



Loveland Repeater Association Newsletter

<http://www.info2000.net/~lra>

The official organ of the Loveland Repeater Association, a non-profit organization supporting all aspects of Amateur Radio in the Loveland, Colorado area.

LRA Officers	
President.....	Ted Cline, NØRQV, 970-593-9303, ted_cline@agilent.com
Vice-President.....	Tom Levendusky, Jr., NØMWY, 970-962-9023, toml@frii.net
Secretary/Treasurer.....	Ron WØOSK and Jody NØAJB Klein, 970-532-3013, ronklein@ix.netcom.com
Editor.....	Walt Harsch, KCØFGT, 970-679-0178, walter@ezlink.com
FM Repeaters	
2 Meters (NØRQV).....	147.795 (in)/147.195 (out) MHz (100 Hz Subtone; 1* on, 0* off)
440 (NØRQV).....	449.575 (in)/444.575 (out) MHz (100 Hz Subtone; 1* on, 0* off)
Interference Coordinator.....	Ted Cline, NØRQV, 970-593-9303, ted_cline@agilent.com
General Repeater Maintenance.....	Dennis "Duff" Dyer, WØXYZ, 970-593-9984, dennis_dyer@msn.com
Repeater Macros.....	Dennis "Duff" Dyer, WØXYZ, 970-593-9984, dennis_dyer@msn.com

Club meetings are held the first Saturday of each month at the Wayside Inn in Berthoud, CO (505 Mountain Ave (US 287), 970-532-2013). An optional \$6.00 breakfast buffet begins at 8 AM. The meeting starts promptly at 9 AM.
 Visitors are welcome. Come join us!

Next Meeting: Saturday, March 3rd

Both repeaters are working. Everything is just ducky.

(It has been suggested by a highly placed but undisclosed member of the club hierarchy that we adopt a club motto: "The LRA, where everything is just ducky." Perhaps some discussion on this topic at the next meeting? Yet another reason to attend. Ed.)

At this Sat-Mar-3 meeting, I hope to have more of the Carl Sheldon NØHMY video: Valentines for Friends, and old Field Days.

73
Ted

President's Corner From Ted Cline, NØRQV

Thanks to Brian Wood WØDZ for his show-and-tell of his new field day antenna, the DZ3.

Thanks to Carl Sheldon NØHMY for the fun video of the LRA before 1992. See the meeting minutes.

And thanks to Ron Klein WØOSK for his work renewing our ARRL equipment insurance.

February 01 Meeting Report From Jody Klein, NØAJB

The February meeting was called to order by President Ted Cline, NØRQV. There were 36 members and 3 guests present, which was a great turnout.

Following introductions, Jody Klein NØAJB gave the treasurers report. Bank balance on Jan 26, 01 was \$____. She reminded members that renewals are due before the end of March.

Ted, NØRQV, said there was no interference to report. There was no news to report on the repeater, ARES or old business.

Severe weather training will be held in April. This is an all day session that will be scheduled at a later date. Mike is looking for any who are interested in license classes

It was reported that we placed 3rd in 2A in Colorado n Field day, 2000.

Bill Bruce, NØZV, showed a 3 gHz counter which he bought for approximately \$100. He also reported on a recently launched satellite (the AO 40) that is not working well.

The 50/50 drawing was won by John, KBØVZI . He donated the full \$24 proceeds to the club.

Ted, NØRQV reported that there is a Hamfest on February 18 in Brighton.

Ted, NØRQV showed old videos of the removal of the club trailer from it's mountain location in the mid-80's, and shots of work showing the state of disrepair of the interior. Much work was done by many members to restore it to it's current good condition. He also showed videos of a Field day setup and operation from approximately 1987. Many of the members are still active – and we all looked younger!

Brian , WØDZ, reported on a newly designed field day antenna which he calls the DZ3. It is a 30 to 10 meter beam, which cost him about \$125 in parts. He hopes to publish an article on the antenna in QST

**From our Secretary/Treasurer for February 2001
From Ron Klein, WØOSK**

Our bank balance was \$____ on February 23, 2001. Significant account activity for the month was the receipt of dues from 7 members, and the renewal of the ARRL equipment insurance and the post office box. There are now 93 paid members and 38 family members renewed for 2001. Details of account activity through February 23, 2001 are shown in the following table:

Beginning Balance as of 1/26/01	
Credits	
01 Dues	
50/50 Drawing	
Total Credits	
Debits	

Newsletter	
Public Service	
US West	
Bank Charges	
ARRL Insurance	
Postmaster	
Total Debits	
New Balance as of 2/23/01	

Would you like to get your newsletter via email?

33 of you have already signed up! Thanks. If you sent me an email, but still got a hard copy, please email again. Find out what's happening with LRA a day or two sooner – sometimes even BEFORE the monthly meeting! Just send Walt an email at walter@ezlink.com and I'll add your email address to the monthly list. It's fast, it's simple and it will save your club much \$\$\$ (First class postage is up to \$.34 now!) In March I'll send in MS Word and TXT file types.

MS Word readers are available free at <http://members.home.net/baltimore/all/freesoft.html>

Walt, KCØFGT

**More on the AO-40 Satellite...
From the www.amsat.org web page**

Phase 3D/AO-40 Update

The month of February comes to an end with good news about AMSAT OSCAR 40.

