



Loveland Repeater Association Newsletter

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

LRA Officers	
President.....	Dennis "Duff" Dyer, N9KKH, 593-9984, ddyer@lvld.hp.com
Vice-President.....	Ted Cline, N0RQV, 593-9303, ted_cline@hp.com
Secretary/Treasurer.....	Rick Kile, WB7THT, 962-9179,wb7tth@aol.com
Editor.....	Rick Kile, WB7THT, 962-9179,wb7tth@aol.com
FM Repeaters	
2 Meters.....	147.795/147.195 MHz (100 Hz Sub tone; 1* on, 0* off)
440.....	449.575/444.575 MHz (100 Hz Subtone; 1* on, 0* off)
Packet Node W0KKT/W6PQS.....	144.91 MHz
Interference Coordinator.....	Ted Cline, N0RQV, ted_cline@hp.com 593-9303
General Repeater Maintenance.....	Dennis "Duff" Dyer, N9KKH 593-9984, ddyer@lvld.hp.com

President's Corner

From Dennis "Duff" Dyer, N9KKH

First off, I know that a lot of people are wanting to go the Longmont Hamfest, especially since were halfway there for our meeting, so I will keep Saturdays meeting short. Plans are to be done by 0930 hrs so everyone can get to the hamfest. Since we will be having a short meeting I'll try to put everything that needs to be said here in the newsletter.

If you've visited our excellent web site by our own webmaster Ted Cline, N0RQV, you may have noticed that the old LRA logo is back and in color. Special thanks to Ted for spending a few of his nights completely re-vamping both our logo and our website. If you haven't visited it yet, please take the time to check us out. We have also incorporated the new logo in our club flyer and letterhead.

The new member mailing has been put off until April due to the fact that this coming meeting will be very short and we didn't want to give the wrong impression of our meetings. In April we will mail the first 100 flyers to current hams in Berthoud, Drake, and Loveland.

Brian Wood, W0DZ has informed me that we would like to get the Hardees display case for the month of June. This would give us great exposure during Field Day and right before our July 4th demonstration. Our plan is to get some newspaper coverage during these important events. Our backup plan is for the month of May.

I have to return a call to the post office next week concerning our use of a display case in the 29th street lobby.

This is planned for later in the fall and will focus on QSL cards and stamps of the world.

If you haven't stopped by the classes on Friday evenings stop by and check it out. Dennis Agosta, W0DSA, and crew are not only running technician classes as well as general code classes. Yours truly is even trying the code again after not touching it for 9 years.

Don't forget that field day is coming up on June 27th & 28th. Setup will be on June 26th and we can always use the bodies. More info next month from our field day chairmen, Brian Wood, W0DZ, and Steve Stuntz, N0BF.

Well, that's it for now. See you at the meeting on Saturday.

73's Duff, N9KKH

Next Meeting

The next LRA meeting is scheduled for Saturday, 4 April 1998, at the Wayside Inn in Berthoud, CO. A buffet breakfast is served at 8:00AM and includes scrambled eggs, bacon, potatoes, biscuits and sausage gravy, french toast, juice, and coffee for \$6.00. The business meeting starts at 9:00 AM.

Editors Note: Don't forget the LARCFEST in Longmont. Doors open at 9:00 AM. Join us for breakfast and a short business meeting and head on down to the swapfest.

March 98 Meeting Report
From Rick Kile, WB7THT

The meeting was called to order by President Dennis "Duff" Dyer, N9KKH. Following introductions, Rick Kile, WB7THT gave the Treasurer's report, and an update on the annual membership drive. Dennis Agosta, ex-KB0RFA, and now W0DSA gave a report on the status of the current licensing classes. Ted Cline, N0RQV reported there were no TVI incidents, and gave a brief summary of the status of the club web site. Duff gave a report on plans for a club flyer to be distributed to local businesses, the library, and at swapfests. Samples of the planned flyer were available for review and comment at the meeting.

Displays of ham radio related equipment, and QSL cards at both Hardee's and the Loveland Post Office were discussed. Brian Wood, W0DZ, agreed to lead the effort on these displays with help from John Crawford, KB0VZI. Brian also agreed to co-chair the 1998 Field Day effort with Steve Stuntz, N0BF. Dennis Agosta, W0DSA, will chair the July 4th ham radio demonstration. He plans to hold an initial planning meeting in April.

Bob Schmidt, WA9FBO, gave a presentation on commercial products produced by S-Comm for use by airlines. These commercial repeater controllers, which have their roots in ham radio, are used by the airlines to keep in contact with aircraft. Bob brought along sample products and used them to explain how the airline repeater networks operate. A very interesting presentation, enjoyed by all.

