November 2006

President's Corner

Larry Tyson, W4WLT

I hope everyone had a great Thanksgiving. As we approach the end of yet another year, it is time for us to renew our memberships in the Lanierland Amateur Radio Club. You should have received your renewal application or will shortly. Please fill it out and return as soon as possible with your check or other payment. Membership dues are the Clubs primary source of income. Please think seriously about also including a donation to support our repeater fund.

Remember our November meeting the last Tuesday of the month. Dinner is at 6:00 PM and the meeting at 7:00PM. The annual Club Christmas Breakfast is scheduled for Saturday, December 2, 2006 at Fire Mountain on Browns Bridge Road in Gainesville. This is the same location we have our monthly meetings. Breakfast begins at 8:00 AM sharp. I hope to see you there.

I have enjoyed serving as your President for the past year and appreciate the trust placed in me. The Nominating Committee submitted a great slate of Officers for the upcoming year. Please give your support to President Doyle Gantt W4DJG, Vice-President Alfred Westbrook, KT4VP, Secretary Bob Aldrich, KI4QVN, Treasurer John Brandon, KE4PCF and Activities Manager Roger Gibson, WB4T, as they take their respective offices at the Christmas Breakfast. I look forward as they take the Club into this next year.

I wish each of you and your families have a very Merry Christmas and a joyous Holiday Season.

73,

Larry, W4WLT

Radio jammer Jack Gerritsen gets seven years, fines

Submitted by Bob Aldrich, KI4QVN, courtesy of the ARRL.

On September 18, US District Court Judge R. Gary Klausner sentenced convicted radio jammer Jack Gerritsen, now 70, to seven years imprisonment and imposed $15,225 in fines on six counts -- one a felony -- that included transmitting without a license and willful and malicious interference with radio transmissions. For the complete story, go to: http://www.arrl.org/w1aw/2006-arlb017.htm

The Tech Corner: featuring SWR and OSCAR

Submitted by Bob Aldrich, KI4QVN and Doyle Gantt, W4DJG

What is SWR?

SWR is an indicator of a mismatch between an antenna and the radio. The word SWR stands for Standing Wave Ratio. When a mismatch between the radio and antenna occurs, some of the power sent to the antenna reflects back down the feedline to return to the SWR meter and radio. The ratio between the voltages sent out to the antenna and the voltages reflecting back give you an SWR reading. If there is a mismatch, it can cause problems with your radio and antenna, and somewhat degrade performance.

Understanding SWR Reading's

SWR readings indicate the impedance match between your radio and the antenna. A bad impedance match will give you a reading of 5:1. A good impedance match will give you a reading between 2:1 and 1:1. A 1:1 is an ideal reading. It means you have a perfect impedance match between your radio and the antenna. This also means you are getting no power reflected from the antenna.

Fixing a Bad SWR Reading

Very high SWR readings mean the antenna is the wrong length, or there may be an open or shorted connection somewhere along the feedline. Make sure to check that there aren't any incorrect connections or shorted components of the antenna. If there aren't any, then it is time to lengthen, or shorten the antenna. Here is the rule for tuning the antenna length for a good SWR match:

SWR Rule	
Lengthening:	The antenna is too short and must be lengthened if: the SWR reading at the low end of the amateur band is 5:1 and decreases to 2.5:1 at the high frequency end of the same band.
Shortening	The antenna is too long and must be shortened if: the SWR reading at the low frequency end of the amateur band is 2.5:1 and increases to 5:1 ant the high frequency end of that same band.

Using an HF SWR Meter for VHF Readings

An HF SWR meter is not recommended for VHF use, but if it calibrates to full scale in the set position, the readings may be accurate.

OSCAR TODAY

Orbital **S**atellite **C**arrying **A**mateur **R**adio

Doyle Gantt, W4DJG

In this edition: International Space Station FAQ Answered

{Taken from the Amateur Radio on the International Space Station (ARISS) web site}

What kinds of radios does ARISS use on the ISS?

The ISS Ham radios are Ericsson MP-X handheld radios, and a Kenwood D-700. More equipment for HF may be shipped to the station later next year.
There is an orbit prediction capability on-board. It is called Worldmap. It is on the LAN-based computers in ISS. The laptop we are currently using is not hooked up to the LAN, so Worldmap is not used near the radio system. The Ham radio equipment is currently housed in the aft end of the FGB (Zarya). and, as described, is velcroed to the wall.

What are the voice frequencies used to contact the space station?

We have programmed numerous channels in the radios. Two of these channels on the 2 meter radio support voice operations (145.80 down/144.49 for regions 2 &3 & 145.80 down/145.20 for region 1). It was necessary to use two uplinks due to region-to-region restrictions on uplink frequencies.

