



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.....	Tom Levendusky Jr., N0MWY, 962-9023, to ml@rmi.net
Vice-President.....	Dennis "Duff" Dyer, N9KKH, 593-9984, ddyer@lvld.hp.com
Secretary/Treasurer.....	Jim Plumb, N0GTW, 667-5553, jplumb@worf.omn.com
Editor.....	Rick Kile, WB7THT, 962-9179,wb7tth@aol.com
FM Repeaters	
2 Meters.....	147.795/147.195 MHz (100 Hz Subtone; 1* on, 0* off)
440.....	449.575/444.575 MHz (100 Hz Subtone; 1* on, 0* off)
Packet Node W6PQS.....	144.91 MHz
Interference Coordinator.....	Ted Cline, N0RQV, 593-9303
General Repeater Maintenance.....	Dennis "Duff" Dyer, N9KKH 593-9984, ddyer@lvld.hp.com

President's Corner

From Tom Levendusky N0MWY

I'm happy to report that we have new officers for next year. Dennis (Duff) Dyer N9KKH, is the new President, Ted Cline (N0RQV), is the Vice President, and Rick Kile (WB7THT), will be the Secretary/Treasurer as well as the newsletter editor. I would like to congratulate all and I'm looking forward to helping them in the new year.

The Field Day results are in. We finished 20th in category 2A with a score of 6,846 which is 2,069 QSO's plus the bonus points. There were 594 2A entries, so I think we did fantastic. I would like to thank everyone who helped on Field Day and I would like to especially thank Dennis Agosta (KB0RFA) for putting it together this year. To let you know how we did with the other clubs 1st place had a score of 12,706 with 4,172 QSO's (The Texas DX Society). The next Colorado entry in 2A was the Montrose ARC with a score of 6,104 and 1899 QSO's. They finished 32nd. So we should be proud to be the highest scoring Colorado group in 2A.

At the November meeting we will have 2 videos to show. Ted Cline (N0RQV) will have a video on the rocket launches that took place down by Colorado Springs this summer and Dennis Agosta (KB0RFA) will have the video he shows at the beginning of the Ham Classes called New World Of Amateur Radio. I hope to see everyone one at the meeting.

73, Tom N0MWY
From our Secretary/Treasurer for September 1997

From Jim Plumb, N0GTW

We had the following expenditures.

Newsletter	\$ 56.86
Electric	\$ 15.90
Phone	\$ 22.59
Trailer Lic.	\$ 22.11
Total	\$117.46

Our September bank balance was: \$1317.20.
 This includes \$80.00 which has been donated to the 440 Repeater Fund

Current membership is 113, including 27 family members; and 86 paid up members.

Next Meeting

The next LRA meeting is scheduled for Saturday, 1 November 1997, 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, and coffee for \$5.00. The business meeting starts at 9:00 AM.

October 97 Meeting Report
From Rick Kile, WB7THT

Tom Levendusky opened the meeting at 0900. Treasurer Jim Plumb was not present so Tom recapped the status of the club treasury as reported in the newsletter. Dennis "Duff" Dyer, N9KKH, reported on the repeater status. He will be winterizing the shack which houses the repeater in the near future.

Dennis Agosta, gave a report on the ham license class which started on Friday, 3 October. Six students attended the first class. He is looking for additional students. The class meets from 7-9PM every Friday night at the Ft Collins Red Cross building. The course will run for eleven weeks due to the addition of RF safety questions to the question pool. Morse code lessons are included in the course for those students interested in licenses which require a code test.

Election of new club officers was completed with the following results:

President: Dennis "Duff" Dyer, N9KKH

Vice President: Ted Kline, N0RQV

Secretary/Treasurer: Rick Kile, WB7THT

(Rick will retain his role as newsletter editor as well).

Ted Kline, N0RQV, and John, KB0VZI, gave a report on a recent Edge of Space Science balloon flight. Flight 31 launched from a location near Windsor, CO, and achieved an altitude of 90,000 feet before the balloon ruptured. During the descent, the video camera gondola separated from the parachute at approximately 85,000 feet, and landed in a farmers field near Wildona. The parachute and remaining payload hardware drifted to a soft landing southwest of Sterling near the town of Marino. Telemetry signals from the video camera payload and the tracking beacon were detected by fox hunters. At the time, the launch and recovery team did not know the video camera payload had separated from the parachute, so altimeter readings showing a rapid descent, and directional signals representing two different landing locations were disregarded by the majority of the recovery team. One fox hunter chose to follow the video camera signals, however, and recovered the gondola in a farmer's field approximately 100 yards behind his house.

