



# Di-Dah-Dit

Official Newsletter of the Parkersburg Radio Klub  
P. O. Box 2112, Parkersburg, WV 26101

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## Overview: FCC RF Exposure Regulations

This page was created as an information resource on the many questions being raised by hams about the rules change regarding RF exposure that the FCC announced on August 1, 1996. Details can be found in the listing of resources that follows this overview. These regulations control the amount of RF exposure to people that can result from your station's operation. They also require that certain types of stations be evaluated to determine if they are in compliance with the rules. The FCC has also required that five questions on the general topic of RF environmental safety practices be added to Novice, Technician and General Class examinations.

The new rules were originally scheduled to go into effect on January 1, 1997, however the FCC has granted a request by the ARRL to extend the implementation date until January 1, 1998.

### History

Regulations on RF exposure have been on the books since the mid 1980s. These regulations were based on the IEEE/ANSI C95.1 RF-exposure

standards. The regulations set limits on the maximum permissible exposure (MPE) permitted from operation of transmitters in all radio services, including the Amateur Radio Service and required some radio services to conduct station evaluations to ensure that they were in compliance. Amateurs were categorically exempt from the requirement to evaluate their stations because the relatively low power and typical operating duty cycles used by hams made it unlikely that the MPE levels would be exceeded.

### The New Rules

The new regulations set new MPE limits. Most of the categorical exemptions for the Amateur Radio Service have been eliminated. As they always have, hams are required to meet the limits for maximum permissible exposure (MPE), but now many operators will be required to conduct a "routine station evaluation" of their station's operation. Amateur stations using less than 50 watts PEP and mobile or portable stations using push-to-talk do not

need to be evaluated.

These regulations are not a major burden on the Amateur Radio Service. Most hams are already in compliance with the MPE requirements. Some hams will need to conduct a simple evaluation, using lookup tables to determine if their antennas are far enough away from areas of exposure for the mode and power they are using. The FCC is preparing a bulletin, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Radiation" that will contain much of the information hams will need to complete this evaluation. (This bulletin is not yet complete.) Hams can also use other methods of evaluation, such as computer modeling or actual field-strength measurements.

### ARRL Actions

The ARRL has filed a number of Petitions for Partial Reconsideration. To date, we have been successful at having the original implementation date extended from January 1, 1997 to January 1,

1998. The FCC is also permitting the question pools to be updated in their normal cycle. ARRL worked with the Question Pool Committee (QPC) to release revised question pools for the Novice and Technician Class question pools on schedule December 1, 1996. The FCC has not yet acted on our request to extend the federal pre-emption clauses in the regulations to Amateur Radio. They are also still deciding whether to add an exclusion for 150-watt amateur HF stations whose antennas are located more than 10 meters from areas of exposure.

#### Resources

##### ARRL RF Exposure Resources

□ "The FCC's New RF-Exposure Regulations," by Ed Hare, W1RFI (QST, January 1997, pp 47-50)

□ The ARRL Handbook's RF safety coverage as a Web page or as the Adobe Portable Document Format file hbkrf.pdf (63,260 bytes)



Minutes April 14, 1997 PARK

The Parkersburg Amateur Radio Klub met at Bonanza Restaurant in Gihon Village Shopping Center on April 14, 1997.

The meeting was called to order by John N8NBL at 7:04 PM. Introductions were made by 19 members. John N8NBL won the 50/50 drawing.

Jerry KA8NJW moved and Roy N8YYS seconded that we dispense with the reading of the minutes since they were in the newsletter.

Repeater Report: Both repeaters are up but 97 has pager intermod. The autopatch is working on 39. Curt K8UC and Carl K8OWL, moved and seconded that we purchase an intermod filter for approximately \$89.00. Motion passed and Tim will purchase it.

Upgrade Class Report: Arch says that it is not too successful, attendance is sporadic. Testing will be April, 17 at 7:00 PM.

Roy N8YYS gave a Field Day report. Four towers are available on a first come first served basis.

