



# The WACOM HAM



March 1997

Editor: Kevin Smith

Washington, PA

## CHANGES TO WACOM BY-LAWS APPROVED BOARD OF DIRECTORS STUDY PROCEEDING

### New By-Laws and Constitution Adopted

The process of gaining 501 (c) (3) designation for WACOM has taken another step forward with changes to the By-Laws and Constitution having been approved at the last business meeting. The changes to the By-Laws were recommended by a CPA retained by WACOM to assist in achieving the Federal 501 (c) (3) designation. This non-profit, tax exempt status, if granted, also allows gifts to WACOM, to be tax exempt.

Amendments to the WACOM By-Laws and Constitution require a reading of the proposed changes at two successive business meetings before a vote can be taken. For a valid vote to take place, a quorum of 20% of the membership must be in attendance. Currently a quorum for a valid meeting is 18.

The changes to the By-Laws and Constitution eliminated references to club and hobby in favor of non-profit organization, "organized exclusively for educational, scientific and charitable purposes", and "Conduct activities as will enhance and improve the art of Amateur Radio."

The newly adopted By-Laws and

Constitution are presented in its entirety in this issue.

### Board of Directors Study

Bill Hill, W3WH has spearheaded the study of organizing WACOM under a Board of Directors. Two meetings have been held with Bill Hill, the current club officers, and several committee chairman. According to Bill, "The goal of this style of operation is to remove the conduct of routine business from general meetings so that these meetings can be opened up to amateur radio related agenda. What is not intended is removing the general membership's ability to vote on major policy questions or expenditures."

The study committee will propose the following:

The Board of Directors will set policy, conduct all routine business, propose an annual operating budget, and authorize expenditures up to \$500. Expenditures over \$500 will require authorization of the general membership.

The Board of Directors will meet once a month with all meetings open to the general membership, however, only members of the board will vote on business agenda.

The Board of Directors is

proposed to begin functioning January 1998. The President and Treasurer of WACOM will be elected to a 2-year term. The Vice-President and Secretary will be elected to a 1-year term. Three at-large members of the Board of Directors will be elected by the general membership and initially hold 1, 2, and 3 year terms respectively. The end of 1998 will mark the end of terms for 1 at large director, the Vice President, and the Secretary. After the first year, all newly elected directors will hold 3-year terms.

Instituting a Board of Directors will require amending the by-laws and constitution once again. The portions of the by-laws proposed to be amended, will be read during the March 6<sup>th</sup> meeting, and for a second time at the April 3<sup>rd</sup> general meeting. Nomination and discussion of the amendments will be made at the April 3<sup>rd</sup> meeting and election at the May 1<sup>st</sup> meeting.

### WACOM On the Web

WACOM now has its own web site thanks to Jack Okorn, W3CT (formally AA3FN). Jack obtained free space on the server of an internet provider in Washington, in exchange to help get this new company's name out.

The new internet provider in town is Western PA Online and can be accessed at either 250-5000 or 250-5001 Our thanks to WPOL for the service and to Jack Okorn for taking the initiative for starting the site up.

The address for WACOM's web page is: <http://www.wpol.com/wacom>



# President's Corner

by Paul Plants, N3WMV  
W.A.COM President

What does WACOM need? Well WACOM needs more participation from members. JFK once said "Ask not what your county can do for you. Ask what you can do for you country." I am now asking you to do soul searching and offer what you can for WACOM.

Last meeting the request was put on the floor for a chairperson for the hamfest and no one offered. Granted this is a big job with little thanks, but if WACOM is to have a hamfest a chairperson

is needed. WACOM is in the middle of other new changes and looking for other suggestions for events. I was approached while removing the display from the library for help with the Boy Scouts. The Boy Scouts have an event called Jamboree and WACOM was asked for help. This would be good public relation event for WACOM. Below is a photo from an earlier Jamboree. I hope this starts suggestions for other events that could be of help for the local area.



## Results of Judging In; WACOM HAM Is About Average

Last December's issue of the WACOM HAM was submitted to the Amateur Radio News Service annual Publication Contest for judging. The opinions from the judges were received last month and the average score was 78 out of 100 points.

Specific positive comments included the fine article by Ken Frankenberg, "A Terminal Case of Ham". (Thanks Ken, your article was probably worth 20 points alone.) The editorial, use of pictures, punctuation, and spelling were also given high marks.

