

Happy New Year



Club Officers Elected - new WACOM officers for 1994 from left to right are: Dave DeMotte, N3IDH, President; Joe Stout, KA3MZS, Vice President; Russ Burhenn, N3NEL, Treasurer; and Tom Fox, KA3NIY, Secretary.

Ham radio classes to begin this month

New classes for prospective hams will begin on Tuesday, January 11th at WIT in the George Washington. The two hour classes will begin at 7PM - a half hour earlier than last year.

The 10 week course will provide students with the necessary theory and code to become licensed hams.

On Tuesday, March 15th, prospective hams will be tested at the first WACOM VE session of the year beginning at 6:30PM.

If you know anyone who would be interested in taking the class contact Jim Burtoft, Education Director, at 228-0546.

Silent Keys

Ray Reismeyer
Bill Rhodes

Word has been received that two club members recently passed away. Ray Reismeyer, N3AOJ, and Bill Rhodes, N3KDO.

Bill, a fairly new member, attended several club meetings and Ray participated in many club functions over the years.

A HAM'S CHRISTMAS EVE

By Robert Shafer W9SVL (A Silent Key)

'Twas the night before Christmas and in the ham shack,
Was the warm glow of tubes in the transmitting rack.

The log book was brought up to date with great care,
In case the FCC might some day be there.

XYL and Harmonics were snug in their beds,
My strong RF waves safely from their heads.

I plugged in the mike and adjusted the VFO,
Getting all set for a late night QSO.

When up from the F layer there arose such a clatter,
I looked to the window to see what was the matter.

Then up on the roof by the forty meter beam,
There came QRM like a heterodyne scream.

On Icom, on Kenwood, on Yaesu and Ten-Tec,
On Comet, on Collins, on Alinco and Cushcraft.

Bias to the grid and volts to the plate,
Just watch the S-Meter while we all modulate.

As I turned to the rig and reached for the dial,
From the energized tuner Santa slid with a smile.

An RF choke he held tight in his teeth,
And coax encircling his head like a wreath.

A bundle of ham gear hung from his hand,
Was that MY name on a new dual band?

He had a snub nose like an egg insulator,
And his cheeks glowed bright red like a hot oscillator.

He spoke not a word but went straight to his work,
Laying out all the gear, then turned with a jerk.

And laying a wave meter along side of his nose,
Said, "Please QSL." and up the feeders he 'rose.

He climbed up the dipole, to his team gave a whistle,
And away they all flew like a jet propelled missile.

But I heard his last signal from the upper ionosphere,
Seventy Three, Eighty Eight, Merry Christmas... I'm clear.

"Weather Satellite Handbook"

by Dr. Ralph Taggart

This book (an ARRL publication), now in its Fourth Edition, is a culmination of many years of practical experience by Dr. Taggart in working with Weather Satellites. It offers almost 100 pages of extensive knowledge on topics dealing with the basics of satellites and satellite tracking, antennas, receivers, and much more.

"Communications Satellites"

by Larry Van Horn

This third edition reference book, has over 250 pages of hard-to-find information dealing with every aspect of communications satellites. Mr. Van Horn goes into detail on communication techniques used by satellites carrying amateur radio, weather, and domestic and international broadcast, as well as specialty topics including the U.S. and Soviet Space programs, as well as U.S. Military Space program. This guide is, by far, the most comprehensive source of information dealing with satellite communications ever compiled, complete with detailed frequency listings, and list of additional sources of information to further build your reference library.

These reference books are filled with hard-to-find information and plenty of pictures and would make a fine addition to your reference library. These books originally sell for \$20 and \$15, respectively.

