February 4, 2006

ORCA NewsLetter

Oakland Radio Communication Association
Oakland, California

February 4, 2006	The next meeting will be on the first Saturday, February 4, 9:00 AM at Fire Station 1 media room, 1605 Martin Luther King at 17th Street, Oakland.

Special points of interest:

- Battery Project
- Meeting Notes
- "SuitSat" Launch

Net Control:

- Feb. 9: Tom **KG6MAC**
- Feb. 16: Adelle **KE6HKY**
- Feb. 23: Michael John **KF6YRG**
- March 2: Vail **KE6WPJ**

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President's Corner

Time. What time is it? Can you make some time? Time flies. I don't have any time! That was a great time. Remember the good times.

Time is both a concept and an entity by which we judge what we have done, what we have to do and what we want to and what we wish to do. Time passes without our knowledge and sometimes without our control.

We have all spent large amounts of time in becoming ham radio operators. Studying for that tech test and passing that exam. Practicing CW until you hear it in your sleep. Determining which rig is best for your needs and poring over those manuals. Adjusting and readjusting your antenna until it is "just so". Participating in weekly nets and attending

monthly meetings. When you stop to reflect on that time spent you hope that it has resulted in learning new things, meeting new people and making new friends.

Time spent in the hobby of ham radio should be pleasant and fun. We all spend large amounts of time in far less pleasant endeavors such as working, commuting, and paying bills. The great by-product of any hobby or pursuit is the balancing of "good times" and "bad times". Hopefully we have all learned how to tip the balance in favor of those good times.

Speaking of time, I had a good one the other night. The 160 meter CW contest was taking place. Somehow I dragged myself out of bed at an ungodly hour to take advantage of this under used band and stumbled into the radio room. I put on my headphones, turned on my rig and was greeted with the staccato bursts of frantic CQ calls. Pileups on CW always remind me of the sound of baby birds chirping and begging for a worm and this time was no different. I jumped into the fray and gave as good as I got.

(Continued on page 2)

ORCA Calendar

Time to renew! Please see Page 3 for details.

Meeting at EOC February 4th: Open shop day, bring your tools to share, and some will be there. Bring your project and get help, tips and advice. Hands on practice with the new repeater features. Featured project: converting an old computer power supply for amateur radio use.

2006 ORCA Board Meeting Dates: 4/25, 7/25, 10/24
2006 ORCA/EBARC VE Sessions: 4/23, 7/23, 10/22
2006 Field Day June 24-25

President's Corner

(Continued from page 1)

Within an hour I had logged nearly 40 QSOs. I looked at my clock and realized it was almost time for me to get up! I reluctantly signed off and crept back to bed for a couple of hours of needed sleep.

That was fun radio! At the most basic level with most basic equipment. Let's not lose sight of why we are hams. To do so would spoil the time we have spent pursuing this great hobby.

73 Dave **AE6PX**

News on the Repeater

Club member Paul **KA6GEM** has volunteered to play one of the available Amateur Radio news services over the repeater on a trial basis. We asking the membership if there is interest in this, when would be the time you would most likely listen, and which news source would be of the most interest. We will at the next meeting play samples of the two available news services we can offer. More information on them can be found here:

Amateur Radio Newsline (ARN):
www.arnewsline.org

ARRL Audio News:
www.arrl.org/arrlletter/audio

You can also hear one or both on these repeaters:

After the CCRA Weekly Net on the **WA6HAM** repeater system, 145.490- 107.2 Hz. The Net is every Monday at 19:35 PST with one of the news feeds following at about 20:00 PST.

After the Mad Scientists Net on the **N6MPX** repeater system, 147.300+ 100 Hz, 441.950+ 100 Hz. The Net is every Friday at 21:00 PST with ARN airing about 21:30 PST. ARN is replayed every Saturday at 09:00 PST.

After the Hayward Radio Club Net on the **K6EAG** repeater system, 145.13- 127.3 Hz, 444.825+ 127.3 Hz and 52.76- 114.8 Hz (all linked for the net). The Net is every Wednesday at 19:00 PST.

