

**TRIPOLI** CENTRAL CALIFORNIA  
**Central Valley Rocket News**

*Serving the Central California Chapter of the Tripoli Rocketry Association - JULY, 2004*

**Record Shattering  
DAIRY AIRE 2004**

**May 14, 15, and 16**

**441 Launches  
in 3 Days**

**23 Certification  
Flights**

**5<sup>th</sup> Annual Dairy Aire Launch! - Special Edition**

Credit: Mark Canepa



# A Record Shattering Dairy Aire 2004 is now history.

## Editorial Note:

Launch numbers for past Dairy Aire launches have hovered at about the 300 mark. The numbers for this year's Dairy Aire completely blew away those numbers. With all the concern lately about added regulation enforcement and fears that High Power Rocketry was in dire straits, Tripoli Central California seems to be bucking that impression in a big way!

Here are the daily launch totals for the 5<sup>th</sup> Annual Dairy Aire at the Maddox Dairy in Riverdale, CA.

(Experimental Day) Friday, May 14<sup>th</sup>    **5 experimental launches & 1 static firing**  
Saturday, May 15<sup>th</sup>    **205 launches**  
Sunday, May 16<sup>th</sup>    **231 launches**

Weekend Total Rocket Launches                                    **441 Total Launches**  
Weekend Total Motors Burned                                    **485 (A thru M) plus the 6 EX motors on Friday**

**There were 12 Level 1, 10 Level 2 and 1 L3 Certification flights!! . GREAT!!**

## 5<sup>th</sup> Annual Dairy Aire

by Gary W. Walker TRA#9273

On Friday morning, May 14<sup>th</sup>, 2004, rather than my usual routine of dropping my sons off at school and going off to work, I made the 75 minute drive from Merced to the expansive Maddox Dairy in Riverdale, California. Weather predictions were for clear skies and warm temperatures.

As I drove into the field where the launch was to be held, it was evident that quite a few others had beaten me to the punch. The launch pads were almost completely erected and the flight line was taking shape. Center stage had been reserved for the vendors to display their wares and others were jockeying for position for their motor-homes, trailers, tents and shades.

After the initial hub-bub and set-up, I took a few minutes to just sit with my coffee and look out across the field beyond the High Power pads and the surrounding fields. There is something very soothing and a little surreal about sitting quietly in a large field in anticipation of a weekend full of rockets, smoke and flame.

## EXPERIMENTAL DAY

Friday, as has been tradition, was a scheduled Experimental Day. For those of you new to this game, that means, homemade or non-certified motors. NO rockets are allowed to launch using mass produced "manufacturer" motors. For more on this topic, go to the TRIPOLI web site at [www.tripoli.org](http://www.tripoli.org) .

TCC member James Marino came loaded up with some motors he had prepared using a formula he called "Wimpy Red". "Not quite as red a flame as the Redline motors", he explained. James seemed to be taking great pains to not describe the flame as, ugh, PINK!?

James' first launch, though, definitely put an end to any thoughts of this propellant as "wimpy"! Powered by a 54 mm K725 5 grain, 1820 Ns, 2.2 second burn motor, in a Loki case, James' ever reliable up-scaled Cherokee roared off the pad with a bright red flame. Unfortunately, the

Cherokee shredded at about 800 feet or so, and we were treated to a light shower of rocket confetti. Sorry James.



Sam Montalvo Photo  
James Marino with his *Cherokee* before launch on a K725 WR.

Undeterred, James returned a bit later with his 54mm *Babylon Sister* powered by a single use I153, 480 Ns motor with a 3 second burn in a 1.5" PVC case. Again, a "Wimpy Red" motor. We were treated to a "perfect dual-deploy flight to 2579 feet", as James reported later. "Gotta love it when it works!"



Sam Montalvo Photo  
James prepping his *Babylon Sister* on a I153 WR.

Early afternoon saw Lee Teicheira bring out his white 2.6" *Cloud Buster* to fly twice on Marino's Wimpy Red motors. The first flight went "about a mile" up using a 38 mm I375, 600 Ns motor and recovered nicely using an ALTACC altimeter. Great flight Lee!



Gary Walker Photo  
Lee Teicheira readying his *Cloud Buster*.

Lee's next flight didn't go as well though. This time James supplied a 38 mm I202, 360 Ns motor, but an electronics failure resulted in Lee's *Cloud Buster* coming down in a flat spin, and suffering some minimal damage.

The last "Wimpy Red" burn of the day was a static motor test on one of the high power pads. James successfully tested a G90-ish 29mm motor with a homemade case, nozzle and closures.

The last flight of EX day was Andy Woerner's large V-2 on an Everclear K-motor. Everclear propellant emits a translucent flame and is a favorite of V-2 flyers for its realistic effect. I am told it was a very cool motor and a great flight. I missed it! UGH!

It was a very relaxing day, as rocket launches go. Not many flights, lots of time to exchange info and generally converse with like-minded folks. I enjoyed it thoroughly!

