



Launch Reports

Statistics by Jack Hagerty, LUNAR #2, NAR #55105

Editor's note: many folks post photos to the picture gallery. You can find the gallery by clicking "Gallery" on the left side of the LUNAR website main page (<http://www.lunar.org>), or directly from <http://www.lunar.org/gallery2>. And don't forget to add your name and comments on your photographs!

January 5th Snow Ranch

Jack Hagerty wrote: For January, the weather was quite nice at the ranch today. The temperature (mid-50's?) was OK when the wind didn't blow, which it didn't most of the time, and the ground was firm enough that we didn't sink much past our knees.

Total Flights:	232
Motors consumed:	251
Total Impulse expended:	36,051 - A mid-range "O"
Total Fliers:	119

Average Impulse	
Per motor:	143.6 - A mid-range "G"
Per flight:	155.4 - A high-range "G"

Safety Statistics:		
Total Flights:	232	100.0%
Successful:	229	98.7%
Motor Failure:	0	0.0%
Unstable:	2	0.9%
Recovery Failure:	1	0.0%

Ryan wrapped up our LUNAR Fun-4 contest that started last month, which accounted for all of the flights below "A".

It seems that folks were coming out of the woodwork to do their HP certs. Some have been waiting since June (too foggy last month). There were 10 L1 cert flights and 3 L2. There was one TARC team out there that made a few test flights, plus the UC Davis SLI team (being mentored by Steve Kendall) made a "K" flight.

Here are the names of all the Cert fliers along with their models. The cards don't list whether or not they were successful:

L1 Attempts were made by Tim Robinson, LOC Athena on an H151; James Buscue, Madcow Cowabunga on an H120; Jack Waterson, PML Quicksilver on an H73; Charles Hymes, Madcow Sun Dagger on an H128; Tony Slajs, Madcow Rush Job on an H 148; Dennis Yeh, LOC Sobriety on an H128 (I'm sure that his name for the rocket, not the kit name!); Winton Davies, Madcow Piranha on an H238; Robert Belknap, Pem Tech King Kralan on an H143; James Ryan, AeroTech

Lightning Bolt on an I200; and Mark Demmers, Madcow Torrent on an I303.

L2 attempts were: Mark Isabell Giant Leap Vertical Assault on a J500; Matthew Bowman, Hester (scratch built) on a J500; and Ross Talarico, PML Nimbus on a J270

January 19th NASA AMES

Cancelled? Air operations? Get that big plane off our field!

It's not fair, but sometimes the powers that be want to use the airfield as an airfield instead of as a training center for bright young scientists. OK, we'll make up for it next month! But before we go back to Moffett, let's talk about....

February 2nd Snow Ranch!!!

Jack Hagerty wrote:

Drum roll please!

As many of you know, we were creeping up on our two-millionth Newton-second of impulse flown at club launches at the end of last year. So, before I display the totals for Saturday, here are the cumulative club totals since March 1993 (our first launch as a chartered NAR section):

Number of Launches	229
Total Flights	44,660
Motors consumed	48,034
Total Impulse	2,037,111
Average Impulse Per motor	42.4
Per flight	45.6

Those are pretty impressive numbers! Thanks to Casey Barker and our other HP fliers, we pushed more than double the average impulse for a Ranch launch. And just for planning purposes, at our current rate of about 3,000 flights/year we should pass 50,000 sometime in late 2014.

Editor's note: So what does two million Newton seconds mean in rocket terms? According to Lynne Kissel, LUNAR #009 and a retired researcher at LLNL, 2 mega Ns is sufficient to **land a 134 kg payload on the surface of the MOON!!** (That's ignoring the weight of the rocket, fuel, etc, of course!). WOW!