Club Spotlight: EBARC

Dr. Alan Eshleman **K6SRZ** will be giving a presentation on his recent DXpedition to Kure Attol on Friday, February 10, at the East Bay Amateur Radio Club. Many of you may remember the presentation that Dr. E gave on his trip to Bonaba Island.

The East Bay club meets at the Salvation Army, 4600 Appian Way, El Sobrante at 19:30 PST. The program should begin about 20:00 PST. Visitors are always welcome.

de **KA6BQF** Randy

KB6MYV Silent Key

Jim Ploss **KB6MYV** died peacefully Friday, 6 Jan. 2006. Jim had been given six months to live twelve years ago when his cancer was diagnosed. With his usual good humor and dogged persistence he lived twenty-four times as long as the doctors gave him and made good use of all his time.

Jim became a ham in 1991 in response to the Loma Prieta earthquake and the Oakland fire storm. With his characteristic enthusiasm and energy, he joined Oakland RACES and soon became the editor of its newsletter, a position he held until 1995, when Mike **KB6MP** took over. He held a number of other positions on the board.

Jim served as a real ham evangelist, converting a number of people in his neighborhood, including Adele **KB6HKY** and me. I took my technical license class from Jim and Brian **W6LL** in 1994 and I know they taught that class for a number of years, qualifying many new hams.

Many remember Jim's cable making classes, with his collection of every kind of connector. I remember one class at the community room at One Kelton Court where a room full of people sitting around banquet tables with wires to soldering irons sprouting from power strips were trying to connect BNC plugs to DIN plugs, battery clips to mini plugs and every other possible combination.

At the same time Jim was very active in other aspects of his community, serving on the board of PANIL (Piedmont Avenue Neighborhood Improvement League) and PANSA (Piedmont Avenue School Association). For some time he arranged to work a 4/10 schedule so that he could volunteer one day a week at the Piedmont Avenue Elementary School. Jim was also very politically active. I remember all of his work on the Oakland City Council campaigns of Rena Rickles and Rebecca Kaplan.

In the late 90's, Jim disagreed with the direction of the Oakland Ham club and went on to other things, such as those listed above and leading some friends and neighbors in taking accordion lessons. He did it all with great good humor and energy.

Jim is survived by Margaret (Peg) Janosch, his wife; Robert Ploss, M.D., of Washington State, his father; Janet Ploss, M.D., his sister; Robert J. Ploss of Vancouver, British Columbia, his brother; Marty Janosch, his brother-in-law, and many many friends and other relatives. Memorial services and donation suggestions are pending.

- Chris Peeples **KE6MQW**

ORCA January meeting notes are available on the club website located at

ww6or.com

Oakland Radio Communication Association

Club: WW6OR, N6ORC
Repeater: WB6NDJ

New Membership and Renewal Form

□ New Member □ Renewal

□ Family membership—number of additional Hams: _____

Name_____

Call_____ License: E__ A__ G__ T+__ T__ N__

Address_____

City_____ State___ Zip_____

Email_____

Newsletters will be emailed only to members who specifically request them. All others will receive them by mail. Email? ☐

Best Phone (_____)_____ Alternate Phone (_____)_____

Best is a: □ cell □ work □ home Alternate is a: □ cell □ work □ home

Are you an ARRL Member? Yes □ No □

Family Hams name/call sign/license class:

_____

_____

_____

Please remit a photocopy of your FCC license (and any Family Ham licenses) with a check payable to "ORCA" to

ORCA
P.O. Box 21305
Oakland, CA 94620-1305

2006 new members:	$30.00 up to March 31, 2006
2005 members renewing for 2006:	$30.00 due by February 28, 2006

[$22.50: 4/1/06-6/30/06; $15: 7/1/06-9/30/06; $7.50: 10/1/06-12/31/06]

2006 additional family Hams:	$5 each other Family Ham (not prorated)
2007 dues will be accepted:	$30, plus $5 each other Family Ham

Final acceptance of this application and membership in ORCA with repeater privileges is subject to review and/or approval by the ORCA Board.

