



# The W.A.C.O.M. Ham

## Washington Amateur Communications

### Presidents Message September 2009

**Inside:**

Picnic ..... 2  
 ARES Going Through Changes..... 3  
 October Speaker..... 4  
 SuitSat-2 ..... 5  
 Boy Scout Drill ..... 6  
 Hamfests ..... 7

QST, QST, QST This Fall WACOM will be very involved with a great deal of events.

1. Labor Day Run –Sept 7, 2009
2. West Alexander Fair- Sept 10-12 ,2009
3. IC Church Run –Sept 19, 2009
4. Boy Scout Emergency Drill-Oct 03, 2009
5. October ARES Drill- Oct 2009
6. PA QSO Party Oct- 10-11,2009
7. WACOM HAMFEST- Nov 1,2009

As you can see the club will be very active over the upcoming months and I will be asking for your help in making all of these events Fun, and a great learning experience in Amateur Radio that we can remember for years to come. It also gives us a great opportunity to demonstrate Amateur Radio to the Public and have fun while doing the demonstrations.

*Bud Plants ,N3TIR*



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**THE NEXT GENERAL MEMBERSHIP MEETING WILL BE HELD ON THURSDAY, SEPTEMBER 3, 2009, AT 7:30 P.M. IN ROOM 103 OF THE WASHINGTON COUNTY BUILDING. ALL ARE WELCOME TO ATTEND.**

**THERE WERE NO MEETING MINUTES AVAILABLE FOR PUBLICATION IN THE NEWSLETTER.**

**PLEASE NOTE THE LIST OF UPCOMING CLUB ACTIVITIES. CONTACT BUD IF YOU ARE INTERESTED IN HELPING OUT WITH ANY OF THESE EVENTS.**



WWW.ARRL.ORG

# picnic



Photos of the WACOM Picnic held August 6, 2009.

*All photos courtesy of Bud, N3TIR.*



## ARES GOING THRU SOME CHANGES



**Bud Plants N3TIR Pres. WACOM**

**John Rodgers N3MSE ARRL Western  
Pennsylvania Section Manager**

**John Szwarc N3SPW ARES Section  
Emergency Coordinator**

I was invited to attend a section-wide breakfast meeting for all WPA Section Emergency Coordinators and District Emergency Coordinators. The breakfast was held at Plyler's Pizza & Family Restaurant, in Brookville, Pa on August 15 2009. I enjoyed talking to other area ARES Emergency Coordinators in Western Pennsylvania and finding out what works for them and how WACOM can make some changes in our program to help South Western Pennsylvania be more involved in the ARES Program. I discovered that lots of changes are coming from the government level to make Amateur radio a major partner in Emergency Communications.

The ARES program will be making some changes over the next few months and Washington Amateur Communications is going to play a major role in Washington County.

DAVE N3IDH will be talking at the September Meeting about some of the upcoming events and the changes the club will be making in participating with the ARES program.

**Bill Edgar N3LLR  
ARRL Atlantic Division Director**

**John Rodgers N3MSE  
ARRL Western Pennsylvania  
Section Manager**



**OCTOBER 1, 2009 GENERAL MEETING****7:30P.M.****Washington Amateur Communications****Room 103 Washington County Building****West Beau St. Washington Pa, 15301****Washington Amateur Communications is pleased to announce a special guest speaker.****Mr. Todd Hirt****Product Engineer with West Penn Wire**

West Penn Wire was founded in 1971 in Claysville, Pennsylvania. The early years of the company were devoted to the premise of supplying quality wire and cable to our customers in a timely manner. To this end, the company was committed to manufacturing in order to stock warehouses and distribution centers rather than manufacturing to fill orders. This manufacturing philosophy ensures a swift turnaround of orders and prompts delivery of quality products to the customer.

Today, nothing has changed about the way we do business or our philosophy of providing quality wire and cable in a timely manner. The only difference is in the facilities and equipment used.

What started in a 5000 sq ft building with one production line is today a large international corporation with four manufacturing facilities. The corporate office and engineering complex are located in Washington, Pennsylvania, and there are several regional distribution centers located throughout the United States.

In 1990, West Penn Wire became the original Cable Design Technologies company and changed their name to West Penn Wire/CDT to reflect this new and exciting affiliation.

In 2004, Cable Design Technologies merged with Belden Wire and Cable. NYSE ticker symbol-BDC. With the merger The CDT has come off our name. We are now known as **WEST PENN WIRE.**

**Please welcome Todd to our meeting and bring your questions about cable and its applications to Amateur Radio with you.**

**Bud Plants N3TIR**

## The SuitSat-2 project

The SuitSat-2 project -- an Amateur Radio satellite housed in a Russian spacesuit -- now has a new name to go with a new shape:

ARISSat-1. On Wednesday, August 19, Amateur Radio on the International Space Station (ARISS) Chairman Gaston Bertels, ON4WF, announced the new name for the satellite and project. According to ARRL ARISS Program Manager Rosalie White, K1ST0, the project team is moving ahead, using the same hardware that was to fly in the Russian Orlan suit. Russia will continue to call the satellite Radioskaf-2, so ARISS is designating it ARISSat-1/Radioskaf-2.