## SATURDAY

Saturday morning was a bit colder than I had expected, considering the warm day on Friday, and it caught me a bit of guard. I showed up to the launch in shorts and a t-shirt and was barely able to keep warm enough to keep from shivering. Worse yet (or better from the club's perspective), Rod Lovley had already sold out of the Dairy Aire 5 sweatshirts.

By launch time, a bank of clouds could be seen progressing toward us from the north. Luckily the front would just blow on through the area by noon, leaving the rest of the weekend drenched in clear skies!



Jim Abrames (Equipment Chairman), Scott Eakins (TCC President.), Nathan Montalvo (TCC Prefect), and Mark Canepa (Newsletter Editor) conduct the flyers meeting on Saturday morning.

After a short flyers meeting just before 9am, a stirring rendition of “The Star Spangled Banner” opened the 5<sup>th</sup> Annual Dairy Aire launch. At the appropriate moment, (“the rockets red glare..”), Brian Weese, TCC’s resident Saturn expert and all around scale builder, set the tone for the weekend with the launch of his awesome 6’, 22 lb. Saturn V on a K550W.

Dairy Aire #5 was “officially” under way!

The slow pace and relaxed atmosphere of Friday was now gone, for me at least. I knew it would be a busy launch, but I had nooooo idea! There would be in excess of 200 launches on each of Saturday and Sunday! WOW!



Brian Weese’s Saturn V on a K550W kicked off the launch!

## Where to start?

There were so many great flights, so many warm and friendly people, that it is really hard to single out specific flights and flyers to cover here in this issue. But, the sheer volume of rockets and flyers makes it necessary that I do so.

Before we begin though, I would like to extend my thanks to Mark Canepa, Nathan Montalvo, Sam Montalvo, Jim Abrames, James Marino, Jack Garibaldi, Ben Sandoval, Greg Morgan, Steve Sawyer, Bill Steiner and Jeff Raice for contributing photos, stories, information and suggestions. This newsletter could not have been produced without them.

Jack Garibaldi of Stockton flew the only 'M' of the weekend. Jack belongs to ROC and has been launching at Lucerne Dry Lake, but decided to do his Level 3 certification flight at Dairy Aire after attending a launch here in April. You can find out more about Jack in his "Flyer Profile" on page 28.



Jack Garibaldi with his G-Force 2 just prior to his L3 flight.

To make his certification flight, Jack built a beautiful blue and metallic grey SkunkWorks 10" Nike Smoke that really looked bold out on the away pad. Standing 11'9" tall and weighing in at 54 lbs, Jack's G-FORCE 2 contained 2 BlackSky ALTACC 2C's for the deployment and data acquisition.

The G-FORCE's smokey lift-off on an Aerotech M1315 was absolutely beautiful (See Front Page Photo) and the flight to over 5000' appeared to be textbook flawless. Jack's great performance definitely left his mark at Dairy Aire as well as a huge scorch mark in the fields straw stubble.



Mmmm- Scorched!

Just to keep things real, Jack also flew a 3" blue & black LOC kit called the *Blue Goose* on a G80 with motor ejection.

Great flights Jack! Welcome to Tripoli Central California!

Alameda's Michael Hobbs also made a very impressive flight on Saturday. Powered by a Kosdon L2600, Mike's black, custom built *Great Gig in the Sky*, stood 9' tall with a 7.5 inch airframe and was a stout 40 pounds. The Gig rose majestically on a long yellow flame, complete with mach-diamonds, into a somewhat overcast morning sky and made a nice recovery using motor ejection. Very Cool!

Mike also teamed up with Randy Helmonds, to fly a custom built, 2.2"x56" rocket titled *Mach Blip!* on a Kosdon I 1000 with motor ejection. I

missed the launch, but what a neck-snapper that must have been!



Mike Hobbs and the *Great Gig in the Sky*.

Speaking of neck-snappers! There are some flights that even before the button is pushed, I know I have no chance of getting the lift-off picture, so I don't even try. TCC's Treasurer, Richard King's version of an *Estes Big Daddy* definitely fit that category!

To most outward appearances, this was a standard Big Daddy, albeit a very cleanly painted one. But at 7 lbs, holding it in your hands felt like you were holding an artillery shell! Flipping it over and checking out the business end revealed the multiple ports of an Aerotech J800 medusa nozzle.

The airframe was of course all fiberglass and the nosecone held a LOT of lead. Richard assured everyone that there was indeed enough room left over for a parachute and electronics.



Richard King holding his J800 powered *Big Daddy*!

When the countdown reached zero, a very small black blur leapt into the sky followed by a smoke trail that had a prominent discontinuity as the Big Daddy broke mach a few hundred feet off the ground... and disappeared! Whoa!

Luck would shine on Richard this day, and a \$40 reward doesn't hurt either. The nosecone was found a few hundred yards from the flight line and the rest was carried into camp later in the day. Absolutely awesome!

Richard also brought out his 48", yellow, red and black *Flash in the Pan* LOC kit flying on 7 D and E motors ignited by a thin layer of black powder in a pan neatly tucked under the rocket. Is this man a showman or what?