Chair Rental: 12 people are needed to work. Curt K8UC moved and Roger N?UEQ seconded that we pass on the chair rental. Motion passed.

Tim KB8EHT stated we need to make long range plans, such as: buy hilltop property, build a clubhouse, make a budget, etc..

There was discussion on putting a repeater on the Vienna water tower. Curt K8UC volunteered to write a letter to Mayor Owens on behalf of

the Klub, requesting permission to place an antenna on the tower.

There was more discussion on the Newsletter. It will be sent to any member on the e-mail list and a printed copy will not be sent unless requested.

John N8NBL discussed the circus. Mark KB8QGA moved and Jep Seconded that we invite Ron Bacon or his booking agent to attend the next meeting to explain the fund-raiser. Motion Passed.

Tim KB8EHT discussed more of the features of his BBS.

Jep K8BOT moved and Jane N8MOW seconded that we adjourn at 8:23 PM>

Ray Bodie N8TWW secretary

Linda Daugherty, KB8YPC was recently recognized for 2500 volunteer hours at Camden Clark Hospital

**CORRECTION- The Feb. minutes listed the wrong name for W2INO our apologies to Gene.**

MEETING MAY 12.....

.....THE PARKERSBURG

AMATEUR RADIO KLUB MET AT THE BONANZA RESTAURANT ON MAY 12, 1997.

THE MEETING WAS CALLED TO ORDER BY THE PRESIDENT, LYDIA AABUL AT 7 PM. INTRODUCTIONS WERE MADE BY 26 MEMBERS AND VISITORS. THE MINUTES WERE READ AND APPROVED AS AMMENDED.(CURT WAS NOT TO BUY THE FILTERS, TIM, W8BCRW BOUGHT THEM).

NO TREASURER'S REPORT WAS GIVEN. ROY REPORTED ON THE FILTERS. TIM, W8BCRW BOUGHT ONE FOR \$69 AND THE SECOND ONE FOR \$89.

REPEATERS REPORT: 97 IS IMPROVED BUT THE 3-4 PM PROBLEM IS BACK. LYDIA REPORTED ON THE CLASSES AND TESTING. TESTING WAS A HUGE SUCCESS, AND THE VE TEAM RECEIVED APPLAUSE FOR A JOB WELL DONE. ROY REPORTED ON FIELD DAY. THERE ARE THREE STATIONS COMMITTED SO FAR. LADIES 40-80 PHONE, ROY N8YYS 40-80 CW, CURT KBUC CW UPPER HF, NEED A STATION ON HIGHER HF PHONE, TIM KB8EHT WILL PROVIDE 6 MTR AND HF FOR NOVICE AND TECH+. GEORGIA AND IRENE VOLUNTEERED TO HEAD UP THE COVERED DISH SUPPER PLANNING. HELP IS NEEDED FOR SET UP AND TEAR DOWN. ALSO NEED OPERATORS. ANY AND ALL TABLES ARE NEEDED AS JOHN N8NBL HAS ALREADY COMMITTED HIS ELSEWHERE.

OLD BUSINESS: JOHN N8NBL STATED RON BACON WAS UNABLE TO ATTEND TO DISCUSS THE CIRCUS, BUT WILL BE AT THE JUNE MEETING.

NEW BUSINESS: BLAINE WABIOE MOVED AND DAVE WABKAN SECONDED THAT GENE, W2INO BE ACCEPTED AS A NEW MEMBER. MOTION PASSED.

RORY STATED THAT TIM, WABCRW AND MARY, KB8BOA WOULD LIKE OUR COPIER LOCATED ELSEWHERE, DUE TO TIM'S HEALTH. JERRY, KABNJW WILL TAKE IT, SINCE HE IS ONE OF THE NEWSLETTER EDITORS AND LARRY, KF8NW DOES NOT HAVE ROOM FOR THE MACHINE AT HIS HOME. JOHN, W8WEJ MOVED AND TIM, KB8EHT SECONDED THAT AN INVENTORY COMMITTEE BE APPOINTED TO LIST ALL CLUB PROPERTY AND DECIDE WHERE IT SHOULD BE KEPT, TO BE REPORTED AT THE NEXT MEETING. RORY KB8MDN, TIM KB8EHT AND BLAIN WABIOE WERE APPOINTED.