(Continued on page 7)

WACOM

Committee Phone Directory

| | | |
|-------------------|------------------------|----------|
| A.R.E.S. | Walt Piroth, N3BKW | 746-2327 |
| RACES | Bob Ketzell, KB3IN | 228-0425 |
| EMA | Dave Smith, N3LIK | 225-0346 |
| MARS | Jack Kelvington, K3DMY | 223-3219 |
| President | Dave DeMotte, N3IDH | 228-8178 |
| Vice President | Joe Stout, KA3MZS | 228-1090 |
| Secretary | Tom Fox, KA3NIY | 223-9666 |
| Treasurer | Russ Burhenn, N3NEL | 222-4037 |
| Education | Jim Burtoft, KC3HW | 228-0546 |
| 2mtr Net Mgr. | Norm Torisky, N3KLR | 745-6154 |
| 10mtr Net Mgr. | Joe Musante, WB3GTE | 223-0897 |
| Newsletter Editor | Jim McNutt, NW3X | 941-5159 |
| Repeater | Sam Mayberry, W3CYO | 222-0367 |
| VE Testing | Stan Cole III, NX3P | 223-0104 |

WACOM VE exam sessions scheduled for 1994

Four VE exam sessions will be held in 1994 beginning on Tuesday, March 15th at 6:30PM. The first session is being held on a different day and earlier than normal with the anticipation of a large turnout. The first session is being held at the conclusion of the club Amateur radio classes.

Other exams are scheduled for Thursday June 9th at

7PM; Thursday August 11th at 7PM and Sunday, November 20th at 9AM during the Tri-State Hamfest.

Mar. 15th 6:30PM
Jun. 9th 7:00PM
Aug. 11th 7:00PM
Nov. 20th 9:00AM

SuperBowl Special Event station

Atlanta, Georgia: N4CV/SB28 will operate January 30 1300-2359Z to celebrate Superbowl 28. The first Superbowl to be played in Atlanta. Operation will be in the lower general portions of 80 and 20 meter bands, at 28.333MHz and 145.110MHz. For a Superbowl ticket QSL send SASE with your QSL (include contact number) to: SCARS 200 Tradeport Blvd. Suite 207; Atlanta, GA. 30135

Two astronauts become hams

Two more astronauts, Charles F. Bolden, Jr., (Commander) and Ronald M. Sega (Mission Specialist) have passed their No-Code Technician Amateur Radio Operator License requirements at a W5YI-VEC test session in Houston, Texas on November 26th. They are due to lift off aboard the Space Shuttle Discover on January 27th.

STS-60 is the first joint USA-Russian science mission. Aboard STS-60 will also be Sergei Krikalev, a licensed Russian Amateur and cosmonaut who spent two periods aboard the Russian MIR space station operating as U5MIR.

(Continued on page 7)

Big Switch Award



This years recipients of the Big Switch award were Norm and Susan Torisky. Pictured from left to right: Sam Mayberry, W3CYO; Norm Torisky, N3KLR; and Susan Torisky, N3MDP.

Pick your call sign

The FCC today proposed that amateurs be able to choose their own call signs, once a new automated processing system is in place at the Commission's Private Radio Bureau.

Under the proposed system, amateurs wishing to apply for an available call sign would be required to file a form and pay a fee. Trustees of club and military recreation stations also would be eligible for the new program. Also today, The FCC cancelled a rule it adopted last summer establishing a call sign administrator program for amateur club and military stations, a program that was never implemented.

The FCC said that at the present time call sign selection by new licensees was not feasible, but left the door open for that possibility in the future. The FCC said that the new PRB computer might eventually allow amateurs to check for themselves the availability of call signs, and that the new system might be used to allow electronic filing of applications, making the process easier for applicant and FCC alike.

At the meeting today, the first under new FCC Chairman Reed Hundt, Private Radio Bureau staff began by telling the FCC commissioners that recent Nobel Prize winners Joseph Taylor and Russell Hulse had begun their scientific education as radio amateurs.

The "vanity" call sign plan was unanimously approved by the four FCC commissioners. The text of the Notice of Proposed Rule Making is not yet available but is expected to be issued shortly.