Burlingame's Gary Vielbaum made an impressive flight with his *Third Time's the Charm* on a K550W to 8600 feet. This is a 3"x6' custom 12 lb. carbon fiber rocket just loaded with electronics. An ALTACC 2A is backed up by a Timer 2 and Gary records data from the flight using a GPSFlight system and tracks the recovery using a Walston Tracker.

You might recall that Gary is teaming up with Richard King once again for another crack at an

altitude record this September at the BALLS Launch using Gary's newer *Crap Shoot* rocket. You gotta watch these guys!

Dave Flynn of Santa Clarita was the first of 2 High Power 2-stage rockets to fly on this weekend. Now these will get the crowd onto their feet!



Doug Gerrard and Dave Flynn with the *Omega 4*.

Dave's 4.5"x83", 23 lb, *Omega 4* is a DMF Rockets, custom up-scaled version of the Estes Omega 2-stage. The first stage housed an I435T and Dave used a Timer 2N set at 2 seconds to light the I284W second stage. Recovery was handled by an ALTACC 2A.

The "plan" was for Dave's Omega 4 to boost Doug Gerrard's 16mm movie camera (not video, a high-speed film movie camera), nicely packed into a hand-made nosecone, to record the flight.

Sadly, a minor mix-up at the LCO table left the whole assembly sitting on the pad, film spinning. Doug's entire roll of film was exposed and wasted.

Troopers that they were, Dave fitted the Omega 4 with his standard nosecone, and the Omega 4 made an awesome flight with a clean staging sequence and recovery to really "wow" the crowd.

Doug also returned to the pads with his 3"x78" custom black/red *Eyes in the Sky* that carried along 2 Olympus Epic Cameras. Doug flew this combo twice on J275's and again on a K550! I can't wait to see the shots from those flights!

(Note: Doug is from Socorro, New Mexico, and would probably have won the "long distance" award for attending Dairy Aire if it weren't for some guy from South Carolina that seems to keep showing up at TCC launches ;-).

The very mention of the group of flyers from CAL POLY in San Luis Obispo, conjures up visions of very BIG boosted gliders and pushing the envelope of rocketry. But the program is moving on to newer projects and the SLO students came to Dairy Aire to get some certifications done for some of their students.

Two of the SLO certification flights of note were those of Ben Bickley, Issaquah WA, and Nash Clemens. Both were attempting Level 2 flights using hybrid technology with RattWorks K240's.

It really is difficult enough to make a successful Level 2 flight, but adding in the complexity of the hybrid motors really says something about the grit and determination of these students. There are always 5 to 10 students in support of the efforts to help out and do whatever is needed.



The Cal Poly Group helps prep Ben Bickley's hybrid powered *Pinky*.

Ben was the 1<sup>st</sup> to make a flight, I believe. His *Pinky* was a 4.5"x6'1", 9 lb. custom built rocket on it's 1<sup>st</sup> flight with a RattWorks K240H, and Gwiz-MC electronics for recovery. The rocket launched and boosted well, but unfortunately, Ben had some recovery system problems and the rocket came in pretty hard. Sorry Ben. Nash would make his flight attempt on Sunday.

Flying what had to be one of the most unusual rockets of the weekend was Jeff Proschold. Jeff is always finding new and different things to fly. This time, Jeff brought a little Christmas spirit to Dairy Aire with his *Nutcracker* toy soldier lawn decoration. Standing 43" tall and 10" "at the shoulders", the "rocket" weighed in at 8 pounds.



Proschold's Nutcracker on a Redline!

Jeff powered his creation with an I218 Redline motor and used a Black Sky Timer 1 set at 5 seconds for parachute deployment. About 1 second too long as it turned out! The plastic soldier's head was now imbedded in his shoulders. A really fun flight though Jeff! Keep it up!

There were a few other notable flights on Saturday that I just can't leave out.

Brian Weese, who started off the Saturday festivities, came back to fly his scale A-5 (an early version of what would come to be the V-2). With a 5.5"x3.5' airframe and tipping the scales at 4 pounds, Brian's white and black custom creation made a very realistic looking flight on a J350 with motor ejection.

Lee Teicheira and James Marino also returned from lighting up the pads on Friday. Lee flew a 12 pound, 5.5", white *SkunkWorks Nike Smoke* on a Pro54 J295. He also flew his *Sky Spike*, a 60" modified LOC Legacy on an H220T and utilizing a GWIZ-MC for recovery.

James' purple, 2.1" x 5' custom *Babylon Sister* flew this time on an I218 Redline with a GWIZ-MC on board. James also flew his 5.5" *Maxi Magg* on a J275 and an orange fiber-glassed *Estes Fat Boy* on an F20 for rather spectacular flights.

In what seems a very rare occurrence, Rocket Motion's Larry Friesen actually took time out from his busy schedule to actually fly! His purple LOC *EZ 165*, made an absolutely beautiful flight on a long-burn J90 and using an ALTACC for dual deployment. We'd love to see you out there more often Larry!



Larry Friesen loads his EZ 165 on the rail.

A couple of flyers that were on hand for the weekend brought along some telescopes for viewing in those dark hours between launches. One was new TCC member Greg Morgan of Clovis. Greg is Vice President of Central Valley Astronomers (CVA), a large astronomy club that

hails from Fresno. Greg first attended a TCC launch at the 2003 October Skies and we seem to have him hooked! Greg and son George have been attending launches ever since.

