house, destroy things and then leave after finding nothing and NOT pay to fix any broken items in the house. And now the biggie....How come hair cuts cost about the same as 10 years ago but green fees at the golf course have tripled?

More than enough for now!!!!

CUL N6UGH JIM PATTERSON, CA ...

note: The views and thoughts of our readers do not always make perfect sence, but they try!!!

HAM PLATES!!!

For some time I have been trying to get something going for the Hams for the State Of California. This what I'm doing. I have met with the Senator hear in Modesto and talked to him about getting a special license plate that hams hear in Calif. can get. Not just your basic white plate that goes on you Car, Truck or what ever. There will be 2 plates. One will be for those that help with emergency workers that are hams (ARIES or other). So this is what I'm asking of all hams in the state of Calif., I need all those who would like to see a special license for hams of California. Please print out this and fill out the info. I'm asking. If you want to see this happen, fill it out and send it . Thanks and happy hamming from Bill KC6VWO.

YES, I WOULD LIKE TO SEE A CUSTOM LICENSE PLATE FOR HAMS OF CALIFORNIA.

PRINT NAME _____

ADDRESS _____

CITY _____ CALIFORNIA ZIP _____

YOUR CALL _____

ANY _____

COMMENTS? _____

THANK YOU FOR ALL YOUR SUPPORT ON THIS. Form BILL YOUNG KC6VWO

SEND TO: BILL YOUNG KC6VWO % HAM PLATES PO. BOX 938 CERES, 95307

SARA Membership Application

Call : _____ Date: _____

Name: _____

Address: _____

City & State: _____

Zip Code: _____ ARRL Member?: (yes) (no)

Home Phone: _____ Alt Phone: _____

Occupation: _____

Date Of Birth: _____ Clas Of Lic: _____

Year First Licensed: _____

Dues: Renewal \$23.00 per year. Out of area more than 150 miles from Modesto is \$11.00. New first time applicants dues are pro-rated from the month you join the club. Use \$1.91 times the number of months remaining in the year. I.E- You join in July = 6 x \$1.91 = 11.46

SARA, repeaters are, on MT.OSO/ 2mtr = 145.390- pl 136.5

220band= 224.14, / 440 band = 440.225- pl 136.5 / SARA Ka-node =WD6EJF/ SARA= 144.91

The League is now studying the 100-plus page docket, to see if the League should seek reconsideration of any aspects of the FCC decision. Sumner noted that the FCC expects it will not be difficult for most amateur stations to show that the specified limits will be met.

In the Report and Order, the Commission adopted Maximum Permissible Exposure (MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz. These MPE limits are generally based on recommendations of the National Council on Radiation Protection and Measurement (NCRP) and, in many respects, are also generally based on the guidelines issued by the Institute of Electrical and Electronics Engineers Inc (IEEE) and subsequently adopted by the American National Standards Institute (ANSI) as an ANSI standard (ANSI/IEEE C95.1-1992). The Commission used the 1992 ANSI/IEEE standards instead of the 1982 ANSI standards that had formed the basis for the existing rules under which Amateur Radio stations were categorically exempted.

Sumner said that for high-power mobile operation and for operation with indoor antennas, particularly in apartment buildings and other situations where there is "uncontrolled exposure" to neighbors and the general public, "amateurs may well have to make changes in how they operate." He said the ARRL Lab staff and the RF Safety Committee will be evaluating the new requirements.

The new regulations also will require the addition of five questions on RF environmental safety to the amateur examinations for Novice, Technician, and General-class elements 2, 3(A) and 4(B). Sumner noted that the Commission's Report and Order does not take into account the practical problems associated with such a significant revision to the volunteer-administered amateur examinations, and that more time than the Commission has allowed will be required to do a good job.

The Commission acknowledged the updated guidelines generally are more

stringent than the current rules but said that the new rules will protect the public and workers from strong RF emissions. Adoption of new rules by August 6 was required by the Telecommunications Act of 1996.

The FCC encourages the amateur community "to develop and disseminate information in the form of tables, charts and computer analytical tools that relate such variables as operating patterns, emission types, frequencies, power and distance from antennas." The Commission said it intends to provide "straightforward methods for amateur operators to determine potential exposure levels" by year's end.

