The Ex-Side Report

By Walt Stafford

LDRS 21 was an inspiring event for me. It was great to see some huge projects and to meet some famous rocketeers like Ky Michaelson, Frank Kosdon and Quentin Wilson.

For two days I soaked up the LDRS experience. The third day I was there was the first day of the Ex-Launch. On that day it was time for me to try some of my own fuel. I built a minimum diameter 3” rocket about 2 years ago, thinking that one day I may find a field large enough to stuff (Continued on page 6)
HARA has monthly meetings the second Thursday at 7:00 p.m. at the Huntsville Area Technical Services Office at 2003 Byrd Spring Road. For further information, contact any of the members.

Ed. Note: The map in the Spring Max-Q showing the HATS office was completely inaccurate. MapQuest (and editors) obviously are not infallible. We regret any confusion this may have caused.

HARA LAUNCHES

Launches are regularly scheduled the fourth Saturday of every month at Ardmore, Alabama. The two-day Rocket City Blastoff will be October 26-27 this year. Tripoli experimental launches are also held at the Ardmore launch site. The next experimental launch is scheduled for October 20-21.
Some folks come to rocketry in a gentle and mild manner. I came to it like a HyperTEK 835 on a minima diameter rocket – full throttle baby! Last year’s RCBO was my first experience into rocketry and I got hooked. Without much guidance or information I found a kit that I thought looked really cool on PML’s website and I bought it. The kit showed up in the mail about a week later, and for the winter of 2001 I had my first rocketry project, a Pterodactyl Jr... I could have picked an easier name to spell. I followed the kit’s instructions with no modifications (the first and only time that will ever happen) but still, I had some questions. So I showed up at the February HARA meeting at the HATS office, met some of the guys and started asking questions and got lots of different answers. Armed with lots of knowledge, I finished off my Ptero Jr. later that month and anxiously awaited her debut in the sky. March’s launch got rained out so April became my first shot at what has now come to be known as “third time’s the charm.”

Strike 1) I borrowed the club’s 29/180 casing and loaded up an H128W. Only I wasn’t as careful with the black powder then as I am today. The ejection charge blew. All the black powder had spilled out so the chute never popped and he had a missile inbound. My Ptero Jr. struck smack dab in the middle of the road on the south end of the field. You could measure it with a ruler – in the middle of the road, there is a three inch divot with my Ptero’s name on it. Amazingly, the damage to the rocket was minor except for the nose cone which made a beautiful accordion. What a testimony to the strength of the Quantum Tubing! With a bit of epoxy, the one loose fin was repaired and with some JB Weld, I affixed a new set of launch rail lugs to the Ptero’s Quantum Tubing and she was ready to fly again.

Strike 2) Again I borrowed the club’s 29/180 casing and this time, loaded up an H238T, paying close attention to taping in the black powder charge. Like a bull out of the chute, my Ptero Jr. leaped off the launch pad, soared to about 1,100 feet and fired her ejection charge. Out shot the parachute but what was that object that kept going? Oh no, heads up! The 2 lb. nose cone pulled through its tethering and was inbound from 1,100 feet up. By the time it reached Mother Earth, it had reached terminal velocity and landed within inches of someone’s parked white van. (Sorry!) Lesson number 2: Never tether a nose cone using key chain rings. They pull right through the plastic eyelets. That detail was left out of the instruction sheet. Remarkably, the nose cone was still intact after we dug it out of the dirt. Three other birds made their L1 flights that day but not mine. So, with a bit of hardware, namely a concrete lag bolt and some of PML’s two part foam, my Ptero Jr’s nose cone was readied to fly again.

Strike 3? I really liked that H238T so in July, I loaded up another one. By this time, Chuck had gotten tired of hearing me ask for another L1 certification form, Johnnie was tired of announcing it and I’ve got several rockets in my queen all in need of H class motors! Once again, the Ptero Jr. leaped off the launch pad and shot up to about 1,100 feet. The ejection charge blew, the chute popped open and the nose cone stayed affixed. A perfect L1 flight! It took me half a year but now I’m ready to soar with the big boys. P.S. I’m praying that my L2 flight gets labeled as “It only took once.”

