# PRINTED CIRCUIT

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**Newsletter of the Joplin Amateur Radio Club** 

Vol. 8 Issue No. 11

# FCC REGULATIONS ARE YOU OBSERVING THEM ?

BY JOHN TUDENHAM WØJRP

ould you operate voice on a frequency used for CW only?
Most hams would say no, but when the question was asked have you ever used voice on a CW frequency without identifying your call, almost one out of four admitted they had according to a CQ magazine poll.

For US hams, the lower limit of the 40 meter voice band is 7150 kHz. Most

areas of the world **except**North America can only
operate as high as 7100
kHz, as foreign broadcast
is authorized on
frequencies above 7100.
A rare DX station will
call CQ below 7100 and
say "listening on 7215" or
some other clear spot in
between the foreign
broadcast stations.
Sometimes the foreign
station may be working
other DX on his own

frequency and not listening in the American band. A US station may go down to the DX station's frequency and say "listen up in the US band - many stations calling you". The US station will not give his call because he is out of the voice band. This is illegal operation.

Another case of illegal operation occurs when a US ham hears a couple of out of state CBers using 28105 kHz on the Ten meter band. This is a CW only frequency so the US ham will go to that frequency

and use voice without identifying, saying "You are operating on an amateur radio frequency, please QSY". Clearly the amateur doing this is also in violation of FCC regulations. A legal way suggested of doing this which myself and also Jack KGØVR have used is to operate CW on this frequency and call CQ. This will usually drive them away. They probably don't know CW so there is no use trying to tell them to QSY using CW.



"Spread out, listening 5 up to 5 down". With hundreds of stations calling him this will cut out some of the QRM. Anyone that is having a rag chew on any of the spots he is listening might as well forget it. The only solution is QSY to the WARC bands where there are no contests. This is no FCC violation but something that just happens. It was the same in 1948 when I first got on the air. Some advice for the new hams; Don't get discouraged, HF is still fun. ¶

# ARRL BOARD REAFFIRMS,

MODIFIES ITS
RESTRUCTURING PLAN

n a special meeting October 24, the ARRL Board of Directors reaffirmed the bulk of its July 1998 Amateur Radio License Restructuring plan with some modifications. Among other things, the Board's July plan would eliminate the Novice and Tech Plus license classes. To provide a logical entry path to HF for Technicians, the Board now has suggested offering CW privileges to Technicians in the current General CW allocations on 80 through 10 meters. Technicians would be permitted up to 200W PEP.

"The July plan eliminated the HF door by eliminating the Novice license," observed ARRL Executive Vice President David Sumner, K1ZZ. "This is, in effect, a replacement for the Novice, but without an additional license class."

The Board also agreed to replace its originally proposed A, B, C, and D license class designations with Extra, Advanced, General, and Technician.

Under the July plan--and under the FCC's proposed streamlining--the entry-level HF license would be the General. Board members at the October 24 meeting near St. Louis expressed concern that the leap to HF privileges under the July plan could prove too daunting, especially for younger newcomers. Under the ARRL plan, it would require passing two written examinations plus a 5 WPM code test to become a General. Some also were

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inside...

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# FCC ISSUES UNIVERSAL LICENSING SYSTEM RULES

### he FCC has issued its longawaited Report and Order on the Universal Licensing System, affects all Wireless Telecommunications Bureau licensees. Among other things, the ULS will result in replacing Amateur Radio's familiar FCC Form 610 series with a new Form 605. The new rules become official 60 days after publication in The Federal Register--sometime around the end of the year. The FCC said it expects to have the ULS fully operational by next April. Using the ULS, applicants and licensees will be able to file, modify, and renew

The FCC's action consolidates approximately 40 existing forms into four ULS applications, including the new Form 605. Electronic filing in the ULS will not yet be mandatory for individual amateurs. Hams will have the option of filing electronically or on paper. However, electronic filing via the ULS will be required for Volunteer Examiner Coordinators in the Amateur Service.

electronically. Access to the ULS is via

http://www.fcc.gov/wtb/uls/.

Under the ULS, amateurs will use Form 605, the Quick-Form Application for Authorization in the Ship, Aircraft, Amateur, Restricted and Commercial Operator, and General Mobile Radio Services for all purposes. Applicants may continue to use the old forms for six months after the new rules go into effect, however.

Responding to comments from the ARRL and the W5YI Group, the FCC said it would include the Physician's Certification of Disability (Physician's Certification) on the new Form 605 in Part 2 of Schedule D.