In comments filed earlier with the FCC, the ARRL strongly opposed adoption of the new requirements. The ARRL said most Amateur Radio users do not possess the requisite equipment, technical skills, and/or financial resources to conduct an environmental analysis. The League has, for several years, recommended a policy of "prudent avoidance" of exposure to electromagnetic radiation as a common-sense approach to potential—but not yet proven—health hazards and against such practices as running high power to indoor antennas or to mobile antennas that might expose the vehicle's occupants. The ARRL also argued that amateur stations, because of their intermittent operation, low duty cycles, and relatively low power levels, rarely exceed the 1992 ANSI/IEEE standard. Finally, the ARRL noted that unlike other radio services, RF safety questions already are included in amateur license examinations. But the FCC expressed concern that Amateur Radio operations "are likely to be located in residential neighborhoods and may expose persons to RF fields in excess of the MPE guidelines."

For now, the League advises hams not to panic and to read up on the subject. You can download the complete Report and Order by pointing to http://www.fcc.gov/Bureaus/Engineering_Technology/Orders/fcc96326.txt. Other resources are available on the ARRLWeb page at <http://www.arrl.org/news/rfsafety/>.

General information on RF safety is available in the safety sections of The

1996 ARRL Handbook and in the 15th edition of The ARRL Antenna Book. These materials offer guidelines on how to comply with the ANSI standard referred to in the Report and Order.

New FCC RF safety standards effective January 1, 1997, could affect the way some hams operate, perhaps especially those using vehicle-mounted antennas. As a result of a Report and Order adopted by the FCC on August 1 (ET Docket No. 93-62, Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation), Part 97 will require hams running more than 50 W PEP to conduct routine RF radiation evaluations to determine if RF fields are sufficient to cause human exposure to RF radiation levels in excess of those specified. "Measurements made during a Commission/EPA study of several typical amateur stations in 1990 indicated that there may be some situations where excessive exposures could occur," the FCC said in ending the blanket exemption for Amateur Radio. Amateur operation at power levels of 50 W PEP or less is "categorically excluded" from the exposure requirement in most cases. Where routine evaluation indicates that the RF radiation could be in excess of the limits, "the licensee must take action to prevent such an occurrence," the Report and Order stated. The FCC said this could mean altering operating patterns, relocating the antenna, revising the station's technical parameters—such as frequency, power or emission type—or "combinations of these and other remedies."

"Exactly what is involved in conducting a 'routine RF radiation evaluation' is not yet clear," observed ARRL Executive Secretary David Sumner, K1ZZ, adding that the FCC has promised to release a revised OST/OET Bulletin Number 65, "Evaluation Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." The League is now studying the 100-plus page docket, to see if the League should seek reconsideration of any aspects of the FCC decision. Sumner noted that the FCC expects it will not be difficult for most amateur stations to show that the specified limits will be met.

In the Report and Order, the Commission adopted Maximum Permissible Exposure

(MPE) limits for electric and magnetic field strength and power density for transmitters operating at frequencies from 300 kHz to 100 GHz. These MPE limits are generally based on recommendations of the National Council on Radiation Protection and Measurement (NCRP) and, in many respects, are also generally based on the guidelines issued by the Institute of Electrical and Electronics Engineers Inc (IEEE) and subsequently adopted by the American National Standards Institute (ANSI) as an ANSI standard (ANSI/IEEE C95.1-1992). The Commission used the 1992 ANSI/IEEE standards instead of the 1982 ANSI standards that had formed the basis for the existing rules under which Amateur Radio stations were categorically exempted.

Sumner said that for high-power mobile operation and for operation with indoor antennas, particularly in apartment buildings and other situations where there is "uncontrolled exposure" to neighbors and the general public, "amateurs may well have to make changes in how they operate." He said the ARRL Lab staff and the RF Safety Committee will be evaluating the new requirements.

SB QST ARL ARLB052 ARLB052
ARRL/VEC electronic filing

Effective immediately, the ARRL/VEC will electronically file with the FCC Forms 610 for ARRL members. The ARRL/VEC can electronically file FCC Form 610 applications for amateur station license renewals, or for address, name or call sign changes. This service is free to current ARRL members.

ARRL members must send a correctly completed, signed and dated original Form

610 to the ARRL/VEC. Members can send the Form 610 by US mail, by courier, or hand delivery to ARRL/VEC, 225 Main St, Newington, CT 06111. Applications

received by the ARRL/VEC must include an original signature. Forms 610 cannot be accepted via fax.