Photo courtesy of Earl Henson.
May launch report

The HARA launch this past Saturday was a huge success! The weather was wonderful, temps in the low/mid 80’s and very light winds. The turnout was great. At the peak, we probably had 20 cars on the line but there was not an exact head count of flyers. There were a bunch of L1 certification shots this weekend, all but one of which was successful. Congratulations to Rickey Stevens (Aerotech Initiator, H128), Lee Brock (on an H238), Earl Henson (Patriot, H128). Todd Jurhs had a nose cone separation on his PML Ptero Jr., using an H238. Our former president and esteemed NAR advisor finally made his L2 shot with his beautiful Explorer I on a J275. (See photo, front page.)

The flight and recovery were perfect. Congrats, Vince! Walt Stafford and Max Gray continued to dazzle us with their J-motor launches. There were also several HyperTEK birds. Oscar and Scott Valent put up their 23#, modified 7.5” PML Pterodactyl on a J330 (835cc Hammerhead J) to 917 ft. The top honors for the biggest launch and subsequent hard landing of the day goes to Chuck Pierce who put up a 24# 5.5” x 100” Blackhawk R&D Rapier on an L550.

Special thanks to Johnnie Paul for spending most of the day at the launch console.
**JUNE LAUNCH REPORT**

June’s launch turned out hot and muggy. It was dubbed the “Day of the HyperTEKs.” Oscar Valent helped launch 5 or 6 which is the most launched at any single HARA launch. John Storey put up 3 HyperTEKs. He used an HT L550 in his 5.5” Standard Arm and he and his son launched several more low power and MPR rockets. Congratulations to Becky Ciliax on her L1 certification. She launched and recovered an AT Sumo on an H128. Russ Bruner launched a video rocket on one of the new Pro38’s J360.

**CUB SCOUT LAUNCH**

A cub scout pack from Atlanta had a Father/son campout in Huntsville for Father’s Day weekend this year. They first visited the Space and Rocket Center. At 1 p.m., we caravanned to the Ardmore Field for an afternoon launch. There were about a dozen cub scouts in all and after a general talk about rockets, they were able to launch their own rockets they had built with their dads. Those that didn’t have their own were able to use Mark Tygielski’s Green Alien Invader rocket.

Once they were able to launch their rockets a couple of times each, several members of HARA launched larger ones. I put up my Exocet on a pair of E15’s, and my scratch built Broadword on an H97J and a BSD Horizon on an H238. CJ and Randy flew several G-motor flights. CJ lost an Amraam to the power line south of the field. Mark stole the show with his Crimson Tide colored behemoths on a J350 which the kids thought were really cool.

There were plenty of launches within the 3-hour limit and a good time was had by all.

**JULY LAUNCH REPORT**

There was a great turnout for the July launch although the number dwindled by lunchtime, thanks to the brutal Alabama heat and humidity. There were two L1 certifications. Congratulations to Todd and James on certifying L1. Todd was successful on his third attempt at launching his Ptero Jr. on an H238. James successfully launched a red and white Blackhawk R&D SAAB RB-05A on an I161. Oscar Valent stayed busy with the HyperTEKs. Todd Lumpkin flew two flights with his scratch built split fin rocket, both on J330’s. Shannon Rollins flew a 440cc system (J250) in his L2. Chuck Pierce flew a 24-lb Blackhawk R&D Rapier on a L610. Max Gray flew a composite J180 motor early on. Wes Weimer did a beautiful vidroc shot which he has to share. There were a lot of nice low and mid power rockets flown as well as L1 flights. Thanks to Johnnie Paul once again for handling the LCO console duties. He did manage to get in one flight, an Estes Honest John on an AT E18. There were several visitors from out of town. Besides our “regulars”, Russ and Sharon Bruner, Max Gray and Shannon Rollins, David Logan, a repeat visitor brought his wife and daughter from Kentucky. Alan Adamson came over from Atlanta. The Zimmerman family from Tallassee stopped by. Mr. and Mrs. Zimmerman are chemistry teachers who are interested in starting a rocket club at their college. We’re glad to welcome them all and thanks to everyone for a great day!
an "L" motor in it.
Well, that day had come.
The field at Amarillo,
Texas was just massive.
I selected white smoky
fuel because it has the
highest specific impulse,
and the smoky exhaust
would give it a few sec-
onds of tracking.  (Note
to self: develop tracking
smoke!)  The rocket was
prepared the day before
the flight, so all I had to
do was pack the four
grain, 3" motor.  The
motor was an L1200
with a three-second
burn.  You should have
seen the RSO’s face
when I set my 3" by 6
feet long rocket, weigh-
ing 18 pounds, on the
table.  He tried to pick
up the rocket and said,
“Good Lord!  Is it all
motor?”  I said no, only
half.  I think I really
scared him.  The RSO
signed the card, and my