Improvements that were suggested include:

- ◆ Club meeting date/time/place not clearly indicated (or in my case not at all).
- ◆ Overall format should be more consistant i.e. number of columns, column width, frames or not.
- ◆ Lack of member contributions.
- ◆ Table of content box on front page.

A certificate was awarded and is pictured on page 7.

### WACOM Committee Phone Directory

A.R.E.S.	Dave DeMotte, N3IDH	228-8178
RACES	Bob Ketzell, KB3IN	228-0425
EMA	Dave Smith, N3LIK	225-0346
President	Paul Plants, N3WMV	225-8637
Vice President	Joe Musante, WB3GTE	223-0897
Secretary	Patty Marshall, N3XAR	225-8637
Treasurer	Kevin Smith, N3HKQ	258-4153
Education	Jim Burtoft, KC3HW	228-0546
2mtr Net Mgr.	Jim Grazulis	228-7583
10mtr Net Mgr.	Joe Musante, WB3GTE	223-0897
Newsletter	Kevin Smith, N3HKQ	258-4153
Repeater	Sam Mayberry, W3CYO	222-0367
VE Testing	Stan Cole III, NX3P	223-0104



## CONSTITUTION and BY-LAWS of W.A.COM

### ARTICLE I: NAME

This Amateur radio organization shall be called Washington Amateur Communications Incorporated. Its Official abbreviation shall be W.A.COM and it's official organ known as The W.A.COM Ham.

### ARTICLE II: PURPOSE

Section I: Washington Amateur Communications, Incorporated, (W.A.COM) as a non-profit organization in the state of Pennsylvania, County of Washington, shall be organized exclusively for educational, scientific, and charitable purposes, including for such purposes, the making of distributions to organizations that qualify as exempt organizations under section 501 (c) (3) of the Internal Revenue Code or corresponding section of any future federal tax code and shall:

1. Promote the interests of Amateur Radio its membership must agree to assist in EMA.
2. Cooperate with other amateur radio organizations any manner that will react to the common good of Amateur Radio.
3. Participation to further the radio skills of members to assist in EMA.
4. Provide a communications center and operating facilities so that members shall have an adequate meeting place and equipment.
5. Teach and assist non-members who are interested in amateur radio in the art and skills necessary to pass the FCC license tests.
6. Conduct activities as will enhance and improve the art of Amateur Radio.

SECTION II: No part of the activities of W.A.COM shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and W.A.COM shall not participate in, or intervene any political campaign on behalf of or in opposition to any candidate for public office (including the publishing or distribution of statements). Notwithstanding any other provision of these articles, W.A.COM shall not carry on any other

activities not permitted to be carried on:

1. by a corporation exempt from federal tax under section 501 (c) (3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or
2. by a corporation, contributions to which are deductible under section 170 (c) (2) of the Internal Revenue Code, or corresponding section of any future federal tax code.

### ARTICLE III: Membership Requirements and Fees

Section I: Eligibility for membership in W.A.COM is set forth as follows:

Any person is eligible for full membership provided that:

1. He or she is interested in Amateur Radio.
2. He or she indicates a desire to become a member. Any person who was included in the Original Organization shall be considered a Charter Member.

Section II: To become a member in this organization a person who is eligible must furnish their name, address, and telephone number.

Section III: Honorary membership may be bestowed on any eligible person by a majority vote of the members present at any regular or special meeting.

Section IV: A dues structure will be established. Payment of dues will entitle a member to one full year membership in W.A.COM, Inc. The yearly dues rate will be established by a majority vote of the members present at the meeting. (Dues for the calendar year will be due at the January meeting and no later than the March meeting.)

### ARTICLE IV: Obligations and Privileges

Section I: It shall be the duty of each member to support this organization with his/her participation to the extent that he/she feels obligated to make a success of W.A.COM.

Section II: Each member shall endeavor to abide by the Amateur Code of Ethics.

Section III: All members are urged to enjoy all the privileges of this organiza-

tion as outlined herein, and offered during the existence of W.A.COM.

Section IV: A member can be suspended or expelled for improper conduct. With seriousness of such charge one regular meeting shall air charge with full membership vote at the next regular meeting.

### ARTICLE V: Meetings

Section I: A meeting cannot be held unless there are at least 20% members present including at least (1) one official. This shall constitute a quorum.

Section II: There shall be (1) one regular meeting held each month.