Only applications for renewal made on FCC Form 610 may be electronically submitted by VECs. For now, VECs cannot process computer-generated

Forms 610R (which are mailed by the FCC directly to upcoming expirees). Those must

go directly to the FCC. Also, VECs cannot presently process FCC Forms 610A, 610B, 610R or 610V. FCC Rules stipulate that renewals be submitted to them no earlier than 90 days before the license expiration date. Licenses that have been expired for less than two years may still be reinstated. A Form 610 for renewal must be submitted to a VEC or FCC before the two-year grace period has ended.

Applications for a systematic call sign change must have Box 4E checked, and

the applicant must initial the line adjacent to the box.

Applications for an address change must include a current mailing address that is within the United States or its possessions or territories (ie, where mail can be delivered by the US Postal Service).

Applications submitted for a name change must include a copy of a legal document showing the formal name change. The former name must be written on the line next to Box 4C. Typographical errors can be corrected using Form 610.

ARRL/VEC can answer questions regarding Form 610 application processing for ARRL members. Call 860-594-0300, weekdays and evenings, from 8 AM to 9 PM Eastern Time.
NNNN

NETWORK GUIDELINES REMINDER

Due to the large number of new user stations, and the new network access ports being added, it has become time to remind the ongoing regular users, and make the new users aware of the standing network guidelines and policies... This is by no means an exhaustive list, but is intended to be a minimal set of guidelines for proper network use by all of it's stations...

1... NO BEACONS FROM USER STATIONS on the USER PORT FREQUENCIES. The only accepted use of beacons anywhere in this network is

by the Switch stations on the user frequencies, and then as minimal a text content as possible, with intervals no more frequent than 1 hour. NO NETROM NODE BROADCASTS on the USER FREQS. Node broadcasts are permitted only on the backbone freqs., then only by approved netrom stations. These should be set no more frequent than 15 minutes in interval.

2... NO FORWARDING ON ANY USER FREQUENCY. This does not restrict routine popmail mail transfers from Switch stations. All forwarding must go to the switch, and from there must go thru the BACKBONE FREQUENCIES.

3... NETWORK FRIENDLY PARAMETERS MUST BE USED ON ALL STATIONS.. The most important of these are SLOTTIME, PERSIST, MTU, MAXFRAME, TCP MSS, and TCP WINDOW.... For a user station the following are the current standard:

SLOTTIME 15 #this is the equivalent of 150ms
PERSIST 63 #settings lower may be acceptable, but no settings higher...
MTU 256 # largest transmittable frame size
MAXFRAME 4 # This applies to AX25 protocol only
TCP MSS 216 # maximum data frame size in TCP protocol
TCP WINDOW 648 # this allows 3 frames of 216 thru before ACK is required

There are other parameters that are an important part of smooth network operation... Please contact your SWITCHOP for assistance in setting up your station to be compliant with the network guidelines. REMEMBER, that all user stations must have EQUAL access to the network. Without these standards, this is not possible...

4... NO CONVERS LINKS FROM user stations to any other station. The only convers links permitted are individually approved SWITCH TO SWITCH links...

5... NO NETROM AT USER STATIONS>> Only TCP, IP, or AX25 protocols may be used at user stations... This is to control unnecessary NODE BARS on the user freqs.