Pictured: Walt’s scratch built 3” minimal diameter rocket with experimental 3" L motor casing and internal components.

ground crew, Max
Gray, and me drove to
the away pads.  We
slid the rocket onto a
6-foot rail, sitting on
top of a quad pod.  I
poked an igniter in the
rocket, armed the al-
timeter, and we were
go for launch.  My
turn came and then,
WHOOSH, off the
rocket went.  We lost
sight of the rocket
after about 4000 feet.  A
spotter at the flight line
saw the rocket the entire
way.  It was quite diffi-
cult to find the rocket,
since we didn’t see it
land.  If it hadn’t been for
that spotter telling me
exactly where the rocket
gently landed, I’m sure I
would have lost the
rocket.  The altimeter
beeped out an altitude of
14,391 feet.  (Looks like
radio tracking is in the
near future.)

Since the LDRS Ex days,
I have been preparing for
our 2 day Ex-Launch on
October 19-20.  I have
been developing 4 new
formulas:  Road Flare
Red, Gaseous Green,
Sparky, and Mr. Clean.
At the upcoming Ex-
Launch in October, I will
have a test stand set up.
There will be some large
motors tested and flown.
Don’t miss it!

(Continued from page 1)

The RCBO is a big effort
undertaken by our club and
always needs a few more vol-
teers than we have.  If
you’re available to help out
with logistical and on-site
support, please let me know; I
know that I’ll definitely be
able to put your talents to
good use.

As I’d said earlier in the year,
I plan to always include a few
words on safety from this
bully pulpit.  I’d like to target
this safety devotional to ig-
niter installation.  Everyone
knows that igniters are elec-
trically initiated.  Usually sig-
nificant current (4 to 10 amps)
is required to light the pyrogen
tip on the igniter.  However,
on dry (low humidity) days,
there is always a chance that a
static discharge could set them
off.  With that thought in
mind, I’d like to offer several
safety measures to reduce the
chances of hurting yourself or
someone else:  (1) never install an
igniter into a motor in your house
or a motel room, especially if the
floor is carpeted and (2) try to
keep your hands and other body
parts above the exit plane of the
nozzle as much as possible.  Tap-
ing the lead ends to a fin or the
airframe will allow you to attach
the ground igniter clips to the
igniter with your precious fingers
above the exit plane of the motor.
Fly safely and have fun!  Chuck
AUGUST LAUNCH REPORT

AUGUST LAUNCH REVIEW
NOT AVAILABLE
AT PRESS TIME.

Who’s is Whose?
Can you name the owners of these rockets flown at the August Launch?

Photos courtesy of Maria Stafford.

Ready to launch!

Photo courtesy Eric Hunt.

Wes Weimer’s camera rocket.

Photo by Maria Stafford.

Eric Hunt posing before his L1 flight.

Photo by Maria Stafford.

Eric Hunt and his flight crew.

Photos courtesy of Maria Stafford.

Who’s is Whose?
The Hunstville Area Rocketry Association, based in Huntsville, Alabama, home of America’s first adventures into space. Founded in 1979 as a section of the National Association of Rocketry (NAR). HARA maintains an active launch schedule coupled with an ongoing commitment to rocketry’s educational applications.

HARA’s website:
Http:// www.hararocketry.org

Don’t forget...it’s almost time for the

5th Annual

Rocket City Blast-Off

HPR and Sport Rocket Launch

October 26-27, 2002

For details, see the website or contact one of the members.