Does that mean that the crew have to change over freq when they are in range of a region 2/3 country, or does their little hand held allow reception on 2 freqs at the same time?

We do not use a scanning capability on the radio. The crew switches between one freq to the other. If they begin a QSO over the US, they can track US stations until they hit the Atlantic and then they will quickly lose US stations. They can then switch over to the other freq and pick up Europe or Africa.

What is the difference between regions 1, 2 and 3 ?

ITU region 1 is Europe, Middle East, Africa, and North Asia.
ITU region 2 is North and South America, Caribbean, Greenland.
ITU region 3 is South Asia, Australia New Zealand, and Oceania.

What does ARISS use for Packet Hardware control?

The computer that was being used for the packet system was an IBM Thinkpad A22P that Mark Shuttleworth left on-board the ISS after his flight. The power supply for this unit has failed and we are making preparations to have the computer replaced
 There are two primary ways to use the packet system---unproto operations and using the Packet Mailbox System (PMS). Given that only one person can use the Packet Mailbox System at a time, remember that unproto mode allows more to participate in the use of the packet system than the Mailbox System. I realize that many of you would like to get an e-mail from an astronaut. We understand that. But when you have thousands trying to connect up to the Mailbox and only one can connect and send their message, this can sometimes lead to frustrations by others on the ground. The most important thing to remember....if you use the PMS, keep your messages short and pre-developed. Other things to consider: Be surprised when the ISS crew responds to your message because they are quite busy up there. Please don't resend the same message to the crew if they haven't responded to your first message. Also, please don't put the crew in a bad position by asking them to set up a schedule with you. This would be unfair to all the hams and school children around the world. We want all to participate, not just a select few. Stick with unproto ops whenever possible to maximize the packet throughput and send short PMS messages only on occasion.

Where can I find instructions for using the ARISS packet system?

There is a page of instructions on the web. Just go to
http://www.rac.ca/ariss/arisspak.htm

I never seem to be ale to make a contact. What are my chances?

The international ARISS team is committed to making sure we are fair and accommodating to all---the hams on the ground, the ISS crew, the national radio organizations, those organizations interested in supporting ham radio on ISS, and the school children. The international Space Agencies have allowed ham radio on ISS for a reason....it provides a great psychological boost for the crew and it is an outstanding educational outreach tool. We are guests on ISS. Our operation on ISS is a privilege just like our ham radio license is a privilege. The ARISS team will continue to balance the needs of all for the long-term betterment of amateur radio in space. Thanks for all the ideas and inputs. And thanks for all your interest in Amateur Radio on the International Space Station."

Current Expedition 14 Crew

Commander and Science Officer Michael Lopez-Alegria, KE5GTK
Soyuz Commander and Flight Engineer, Mikhail Tyurin, RZ3FT
Flight Engineer Thomas Reiter, DF4TR (Exp 13/14) arrived via STS-121; to depart on STS-116
Flight Engineer Sunita Williams, KD5PLB (Exp 14/15), to arrive via STS-116 and depart via STS-118

Callsigns in Use

The following call signs are available for use on the ISS:

Russian callsigns	RS0ISS, RZ3DZR
USA callsign	NA1SS
Packet station mailbox callsign	RS0ISS-11
Packet station keyboard callsign	RS0ISS

Other call signs may come into use as the station and crew change.

Frequencies in use

The following frequencies are currently used for ARISS general QSO's
Voice and Packet Downlink: 145.80 (Worldwide)
Voice Uplink: 144.49 for Regions 2 and 3 (The Americas, and the Pacific)
Voice Uplink: 145.20 for Region 1 (Europe, Central Asia and Africa)
Packet Uplink: 145.99 (Worldwide)

How do I get a QSL card for an ISS astronaut contact?

For the USA
ARRL Headquarters
ARISS QSL
225 Main Street
Newington, CT 06111-1494 USA

**You'll need tracking software. A great freeware program is available at
http://www.satscape.co.uk/
The QSL card process takes a very long time. Be patient. It took almost a full year to receive a QSL card from my ISS contact but it was well worth the wait.

73 to all,
Doyle, W4DJG

October 2006 Minutes

Minutes of LARC meeting 10-31-06

The October 2006 meeting of the LARC was called to order at 20:00 on October 31, 2006 by club president Larry Tyson, W4WLT.

Self introductions followed.