I agree, for myself and for any Family members included in this application, to abide by the rules and regulations set forth in the ORCA Bylaws and the applicable repeater operating procedures.

Date: _____ Signature: _____

ORCA Member Form 12 2005

You're Prepared… But How's Your Battery?

Using a Sealed Lead Acid Battery for Portable Emergency Communications

By Paul Bailey-Gates, **KA6GEM**

For many hams, emergency communications means battery power and so careful preparedness includes selecting the right type of battery and giving it proper care so that it's ready when the time comes.

One battery that stands out for use by hams, especially those on foot who need a very large reserve capacity, is the sealed lead acid (SLA) battery such as those made by Yuasa (Enersys), Panasonic and others. An SLA battery is reasonably inexpensive, compact and lightweight. Made with an acid gel instead of a liquid, it can be operated in any position and unlike NiMH and NiCad batteries, it can hold a charge for up to a year. It has a shelf life of 3 to 5 years!

I recently purchased a Yuasa model NP7-12, a 12-volt (actually 13.3 volt) 7-ampere hour SLA battery. It measures 5.95" wide, 2.56" deep and 3.7" high and weighs 6.16 pounds. It has a 20-hour rating of .35 amps (to 10.5 volts) so it can run my Yaesu VX-7R five watt hand-held for at least 15 - 20 hours! The terminals are .187" tabs for "quick connect" wire fittings although I use Anderson Powerpoles.

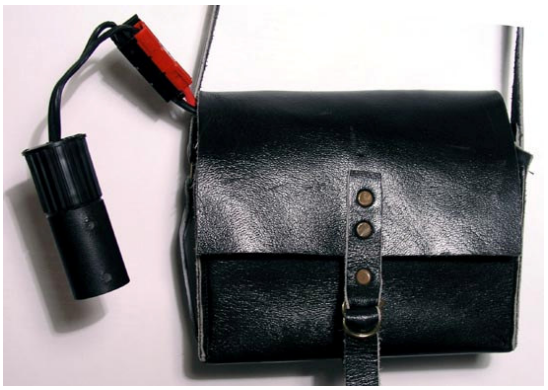
This size battery can fit snugly into a small camera case for over the shoulder transport. I connected a 12-volt cigarette lighter female socket so I can use the "Battery Eliminator" I got from Batteries America ($29, 1 800 308-4805 or www.batteriesamerica.com). It takes the place of the battery on the radio side and the other end is a 12-volt cigarette lighter plug. It's nicely regulated and provides safe, effective operation for hours even on high power.

Maintaining an SLA battery can be a little tricky since they hold their charge for many months, but a good digital voltmeter can accurately measure the open voltage and once it drops below 12.6 volts, the battery should be recharged. Unlike some other kinds of batteries, you should avoid fully discharging an SLA battery. Recharging can take about 10 hours or more. I use a Dual-Voltage, Regulated, Sealed Lead-Acid Battery charger made by Universal Battery Corp. that I purchased locally but is available on the net from www.batterymart.com for about $10. A red light comes on while it charges up the battery and once completed, it switches to a green light and then maintains the battery indefinitely with a trickle charge.

Enersys Corp., who also manufactures the Genesis brand, now owns the Yuasa SLA brand. More detailed information about the battery and its charging requirements is available online at

http://www.enersysreservepower.com/documents/US-NP7-12-02_0705.pdf

The Yuasa NP7-12 battery is locally available for $20 - $25 ($19.99 at Fry's) but look for a fresh one. It's not uncommon to find a battery that's already a year old sitting on a dealer's shelf. They are made in two locations, which, according to the manufacturer, is why they have two different date codes. The China date code is CYMMDD and the Taiwan code is YYMMDD where C stands for a manufacturing code, Y year, M month. A good strategy would be to buy one every four years, scratch the purchase date on the bottom and keep it in a cool place when not in use. Check the voltage once or twice a year and affix a paper label to record the date it was last charged. For more information about SLA and other kinds of batteries, please see http://www.batteryuniversity.com/index.htm

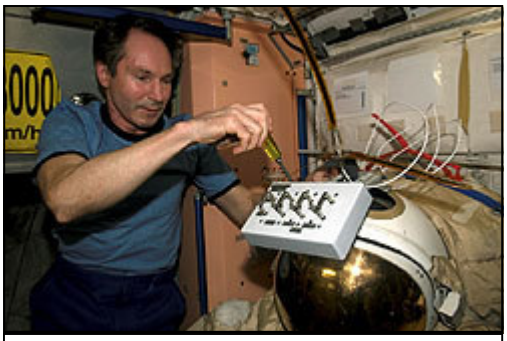


The finished product.