Alan McBride, KB0VKF, won the fifty/fifty drawing. \$16 was split between Alan and the club treasury.

During open discussions on a variety of topics, Duff, N9KKH, explored club interest in installing a weather station at the repeater site with weather data available via packet. Bob, WA9FBO, advised us that a new repeater controller available early next year will include a serial port that could be used to feed the weather data to the repeater to provide macro controlled voice reports from the repeater. Ted Kline agreed to explore setting up a Loveland Repeater Association web page.

Show and tell at the November meeting will include video from the Large and Dangerous Rocket launches at Hartsell, Co, and the ARRL Introduction to Ham Radio video shown at the first ham licensing class.

**Flight Profile for the EOSS-32 Edge of Space Sciences
High Altitude Balloon Flight
From Ted Cline, N0RQV**

LAUNCH DATE: November 15th, 1997

LAUNCH TIME: 15:00 UTC = 08:00 MST

LAUNCH SITE: Pikes Peak Radio Control Club Airport located east of Falcon Colorado on US 24 (9 or 10 miles east of Colorado Springs on US 24). 4 miles east of Falcon take Judge Orr road east. Follow this road 4.2 miles to Pikes Peak Radio Control Club Airport. Use the simplex frequency at the launch site for talk-in.

LAUNCH SITE COORDINATES:

38 deg 57' 17.65" North Latitude

104deg 30' 04.43" West Longitude

EXPECTED TRACK: Between 45 and 145 degrees azimuth

FLIGHT EXPERIMENT: Gas Capture Experiment and In flight Ozone Experiment

PROJECT INTEGRATOR: University of Colorado at Colorado Springs (UCCS)

FREQUENCIES:

Preflight Foxhunter Net 8:00PM the preceding night

147.225 MHz Colorado Repeater Association

Launch Site: Simplex 146.550 MHz

Telemetry: 144.340 MHz FM (1 Watt output) - The Packet telemetry stream is in AX.25 format at 1200 baud and is readable in plain English for the most part. Included in each telemetry frame is an APRS position string (APRS users see note on WWW page). Every few minutes a CW ID is transmitted on this frequency. Please turn off your beacon when listening.

APRS Dedicated Payload: Input 145.790 MHz, Output 145.790 MHz

ATV: EOSS Shuttle Video 426.250 MHz AM (1 Watt output) - NTSC video

Foxhunters: 448.450 MHz Pikes Peak FM Association Repeater, 146.58 MHz Simplex Field Frequency

HF Net: 7.235 MHz no net control set as of this writing

Who Can Hear It:

Almost all our transmitters are on VHF or above frequencies. Therefore, you need to be line of site to the payload to hear/see it. Since the payload rises to an altitude of over 90,000 feet on most missions, reception is usually possible for folks in most of Kansas, most of Nebraska, most of Wyoming, extreme south eastern Idaho, eastern Utah, north eastern Arizona, most of New Mexico, northern Texas, and western Oklahoma. **DO NOT BE DISCOURAGED** by the apparent low power of our signals. I usually monitor the Beacon with an HT from the ground station throughout the flight. The signal is strong even at 130 miles and I only lose it when the balloon descends below my horizon.

See the EOSS WWW site for more details:

<http://members.iex.net/~rickvg/eoss.htm>

To subscribe or unsubscribe from the EOSS mailing list, email mgriffin@centosystems.com from the email account you wish to use. Marty Griffin will execute your wish.

**FCC Issues New Form 610, Old Versions Obsolete
From the ARRL Letter**

The FCC announced this week that as of January 1, 1998, Amateur Radio applicants may only submit FCC Forms 610,

610 A and 610B that carry an edition date of September 1997. After the first of the new year, previous editions of Form 610 will not be accepted for filing by the FCC or by Volunteer Examiner Coordinators (VECs). Amateurs may begin using the new Form 610s now.

The major change on the new form is a certification that says the applicant has "read and will comply with Section 97.13(c) of the Commission's Rules"; regarding RF radiation safety and the amateur service section of OST/OET Bulletin No 65, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields. But, Amateur Radio Supplement B of Bulletin 65, which has additional information on how to conduct a routine RF safety evaluation and explains other aspects of RF safety, is still in the draft stages and not yet available to the ham radio community.