For Dairy Aire, Greg built a 2-engine 24mm cluster titled *Pip-Squeak*. After a couple of shake-down flights on twin E9's, Greg tracked down some Aerotech F21's and lit up the Pip Squeak for a great flight to cap off his day.

Greg would return on Sunday for 2 more flights on twin F21's.



Greg Morgan Photo

Greg Morgan and son George check the sizzle on Greg's Pip Squeak.

This of course was just the tip of the iceberg, as they say. Saturday alone saw 205 flights! There were many others that these pages just aren't adequate to fill, and there were several "frequent flyers" over the weekend but I'll get to them a little later in this article... Stay Tuned!



Photo by Mark Canepa



Mark Canepa Photo



Some of John Pascale's rockets during Sunday's opening ceremony.  
Credit: Ben Sandoval

**SUNDAY**

Sunday morning started out with a really cool mass launching of rockets, all provided by John Pascale of Oakley. John set up 3 banks of rockets and each bank was launched during the chorus' of *God Bless the USA* by Lee Greenwood. It was a very moving sight! Thanks John!

One of the most anticipated flights on Sunday was Fresno's Jim Abrames' *Hot Pursuit*. Having made a successful Level 2 flight on Saturday with the first flight of his 6'6" *Amraam 4*, Jim was back on Sunday to fire off his massive 6" x 11'6", extended *Ultimate Endeavor*, painted with a *California Highway Patrol* paint scheme! This thing is breathtaking to see stood upright, not to mention attached to the roof of Jim's CHP Mustang! You wouldn't want to see THAT coming up in your rear-view mirror!

After a few tense moments attaching the rocket to the rail at the away pads, Jim and family retreated to a safe distance to observe the launch. After a long 10-count, the *Hot Pursuit* roared off the pad on an Aerotech K700 on a majestic plume of smoke. Just as the K700 started to burn out, 3 I 284's lit and pushed the rocket up to 5500 ft.! Electronics included a Blacksky AltAcc and a MissileWorks RRC.



Ben Sandoval Photo

*Hot Pursuit* rises on a K700 plume.

Jim is TCC's new Equipment Chairman this year and he has done an outstanding job of organizing and transporting the equipment trailer. You can read more about Jim and his project in the "Flyer Profile" on page 29.



Sam Montalvo Photo

Jim Abrames prepping the *Hot Pursuit*!

Another flyer that certified Level 2 on Saturday and returned on Sunday to up the ante was Fresno's David Tew. David's great looking 4"x68" *Straight Arrow*, sported a very visible yellow, orange and blue paint job and made a great flight on a J350 to earn him L2 status with an Olsen altimeter and an ALTACC 2C accelerometer.



Sam Montalvo Photo

David Tew stand beside his *Straight Arrow*!

With his L2 under his belt, David strapped a K550W on the *Straight Arrow* and let her rip for a great flight. Congratulations David

The second high power 2-stage rocket flyer of the launch was Richard Salinas of Fresno. Richard brought out his beautiful blue and white, custom-built *Blue Sky* for it's maiden voyage on Sunday afternoon. The *Blue Sky* bolted off the pad on a K695 Redline.

When the 1<sup>st</sup> stage faded, 2 Adept stagers lit 2 H180's, and then air-started 2 more H180's for a tremendous flight that seemed to go on and on. An Olsen altimeter then brought Richard's rocket down for a very successful recovery.



Sam Montalvo Photo

Richard Salinas' *Blue Sky* launches on a K695 Redline.

After making a Saturday flight with his 3"x60" white and red, 5 lb LOC kit rocket entitled *See Ya!*, on a J275W, Duane Uhl, of Wilton flew his beautifully painted *Spherachute*, a 7.5"x10' 24 lb LOC Bruiser EXP on a K550W. Duane's rockets are always very nicely detailed and painted with bright metal flake finishes and these were no exception. They look fast just sitting on the pad!

Duane flew this behemoth using only motor ejection to handle the recovery deployment. Duane likes to refer to his system as "Oakey Electronics". There is so much weight in the nosecone, that when the drag on the rocket slows the airframe after burnout, the nosecone just wants to keep on going and pulls out the chute. Works great Duane!



Gary Walker Photo

Duane Uhl and his *Spherachute*.

Continuing on the K-motor theme, Los Gatos resident, Robert Briody flew his 4.1"x124", red and green, 19lb. custom-built *Scott's Revenge*. Robert chose a K700 for his rocket's 1<sup>st</sup> flight and packed the electronics bay with a GWIZ-MC and a GWIZ-DCS.

Lee Teicheira came back on Sunday in a maniacal mood. He first launched a 30" *Estes Maniac* on an F21 then followed up with a custom upscale called *Estes Maniac Cubed*. This one measured 4"x95" and blasted off on a K1100T! Crazy man...

Brian Weese of course returned to again fly his 6' *Saturn V* on a K550 and a smaller 4" x 3' *Estes Saturn V* on an F21 and his cool green/gray *F104G*, on an H242.