The AMSAT-DL web site is currently featuring the following statement from Peter, DB2OS:

Dear All,

Lots of good news about AO-40!

The SEU (sensor electronic unit) is triggering the sun again after the end of eclipse on orbit 147. Telemetry channel #100 (analogue spin rate) is now showing a value of 49. This is the same value it was showing on orbit 89 when triggering was lost. Within a few orbits we should see that the second Sun sensor (SS2) also starts triggering, this should allow us to obtain attitude information and then re-start the magnetorquing efforts to spin-down the spacecraft.

One week ago the 3-axis sun sensors were turned on and they seem to be working nominally. It was planned to use the information from the 3-axis omni-directional sun sensors to obtain the necessary reference information for a new algorithm to spin-down the spacecraft without using the SEU information. The new software code, which will be patched into the operational programming, is almost ready to be uploaded, but due to the premature return of SEU data, this may no longer be necessary.

Analysis of the IHU temperature has revealed that the maximum Sun angle (with the lowest temperatures) was much earlier than anticipated. The temperature of the IHU reached its minimum exactly February 1, 2001 with a temperature of about -8.4°C . This is almost one month earlier than originally thought. There is no explanation at the moment as to why this was premature.

The spin rate of around 17.5 RPM did not change in the last few weeks, whatever it caused to increase has apparently stopped. As soon as the SEU delivers good data, the magnetorquers will be used under control of the IHU to reduce the spin and make any possible attitude changes easier. This should also improve telemetry reception on the S-band downlink.

The next milestone is to bring the spacecraft into a good orientation to fire the arcjet using no electrical power only gaseous ammonia only. This test firing will be used to check the arcjet control electronics and valves. Even without the arcjet burning, the thrust from the test firing will be enough to raise the perigee.

Several independent analysis (including the French space agency CNES) have confirmed that the current orbit will be stable for many years, more than the anticipated lifetime of the spacecraft.

The test firing should give us additional safety margin and a better feeling. However, it is later planned to optimize the current orbit with a full running arcjet. This is planned after testing of the 3-axis momentum wheels, which will be used to re-orient the spacecraft during these maneuvers.

Loveland Repeater Association
PO Box 1733
Loveland, CO 80539-1733

While the spacecraft was in hibernation, the command stations were in preparations for the next activities, watching the spacecraft telemetry and reporting healthy results.

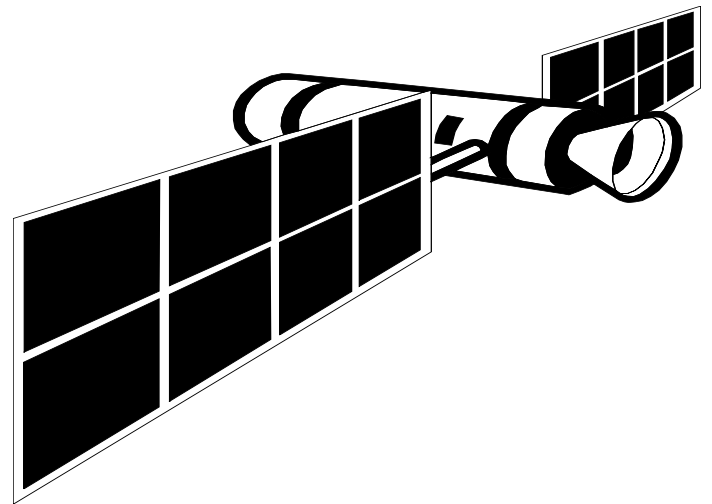
AMSAT-DL expresses our appreciation thanks to Paul, VP9MU, for his outstanding service in gathering and archiving the AO-40 telemetry from different parts of the world. This is vital (additional) information for the command stations in their continuing effort to turn P3D back into normal operation. We suggest everyone who is able to send captured telemetry to the AO-40 telemetry archive at ao40-archive@amsat.org

In summary, the spacecraft seems to be in very good shape, with no additional damage or other problems detected. The power budget is very good and even during the poor Sun illumination it was not necessary to reduce power consumption by turning off the S-band transmitter for any part of AO-40's orbit.

This is indeed a good sign for the next activities.

Stay tuned...

73,
Peter, DB2OS



Upcoming Swapfest Information

(none listed for the Rocky Mountain Region for March, Ed.)



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**LOVELAND REPEATER ASSOCIATION
MEMBERSHIP APPLICATION**

NAME		CALL	
ADDRESS			
CITY		STATE	ZIP
PHONE	LICENSE CLASS	UNDER 18 Y N	ARRL MEMBER Y N
PACKET ADDRESS		E-MAIL ADDRESS	

DUES: Family Membership \$20.00 *NEW FAMILY MEMBERS ARE*
Under 18 \$ 5.00 *PRO-RATED AT \$1.75/MONTH*
*****USE BACK OF FORM FOR ADDITIONAL FAMILY MEMBERS*****

INCLUDES 2 **FREE** MACROS

Contact: Ted Cline, N0RQV, 593-9303

MAKE CHECKS PAYABLE TO LRA

Loveland Repeater Association P.O. Box 1733 Loveland, CO 80539-1733	TOTAL ENCLOSED DUES
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