ARRL Executive Vice President David Sumner, K1ZZ, says the League is concerned that the new Form 610 could be in the hands of hams before Amateur Radio Supplement B is complete. Sumner says it's essential that the FCC make Supplement B available in time for hams to complete their evaluations to meet the deadlines in the rules.

ARRL Lab Supervisor Ed Hare, W1RFI, who's been involved in reviewing the draft supplement, said he expects the FCC to release it sometime in November. The ARRL will release a book on the new RF safety regulations near the end of the year. "Above all, it is important that the required station evaluation be as easy as possible for hams", Hare said. "The FCC has pretty much met that goal. Additionally, most hams, by virtue of their power levels, will not need to do an evaluation at all."

Section 97.13(c) reads: Before causing or allowing an amateur station to transmit from any place where the operation of the station could cause human exposure to RF electromagnetic field levels in excess of those allowed under para 167;1.1310 of this chapter, the licensee is required to take certain actions.

The licensee must perform the routine RF environmental evaluation prescribed by para 167;1.1307(b) of this chapter, if the transmitter PEP exceeds the following limits: 160-40 meters, 500 W; 30 meters, 425 W (legal limit is 200 W; 20 meters, 225 W; 17 meters, 125 W; 15 meters, 100 W; 12 meters, 75 W; 10 meters, 50 W; VHF (all bands), 50 W; 70 cm, 70 W; 33 cm 150 W; 23 cm, 200 W, 13 cm 250 W, SHF/EHF (all bands) 250 W.

If the routine environmental evaluation indicates that the RF electromagnetic fields could exceed the limits contained in para 167;1.1310 of this chapter in accessible areas, the licensee must take action to prevent human exposure to such RF electromagnetic fields. Further information on evaluating compliance with these limits can be found in the FCC's OET Bulletin 65, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

The new Forms 610 may be obtained from the FCC Web site via the Internet at: <http://www.fcc.gov/formpage.html> or, <ftp://ftp.fcc.gov/pub/Forms/> or by fax at 202-418-0177

(request index, or for Form 610 use form code 000610, for Form 610A use form code 006101, for Form 610B use form code 006102). The FCC Forms Distribution Center will accept FCC forms orders by calling 800-418-3676.

ARRL VEs and VE teams will be able to obtain a supply of the new Forms 610 in mid to late November--once the ARRL/VEC has had time to obtain a supply of the new forms.

Individual amateurs may obtain a copy of the new Form 610 by sending a self-addressed, stamped envelope (SASE) to: ARRL/VEC, 225 Main St, Newington CT 06111. Include 32 cents postage for each Form 610 requested (this is a four page form).

Solar Update From The ARRL Letter

Solar seer Tad Cook, K7VVV Seattle, Washington, reports: Unfortunately, solar activity is continuing a downward drift, which was unexpected following the recent hopeful signs from solar cycle 23. Average solar flux was off about one point last week referenced to the previous week, and sunspot numbers are down as well.

Solar flux on the last four days of this week has been below the average for the previous 90 days--never a good sign. The only consolation has been stable geomagnetic conditions with low K and A indices, but this may change, since on Tuesday there was a coronal mass ejection from the Sun. This might produce some unstable conditions for the CQ WW contest this weekend, but forecasters are not certain. Based on the 27.5 day solar rotation, solar flux is expected to drift around the low 80s over the next few weeks. On the day that this bulletin was written, the solar flux even dipped just below 80. The solar flux has not been this low in about two months.

Sunspot numbers for October 16 through 22 were 45, 52, 45, 37, 25, 27 and 13 with a mean of 34.9. The 10.7-cm flux was 87.5, 88.2, 86.6, 85.3, 82.8, 85 and 80.7, with a mean of 85.2, and estimated planetary A indices were 3, 5, 3, 3, 6, 4, and 5, with a mean of 4.1.

Contesters: Here's additional information from the University of Lethbridge, provided by Cary Oler, relating to coronal mass ejections from the sun during the past week:

HF propagation conditions were normal over the last 24 hours. Approximately one more day of near-normal propagation is expected to dominate before conditions become more disturbed. HF propagation conditions are expected to become degraded on October 25 and 26 in response to the arrival of several coronal mass ejections observed over the last three to four days.

Night-sector transpolar and transauroral circuits are expected to be the most heavily impacted, with periods of poor to very poor propagation expected in response to strong fading, multipathing and enhanced absorption levels. There will also be a chance for VHF backscatter-type communications during disturbed intervals.

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Amateur Radio Serving the Community
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