As part of its Report and Order on the ULS, the FCC also issued amended rules (in WT Docket 96-188) to authorize visiting foreign hams to operate in the US

# NEW JARC OPERATING AWARD

### OCT 15, 1998-OCT 14, 1999

Be sure to send your reports to WØJRP, and I will try to list your standings monthly. Remember, one point for each state or country worked on HF bands. Extra bonus points for CW or QRP. Also, you get bonus points for each band where you make at least one QSO. There is no contest exchange, points are earned on rag chews and random contacts.

On VHF, one point per grid worked per VHF band, extra points for CW or QRP.

If you have any questions call me at (417) 624-8058.

Good luck, 73 John WØJRP

pursuant to recent international reciprocal operating agreements. "We conclude that all alien amateur radio reciprocal operation should be authorized by rule," the FCC said. This means that foreign hams holding a CEPT radio-amateur license from a CEPT country or an International Amateur Radio Permit issued by a participating CITEL country may operate while visiting the US without having to apply for permission. Additionally, it will be easier for US hams to operate in participating countries in Europe and the Americas.

Against ARRL objections, the FCC eliminated the one-year term for an alien reciprocal permit and will not require an FCC license document. The FCC noted that the new system is similar to the one already in place for US and Canadian hams to operate in each other's countries. The authority would not extend to US citizens claiming second citizenship and an amateur license from another country, however.

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# THE WORLD OF VHF/UHF

BY JOHN TUDENHAM WØJRP

### LARRY KCØAUY RECEIVES HIS VUCC CERTIFICATE

Larry was waiting for the mailman each day and it finally arrived. He received VUCC Certificate #990. This was done during his first year operating on six meters. This certificate indicates he has worked 100 grid locators on six.

The VUCC program which has created a lot of excitement among VHF'ers started on January 1st, 1983. I received #73.

#### SOME SIX METER DX

There have been a few scattered E-skip openings in the last month but nothing like June and July. Larry KCØAUY did pick up NH for a new state. With the Solar flux increasing, long haul world wide F-layer skip DX may not be to far away. Ten meters has been very good this fall with stations all over the world coming through on some days. On six meters, the southern latitudes have been getting some fairly good DX. A friend of mine W5SFW in Texas (grid DM95) worked into Brazil and Argentina around October 25th on six in a two hour opening.

### WATCH OUT FOR METEORS

The annual Leonids meteor shower is expected to peak around November 17th. According to information in various publications and also Don Hilliard WØPW, this year is supposed to be one the the best since 1966. Don said he remembers 1966 well, when two meters sounded like 20 meters. It takes a lot of skill and patience to work the meteors due to the short bursts. In a good shower the bursts may be longer and more frequent. And on six and ten meters, the bursts will generally last longer than on two meters.

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troubled about the growing gulf between the "traditional" HF operator and the newer VHF-only amateurs.

Addressing the Morse code requirement in the International Radio Regulations, Sumner summed up the Board's position by saying that the new privileges would amount to self-testing. "By their very nature, you can't use the privileges until you know the code," he said.

The special ARRL Board meeting was called to consider the League's comments on the FCC's amateur licensing "streamlining" proposals in WT Docket 98-143, released in August. Comments are due December 1. During the day long session, the Board also proposed that the FCC rules ban multiple-choice Morse code tests and establish that a passing grade for a code test be either 70% correct answers to 10 fill-in-the-blank questions or one minute out of five of solid copy.

The Board affirmed its proposals in RM-9196 to improve the procedures for granting Morse code exam credit on the basis of a physician's certification of a disability. It also affirmed "its strong desire" that written exams be modified as necessary "to demonstrate better the depth of the applicant's current radio technical knowledge and operating skill."

The Board supported retention of the topic definitions to be included in written exams, as contained in =A797.503(c) of the FCC rules, with some modification to accommodate the new four-class structure.

The Board also reaffirmed its desire that Advanced class volunteer examiners be permitted to administer General class exams, and it renewed its request in RM-9115 for several rules changes involving RACES stations.

The Board noted that it had "heard and considered the views of thousands of ARRL members" on the amateur licensing issues raised in both the ARRL and FCC proposals.

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## CLUB HAPPENINGS

#### **Elections scheduled**

Plan to attend the JARC meetings in Nov. to show your support and select your 1999 club officers. Nominations followed by elections will take place Tuesday, Nov. 24th. Contact Dave NØKMP if you wish to serve in any capacity the coming year.

#### **Christmas Dinner Planned**

The club Christmas banquet will be held at the McCoy's Restaurant Tuesday Dec. 8th, at 18:30. To get there, take the new 71 Hwy south from 32nd street to the 2nd exit (old 71). Exit west, it is about 100 yards on the North side of the highway.