ISS Crew Prepares for Space Walk, "SuitSat-1" Launch

NEWINGTON, CT, Jan 27, 2006 - Preparations for a walk in space are taking center stage onboard the International Space Station. The Amateur Radio community will be paying closer-than-usual attention Friday, February 3, when Expedition 12 Commander Bill McArthur **KC5ACR** and Flight Engineer Valery Tokarev exit the ISS. That's because one of the first things they're expected to do is place "SuitSat-1" - a surplus Russian Orlan spacesuit that's been outfitted with an Amateur Radio transmitter - into Earth orbit. SuitSat is a project of the Amateur Radio on the International Space Station (ARISS) program.

"SuitSat is a Russian brainstorm," ARISS International Chairman Frank Bauer **KA3HDO** explains in an article about SuitSat on the Science@NASA Web site. Bauer works at NASA's Goddard Space Flight Center. He credits ARISS-Russia's Sergei Samburov **RV3DR** and his colleagues with coming up with the concept of turning the old spacesuit into a novel satellite. SuitSat is a first test of that idea, Bauer says.



Aboard the International Space Station, Expedition 12 flight engineer Valery Tokarev puts some finishing touches on SuitSat. The flexible portion of the VHF ground plane antenna and the feed line are visible above the helmet. [NASA Photo]

The uninhabited space suit will contain a one-half watt radio transmitter, three batteries and internal sensors to measure temperature and battery voltage. "As SuitSat circles Earth, it will transmit its condition to the ground," Bauer says. SuitSat's 145.990 MHz signal should be able to be heard with a handheld transceiver or a scanner with a modest antenna. It will identify itself by saying "This is SuitSat-1 **RS0RS**" in several languages.

SuitSat's telemetry will include mission time, suit temperature and battery voltage (28 V is nominal). It will beam down a single Robot 36-format slow-scan TV image, similar in resolution to a cell-phone quality picture. The image takes 36 seconds to receive.

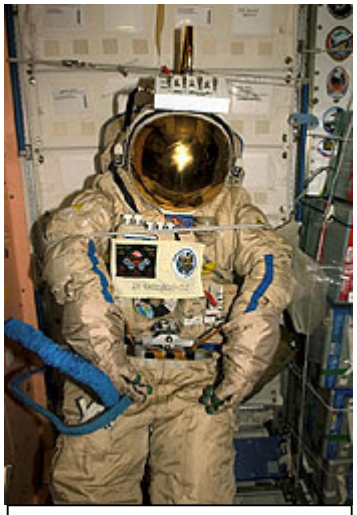
Plans call for configuring the **NA1SS** Phase 2 station aboard the ISS as a crossband repeater and retransmitting the 145.990 MHz signal on 437.800 MHz FM. The Phase 2 transceiver runs 10 W.

SuitSat's temperature controls will be turned off to conserve power. This means the suit, which may spin once McArthur and Tokarev let it go, will be exposed to the sun's intense heat with no way to regulate its internal temperature.

"Will the suit overheat? How long will the batteries last? Can we get a clear transmission if the suit tumbles?" wonders Bauer in the Science@NASA article. Lessons learned from this inaugural SuitSat deployment will help ARISS in planning future SuitSat ventures. At least one more surplus Orlan space suit remains aboard the ISS.

If all goes as planned, SuitSat will transmit its voice messages, telemetry and SSTV image on a nine-minute cycle as it orbits Earth. Its batteries should hold out for about a week after deployment, and SuitSat's free-floating, decaying orbit should cause it to re-enter Earth's atmosphere after some six weeks in space.