Larry reported Bob Scott KG4NJC was doing better with health issues but was unable to attend tonight's meeting. Larry also advised that Robert Copelan, WB4DHC was also unable to attend the meeting so minutes of last meeting were not available. Larry then called for the treasurer report from John Brandon, KE4PCF and John made his report to those attending. Larry then ask for an activities report from Roger Gibson, WB4T and Roger reminded all attending of the upcoming raffle drawing and advised that we still have tickets if anyone needed same. He also mentioned the second drawing will be held December 2, 2006 at the LARC Christmas breakfast meeting…… Larry then called for any **old business** and it was mentioned that we had removed the phone line at the W4ABP repeater site. Larry then mentioned that since the phone line had been removed, we would be looking into remotely controlling the VHF repeater with a UHF controller. Terry Jones, W4TL advised that the FCC requirements for a link to remotely control a VHF repeater via a UHF link has been lifted due to a rule change that would eliminate the need of a remote control for the VHF repeater and would soon become official. Alfred, KT4VP ask how much the grass cutting was for the W4ABP repeater site and John KE4PCF reported that the initial cost of $300.00 was charged then $200.00 from here out. Larry then ask for any **new business**. Since no new business was brought from the floor, Larry mentioned that Chuck W4EDT had created a new look for the LARC web site. At this time, Larry ask for the nominating committee's (Alfred KT4VP, Clyde N4FCL, Oria KG4KFM) report. Alfred took the floor and made the committee's recommendations for the 2007 officers as follows:

President------Doyle Gantt, W4DJG
Vice President----Alfred Westbrook KT4VP
Secretary----Bob Aldrich, KI4QVN
Treasurer----John Brandon, KE4PCF
Activities Mgr---Roger Gibson, WB4T

Larry then opened the floor for nominations and none were recognized for any office on the Executive Committee. Terry Jones W4TL then made a motion to accept all nominating committee's recommendations as stated. Clyde Thomason, N4FCL seconded Terry's motion and Larry asked for "all in favor to carry the motion". The majority carried the motion by saying "Aye". Larry then ask Roger, WB4T to introduce the special speaker for the evening to the group. Roger did so and proceeded to introduce Ed Cravey, KF4HPY. Ed did a 30 minute presentation on what he described as "paper-work'. His talk included his unique way of indexing radio owner manuals to quickly find important information including the use of "flagging", "hi-lighting", etc. certain areas of

your manual for quick reference. After Ed's presentation, Larry announced that the 2007 officers would officially take office at the Christmas meal/meeting December 2, 2006. Larry then ask for a motion to adjourn. The motion was made and was carried. We adjourned at 19:50………..

Robert Copelan, WB4DHC was unable to attend tonight's meeting. Meeting minutes were taken by Doyle Gantt, W4DJG at Larry Tyson's, (W4WLT) request.

Georgia Ham Events

13 Jan 2007+ GARS TechFest Gwinnett ARS http://www.gars.org
Talk-In: 147.075 (PL 82.5) Lawrenceville, GA
St Marguerite D'Youville Church
85 Gloster Road NW

24 Feb 2007+ Dalton ARC http://www.w4drc.com
Talk-In: 145.230 (-) no tone Dalton, GA
North Georgia Fairgrounds
501 Legion Drive

Repeaters:

2 Meter 146.67 MHz - 131.8 Hz tone. Also used for Hall County ARES
1.2 Meter 224.84 MHz - 203.5Hz tone.
70 Centimeter 444.950 MHz + 131.8Hz tone

Nets:

ARES Net – 2000 every Wednesday night on 2 meters.
LARC Net – 2030 every Wednesday night following the ARES net on 2 meters.

Club Meeting Information

Meeting nights are the last Tuesday of each month. As always, the meeting location is at Fire Mountain on Browns Bridge Road.

Amateur Radio News:
- **Amateur Radio Newsline**
- **Amateur Radio Newsline w/streaming audio**
- **ARRL News Bulletins**
- **RAIN Report (Radio Amateur Information Network**

- **W5YI News Bulletins**
- **AMSAT News Bulletins**

LARC APPAREL

LARC Embroidered Cloth Patch
22 Available
$3.50 Each

LARC LOGO Ball Cap
(One size fits All)
4 (White) Available
$10.00 Each

LARC LOGO Silk Screened
cotton T-shirt (white)
4 Medium, 1 Large and 2 XL
Available
$10.00 Each

See John Brandon, KE4PFC, LARC Treasurer for any of the above items.

Newsletter published by: Bob Aldrich, KI4QVN, Secretary / Newsletter Editor
for the Lanierland ARC.

Newsletter inputs are welcome from any member, any time. Please contribute!

Send your inputs to KI4QVN@windstream.net

Thanks go to Chuck, W4EDT, for our website support and ensuring the Newsletter is posted.