Rachel Duchrow, a young flyer from Santa Clara, flew a 3"x5', 7lb *Caliber ISP*, LOC kit on K695 Redline with motor ejection backed up by a GWIZ. Rachel just keeps stepping up the performance and is becoming well known for flying small rockets with BIG motors. Hope you got it back Rachel.

Following up on Saturday's hybrid launch by fellow Cal Poly member Ben Bickley, Nash Clemens was up next with his unpainted *Strange Love* with pink fins. It had a 3.5"x6' airframe and also had a RattWorks K240H and GWIZ-MC on board. This rocket also had recovery problems. Apparently the ejection charges released the nosecone and nothing else.

*Strange Love* came in ballistic about a hundred yards behind the flight line with an earie howl of rushing air. It had to have been the "lawn dart" (*sans nosecone*) of the weekend. The rocket was smashed, shattered and partly buried in the ground! A lot of it was taken away from the scene in bags, but it could have been worse... I guess.



Nash Clemens' *Strangelove* after it was pulled from the dairy soil.

Sorry guys, but we all know you'll be back next time, better than ever and ready to rumble!

Nash also flew his minimum diameter 29mmx2' white Kevlar wrapped *If Found...* on a G80 and

Ben flew his yellow 3" x 4' *Super Hornet* on an I218 with motor ejection.

OK, now for the frequent high power flyers!

As I mentioned before, John Pascale had quite a fleet here for the launch. On Saturday, John launched his *Go Niners* on a J285, *Bull Puppy* on an I212, *Rocket My World* on an H153 and his *Poor Man's Big Daddy* on a D-12.



More of John Pascale's fleet - Credit: Ben Sandoval

On Sunday John made even more flights (remember the opening multiple launches?). He flew his *Bull Puppy* again on an I212, *Ariel* on a Pro 38 3-grain, *Strong Arm* on a G35, *Initiator* on an F20, *Arcus* on an F20, and a *Sidewinder* and a yellow *Estes rocket* on C6's for good measure!

Cliff Sojourner and son Aden, also did their parts to keep the launch pads filled to capacity. Saturday's launch list included their *LOC Starfighter* on an F20, *Nike Double Crayon* on an I161 and again on a J350, *PML Callisto* on a H123, and a *Deuces Wild* on 2 C6's.



Cliff Sojourner checks in his *Skeeter* at the RSO table.

The Sojourner's Sunday included launching a Skunk Works *Skeeter* on a J400, a S.W. *Thumper* on a K700, the *Nike Double Crayon* again on a J350, a *Patriot* on a D13, *LOC Tri-Star* on 3 G35's, *Tres* on 3 C6's, *Big Daddy* on a D12 and Aden's *Initiator* on a G64! Wow!



Cliff & Aden Sojourner prepare to launch yet another rocket!

Paul Lane of Rodeo also did his share! Paul launched his yellow 3"x5.5' 7 lb *DreamLand* on a Cesaroni K660 with motor ejection, *Thunderbird 3* on H70W, *Miranda* on Cesaroni J285, *Fed Ex mailing tube* on G125 and his *Starfighter* on an H124.



Gary Walker Photo

Paul Lane with one of the many rockets he flew at Dairy Aire!

Sunday Paul flew his *Stovi* LOC kit cluster on 1 G42 and 6 D12's, *Hydra* on a Cesaroni J285 and his *Folgore* on an E15.

Terry Swift, a regular flyer here at the dairy, flew a number of rockets over the weekend, but most notable was his 2.9"x6' Dayglo yellow *Thunder III*, a 7 lb custom rocket on a Pro 54 K530 SS.

San Jose's Mark Bosca played a very integral part at the launch this year. In addition to flying a couple of rockets, Mark supplied a small Honda

generator to power the pads and PA system. That little generator sat out beyond the Estes pads all weekend just purring away and keeping things rolling smoothly. Thanks Mark!



Gary Walker Photo

Mark Bosca readies the *Intimidator*.

Mark's 2.26"x 6' black *Intimidator* had one of the coolest custom paint jobs I saw all weekend. It had it all; flames, pinstripes, checkered-flag pattern etc. It flew in style too. Mark flew it on Saturday on a J350 and again on Sunday on a Pro 38 J400 Smokey Sam. The electronics compliment included a Walston Tracker and an ALTACC 2C.

In addition to helping out on Mark's *Intimidator* and Brian Weese's *Saturn V*, Brian Dalby flew his own *Starburst* on 2-E9's and again on 2 F21's. He also flew his *Small Endeavor* on an H234 and *Jr. P.* on an H97.



Brian Dalby and Mark Bosca.

Two flyers get my vote for some of the coolest rocket names. Kevin McGrath flew an 8 engine cluster named *Hunka' Burnin' Love*, on 7 D12's and 1 E9. And Atascadero's Scott Boyd flying his *Funnel of Love*, a 3' red custom funnel rocket, *Rumsfeld's Revenge*, a silver Amraam PML kit on an I161, and *Yellow Snow*, a Public Enemy kit on an I161.



Kevin McGrath displays his *Hunka' Burnin' Love*.