# DOES THE CLUB NEED A HOME?

JIM SCOTT WBØIYC

If you haven't heard, there is considerable debate concerning the purchase and maintenance of a clubhouse to provide a home for the Joplin Amateur Radio Club. Many questions and ideas have arisen regarding both the benefit and problems associated with having and maintaining a clubhouse. Some things are certain however, it will take a commitment from many in the ham community, both JARC members and nonmembers alike, for this project to be realized. My first concern is whether there is enough interest and support to investigate further. Loose estimates indicate that it would require pledges of at least \$120/year from about 100 hams for up to three years. This should provide the funds needed to purchase and renovate a building.

With enough support, a committee needs to be formed to explore the question, its costs, benefits, and the impact for all of us in the ham community.

So can you imagine such a place?

### PHASE 3D SATELLITE BEGINS THERMAL-VACUUM TESTING

mateur Radio's Phase 3D spacecraft entered the test chamber October 21 to see how it will withstand temperature extremes and the vacuum of space. The satellite spent the previous week being readied for the pre-launch test sequence at the Orbital Sciences Corporation test facility in Germantown, Maryland, just outside Washington, DC. The spacecraft was transported to Maryland by truck from the Phase 3D Integration Lab in Orlando, Florida.

OSC Manager of Systems Integration and Test John Cavallo, KB3BWP, says that once a vacuum has been established in the test chamber, the satellite will undergo several testing cycles at both hot and cold temperature extremes. The spacecraft will be subjected to a maximum temperature of 45 C and a minimum of -20 C over five testing cycles. Each test cycle lasts approximately 36 hours.

Phase 3D Integration Lab Manager Lou McFadin, W5DID, says the spacecraft will be powered up during the thermal-vacuum testing and will transmit telemetry just as though it were already in space. "Things are looking very good," McFadin said October 20, as P3D team members completed status checks prior to the testing.

Assuming the spacecraft successfully passes the thermal-vacuum testing, vibration testing likely will be conducted sometime after the first of the year, McFadin said. The vibration testing is designed to simulate the stresses the spacecraft must endure during launch.

"We look forward to getting this running," said McFadin, expressing the hopes of the amateur community.

For more information on Phase 3D, see the Phase 3D Spacecraft Integration Laboratory Web site, http://www.magicnet.net/~phase3d/.

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The FCC said it will require the submission of a Taxpayer Identification Number by applicants and licensees using ULS, "consistent with the requirements of the Debt Collection Improvement Act of 1996." Some commenters, particularly amateur operators, argued against the requirement, saying that disclosure of a TIN--typically a Social Security Number-raised privacy concerns and was unnecessary to the Commission's regulatory goals. But, the FCC said its security measures will limit access to TIN data both on-line and to FCC staff. "Once data has been entered into ULS, sensitive data such as TINs will not be accessible to the public," the FCC said. The FCC has not addressed how it plans to handle applicants who do not have a TIN, such as foreign nationals who hold FCC licenses.

The FCC stood by its plan to use certain eligible private-sector entities, on a strictly voluntary basis, to issue club and military recreation station call signs. Both text and formatted versions of the complete Report and Order, WT Dockets 98-20 and 9 6-188, are available on the FCC Web site, http://www.fcc.gov.

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### KFØTD SEZ...

## FUSE HOLDER

Once again a major problem turned out to be a bad connection, this time it was the connection between the fuse and it's holder.

Now my new \$60 50mc dual trace HP oscilloscope works great. I had been putting off working on it because it worked at the hamfest and when I brought it home and turned it ON, the trace didn't come on the screen until I smacked it on the side. Just took the covers off and started poking around with a fiberglass stick.

Look for the easy things first.

### Buy/Sell Trade

For Sale - ICOM 290-A 2m All Mode Transceiver fine shape \$275 OBO.

Ralph Orahood KBØZHC (417) 358-7540

For Sale - Heath HW-24T Handheld VHF/UHF, Needs charger.

Ask \$200

Eric Gilbert (417) 623-2584

10/98

11/98

For Sale - 2 CushCraft DX-120 2m collinear beams. Each array 20 elements. Total 40 elements. Includes phasing harness.

Ask \$100

Jim Scott WBØIYC (417) 781-2211

10/98

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However, although infrequent, it is possible for a burst to last 60 seconds on two meters during this shower.

I recall one of my first meteor contacts during the Perseids shower in August 1990. I worked VE5LY in Canada on a strong burst, we then said "QSY to 222 MHz" where we heard each other but could not complete the QSO. It is very difficult on 222 compared to two meters, but I did complete a 222 MHz OSO later with WS4F in Georgia. That's one of the many thrills working VHF. Later that fall I again worked WS4F on 222 during a Tropo opening and signals were S9. We had a 15 minute rag chew this time. We joked about this being the "easy way", but still it is not that common to get S9 signals from MO to GA.