JOHN, N8NBL WANTS THE CLUB TO SPONSOR A CARNIVAL AT CITY PARK OVER THE MEMORIAL DAY HOLIDAY. THE CLUB'S NAME WOULD BE USED BUT WOULD NOT BE INVOLVED EXCEPT TO RECEIVE A PERCENTAGE OF THE PROFITS. ARCH, W8GWR MOVED AND RORY,

KB8MDN SECONDED THAT THE CLUB SPONSOR THE CARNIVAL. AFTER DISCUSSION ABOUT LIABILITY, ARCH AND RORY WITHDREW THE MOTION AND SECOND. ARCH AND RORY SUBMITTED THE MOTION TO SPONSOR THE CARNIVAL IF THE CLUB IS NOT HELD LIABLE. MOTION PASSED.

JOHN, N8MBL MOVED AND JOHN, WD8LKT SECONDED THAT THE MINUTES BE DELETED FROM THE NEWSLETTER GOING OUT ON PACKET AND ON THE WEB PAGE. MOTION PASSED. 50/50 DRAWING OF \$10 WAS WON BY EMILY, KB8YPB. JOHN, W8WEJ MOVED AND JOHN, N8NBL SECONDED THAT WE ADJOURN AT 8:07 PM. AFTER THE MEETING, ROY N8YYS SHOWED A VIDEO ON THE HEARD ISLAND EXPEDITION.

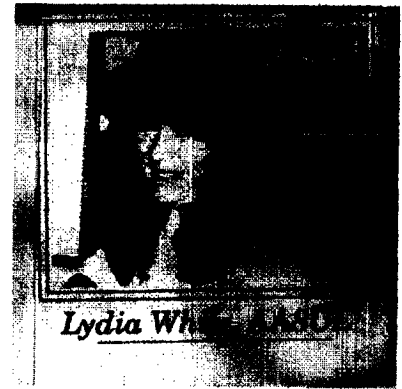
NOTE- 1997 DUES are now due. If you have not paid please send dues to the POBox or see Jane.

Hi Gang!

Let me begin by saying I hope everyone had a really nice Memorial Day and I hope all of you who were lucky enough to go to Dayton had a terrific time visiting amateur friends from faraway and buying new "ham" gear and gadgets!

For those of you who were unable to attend our May Klub meeting, you missed an outstanding video on the Heard Island DXpedition presented by Roy (N8YYS) who was one of those fortunate ones to work the expedition, VK0IR. THANKS ROY!!

Dave had a lot of fun this weekend working some DX in a

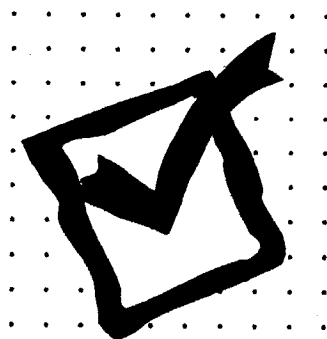


DX contest, and we are both excited about our upcoming Field Day on June 28 and 29!! My thanks to all of those who are helping in any way with FD. Please contact Roy if you want to operate or help. We would love to have everyone out there helping operate or just sitting around "hamming" it up with the others! So, come on out and have a good time and see what FD is all about!!! Once you've been bitten by the Field Day Bug you won't miss another one!!

In closing, I want to wish each and every one of you fathers a very special and Happy Father's Day on June 15!!

See you on Field Day!!!  
73 AA8UL Lydia

Note-TNX to the ARRL- Letter for the articles in this letter. JW



## CONGRESS ACTS TO PROTECT VOLUNTEERS

We said it couldn't be done, and so naturally, Congress went and did it! In one of the more promising--not to mention surprising--developments so far in the 105th Congress, the Senate has passed S 544, and the House has passed a companion bill, HR 911, each described as "The Volunteer Protection Act of 1997." The Senate is expected to adopt the House version of the bill, HR 911, and send it along to the President for signature.