Ben Sandoval, of Visalia, has been taking photos at launches and submitting them for the newsletters for about the last year and quite a number of his shots can be found on the TCC web-site.



Ben Sandoval on the receiving end of the lens for a change.

Ben made the jump into high power rocketry on Saturday. He flew his 44" PML kit dubbed *Bad Photo* on Pro38, G79 Smokey Sam for it's 1<sup>st</sup> flight. I had promised to get a photo of the flight, but I failed to get the rocket in the frame. So, Ben was forced to come back on Sunday and do it again for me. This time Ben flew on a Pro38 H123 2 grain, to garner his L1 Certification. Yes, this time I got the shot! Congratulations Ben!

To those whom I haven't mentioned, you were/are just as important a part in making Dairy Aire 5 a success as any other. Please peruse the photo pages. Hopefully you will see you or your rocket included. Thanks to all who attended, participated and helped out!

*Gary W. Walker  
Merced, CA*

## Mark Canepa Commentary

I had a unique opportunity to watch a lot of high-power in May. It started on May 1 in Battle Park, Virginia where I attended a launch at the Cedar Mountain Battlefield hosted by Tripoli Virginia. The following Saturday, May 8, I was in Orangeburg, South Carolina for the monthly launch hosted by Tripoli ICBM. This is now my away-from-home field where I have been hanging out on the second weekend of the month for the last year. It was a great day for high-power and a lot of rockets took to the sky.

But nothing prepared me for what was the biggest launch of the month, here in Riverdale at DairyAire 2004 held on May 14-16. For those of you who missed this event, you really should have been there. More than 400 rockets took to the skies in two days under perfect skies with literally hundreds in attendance. It was the biggest weekend event in the history of Tripoli Central California.

This club has come a long way in the last few years and the future still looks bright—even with the new ATF rules and other minor inconveniences. And there are quite a few people to thank for this great launch, and for the present status of the club. So this is my two cents worth and a big pat on the back for the following people: First—to every Tripoli and NAR member in attendance who launched a rocket, thanks for such a great show. There were so many great rockets, large and small, that it would be impossible to list them all. But certainly some of the highlights had to be Jack Garibaldi's Level 3 flight of his mighty Nike Smoke and the rockets put up by people like Brian Weese, Richard Salinas, Jim Abrams and John Pascale. Pascale's one-man show on Sunday morning—where he launched 8 rockets to start the day while the song "I'm Proud to be an American" played over the intercom, was fantastic.

As always, the behind the scenes people made it all happen. President Scott Eakins coordinated the entire event and has provided great leadership for the club in this transition year. New equipment manager Jim Abrams not only

launched rockets, but also was on hand all three days of the event to set up, maintain and then oversee the tear-down of the entire field. What a great example Jim sets for everyone in this club. Prefect Nathan Montalvo put in a long weekend and also guided the most certification attempts in the history of our club in one weekend. All this and he took pictures for the newsletter, too.

RSO officers included the usual suspects, but one person in particular deserves special mention: Bruce Rohn. Bruce was on the RSO table nearly all day on Sunday, without a break and without a complaint. It was a great service to the club and as we all know it is a job that is critical to the smooth operation of the flight line and launch. We need a few more people like Bruce—in addition to the other members who gave their time—at all of our launches.

Rod and Alice Lovley spent the entire day on Saturday managing the check-in, handling most of the raffle tickets and prizes and otherwise putting things in order for an incredibly busy day. It would not be a DairyAire if Alice wasn't sitting at the check in table, smiling, and helping newcomers and handing out licorice to all who come near.

The Saturday night festivities were tremendous. I have now been to quite a few launches on the East Coast and although the enthusiasm here for high-power is the same as in California, there is one thing missing. We have a party at our launches! And what a party Saturday night was: Duane Uhl with his monster big screen and surround sound—it was like being in a theatre out there in the middle of the Valley! And we had good food, plenty of spirits and even someone with a telescope to look at Saturn and Jupiter and other interesting things in the night sky.

Of course, none of this would be possible if not for the incredible generosity of Steve Maddox of the Maddox Dairy who graciously allows us the use of his land for these events. Steve was unable to drop by the launch this year because of business appointments elsewhere. We missed

seeing him and hope to see him at the big launch in October.

Crystal Wilkins

Last, but certainly not least, is the effort put in by Gary Walker. I don't know how many people noticed, but Gary was out in that field all day Saturday and Sunday shooting pictures for the newsletter. It's a lot of work—even with the help of people like Nathan—and the work doesn't end on Sunday. Gary will spend countless more hours putting the newsletter together and publishing it for all of us to enjoy. And not only did Gary do the newsletter—he also launched and recovered his Level 2 rocket! Congratulations Gary! This is a great club and we all need to put in at least a little effort to keep it that way. So get involved in any way you can. Spend an hour on the RSO table. Show up a little early for set up or hang around for an hour after the launch for take-down. You will meet new and interesting people and you will help make this organization one of the finest high-power groups in the United States. Believe me, we have a lot to be proud of. We know how to put on a show—and you should be part of it!