Section III: Special meetings may be called at the discretion of the President or by written notice of (5) five full members to the Secretary who will in turn notify the membership.

### ARTICLE VI: Officers

Section I: The executive committee shall consist of the elected officials (if membership falls below 20 - the offices of Vice President and Secretary may be combined) elected for a (1) one year term. It shall consist of the following officials in order of their rank:

1. (1) One President
2. (1) One Vice President
3. (1) One Secretary
4. (1) One Treasurer

Section II: Election of officers shall be by nomination at (2) two consecutive regular meetings with the election being held prior to the close of the second regular meeting. This will occur at the November and December meetings annually. Officials shall take office at the January meeting.

1. Eligibility to hold elected office in W.A.COM is set forth as follows:

- A: Must be a member in good standing.  
B: Must hold a valid Amateur Radio License.

2. In the event one of the Executive Committee must vacate his position as an officer, his successor will be determined as follows:

(Continued on page 4)



**February Western Pennsylvania VE Test Opportunities**

(A) = ARRL/VEC, (L) = LAUREL/VEC, (M) = MOUNTAIN/VEC,  
 (5) = W5YI/VEC, \*P\* = Pre-registration requested, \*N\* = No walk-ins, WI = walk-ins

Date(s)	Location	Time	Club	Contact	Telephone
1	Erie		Radio Assn of Erie	Norma Vanderhoff	814-665-9124 (A)
12	Washington	7 PM	WACOM	Stanley Cole	412-223-0104 (A)
18	Reno	7 PM	Ft Venango	Mike/Key	no more info available
29	Greensburg	9 AM	Foothills ARC.	Al Compton	412-523-3727 (A)

*(Continued from page 3)*

A: Nominations will be taken at the next (2) two consecutive regular meetings with the election being held prior to the close of the second regular meeting.

**Section III: The President**

1. He/she shall conduct and preside at all regular and special meetings.
2. He/she shall appoint all committees.
3. He/she shall cast a vote to break a tie at any General Election.
4. He/she shall be ex-officio of all committees and shall be notified of committee's progress and decisions.

**Section IV: The Vice President**

1. It shall be the duty of the Vice President in event of the absence of the President to open and reside over the meeting. (If VP and Secretary are one - he/she shall appoint a member to record the minutes of such meetings.)

**Section V: The Secretary**

1. It shall be the duty of the Secretary to record the minutes of all regular meetings.
2. He/she shall keep a log of attendance of all members in attendance at regular meetings.
3. He/she shall handle all correspondence for the organization.
4. And issue all membership cards.
5. In event of the absence of the President and Vice President, it shall be his/her duty to open and preside over the meeting. He/she shall appoint a member to record the minutes of such meetings.

**Section VI: The Treasurer**

1. He/she shall keep a roster of all members of the organization.

2. He/she shall credit any individual donation and issue a receipt of said donations upon request.

3. He/she shall record all monies donated from any other source, and deposit said donations in an account at a bank designated by the organization.

4. He/she shall disburse funds at the direction of the organization and report in detail at the meetings on the financial condition of the organization. Checks shall be issued and signed by the Treasurer and countersigned by the President.

5. He/she shall upon completion of his/her term of office or his/her resignation turn over all W.A.COM assets in his/her possession to the organization or his/her successor.

6. In the event of the absence of the President, Vice President and Secretary, it shall be his/her duty to open and preside over the meeting. He/she shall appoint a member to record the minutes of such meetings.

**ARTICLE VII General Business**

Section I: All meetings shall be governed by Roberts Rules of Order.

Section II: Any Request for change or modification of the by-laws must be presented in writing.

1. Must be read at (2) two consecutive regular meetings and approved by a majority vote at the second meeting.

Section III: An equipment committee shall be formed for safekeeping of W.A.COM properties and assets.

1. No part of the assets or income of W.A.COM shall insure to the benefit of or be distributed to the members, the officers, or any of them, or to other

private persons except that W.A.COM shall be authorized and empowered to make payments and distributions in furtherance of the purposes set forth herein. Upon dissolution of W.A.COM, the officers shall, after paying or making provision for the payment of all liabilities of W.A.COM, dispose of all assets of W.A.COM in such manner, or to such organization or organizations organized and operated exclusively for charitable, educational or scientific purposes as shall at the time qualify as an exempt organization or organizations under Section 501 (c) (3) of the Internal revenue Code of 1954 (or the corresponding provision of any future United States Internal Revenue Law), as the officers shall determine.

