

STORM WARNING



November 2008

Quick Updates

by Lance Lickteig

After expending so much effort on LDRS 27 planning, preparation, and execution it has been difficult for me to sit down and concentrate much on rocketry; especially the administrative stuff. Amid the LDRS 27 chaos we sent a daughter to each coast for college, so there's been a long period of decompression around our house. Nonetheless, I owe everyone an update on some important KLOUDBusters stuff. This will be short and stick to the points.

LDRS 27 Wrap-up

KLOUDBusters has put a very successful LDRS 27 effort in the books. According to all reports from every quadrant of the country, folks coming to Argonia for our **5th-ever** LDRS had a great time. I think that we've set a new standard for how the TRA national launch can be conducted and each KLOUDBusters member should be proud of that.

I usually do my own wrap-up of our large launches, but in reality the coverage by **ROCKETS Magazine** is so comprehensive and excellent anything I could put together would be child's play. I'd encourage you to get a copy of the LDRS 27 issue of **ROCKETS Magazine** and read all about it. Literally every word other than the ads in that issue is about LDRS 27 and there are some great photos and accounts of the week. I will present a short consolidation of some of the facts about the launch here.

Flight Counts

There were 1059 rockets flown during the 6 days of LDRS 27, or an average of about 176 per day. Here are the breakdowns:

Launch Date	Rockets Flown	Motors Burned
Thursday 8/28/2008	68	72
Friday 8/29/2008	174	185
Saturday 8/30/2008	360	394
Sunday 8/31/2008	356	385
Monday 9/1/2008	72	79
Tuesday 9/2/2008	29	30
Total for LDRS 27	1059	1145

Saturday's total of 360 rockets in 7 hours of flying (the range shutdown at about 4PM when thunderstorms started rolling in and we prepared to head to Wichita for the

Banquet) yields an average of 51 rockets per hour - just short of 1 per minute ALL DAY LONG!

In all, approximately 1.9 million Newtons of propellant were burned at LDRS 27 - an impressive total, to be sure.

Impulse Class Breakdown

LDRS 27 was truly a "high-power launch." Typically, at AIRFest and most other launches, we have a large number of guests flying A-D motors. We still had quite a few of those, but LDRS 27 was *all about the power*. There were 209 Level 1 class rockets, 265 Level 2 class rockets, and 107 Level 3 class rockets launched. The totals for each impulse class were:

Impulse Class	Rockets Flown	Motors Burned
A-D	277	308
E-G	201	221
H	115	118
I	94	95
J	138	149
K	90	101

Impulse Class	Rockets Flown	Motors Burned
L	37	37
M	79	87
N	23	24
O	0	0
P	4	4
Q	1	1

Class-by-class, we saw a lot of J, K, and M motors. There were more J motors flown than any other single impulse class (in the A-D class, there were 130 C motors). I thought the number of N's was impressive as well. It had seemed to me that commercial N motors were virtually extinct, but 16 commercial N's were burned at LDRS 27.

LDRS 27 "By the Numbers"

For fun I assembled some other LDRS 27 numbers:

- Pre-Registered high-power flyers - 240
- Total Registered high-power flyers - 317
- US States represented - 33
- Countries represented - 6 (USA, Canada, Australia, Great Britain, Sweden, Germany)
- High-power flyers from Kansas - 58
- Next most represented states in order - Texas (36), Missouri (24), Illinois (18), Oklahoma (17), Colorado (15), Nebraska (14), Minnesota (14)
- Most surprising attendance from any state - North Dakota (8 flyers).
- Cosmosphere Event tickets purchased - 80
- People on the Cosmosphere bus - 53
- Banquet tickets - 275
- T-Shirts - 521

- On-site vendors in attendance - 22
- Watermelon for ROCKETS Watermelon Feed - 600 lbs.
- Ice required for chilling ROCKETS watermelons - 80 lbs.
- Ice used for water coolers for range staff for 6 days - 625 lbs
- Feet of cable used to run KLOUDBusters wired launch system in LDRS/AIRFest configuration - about 4,190'
- Trash generated - about 60 cubic yards (we had about 54 yards of dumpster space available all were overflowing). I think rockets from Nebraska filled about 30% of the dumpster space!
- Number of photos taken - Who knows, but it may be in the millions!
- Number of times KLOUDBusters has hosted LDRS - 5 ('92, '93, '99, '03, '08)
- Approximate feet of neon orange duct tape employed for various purposes - 125'
- Microburst thunderstorms required to wreck pop-up canopies - 1
- Number of 'O' impulse and above CATO's - a big fat ZERO!
- Gas sold by Argonia Mart - All they had!
- Number of folks who enjoyed hosting and attending LDRS 27 - Countless!!!