Mark Canepa  
Rock Hill, South Carolina



Letters to the Editor

Hi Gary,  
Nathan's son Sam took this picture of my booth at Dairy Aire on Sunday. I am a pilot and an actress, and I got the idea for my CK business reading "Acting Is Everything". When Brett told me that he wanted to do High Power Rocketry, I wanted to help pay for it with my CK business. I had so much fun working Dairy Aire, and I was so impressed with everyone involved in the sport!

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Hi Gary,

It sure was a great launch! Jordan (my 12 year old son) and I had a great time, fresh off the Level 2 cert we got in April at Maddox. We flew his BSD Thor on an I161 and his Warlock on a J350. Other flights included a Callisto and a Mustang, both on G35's. This was our first Dairy Aire, and besides seeing the great rockets and launches, Jordan loved the vendors' onsite stores. He was (literally) a "kid in the candy store", but the rocket "stuff" beat any kind of candy. We managed to pick up most everything we needed to upgrade our Thor for dual deployment and he's really looking forward to that. We plan to have that ready to go for October Skies.

We also introduced two new family members to high power rocketry (well, maybe not high power). Jordan's 6 year old sister, Erica, flew her Wacky Wiggler. And their 8 year old cousin, Ryan, flew his mini rocket that we picked up at the launch. Both young rocketeers had a great time. I've also included a photo of the Raice clan, including my wife, Cathy, but without Dad who was taking the picture.

See you in October (if not July!),  
Jeff Raice

*[See Jeff's pictures in the Photo Section]*



**Experimental Day  
at Dairy Aire 2004**





Sam Montalvo Photos



Sam Montalvo Photo



Sam Montalvo Photo



Sam Montalvo Photo





Sam Montalvo Photo

Sam Montalvo Photo

More From Sam Montalvo



**Ben Sandoval Photos**



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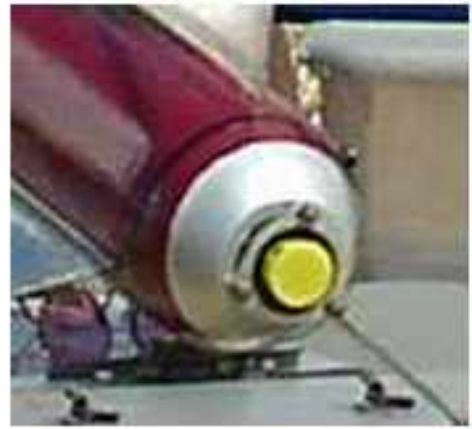


**A spectacular 2-stage –successful flight on Saturday.**

**Photo page submitted by Bill Steiner**



**Several Onlookers discuss the Skunk Works Nike.**



**RSO Checkout of Steve Sawyer's Wildcat – with homemade tail cone/motor retention.**



Steve Sawyer flew his Wildcat on a Pro-38 J285 on Saturday – over 30 seconds of tracking smoke at apogee!

**Photo page submitted by Bill Steiner**



**Steve Sawyer's Stretch Barracuda on a H128.**



**Gary Walker Photos**



**Gary Walker Photos**

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# Gary Walker Photos





**Are you here ...somewhere?**



*Pictures by Gary Walker*

# *Flyer Profile*



Jack Garibaldi

I have been in model rocketry for about 25 years. I built my first rocket in the 6th grade for a science project and I had to have a successful launch and recovery for a grade. That's when we could launch right at the school. I have been hooked ever since. After I had a son I started to notice the motors are getting bigger than D's. At the time a D motor was the big dog. My first high power rocket was a Loc 4-29ss. Then after that I bought a 4" Patriot and naturely they just kept getting bigger. A 5.5" Nike Smoke, 7.5" Bullpup, 10" Thumper, and I really like the Nike Smoke because it is a solid flyer in every size so I purchased the 10" Nike Smoke for my Level 3 cert rocket. I took my time and spent a lot of money but I wanted to complete my level 3 with a big beautiful rocket. I attached my Data Capture info so you can pull from it and also my material list and a picture.

I am from Stockton, Ca and I belong to both Nar#82971 and Tripoli#09959 also belong to ROC and have been going down to Lucerne, Valley for the past year flying my high power down there. I asked Andy Woerner from What's up Hobbies to be my L3CC member and he also has his club in San Diego (DART). Greg Lawson from ROC did my L1 and L2. I went to the TripoliCentralCalifornia launch a couple months ago and as usual loved it so Andy asked Scott if it would be ok if I certified at DairyAire, I really like everybody and I am going to keep coming to fly and help if needed.

*Jack Garibaldi*

# Flyer Profile



Jim Abrames

I got started in rocketry launching Estes kits in elementary school of few years back! I went on a leave of absence for a few years and started launching Estes again on and off with my kids.

In October of 1998 my boys and I went to the local high school to launch some rockets when we ran into an older couple that had just finished launching some rockets themselves. I must say I was a little surprised to see older folks launching rockets with no kids in sight. They came over to chat while we were setting up our first launch. They promptly told us they needed to get there "fix" in because the next Tripoli launch was still a couple weeks away. Now what followed was something I dreamed of since childhood, you mean motors larger than "D's" do exist!