As a result, volunteers of nonprofit organizations and government entities will, in the words of the House Judiciary Committee report on the bill, "generally be relieved of liability for harm caused if . . . the volunteer was acting within the scope of the volunteer's responsibilities."

This will be good news to Volunteer Examiners, Official Observers, ARES and RACES volunteers and others working under the sponsorship of a qualifying non-profit organization, all of whom appear to be covered by HR 911. In non-legalese, this means that you aren't as likely to be sued as a result of harm unintentionally caused to someone else, if your actions were part of your responsibilities as a volunteer working on behalf of a government agency or a non-profit organization. However, until the bill is signed by the President and its various loopholes pass the scrutiny of the legal community, volunteers shouldn't assume they'll automatically be covered. It

appears, for example, that radio amateurs who are not working under the sponsorship of a qualifying organization and who volunteer to provide communications during a marathon, bicycle race or other public service or public safety event might not be covered. The same exclusion might apply to frequency coordinators and certain others who--though they are volunteers--aren't participating on behalf of a non-profit entity. While these individuals could affiliate with government or non-profit entities to do their volunteer jobs, the law will clearly protect only those who are "volunteers of a non-profit organization or government entity." The definition is clear with respect to government entities, but it is less clear with respect to "non-profit organizations." These can be Section 501(c)(3) entities, that is, an organization holding a certain tax exemption from the IRS. They also include, however, those organizations which may not be tax-exempt, but which are organized and conducted for public benefit and operated primarily for charitable, civic, educational, religious, welfare, or health purposes.

The growing reluctance of private citizens to volunteer for fear of lawsuits triggered interest in this legislation. While some states have enacted volunteer protection statutes, the inconsistency among states has resulted in what the Judiciary Committee calls a "hodgepodge." As a result, the League has promoted liability legislation in Congress for

several years, initially to protect VEs and Amateur Auxiliary members.

The new legislation requires that the volunteer be licensed, certified or authorized, "if appropriate or required" by state or local authorities. It does not provide protection where the harm was caused by willful or criminal misconduct, gross negligence, reckless misconduct, or conscious, flagrant indifference to rights or safety of the individual(s) harmed by the volunteer. The House version of the legislation would not cover any volunteer who inadvertently caused harm to another person while operating a motor vehicle that requires an operator license or insurance. Also, certain limitations in existing state volunteer liability laws are not preempted by the Federal protection under the bill.

ARRL's General Counsel Chris Imlay, W3KD, is studying copies of the House and Senate bills to determine the impact on Amateur Radio volunteers of the new legislation.--Steve Mansfield, N1MZA



## FCC ISSUES NEW FORM 610; OLD VERSIONS STILL VALID

The FCC has just released a new Form 610, dated March 1997, that -- among other minor changes -- now includes a space for your Internet address. The new form is available via the FCC's Internet site (<http://www.fcc.gov>) and via the FCC's fax-on-demand service (202-418-0177; to obtain Form 610, the form number to request is "000610;" Form 610A is "006101;" Form 610B is "006102;" and Form 610V is "006108." Form 159, of interest to some vanity filers, is "000159").

The form is much the same as the previous Form 610, dated March, 1995, except that item 3A asking for the applicant's "Internet Address" is included on the same line as the street address. The environmental impact question, formerly item 6, has instead become a statement in the applicant certification section where the applicant certifies that "the construction of the station would not be an action which is likely to have a significant environmental effect (see the Commission's Rules 47 CFR Sections 1.1301-1.1319 and 97.13a)." The former item 7 has become item 6 on the new Form 610.

According to staff members at the Gettysburg FCC office, the FCC will continue to accept any of the three Forms 610 (dated November 1993, March 1995 and March 1997) until further notice.