**to pay your
WACOM dues**

**\$12.00 - Single member
\$6.00 - add'l family member**

Hams help keep interference down

Interference complaints are down significantly in Southern California, according to the FCC's Los Angeles office, and ARRL Field Organization amateur volunteers are cited as the prevailing reason for the decline.

The FCC said that it has "noted a significant decrease in the number of complaints involving amateur radio operators causing interference to consumer electronic equipment." A July survey of interference case data conducted by the Commission's Los Angeles office showed a 42% decrease in Amateur-TV/phone interference complaints, the FCC said. The survey compared complaints from January 1989 to June 1993.

"This significant decrease," the FCC said, "is primarily due to the exemplary work of the local (ARRL) volunteer amateurs which intervene when TVI or telephone interfer-

ence occurs." The members volunteer their time and expertise to inspect amateur radio installations and offer technical advice as well as helping troubleshoot the problem with method(s) of shielding, filtering, grounding, etc.

"The effort of the (volunteers) is significant," the FCC said, "because of the recent change in FCC policy where field offices no longer routinely investigate individual TVI or telephone interference complaints on a one-on-one basis. The (Field Organization) is commended for continuing to work on these complaints even though the FCC no longer requires them to work on these interference cases."

The Commission, reacting to budget constraints, now provides self-help information for individuals to use in resolving interference, and works with consumer groups in solving problems on a larger scale.

CW's last gasp is amateur radio

Throughout the short-wave radio spectrum, CW is being replaced by more efficient means of communication.

Ever since the Titanic sank in 1912, the Coast Guard and other stations around the world have monitored the 500 kHz international distress and calling frequency for ships in distress.

On July 31, 1993, that practiced stopped. Traffic on 500 kHz had dropped dramatically in recent years. One Coast Guard spokesman said, "Satellite links, marine telephones and computers pushed out Morse Code."

"As we conclude our watch on 500 kHz, we wish the maritime community fair winds and following sears," the Coast Guard said in a final Morse code message. "From all Coast Guard radiomen, we bid you 73." Now it appears that CW is destined to be the Latin of the communications world. Ships no longer are required to carry Morse code proficient operators. The Boy Scouts no longer require CW to earn the first class rank. Morse code is no longer taught in the Coast Guard and the US Navy stopped teaching surface ship radiomen Morse code in 1988.

Discussions and editorial comments have already surfaced on whether amateurs in this country should support initiatives by other countries to remove the international regulation regarding CW proficiency

at the next ITU radio conference.

Several marine stations that specialized in CW communications to ships have folded. Others will follow in the near future. Maritime station KLB—Seattle Radio, WA, is only one example in this country of CW's declining impact. The station is only open for 16 hours a day.

"Some ships, especially foreign vessels, still use Morse code," said Chris Larsen, one of the KLB owners. "Ships that haven't converted to satellite communications because it's too expensive still use Morse code," he said.

Even that use is fading. Not long ago there were four stations on the West coast. Now there are three: KLB-Seattle and KFS/KPH in the

San Francisco area. There have been similar results on the East coast.

RP: (in part) Utility World/ Larry Van Horne.

ARRL RTTY Roundup

The Annual ARRL RTTY Roundup will be held Jan 8 1800Z to Jan 9 2400Z according to the ARRL. There has been some confusion since CQ Magazine listed the event as January 1st and 2nd. Check December QST page 127 for more details.



December 8, 1993
Walt Piroth, N3BKW
218 Hodgson Ave.
Houston, PA. 15342

Dear Walt,

Due to an extended business trip, I apologize for the delay in returning this letter to you. I cannot sufficiently express to W.A.COM my sincere thanks for the opportunity to win the YAESU 530 HT! Is is a great radio, and it is far and away the best prize I have ever won (and probably ever win!)

Thanks again, and it will be my pleasure to support W.A.COM HamFest in the future.