SuitSat's payload also includes a CD containing hundreds of school pictures, artwork, poems, and student signatures.



SuitSat awaits deployment February 3 aboard the International Space Station. [NASA Photo]

The February 3 space walk may last up to six hours, NASA says. It will begin at 2220 UTC, and SuitSat should be released into orbit within the first hour of the event. NASA TV coverage starts at 2130 UTC.

The crew will also install a safety bolt in an emergency cable cutting system on the station's mobile transporter rail car. The transporter is used to move a platform containing the station's robotic arm along the truss of the complex. Other spacewalk tasks include relocation of an adaptor for the Russian Strela boom. The crane-like Strela is used to move spacewalkers and cargo.

Managers have decided to extend Expedition 12's mission and delay launch of Expedition 13 by one week. The Expedition 13 crew of US Astronaut Jeff Williams **KD5TVQ** and Russian Cosmonaut Pavel Vinogradov **RV3BS** - accompanied by Brazilian astronaut Marcos Pontes - is set to launch on a Soyuz rocket from the Baikonur Cosmodrome, Kazakhstan on March 29. It will dock on April 1. Expedition 12 is scheduled to return home April 8.

*Some information from NASA and Bruce Paige **KK5DO***

ORCA
P.O. Box 21305
Oakland, CA 94620-1305

ORCA

Topic: Hands on Help

Monthly events

1st	Saturdays	ORCA Monthly Meeting - Oakland OES 9:00
1st	Sundays	Livermore Swap meet Robertson Park
2nd	Fridays	East Bay Amateur Radio Club
2nd	Saturdays	Electronics Flea Market in Sunnyvale
3rd	Fridays	Hayward Radio Club
3rd	Fridays	Mount Diablo Amateur Radio Club
4th	Fridays	Amateur Radio Club of Alameda

Amateur Radio Club of Alameda meets 7:00 PM at Building 522 West Midway on Alameda Point.
East Bay Amateur Radio Club meets at 7:30 PM at the Salvation Army, 4600 Appian Way, El Sobrante.
Hayward Radio Club meets at 7:30 PM 1401 West Winton Ave. in Hayward behind Hayward Fire Station 6, next to the Hayward Air National Guard Base.
Mount Diablo Amateur Radio Club meets at 7:30 PM at Our Savior Lutheran Church, 1035 Carol Lane, Lafayette.

Note: February Livermore Swap meet canceled as of publishing date.
For more info
http://www.livermoreark.org/swap/swap.html

ORCA on the web:
ww6or.com

Weekly Nets

Thursdays 7:30 PM	Oakland ARES/RACES Net 146.88 MHz minus PL 77
Thursdays 7:00 PM	Alameda Emergency Preparedness 146.88 MHz minus PL 77
Thursdays 7:15 PM	NALCO ARES/RACES 440.9 MHz plus PL 131.8
Mondays 7:30 PM	Hayward RACES 145.130 MHz minus PL 127.3

ORCA Officers and Board

President:	Dave Clemes	AE6PX
Vice Pres.:	Michael Hole	KG6DER
Treasurer:	Bill Hardy	KF6VOG
Secretary:	Tom Tazelaar	KG6MAC
Director:	Adele Bertaud	KE6HKY
Director:	Robert Firehock	KE6IUE
Director:	Art McLaughlin	W6THD
Director:	David Otey	WB6NER
Director:	Brian Treusch	W6LL

Ex-Officio Directors:

ARES Liaison:	Mark Violet	N6RCG
Repeater Trustee:	David Otey	WB6NER
RACES RO:	Jim Tiemstra	K6JAT
WW6OR trustee:	Jim Tiemstra	K6JAT
N6ORC trustee:	Michael Hole	KG6DER

The ORCA NewsLetter is published monthly. Any articles can be used with attribution. Articles, news and photos submitted make for a more interesting newsletter; thank you!

Please submit materials for the next issue by Feb. 23 to Michael **KG6DER** kg6der@arrl.net or fax to 707 215-6124. Thanks again!