**ARTICLE VIII Tone Alert System**

Section I: A tone will be used to encourage ARES and RACES participation by members in emergencies.

**ARTICLE IX Adoption of By-Laws**

Section I: Upon the adoption of these by-laws, they shall be the rules, which governs this organization.





## Highlights From The February WACOM Business Meeting

**Treasurer's Report** - Treasurer Kevin Smith reminds members that 1997 dues are required to be paid by the March meeting to continue receiving the WACOM Ham.

**Board of Directors** - The BOD Study Group will meet again on Tuesday, February 11, in the club room at the George Washington Hotel at 7:00 PM. Specific proposals will be developed for presentation at the next general meeting. Adoption of the BOD concept will require another change in by-laws.

**W3CYO Repeater** - Sam Mayberry reports that the antennas installed on the 440 and 145 portion of the repeater are still being "fooled with". The old 2 meter antenna was reinstalled. Please let Sam know how the new equipment is doing.

**K3PSP Repeater** - The 146.79 repeater has been repaired and operating normally for several months. Coverage is as good as always.

**HAMFEST** - A 9 month, \$3500 CD was purchased and \$215 deposited into the Hamfest checking account. The search for a new Hamfest chairman is underway since Steve Elliott is moving out of town. Steve Elliott recommends that the place and if necessary the date of the Hamfest be moved. He recommends moving to the Washington

County fairgrounds at an earlier (warmer) time in the year. Use of two buildings at the fairgrounds, for a day, is available for \$700.

**ARES** - Dave DeMotte, N3IDH has appointed Walt Piroth N3BKQ, Paul Plants, N3WMV, and Bob Ketzell, KB3IN as assistant EC's.

**VHF/UHF Net** - Dave DeMotte indicated that another net control station is needed for the Tuesday evening net and he would like someone else to take over as Net Manager. After some discussion, Jim Grazulis, KA3KSP volunteered to be net manager. He would begin searching for a new NCS.

**Education** - Jim Burtoft, KC3HW reports that 13 students are still hanging in.

**Proposal to Washington County Commissioners** - Steve Elliott reports that Jeff Yates of the county, indicates that things still look favorable for WACOM's proposal to erect a building on county property. It was recommended that the Fair Board be approached as well about the WACOM proposal.

**501 (c) (3)** - A second reading of the proposed changes to the by-laws were read by President Paul Plants. According to current by-laws, any changes to the by-laws require two separate readings at meetings having a quorum of members present prior to voting. It was determined that a quorum of members were in attendance at the second reading. Therefore a vote to adopt the amendments to WACOM's by-laws was taken

and the amendments were adopted.

### Miscellaneous Items -

- Dave DeMotte reports that no large buses are available to lease by WACOM to go to the Dayton Hamvention. Renting a 15 passenger van will be investigated for the weekend.
- Three sections of Rohn 25, a triband beam, and a hazer is for sale at \$400 by a club member. See Paul Plants for more information.
- Traffic needs to be passed into Washington County. If interested in assisting in passing traffic, tune into the local traffic net on 3.580 MHz, every day at 5:00 PM local time.



### FOR SALE

Lighting bolt quad; 5 Band with 30 feet long tower with rotor - \$400.00. 228-9740

IC-27A 2 meter mobile w/external speaker & lip antenna mount. 20 watts - \$125  
258-4153 after 6:00 PM



## SAFEX - New 440 MHz Repeater Aboard Mir Space Station

*A compilation of several internet bulletins from AM-SAT, SpaceNews & Satellite News*

*(Ed. Note: Many of us have the means to use the Mir SAFEX II 440 repeater if we have a dual band (or 440 single band) FM mobile transceiver in our car using a vertical antenna. All that is needed is to know when Mir is overhead and to have our radio ready. This article shows how to prepare your radio when you know of Mir's overhead pass.)*

Operation of the MIR/SAFEX II systems seems quite difficult. Mike, N1JEZ, reports having made several contacts using compensation for the doppler effect.

The two biggest problems are CTCSS tone and doppler shift. First off, one needs to use 141.3 CTCSS tone to be able to bring up the repeater. Secondly, one needs to compensate for doppler shift on both the downlink and well as the uplink (unlike AO-27).