Regards,

George W. "Skip" Fortnam, N3NIP

How WSI processes a storm of weather data

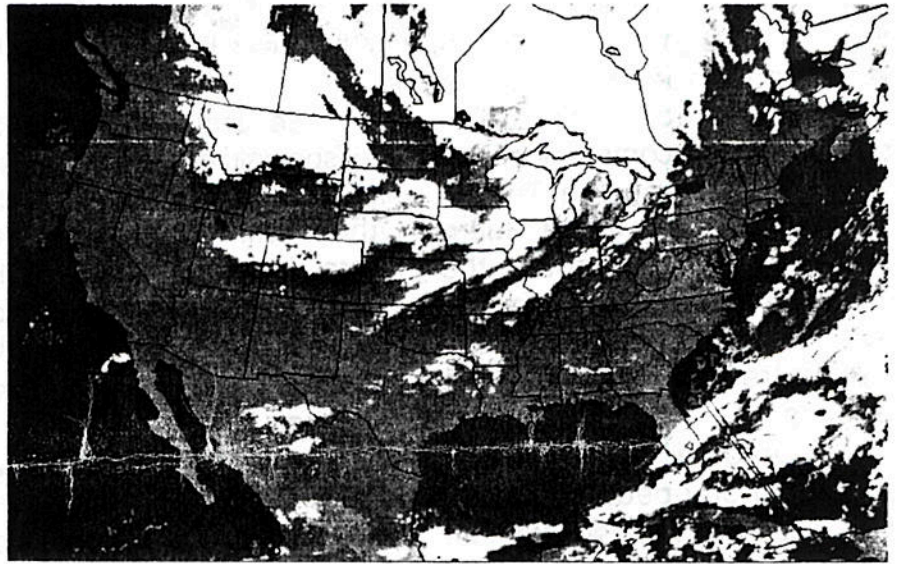
Editors note: This is the system that the Washington County EMA recently installed.

WSI, Billerica, Mass., is a large private provider of real-time weather information in the United States with customers which include CNN, The Weather Channel and scores of network and local television stations (WPXI in Pittsburgh). The U.S. Department of Defense, NASA, utilities, major domestic and international airlines, Fortune 500 flight departments and the National Weather Service (NWS) Severe Storms Forecast Center also work with WSI.

Decisions made on old or inaccurate information could cost lives or millions of dollars.

To provide the most accurate information possible, WSI maintains its own PCs at each of the NWS's 128 radar sites in the U.S. which detect precipitation and lightning strikes. The information is gathered by WSI's computer system and relayed via 9600 b/s modems to its mainframe outside Boston, where sophisticated software processes the NWS information to help eliminate false readings and to assemble all the radar information into the sort of map useful to each customer.

In addition, WSI's host processes feeds from at least three weather satellites. From this mass data, the company produces a variety of products



WSI maintains its own PCs at each of the National Weather Service's 128 radar sites in the U.S.

including: lightning strikes, text data, fax data, four graphic products and a radar map. These products must be available in any combination to all of the hundreds of clients, thus presenting a complex real-time routing task.

Once processed, the data is fed to a Mainstream Data network hub, multiplexer located in WSI's East Coast offices. The hub separately processes each feed and adds appropriate address information, packetizes the data and combines it into a single 56 kb/s output stream for distribution via VSAT around the country.

Because of the variety of weather products, the multiplexer network hub is capable of accepting up to 16 simultaneous async data feeds operating at 300 to 19,200 b/s.

The hub consists of two Dell 325 25-MHz, 80386 PCs with 90 MB hard drives and Digiboard 16 input RS-232 serial communications boards.

The software running on PC-based LynxOS was developed by Mainstream Data and written entirely in C. It consists of four modules:

Physical Link Management: In addition to managing the connection with 16 inputs, this module logs usage and corrects outages.

Access manager: This translates customer addresses into Mainstream addresses using MSDPP (Mainstream Data Presentation Protocol), puts data into the proper format for each end user's device output and adds information required for a customer-specific end user application.

Session: This manages the multiplexer of data from multiple access managers, extracts accounting information and passes the data on to the satellite uplink.