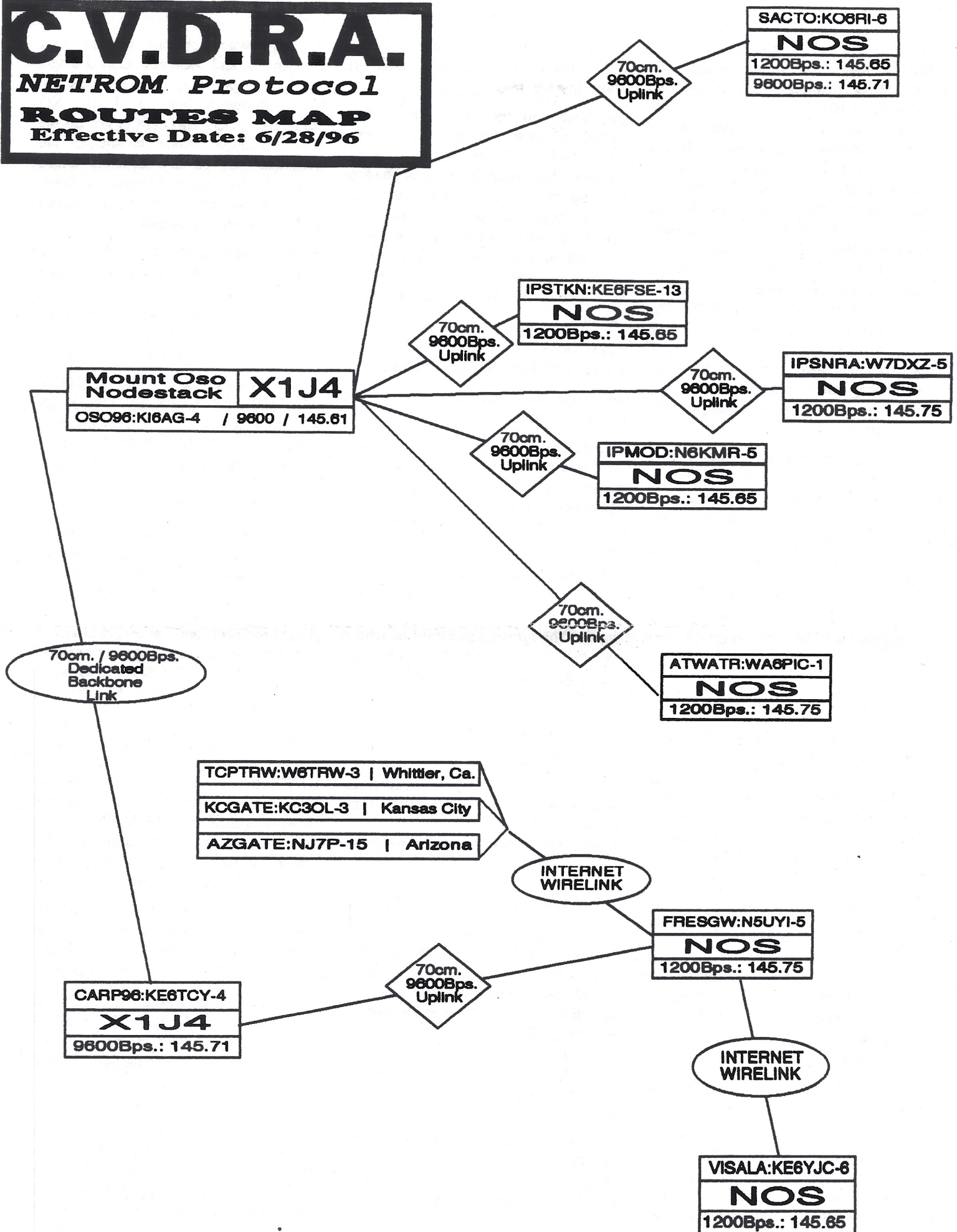
6... HAVE NO MAIL SENT DIRECTLY TO USER STATIONS, unless your station is on air 24 hours a day, 7 days a week, and it is approved by your SWITCH OP. MOST user stations should have their mail sent to their SWITCH

C.V.D.R.A.

NETROM Protocol

ROUTES MAP

Effective Date: 6/28/96



Network Packet Radio

By: Tim Sivils (KE6FSE)

Why Network???

The answer to this begins with a look at where packet radio is today. Keyboard-to-Keyboard, while still one of the most popular forms of packet radio, has been allowed to grow with virtually no control, or direction. Nodes sprung up both high and low level with active digipeaters. With out direction, or organization, these nodes each went about configuring themselves differently according to personal preferences. Forwarding was accomplished on the same frequency that users were connected to the nodes. Beacons from user stations (while they served a purpose in the early days when very few full time stations existed) continuously scroll across the screen, serving only to advertise the fact that a user has a personal mailbox on the air (most all that would leave mail on it already know it's there), sometimes digipeating this beacon 6+ hops away (so that even out of area stations that really could care less must now endure the continuous advertisements). Add to this the continuous "Node Barf" (nodes broadcasts from the nodes on the frequency that serve to let the other nodes know what is reachable from each node). The result of all the above is a frequency of which 95%+ of the normal traffic has no useful content. Along with all of this non-productive traffic comes the real problem with the current Keyboard-to-Keyboard mode, COLLISIONS..... With no standards in place for the parameters of each station (necessary for stations to "share" the frequency, and avoid the collisions), most stations must re-transmit each packet multiple times in order for it to be received by the target station, adding even more traffic to an already busy frequency. Before long, there is so much of this unnecessary, and non-productive traffic on the air, that a station attempting to pass meaningful traffic, can not even connect to the nearby hill-top node for the continuous collisions created by an overcrowded frequency.