The 70 cm doppler can be as much as +/- 10KHz. Standard downlink doppler for a pass starts high in frequency and ends low. Simply tune high at the start and move down in frequency during the pass. On the uplink, MIR hears your signal the same way (i.e. high at the start and ending low). Since you can't tell MIR to adjust its receive frequency, one must compensate by adjusting the transmit frequency. Start the pass on the low side and increase the frequency as the pass

progresses. It's the opposite of the receive doppler. This is confusing.

Here are a couple of ways Mike does it on his FT-736R. *(Ed. Note: This can also be done on many modern FM dual band radios.)* The first method is to program a series of memory channels. Mike programmed 9 memory channels for +/- 8KHz doppler correction. He used a sequence of standard memory channels (not Sat channels!) set up as minus offset with tone encoding. First, program the downlink frequency, then enter the offset. Make sure you are set for negative offset and tone encoding (141.3), then save to a memory channel. He set the frequencies for each channel according to a list you will be able to down load from the internet or packet version of this bulletin:

MIR/SAFEX 70cm Doppler Correction:

Dnlink (MHz)	Uplink (MHz)	Offset (MHz)
437.958	435.742	2.216
437.956	435.744	2.212
437.954	435.746	2.208
437.952	435.748	2.204
437.950	435.750	2.200
437.948	435.752	2.196
437.946	435.754	2.192
437.944	435.756	2.188
437.942	435.758	2.184

During a pass, Mike starts with the first channel, and tunes up channel by channel, as the pass progresses. He sets the meter to DISC/ALC and keeps the

meter centered as well as possible on receive. One probably can get away with fewer channels, but if enough memories are available, one might as well use them.

The second method Mike suggests is full time automatic doppler correction via CAT utilizing NOVA. He notes that he posted how to use this method to the NOVA reflector a while back. There is a problem with the way NOVA works with CTCSS while doing automatic tuning, but there is a simple "work around". He says that anyone interested can drop him a note and he'll send them a copy.