(See WSI on page 7)

WACOM MEMBERSHIP PHONE DIRECTORY 1993

| | | | |
|---------------------|--------|-------------|--------------|
| Allison, Eric | N3KMJ | Eighty Four | 348-6372 |
| Balaban, Tom | K3PLM | Washington | 225-5487 |
| Beazley, Pete | N3LVP | McMurray | 941-6297 |
| Bigley, Richard | N3KEJ | Smithton | 872-9675 |
| Bozek, Stephanie | KA3RUA | Washington | UNLISTED |
| Brummer, Ed | W4RTZ | Yorktown | 804-898-8031 |
| Burhenn, Russell | KA3ZYT | Washington | 222-4037 |
| Burtoft, Jim | KC3HW | Washington | 228-0546 |
| Burton, Harry | K3BQT | Canonsburg | 745-7932 |
| Cole, Bill | N4NKI | Avella | 587-5853 |
| Cole, Stan | AD3T | Washington | 222-9211 |
| Cole, Stan III | NX3P | Washington | 223-0104 |
| Cole, Susan | N3AOK | Washington | 222-9211 |
| Deal, Clifford H. | KA3ZDS | Washington | 225-8448 |
| DeLost, Tony | KA3UUE | Strabane | 745-5241 |
| DeMotte, Dave | N3IDH | Washington | 228-8178 |
| DeMotte, Britt | KA3ZGD | Washington | 228-8178 |
| DiGiovanni, Skip | KA3CDR | Canonsburg | 745-3069 |
| Donlevy, Al | W6GNI | Pittsburgh | 833-2789 |
| Dorisio, Deke | K3QKS | Hickory | 356-7357 |
| Dorn, G. Kirk | N3EKP | Lawrence | 941-4927 |
| Dorn, Marian | N3EKM | Lawrence | 941-4927 |
| Elliott, Steven | KA3UDR | Eighty Four | 225-1901 |
| Fox, Tom | KA3NIY | Washington | 223-9666 |
| Frankenbery, Dave | KD3RZ | Eighty Four | 225-3885 |
| Frankenbery, Fay | KA3VOM | Eighty Four | 225-3885 |
| Frankenbery, Ken | KE3JF | Eighty Four | 225-3885 |
| Grazulis, Jim | KA3KSP | Washington | 228-7583 |
| Group, Tina | N3NPV | Washington | 225-6248 |
| Hasley, Ed | K3AVD | McMurray | 941-9125 |
| Hildreth, Tom | WB3CED | Washington | 225-5883 |
| Hill, Bill | W3IBT | Canonsburg | 746-1776 |
| Holden, Frank | KA3UWW | Washington | 228-0455 |
| Hrutkey, Michael | N3NAM | Eighty Four | 222-1762 |
| Irmer, Frank | N3ISF | Pittsburgh | 882-1514 |
| Jahgar, Frans J. | KA3VYX | McMurray | 941-9297 |
| Johnson, Dan | KB3ATE | McMurray | 941-4398 |
| Johnson, Den | N3PBR | McMurray | 941-4398 |
| Jones, Buster | KA3QIR | McDonald | 926-2858 |
| Jordan, Robert | NY3I | Washington | 225-3277 |
| Kelvington, Jack | K3DMY | Meadowlands | 223-3219 |
| Ketzell, Robert | KB3IN | Washington | 228-0425 |
| Klink, James | N3OBB | Bridgeville | NOT LISTED |
| Lockman, Ted | WB3BZK | Washington | 222-6473 |
| Marraccini, Damon | KB3AFS | Finleyville | 348-6406 |
| Marraccini, Leonard | N3KTC | Finleyville | 348-6406 |
| Mayberry, Sam | W3CYO | Washington | 222-0367 |
| Mazza, Robert | KA3VYY | Washington | 222-2242 |
| McCloskey, Bob | KD3VX | Imperial | 695-8608 |
| McCloskey, Joyce | N3JPN | Imperial | 695-8608 |
| McNutt, Jim | NW3X | McMurray | 941-5159 |
| McNutt, Judie | KA3RNM | McMurray | 941-5159 |
| Meyer, Joe | WE3K | Canonsburg | 745-0749 |
| Moninger, John | WA3VKC | Washington | 228-5787 |
| Montgomery, George | W3KVS | Washington | NOT LISTED |
| Mumper, Dennis | NX3H | Canonsburg | 745-4847 |
| Musante, Joe | WB3GTE | Washington | 223-0897 |
| Musante, Mark | KA3UTI | Washington | 222-6471 |
| O'Korn, Jack | AA3FN | Washington | 228-4197 |
| Ostergaard, Dale | N3HXZ | Mt. Lebanon | 561-5357 |
| Perry, Jack | KA3YJY | Claysville | 948-3515 |
| Phillips, Harold | WA3DWX | McDonald | 926-2682 |