The Solution???

In a single word, the solution to the problem is:

C O O R D I N A T I O N

No this doesn't mean the ability to walk with out tripping over ones own feet (on second thought, maybe it does). It does mean approaching the problems with a well thought out plan, and implementing the plan cooperatively. Yes, it also means NETWORKING (wondered when I was going to get around to this didn't you?).... The Packet BBS system started this approach years ago

by resolving to NOT DO ANY FORWARDING ON A USER FREQUENCY. This had the IMMEDIATE effect of removing over 1/2 of the traffic from the user frequency (this also reduced the collisions by the same amount). While this was a very good start toward solving the problem, unfortunately, the BBS world failed to complete the job. Soon the amount of traffic handled was overloading their backbone forwarding frequencies (causing excessively long delivery times for messages, and in many cases, LOST MESSAGES)... They also failed to establish uniform parameters for all stations using the system (still more collisions than was necessary). They offered a limited use system (you can send and read messages and bulletins only)... and finally..... They have failed solve the problem of bulletins such as "SALE@ALLUS" and similar subjects that are the main contributors to their backbone congestion problems....

The DX Spotting Network

The DX Spotting network has for the most part done a fair job of solving most of it's problems. They do forward on bands other than those used for user connections. They also are fairly well coordinated in their forwarding, and establishment of standards. But... (here's this word again) their's is a network dedicated to a special interest. While they do a good job of providing for those avid DX'rs, the network offers practically nothing for those operators that do not share their common interest.

=====

ABOUT THIS ARTICLE . . .

This is but the first of a series of articles dedicated to Packet Radio. This series was started at the request of the Editor of "THE READOUT".. In coming editions, we will cover current problems facing Packet Radio, possible solutions to these problems, what various groups are doing to solve these problems, and what some of us envision to be the future of packet radio. From time to time we will also announce what we see that is new in packet radio. The ideas reflected in this column are solely those of the author, and are not necessarily shared by the Editor, or the S.A.R.A. Group (although they should be)..... Constructive comments and criticism can be directed to the editor of this newsletter or:

INTERNET: ke6fse@compucominc.com

PACKET : ke6fse@stockton.ke6fse.ampr.org

PACKETBBS: ke6fse@k6rau.#cenca.ca.usa

Coming up in the next edition:

The conclusion of: "Network Packet Radio"

--Part of the solution is here now--What remains to be done--Some of what the future is bringing--



THE READOUT

The READOUT is bi-published bi-monthly by the Stanislaus Amateur Radio Association. Copyright 1995 by the Stanislaus Amateur Radio Association, Modesto Ca. All rights reserved. Permission is granted for reproduction in whole or in part provided credit is given to the READOUT and it's authors of the reproduced material.

Contributions to the READOUT are always welcomed and may be submitted to the editor by packet, phone modem or by disk in txt format, send packet mail too N6KMR@KD6JZZ or direct to me at N6KMR-1 on 144.910. The deadline for articles is the 15th of the preceding month of publication. Articles of religion or government politics are not accepted.

ARRL membership may be paid through SARA with the club recieving a \$2.00 commission. Please send your ARRL membership form along with your check to SARA, we will deduct the commission and place your membership with theARRL.

SARA is not responsible for the orgin or accuracy of the items published in the READOUT. No material published is intended to malign, defame. or cause harm to any individual , organization or location. Any interpretation to the contrary is solely the responsibility of the reader.

579 0920

THE 1995 SARA OFFICERS....

PRESIDENT: MIKE HFENAN AC6PQ

VICE PRESIDENT: JIM CALL, KE6HVB

SECRETARY: BARBRA FISKUM KE6S

TREASURER: BOB KIMBALL, KC6TVE

SARA VHF Net: Thursdays @ 8:pm (except holidays) / 2mtrs - 145.539 pl 136.5 Club Call WD6EJF

Stanislaus Amateur Radio Assoc, Inc.
P.O. Box 4601 Modesto,CA. 95352

Bulk Rate
U.S. Postage
Paid
Permit #5
Modesto, CA.



TO: RESIDENT OR/

~~1996~~
~~DEPT. OF GOVERNMENT~~
~~MAIL~~
~~P.O. BOX 34~~
~~MODESTO, CA 95307~~

Next Meeting Is September 17, and also October 15, 1996 At 7:30 pm & You're Invited to come to the Stanislaus County Ad. Biulding downstairs in the conference room....

SEE YOU THERE.