The most impressive number of all was the number of KLOUDBusters members who stepped-up BIG TIME to support the launch in every way possible. A huge "Thank You" goes to each of you. I attempted to extend my thanks to everyone in the write-up in **ROCKETS Magazine** - I hope I was able to get everyone mentioned and we really do appreciate all the volunteers - you all are what make KLOUDBusters a great club.

New TRA Rules for Research Launches

At LDRS 27 the TRA Board of Directors made some important changes to the rules for Tripoli Research (TRx) launches. Most significantly, TRx launches have been opened-up for any TRA member 18 years of age or older of any Cert level (0-3) to launch commercial motors.

You must still carry Level 2 or above certification to fly Research motors, but any TRA member may fly commercial motors. This also opens-up TRx launches for any flyer certification flights, Level 1 through Level 3.

In light of these new rules, the KLOUDBusters Board is looking at some changes to our traditional launch schedule. Under the old format, there were 24 scheduled launch days each year, which places the significant responsibility on the Club officers, and especially the Prefect (the waiver holder), to be at the launch site each of those 24 days. We're considering revamping the schedule to fewer days, but note it will be the same number of weekends each year and should offer plenty of opportunity for everyone to launch rockets to their level of desire. More details to come.

Distant Thunder '08 / Youth Launch / Volunteer Appreciation

Distant Thunder '08 time is NOW - November 8-9, 2008! This two-day event has traditionally been sort of the

"Last Blast" each fall and has also evolved into a Youth Launch over the past few years where we welcome several Scout Troops, 4-Hers, and other youths to bring out their rockets. We have some small Estes kits we'll give as prizes to the kids, too.

This year, we're also going to make Distant Thunder our "LDRS 27 Volunteer Appreciation Launch." Anyone who volunteered for duties during LDRS 27 will have their flyers' fees waived for Distant Thunder '08. Additionally, there have been some items donated and if you show up to Distant Thunder your name will go in the hopper for a raffle of these donated items. Of course there will be an opportunity to sign-up for yet another shift of range duty at Distant Thunder especially to help the youth.

Range hours for Distant Thunder will be 9AM - 4PM each day. We will set-up the range beginning around 7:30AM on Saturday and commence launches upon completion. Join us for "DT '08" and burn some AP before the weather gets cold and wintry. Commercial rules apply.

Make-up Research Launch

We've been trying to get a Research Day to happen over the last two months and haven't been able to do so. There will be a Research Launch most likely the weekend after Distant Thunder (weekend of 11/15-16). Check the KLOUDBusters Yahoo e-group and/or the web-site for details on when this launch will occur.

KLOUDBusters Yahoo e-group

KLOUDBusters maintains an e-group on Yahoo! Groups that is used for quick and timely updates to activities, discussion of various rocketry-related topics, and general banter.

All KLOUDBusters members are urged to join the e-group in order to stay informed of what's going on. Whenever there is a last minute schedule change or cancellation, it will be posted to the e-group. You can receive messages one at a time, or in daily digest format.

Go to <http://tech.groups.yahoo.com/group/kloudbusters/> and click the "Join This Group" button to sign-up.

KBoD Election - Call for Nominations

KLOUDBusters holds elections for a portion of Board of Directors each year and this year the following positions are up for election (current officer in parenthesis): Prefect (Bob Brown), Vice-President (Dennis Blackburn), Secretary (Steve Tedeschi), and one Member-At-Large (Jim Cooper). The term of office for the Prefect is one year and all other positions are two years.

The official and monetary matters of the Corporation are managed by the Board of Directors. All senior members of KLOUDBusters (18 years of age or over) in good standing are eligible for election to the KBoD.

If you would like to be involved in the planning and oversight of KLOUDBusters yourself, or if you know someone who you believe would be an asset to the club by serving on the KBoD, please submit his or her name to Lance Lickteig (lancel@cox.net) or 316-617-0184.

Deadline for KBoD nominations is Nov. 21, 2008.

KLOUDBusters Christmas Party

SAVE THE DATE - The KLOUDBusters Annual Christmas Party is scheduled for December 13, 2008. More details will be available soon on the e-group and in the next newsletter.

Some photos I've taken recently appear below ...



Some of the many KLOUDBusters who helped during the preparation stages of LDRS 27. Here flyers' packets are being assembled.



Eric Pederson had one of the more memorable flights of LDRS 27 with his Jupiter-C all-cardboard rocket. The slow, majestic liftoff on an M-1939 was impressive.



Amy Howell worked throughout LDRS 27 week on her Level 3 rocket. On Tuesday, Half 'n Half flew and certification was achieved.



Bob Brown, Darren Wright, and Danielle Brown ponder the idea of spending many days aboard a Soyuz capsule at the Cosmosphere. Dasvidanya Comrades!



Presents:

Distant Thunder 2008
November 8-9, 2008
Argonia Rocket Pasture

**LDRS 27 Volunteer Appreciation and
Youth Launch**



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