Fall Edition

| | | | |
|--------------------|--------|----------------|--------------|
| Piroth, Walt | N3BKW | Houston | 746-2327 |
| Presky, Dennis | K3PSP | Washington | UNLISTED |
| Putorti, Carmen | KA3PRQ | Canonsburg | 746-3542 |
| Rabe, Doug | NF2H | Washington | 223-8905 |
| Reismeyer, Ray | N3AOJ | Leetsdale | 266-8768 |
| Rhodes, Bill | N3KDO | McMurray | 941-8852 |
| Scears, Charles E. | N3IRE | Washington | 223-0960 |
| Schmaltz, Chuck | N3KDP | Canonsburg | 225-9251 |
| Schnore, Valerie | N3BXF | Washington | 228-2472 |
| Shaffer, Jeff | KA3TMV | McMurray | 941-1737 |
| Shaffer, Jerry | WA4ONC | McMurray | 941-1737 |
| Shaffer, Sandi | N3FPF | McMurray | 941-1737 |
| Shutt, John P. | N3BXE | Imperial | 899-2439 |
| Smith, Dave | N3LIK | Washington | 225-0346 |
| Smith, Kevin J. | N3HKQ | New Eagle | 258-4153 |
| Smith, Steve | WD4SDC | Alexandria, VA | 301-266-9032 |
| Smith, Stanley | KA3WBD | Washington | 225-3116 |
| Smith, Vernon | N3JNM | Crafton | 922-2142 |
| Stark, Carl | KD3KH | Eighty Four | 225-5684 |
| Stark, Donald | N3HOW | Eighty Four | 228-4177 |
| Stark, Margi L. | N3HOZ | Eighty Four | 228-4177 |
| Stinely, Mike | KB8KSY | Morgantown, WV | 304-292-0625 |
| Stinely, Regis | NZ3E | Washington | 225-8263 |
| Stout, Joe | KA3MZS | Washington | 228-1090 |
| Sutton, Francis L. | W3SNN | Johnstown | 814-255-3723 |
| Thompson, Harriet | WB3JWI | Washington | 225-6603 |
| Torisky, Norm | N3KLR | Canonsburg | 745-6154 |
| Torisky, Susan | N3MDP | Canonsburg | 745-6154 |
| Unrue, John | N3PCE | Washington | 225-6499 |
| Vaglia, Genevieve | N/C | Eighty Four | 222-6368 |
| Vaglia, Jim | N/C | Eighty Four | 222-6368 |
| Vintle, Martin | N3IKU | Canonsburg | 745-6809 |
| Zborowski, Sam | WA3DIP | Eighty Four | 223-9544 |

EMERGENCY SPEED DIAL NUMBERS

Access Code +
911 LOCAL POLICE - FIRE
1111 STATE POLICE

from the President

Dave DeMotte, N3IDH



We're sorry to hear that Ray Reismeyer, N3AOJ, became a silent key on December 13. Ray was always a pleasure to hear or talk to and he'll be missed by everyone who knew him.

Here we go ending one year and starting a new one. It's my hope that this year we will become a more focused club and get the 501(c)3 situation resolved. Those are what I think our two most important

goals should be this year and what I hope to accomplish.