Needless to say I brought my family out to the next Tripoli launch which was November 1998. I've been hooked since. I started into high power building Loc's HiTech 45. It went up with a G-64 and still goes up occasionally to this day. Later I put up a Mlni-Magg on an I-284 to get my Level 1 Certification. The fleet of rockets has grown steadily over the past few years.

For Christmas 2000 Mrs. Santa Claus delivered in the form of an Ultimate Endeavour. The construction process was a little slow with me living in Fresno but working in Sacramento. Although complex, I decided to use it as my Level 2 project. This project would be my first experience dealing with electronics, airstarts, and dual deployment.

Now as you know, it's a rather large rocket. I extended the factory kit by three feet, bringing its length to 11'. My eyes tend to swell shut at the first hint of epoxy so I knew fiberglassing the kit wouldn't happen. I built a subframe in the lower half of the rocket consisting of three wood runners and two steel all-threads. When all was done, I had steel connected by 5/8th inch tubular kevlar joining the rocket from tip to tail.

As it turns out, this rocket would lead to other garage improvements. With such a large rocket, I needed a special paint job. So along comes a birthday and now I have a compressor! Next thing you know I'm learning how to use automotive paints. I drafted several paint scheme concepts on the computer and let the kids vote on the final project. In the end, my daughter picked the final paint scheme.

For electronics I have a BlackSky Altacc and Missile Works RRC for recording flight information and handling ejection charges. For the airstarts I used a Missile Works event timer. I found all the electronics relatively easy to work with.

The rocket was finally completed in October 2002 and went on its maiden voyage at Dairy Aire 4 in May 2003. The rocket weighed in at 32 pounds and boosted well on a K-700. Three I-284s airstarted three and a half seconds into the flight, so far so good. Then the scary part. The I-284's had just burned out when the rocket opened up early to the tune of negative 20g's (according to the Altacc). Needless to say that put a little stress on the rocket. The 5/8ths inch tubular kevlar sliced through the center section of the rocket like butter. Fortunately, everything still held together so we were able to retrieve it after a soft landing a half mile away.

The embarrassing conclusion, pilot error. Despite the vent holes in most my rockets, with so much parachute crammed into this one I didn't think there was enough air left to expand. I thought the parachute itself would prevent the air from escaping the vent holes even if I did have them. I was wrong! As the rocket approached 4500' it was still traveling several hundred miles per hour when it could no longer take the internal pressure building up. It cut loose deploying the drogue from the top of the rocket which whiplashed, zippered, destroyed,,,, you get the idea, the center tube. The nose and tail came back without a scratch.

Back to the drawing board. I rebuilt the center section with a few modifications. I wanted a safe and reliable configuration. There would no longer be a drogue. I would firmly attached the top and center sections to become one during flight. During ejection, the rocket would separate in two with the top and bottom coming down on their own chutes. I used a Rocket Man RC-9 for the top half and an RC-12 for the bottom. Most importantly, I put in vent holes and for extra insurance, shear pins.

Now Dairy Aire 5 comes along and I don't have a K-700 to get my rocket in the air. I showed up anticipating my "Hot Pursuit" would be nothing more than a static display. Fortunately with Dairy Aires reputation growing, so did motor availability. What's Up Hobbies came up from San Diego and had my elusive K-700. It would be a good weekend afterall!

Now I did cheat a little during the weekend. Rather than using my "Hot Pursuit" as my Level 2 certification flight, I used my 4" Amraam on a J-350 to get the certification out of the way. Now I could just enjoy sending up "Hot Pursuit." Sunday morning came around and by 1100 hours we're out at the away pad trying to set up. My first scare was the inability of my rocket to slide smoothly on the new aluminum pad. It just didn't want to go on the rail. After a couple moments of putting too much stress on the rail buttons, I couldn't take it any more and aborted the use of the new pad and went to the clubs old reliable Black Sky rail. The rocket went on smoothly.

As was done a year earlier, the three different electronics units were armed and there was nothing left to do (hopefully) but enjoy the show. Richard King gave "Hot Pursuit" a nice countdown and pressed the button. As before, the K-700 and I-284's did their job but this time there would be no early deployment. "Hot Pursuit" cleared my goal of a mile reaching 5499 feet. As soon as it laid over the ejection charge(s) fired allowing the two parachutes to softly inflate. Both ends of the rocket came in for a soft landing around 3/4ths a mile from the pad. The good news, no damage! It doesn't get any better when you know you can send it up again. Now, what shall we build next?

Jim Abrames #7870



### Tripoli Central California

*Tripoli Central California is a chapter of the Tripoli Rocketry Association, an international organization dedicated to high-power rocketry and governed by safety rules promulgated by state and federal agencies. Founded in the mid-1990's, Tripoli Central California welcomes new members. Annual dues are \$20. For more information, call one of our officers, check out our club hotline at 559-447-5888, or see our web-site at*

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# Thank You Steve Maddox!!



Greg Morgan Photo

### Photos by Greg Morgan



### Jeff Raice Photos



Jeff Raice Photo

Jeff Raice Photo



Jeff Raice Photo