The 50/50 drawing was won by Leonard Wright, KB0TNY.

Membership Renewal From Rick Kile, WB7THT

The final month of the annual membership drive has come and gone. Our membership in 1997 was 113, including 26 family members, and 87 paid up members. Membership renewals through 28 March total 77 paid memberships and 26 family members, for a total of 103. The membership database has been updated to reflect current members, and is included in this issue of the newsletter.

April Contest Information

QRP ARCI Spring QSO Party, CW, sponsored by QRP ARC International, from 1200Z Apr 11 until 2400Z Apr 12. Single band, all band, high band (20-6 meters) or low band (160-40 meters).

ARRL VHF/UHF Spring Sprint, 144 MHz, 7 PM to 11 PM local time on Mon, Apr 13. (Other Spring Sprint dates are 222 MHz on Tue, Apr 21; 432 MHz on Wed, Apr 29; 902 MHz/1296 MHz/2304 MHz on Sat, May 9; and 50 MHz on Sat-Sun, 2300Z, May 16 to 0300Z May 17.) The 902 MHz, 1296 MHz, and 2304 MHz Sprints will run simultaneously on Sat, May 9, 6 AM to 1 PM local time; you may work any five consecutive hours during this time period.

Michigan QSO Party, sponsored by the Hazel Park ARC and Eastern MI ARC, from 1800Z April 18 until 0300Z April 19 and 1100Z April 19 until 0200Z April 20.

Florida QSO Party, sponsored by the Florida Contest Group, 1800Z Apr 25 to 0359Z Apr 26 and 1400Z-2359Z Apr 26

Nebraska QSO Party, sponsored by the Nebraska QSO Party Group, from 1700Z Apr 25 until 1700Z Apr 26.

Ontario QSO Party, sponsored by the Ontario DX Association, 1800Z Apr 25 to 1800Z Apr 26. Phone and CW, 160-10 meters (except 30/17/12 m) and all VHF/UHF bands (no repeater QSOs and keep 146.52 MHz clear).

QRP to the Field, sponsored by the NorCal QRP Club, 1600Z to 2400Z Apr 25. CW HF QRP only (5 W max), no 30/17/12 m operation.

Upcoming Swapfest Information

April 4, 1998: LARCFEST, Longmont, CO. Doors open at 0900; admission \$5, children under 12 free.

May 2, 1998: Pikes Peak RAA, Colorado Springs, CO. Contact: Ron Deutsch, NK0P, 4305 Ridgelane Dr., Colorado Springs, CO 80918

May 9, 1998: Western Colorado ARC Hamfest, at the National Guard Armory, 482 28 Rd., Grand Junction, CO; 0800 to 1400

May 30, 1998: Northern Colorado ARC, Loveland, CO. Contact: Michael Robinson, N7MR, 2236 Silver Trails Dr., Fort Collins, CO 80526, 970-282-1167

August 16, 1998: Colorado State Convention, Golden, CO; Guy Reed, W5GR, 29875 Troutdale Scenic Dr., Evergreen, CO 80439-7705, 303-674-5389

September 27, 1998: Colorado Section Convention, Longmont, CO; Dan Wisotzkey, N0NLS, 1247 Doric Dr., Lafayette, CO 80026-1211, 303-665-8367

Solar Update From the ARRL Letter

Solar savant Tad Cook, K7VVV, Seattle, Washington, reports: Solar activity remained high last week. Average solar flux for the previous 90 days rose two points from 97 to 99. Solar flux was well above these values on each day, indicating a good trend upward.

Looking at a graph of both solar flux and sunspot numbers over the past two months, a general upward trend becomes apparent. HF radio users can hope that the March 15 solar flux of 133 establishes a new level of activity for the current cycle that will be sustained. A glance at the chart at <http://www.dxlc.com/solar/> gives a graphic illustration of this.

March 21 saw a geomagnetic storm, with planetary A indices jumping to 33. This was caused by a solar flare, and within a couple of days conditions had quieted back down.

Conditions over the next few days should be fair for the CQ Worldwide WPX Phone Contest. The solar flux on Friday through Sunday is forecast to be 111, 111 and 110. Flux levels are expected to drop below 100 after April 1, then above 100 after April 5 and above 110 by April 7, peaking near 120 around April 10 and 11. Active to minor storm geomagnetic conditions are expected over April 6 and 7.

Over the next few weeks good propagation between northern and southern hemispheres associated with spring conditions should continue. During daylight look for the best worldwide conditions on 15, 17 and 20 meters, and 30 and 40 meters after dark.