Something to look forward to is all the hamfests. Two Rivers A.R.C. will have theirs March 20 at the Expomart in Monroeville. And mark your calendar for the Dayton HamVention April 29th, 30th and May 1st.

And finally, a thank you and job well done to Fay and Dolly for the Christmas party. It was an enjoyable time.

WSI

(continued from page 6)

Network Manager: This monitors the quality of the data transmission, including data transmitted from 20 remote sites around the U.S. which track any broadcast degradations caused by weather, solar or other local conditions. The Network Manager also allows for remote control and diagnostics of both end user and client equipment and offers a backup dial-up modem connection.

The output from the network hub mux is then fed via a 1.8 meter backhaul dish to the K2 geosynchronous satellite, where it is relayed to Microspace Communication Corp's ground station in Raleigh, NC. The feed is then re-broadcast via the same satellite to 1.2 meter VSAT downlink terminals. From there, the data is sent to a Mainstream Data Intelligent Data Unit, which processes the information and passes it along to the end user's workstation or other output device (such as a fax).

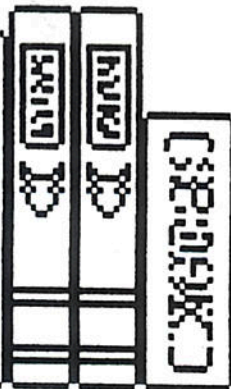
RP: Communications News/Dec 93

Satellite Books

(continued from page 2)

I am offering BOTH reference books for \$22 which includes shipping in North America (BOOK Rate; slower delivery) or \$25 (for FIRST CLASS; fast delivery)!

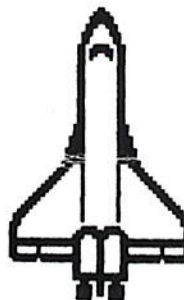
Please forward requests to:
Greg Stefanelli;
WA2WYK;
P.O. Box 918;
Manchester, MD 21102-0918
Tele: (410) 374-5995



Astronauts

(continued from page 3)

Hopefully, Bolden and Sega will get their licenses in time, otherwise there will be no SAREX (Shuttle Amateur Radio Experiment) operation aboard STS-60 since none of the other three astronauts holds a U.S. Amateur license and no reciprocal operating agreement exists between Russia and the U.S.A. The paperwork has been expressed to Gettysburg with a letter pleading for expeditious processing.



**Join the ARRL
thru WACOM
See Tom Fox
for information**

WACOM Calendar of Events for January 1994

| TUESDAY | | THURSDAY | SATURDAY/SUNDAY | |
|---------|-----------|------------|-----------------|-------------------|
| DATE | 2 Mtr NCS | 10 Mtr NCS | | |
| 4 | N3KDP | KD3VX | 6 | WACOM Meeting |
| 11 | N3PCE | WB3GTE | | |
| 18 | KA3RNM | N3HKQ | | |
| 25 | KA3YTT | KA3VOM | | |
| | | | 1/2 | Happy New year |
| | | | 8/9 | ARRL RTTY Roundup |
| | | | 15/16 | |
| | | | 29/30 | |

Tuesday 8:30 PM - 2 Mtr Net 145.49/443.3/224.4
Tuesday 9:00 PM - 10 Mtr Net - 28.340MHz
Sunday 9:00 AM - RACES Western PA Net - 3990.5KHz
Skywarn Nets - K3PSP/R - 146.79MHz
Digipeaters (WASHPA - 145.01 and W3CYO - 145.03)

Jan 8-9 ARRL RTTY Roundup

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Washington Amateur Communications/WACOM Ham

Washington Amateur Communications
WACOM
P.O.Box 1386
Washington, PA. 15301



Mail to:

FAY FRANKENBERY, KA3VOM
 KEITH & DAVE FRANKENBERY, KD3RZ
 RD#3 BOX 407
 EIGHTY FOUR, PA. 15330