Due to storage considerations, the two surplus Orlan space suits in storage on the ISS were discarded via the Progress Cargo Vessel earlier this year. One of these suits was to be used to house the electronics for the upcoming SuitSat-2 mission; the batteries were to be mounted inside the suit, solar panels attached to the extremities with the electronics, video cameras and antenna mounted on the helmet by the ISS crew prior to deployment during an extra-vehicular activity (EVA), commonly called a spacewalk. The removal of the Orlan space suits from ISS removes the "Suit" component of the deployment and the new name reflects the change in configuration.

White told the ARRL that the ARISSat-1/Radioskaf-2 team, through Gould Smith, WA4SXM, made the final decision for the satellite to be square, with solar panels on all 6 sides. "The team is mounting a 70 cm quarter-wave whip on the bottom and a 2 meter quarter wave whip on the top," she said. "All of the hardware and software goes inside the square, and cameras go on the outside." The experiment being developed by Russia's Kursk State University is expected to be integrated into the electronics once the US-produced equipment is delivered to Russia this fall.

AMSAT and ARISS pointed out that the importance of this project to both organizations is not diminished. "ARISS sees this mission as an important component of education outreach, as it will provide an opportunity for students around the world to listen for recorded greetings from space, as well as learn about tracking spacecraft in orbit," White said.

The ARISSat-1/Radioskaf-2 transmitter and receiver will be based on a Software Defined Transponder (SDX) system. It will consist of two major components: The RF Module and the Digital Signal Processor (DSP) module. In the RF module, there will be an upconverter that receives a signal from the DSP module as a 10.7 MHz intermediate frequency RF signal with a 50 kHz bandwidth, and up converts it to 145 MHz signal of 50 kHz bandwidth centered on 145.9375 MHz. The receiver is a downconverter with a 50 kHz bandwidth centered on 437.6125 MHz. The output of the receiver is a 10.7 MHz RF signal with a bandwidth of 50 kHz. The DSP processor receives the 10.7 MHz signal from the receiver downconverter and processes it and outputs a 10.7 MHz signal to the transmitter upconverter. The DSP can also inject signals such as the CW ID, telemetry, audio and packet signals as determined by the software on the DSP.

AMSAT calls the deployment of the SDX "a critical milestone" for the organization. "This upcoming flight provides an opportunity to flight test the next generation of spacecraft hardware," Bertels said. "Lessons learned from this deployment will be applied to future flight opportunities as AMSAT moves towards a modularization approach' to spacecraft development with the expectation the future spacecraft missions will utilize a derivative of SDX and the associated hardware."

The ARISS International Team has been informed that there is still space available for shipment of the ARISSat-1/Radioskaf-2 electronics on the projected cargo flight to the ISS in January 2010, and the EVA scheduled for April 2010 still has a SuitSat-2 deployment on the schedule.

( Continued on Page 5 )

## ***Boy Scout Emergency Preparedness Drill***

**WASHINGTON AMATEUR COMMUNICATIONS** has been invited to participate at this event.

**The Place**                    **Camp Anawanna Prosperity, Pa 15329**  
**DATE**                        **OCTOBER 3, 2009**  
**The Time**                  **9:00 A.M. till?**  
**Set up**                      **7:00 A.M.**

### **AMATEUR RADIO OPERATION**

**Other participants** Red Cross--Pa State Police—EMS--Life Flight--TV

**All who want to take part in drill contact Bud Plants N3TIR [n3tir@arrl.com](mailto:n3tir@arrl.com) or 724-484-0207**

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### **The SuitSat-2 project** *(Continued from Page 5)*

Plans to launch a second SuitSat-spacesuit-turned-satellite were the subject of discussions and presentations at the November 2006 AMSAT Space Symposium and ARISS International Delegates' meeting. Despite a weaker-than-anticipated 2 meter signal, SuitSat-1 -- a surplus Russian Orlan spacesuit fitted with an Amateur Radio transmitter -- sparked the imagination of students and the general public and turned into a public relations bonanza for Amateur Radio. ARISS hoped to capitalize on the concept by building an even better SuitSat that will include ham radio transponders.

The SuitSat.org Web site attracted nearly 10 million hits during the mission. Designated by AMSAT as A0-54, SuitSat-1 remained in operation for more than two weeks, easily outlasting initial predictions that it would transmit for about a week. SuitSat-1 re-entered and burned up in Earth's atmosphere in September 2006. ARISSat-1/Radioskaf-2 is expected to be live for at least six months.

## AREA HAMFESTS

### \* SEPTEMBER \*

- **5 Uniontown ARC Gabfest**  
Club Grounds, Old Pittsburgh Rd., Uniontown, Pa  
Info: Phone-724-430-1277 Ask for Tony Alviar  
724 438 5182 Ask for Ralph  
Talk-in: 147.045+ Mhz  
Note: The event is held on the Saturday of Labor Day Weekend
- **13:Butler County Amateur Radio Association Swap Fest-8 am to 3 pm**  
Unionville Fire Department Grounds-Located at the intersection  
of PA Route 8 and Unionville Road-7 miles north of Butler, Pa  
More : <http://www.w3udx.org>

### \* NOVEMBER \*

- **1 Washington Amateur Communications Hamfest (WACOM)**  
Washington County Fairgrounds  
2151 North Main Street-Washington, PA  
More Info: Phone: 724-484-0207 - Email: [n3tir@arrl.net](mailto:n3tir@arrl.net)  
Talk-In: 145.49 (no tone)



Sunset at  
Bud, N3TIR's  
QTH

*Photo courtesy of  
Bud, N3TIR*