Sunspot numbers for March 19 through 25 were 80, 100, 95, 114, 72, 83, and 79 with a mean of 89. The 10.7-cm flux was 124.8, 126.5, 125.8, 127.6, 122, 120.6, and 115, with a mean of 123.2. Estimated planetary A indices were 4, 7, 33, 11, 5, 7, and 16, with a mean of 11.9.

Repeater Update

From Dennis "Duff" Dyer, N9KKH

On March 22 a crew consisting of Ted Cline, N0RQV, Steve Babcoke, WB0UWE, Randy Long, WB6AVV and Duff, N9KKH first tried driving up to the site in Duff's 4-Runner. Well, I said tried, as we got stuck in mud up to the axles. Luckily we were able to back out but ended up hiking up to the site carrying all our tools. Ted was elected to climb the tower and spend over an hour 30 feet in the air. After all was done the new antenna is working perfectly. I would appreciate any signal reports that compare performance to what we had before the original antenna broke. Don't forget the UHF repeater is down for maintenance in Denver. Hopefully we will have it back on the air in late April.

Final Phase 3D Integration Under Way

From the ARRL Letter

Final integration work continues at AMSAT's Phase 3D Integration Lab in Orlando, Florida, as AMSAT remains optimistic for a launch opportunity sometime this year. Serious negotiations with the European Space Agency for a ride to place the next-generation Amateur Radio satellite into orbit continue.

AMSAT teams from several countries recently converged on the Phase 3D Integration Lab earlier this month to install remaining electronic and communications modules into Phase 3D and get it flight ready.

In a joint statement March 18, AMSAT-DL President and Phase 3D Project Leader Karl Meinzer, DJ4ZC, and AMSAT-NA President Bill Tynan, W3XO, outlined recent progress made on the satellite. "After successfully recovering from the setbacks caused by the major structural reworks of last summer and fall, the spacecraft is now once again rapidly nearing flight readiness," Meinzer said. He expressed his gratitude to AMSAT-NA Vice President of Engineering Stan Wood, WA4NFY, Integration Laboratory Manager Lou McFadin, W5DID, and to other members of the Orlando Lab team, including Dick Jansson, WD4FAB, Rick Leon, KA1RHL, and

Bob Davis, KF4KSS, for their hard work in preparing the satellite for the final integration phase.

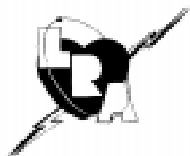
At the Integration Lab, AMSAT-DL's Digital Integration Manager Peter Guelzow, DB2OS, performed checks and measurements on the spacecraft's Internal Housekeeping Unit (IHU)--Phase 3D's main computer. He also sent and received commands from the spacecraft via radio uplink. Phase 3D North American Command Station Stacey Mills, W4SM, also was in Orlando to put finishing touches on software needed to format and decode the satellite's telemetry stream. "Needless to say, there were big smiles all around when, once again, P3D team members heard the familiar growl of 400 baud PSK telemetry coming from the new bird," said AMSAT Executive Vice President Keith Baker, KB1SF.

Aside from being AMSAT-DL's Vice President, Werner Haas, DJ5KQ, is responsible for coordinating the entire communications suite for Phase 3D. In Orlando, Haas performed yet another bench test on each of the flight electronic modules just prior to their re-installation into the satellite. Then, he directed other members of the communications team in successfully powering up each of the onboard flight electronic modules. Michael Fletcher, OH2AUE, and Harri Leskinen, OH2JMS, also were on hand to reinstall the 10 GHz transmitter. In addition, Stefaan Burger, ON4FG, connected and powered up the 24 GHz transmitter, which performed "as advertised," delivering its designed 1 W output into its 26db gain feed-horn antenna.

The RUDAK team thoroughly checked out the RUDAK digital experiment module and declared it electrically flight-ready. Gerd Schrick, WB8IFM, helped the team to put the final touches on the satellite's all-important Earth and Sun sensors. These instruments will help ground controllers determine Phase 3-D's physical orientation in orbit for tracking and motor burn considerations.

Meanwhile, Konrad Mueller, DG7FDQ, AMSAT-DL's Structural Specialist, and his team prepared the second Specific Bearing Structure (SBS) for flight. The SBS is the large cylindrical structure that will ultimately carry the Phase 3D spacecraft to orbit. In addition, Phase 3D Documentation Manager, AMSAT-DL's Wilfred Gladisch, was on hand to insure that all the spacecraft's documentation--including each drawing and photograph--match the "as built" spacecraft.--AMSAT News Service

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



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