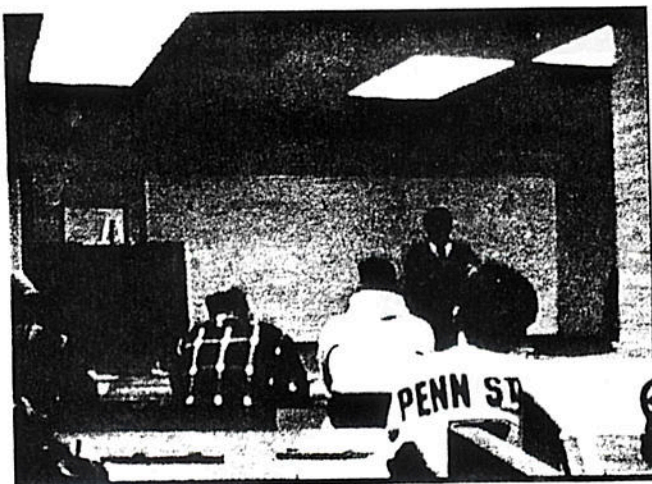
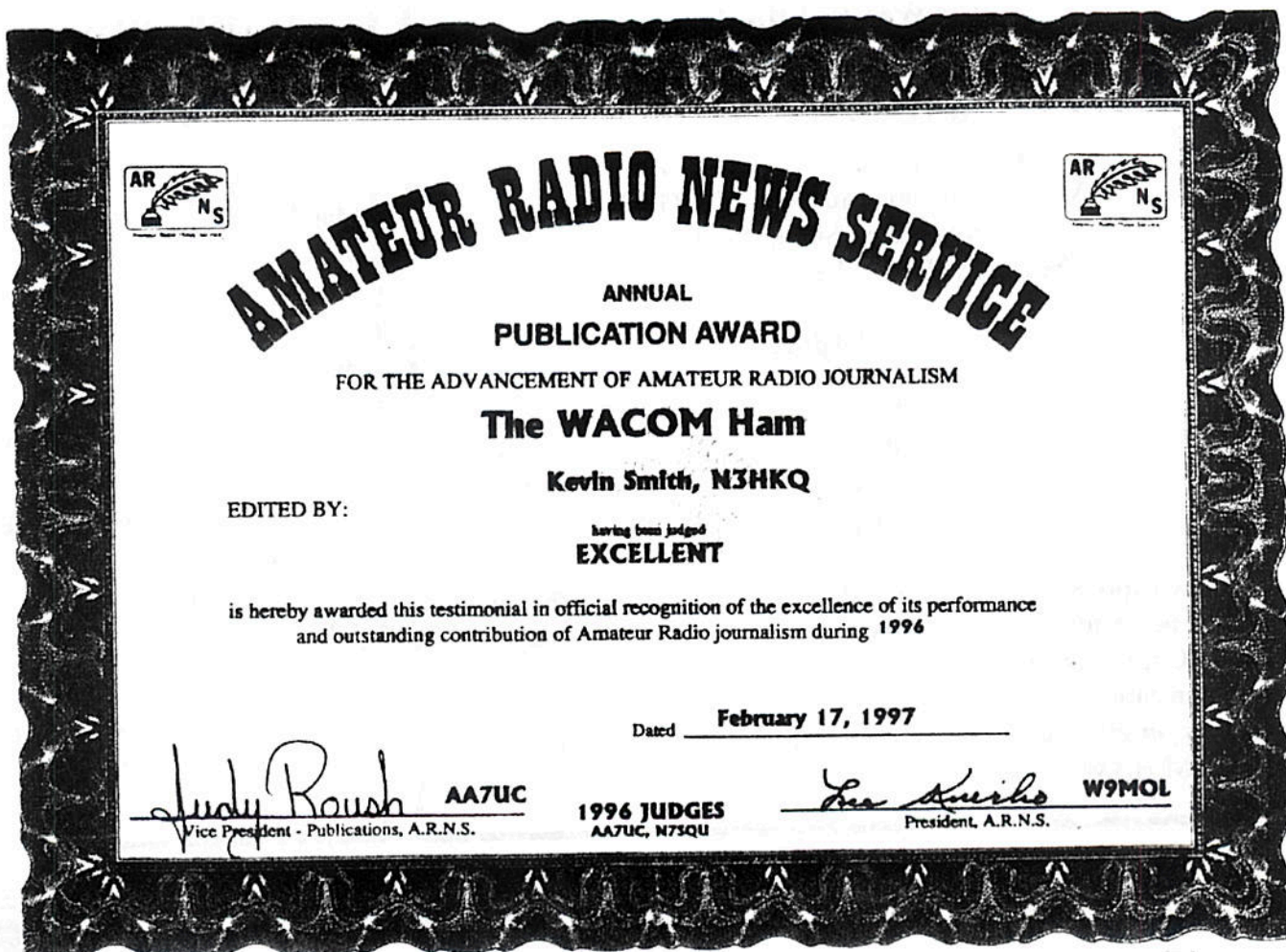
### SAFEX II Notes:

- 1 Call RR0DL.
- 2 Output power is 1.5 Watts.
- 3 Maximum Doppler is +/- 10 kHz
- 4 The Tx/Rx split is 2.2 MHz (excluding Doppler)
- 5 PL (or CTCSS) opens the repeater; once open, PL not needed. Time to reset PL is not known
- 6 FM used for all modes.

### Additional notes on handling Doppler shift:

- 1 Listen high, call low at beginning of pass.
- 2 Nominal transmit and receive frequencies when Mir is overhead.
- 3 Listen low, call high at end of pass.
- 4 Doppler shift is maximum at horizons, approaches zero at middle of pass.





*Jim Burtoft, WACOM Education Chairman, is caught in the act of bringing more amateurs into the ranks at a recent session of the Novice/Technician classes held at WTI in Washington.*

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V. President: Joe Musante, WB3GTE  
Treasurer: Kevin Smith, N3HKQ  
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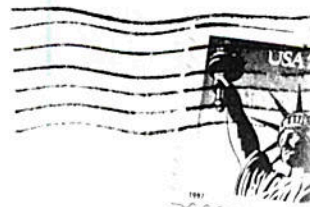
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**WACOM VHF/UHF Net**  
**145.49/224.4/443.3 Mhz**  
**8:30 PM Local Time**

	Date	NCS
March	4	KA3KSP
March	11	WO3X
March	18	N3HKQ
March	25	N3IDH
April	1	KA3KSP

**WACOM 10 Meter Net**  
**28.340 Mhz**  
**9:00 PM Local Time**

	Date	NCS
March	4	W3WH
March	11	KA3VOM
March	18	KA3KSP
March	25	WB3GTE
April	1	W3WH



# The W.A.COM HAM

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