For those interested in possible Six meter long haul DX be sure to check WWV at 18 minutes past the hour. 10 MHz during the day, 5 MHz at night, usually produce the best signals. Solar Flux is not the only indicator, the K-index plays an important part in openings to the south.

JOHN IS A REGULAR CONTRIBUTOR TO THE JARC PRINTED CIRCUIT AND MAY BE CONTACTED THRU THE CLUB P.O. BOX.

### HAMFEST CALENDAR

Note: Listings are updated as information becomes available.

October 31 Kirkwood, MO SLARC & GARA, Kirkwood (St. Louis County), MO. Halloween Hamfest 8:00a.m. to 1:30p.m. at the Kirkwood Community Center. For tables call Steve Welton at 314-638-4959. Talk in on the 146.91 repeater. For Info: Dennis McCarthy, AAØA 5022 Lansdowne Ave., St. Louis, 63109. 314-351-3568 or 314-533-0321 (Ext. 12) E-mail: mccartdj@slu.edu

November 1 Des Moines, IA Tivka Tracers ARC Hamfest \*\*\*

January 16, 1999 St. Joseph, MO Missouri Valley ARC & Ray-Clay ARC Contact John Winkler, WBØVRA Route 1, Box 53A, Gower, MO 64454 816-424-6484 E-mail: WB0W@IBM.Net

**February 6, 1999** West Memphis, AR Dixie AR Group Contact Kellye Farris, KB5RCE 432 Ross Ave., West Memphis, AR 72301

E-mail: dixiefest@media-two.com

870-732-8724

**February 20, 1999** Russellville, AR Arkansas River Valley AR Foundation Contact Margaret Alexander, KC5MCS 1511 North Jackson,

Russellville, AR 72801 501-968-7270 E-mail: ealexand@cswnet.com \*\*\*

March 13, 1999 Kansas City, MO Ararat AR Shrine Club Steve Dowdy, WJØI 12411 Olive St., Kansas City, MO 64146 816-941-3392 E-mail: sdowdy@qni.com \*\*\*

March 13, 1999 Fort Smith, Arkansas Hamfest - Fort Smith Civic Center For information: Kelsey Mikel - KK5KU 8604 Urban View Dr. Fort Smith, AR. 72903 501-651-7003 E-mail: kk5ku@amsat.org

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April 23-24 1999 Little Rock AR

**April 23-24 1999** Little Rock, AR Little Rock Hamfest

### **CALENDAR ON THIS PAGE**

ALSO UNUSED JUNK TO SAVE FOR FUTURE ISSUES

## **QRP FOR THE RADIO AMATEUR**

BY JOHN TUDENHAM WØJRP







## Meeting Times, Testing, Events, other Club Information

he Joplin Amateur Radio Club, Inc., a Missouri not-for-profit organization, meets on the second and fourth Tuesdays of each month at the Joplin Municipal Building, on the lower level, in the Civil Defense dining room at 7:30 PM. The facility is accessible to the handicapped.

The club supports and promotes annual operating events, assists area agencies with communications when requested, and offers training classes for advancement in amateur radio. It also sponsors the JARC HamFest each year in April, and maintains a wide area coverage OPEN 2m repeater on 147.21 MHz.

Club members often meet weekday mornings in Joplin for coffee at the Target Store (3151 East 7th St.) around 8:30 a.m. Members also meet for breakfast on Saturday morning around 8:30 AM in the restaurant at Smitty's (18th and Maiden Lane) in Joplin.

#### 1998 CLUB OFFICERS:

President: Larry NØMST Vice-Pres. Jackson KBØWFE Treasurer, Jim NØZSQ Secretary, Mark NØZPD

# Amateur Radio VE Testing

License testing by volunteer examiners takes place on the 3rd Thursday of each month (except July) at St. Paul's Methodist Church located at 2423 West 26th St. in Joplin. Sign up at 6:30 PM, testing begins promptly at 7 PM.

#### **ABOUT THE NEWSLETTER**

This club newsletter provides an open forum for the Four-State area amateur radio community, and *your* comments and contributions are always invited. Items for publication, including classified ads and amateur radio related articles, may be sent to the **JARC Printed Circuit**, P.O. Box 2983, Joplin, MO 64803-2983, or send email to: jimscott@janics.com

Deadline for submissions is the <u>20th</u> of the month preceding the month of publication. Non-Commercial Classified ads are <u>free</u> and will be run on a space available basis whenever requested. Submissions may be typed, handwritten, ASCII text files attached with email, or on disks formatted for IBM. *All items* are subject to editing for spelling, content, and space limitations as required.

'73 and Thanks. Jim WBØIYC ¶

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