## MIKE FOALE, KB5UAC, ABOARD AND ACTIVE FROM MIR

Ham-astronaut Mike Foale, KB5UAC, who swapped places with Jerry Linenger, KC5HBR, aboard the Russian Mir space station in mid-May, already is making good on his promise to keep Mir active on the ham bands. Foale is scheduled to spend more than four months on the space station before returning to Earth in September.

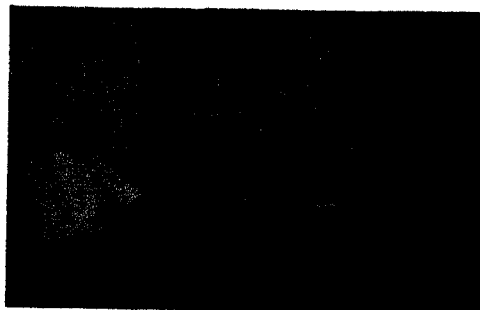
Al Lark, KD4SFF, of Greenville, South Carolina, was among the first US stations to snag a QSO with Foale (who was using R0MIR at the time). KD4SFF talked to Foale on Memorial Day and got a chance to try out a few Russian phrases during the QSO. The Mir frequencies are 145.800 MHz (downlink) and 145.200 MHz (uplink).

Foale has FCC permission to speak with unlicensed third parties via ham radio during his stay on Mir. Foale also has permission to use the German Space Amateur Funk

EXperiment (SAFEX) equipment on Mir in addition to the 2-meter gear.

An earlier Mir occupant, astronaut John Blaha, KC5TZQ, said in a National Public Radio interview on May 21 that "99% of the systems aboard Mir are working properly," and that internal coolant-loop leaks are the main concern. Right now, the NPR report concluded, Mir "appears to be in better shape than it has in months."

Dave Larsen, N6CO, is the US Mir QSL manager for contacts made with Mir crew members. QSL cards must include date, time, and mode of contact. He does not handle cards for SWL reports. To confirm contacts with the Mir packet radio personal message system (PMS), include the message number issued by the PMS on your QSL. Send QSLs along with a business-size, self-addressed, stamped envelope to: David G. Larsen, N6CO, Box 1501, Pine Grove, CA 95665 USA. For further details, get in touch with Larsen via e-mail at [doc@volcano.net](mailto:doc@volcano.net).



Bill Thomas, Estelle Wharton, Bill Woody finish up CW while Paul Anderson and Dave White look on.



## SOLAR ACTIVITY DECLINES

Solar seer Tad Cook, K7VVV, in Seattle, Washington, reports: Solar activity declined slightly from the recent peak, which was centered around May 21. Propagation has been very good, with worldwide openings on 20 meters into the late evening here on the West coast. Last week the solar flux was above the 90 day average of 74 on every day. A new region of sunspots appeared on May 23 and again on May 27. In the previous week one new region appeared on May 16, two on May 17, two on May 19, and one on May 21. At last conditions seem to be pulling out of the doldrums.

Geomagnetic conditions were upset on May 27 when the planetary A index was 21. The planetary K index jumped to a very high value of 6 at 0300 UTC, indicating a severe disturbance, but it then dropped back to 2 by 0900 UTC,

a very stable, quiet value.

Based on recent conditions, the next solar rotation is expected to produce a decline in solar flux to the low 70s until June 11, when the flux should rise back toward 80. Of course this assumes no new activity, and new activity from the new solar cycle is what we hope for.

W4VOS wrote regarding the recent lack of activity. He mentioned the news item from a January report which talked about an American Astronomical Society meeting in Toronto where scientists from Yale and NASA said that this next solar cycle should show a decrease in overall activity compared to previous cycles. W4VOS noted that after the last solar minimum in 1986, activity jumped right back, and there was no

question that the new cycle was on a roll. This time there is a much longer period of low activity between cycles.

Currently there is wide disagreement between experts on when higher activity will resume, and by how much. As an example, NOAA and the National Geophysical Data Center's estimates for the sunspot count for June vary by four to one.

20 meters remains the best band for worldwide propagation during daylight hours.



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