

TRIPOLI CENTRAL CALIFORNIA
Central Valley Rocket News
Serving the Central California Chapter of the Tripoli Rocketry Association – October 2004



James Marino's Archer on a J-350



October 15, 16, & 17

See Details Inside!

INSIDE:

- September Launch Report
- Flight of the Crap Shoot
- Ladewig Flight Analysis

Next Issue...

- Complete coverage of the OCTOBER SKIES launch.
- Details of *Walker Team Rocketry's* entry in the Rocket Rover Lander Challenge. (Some photos inside!)

October Skies 2004



The annual October Skies launch has expanded to a 3-day event this year.

Friday, Saturday and Sunday
October 15, 16 and 17!

Friday, Oct. 15th is EXPERIMENTAL DAY
Set-Up is scheduled for 8am!

Pre-Order Your OCTOBER SKIES Shirts ASAP -
They Go FAST!

Contact Rod at Ralovley@cs.com
or 559.438.9021 ASAP!

\$15 for all up to xl and \$16 for xxl & up
\$20 for the sweats

ID Cards - TRA or NAR

All high power flyers should be prepared to show
their current Tripoli or NAR membership cards!

Vendors

Rocket Supplies and Motors:

What's Up Hobbies

Mojave Desert High Power
RocketMotion?

Food and Drink:

CK's (Crystal)

The Lunch Pad (Kenny)

LOC October Skies Rocket Kit

Barry, with LOC Precision, will be on hand with
commemorative October Skies Rocket Kits. He and Duane
are planning a clinic. The kits will include all necessary
supplies to build your kit on-site!

Tripoli Central California needs your help!

Add to your enjoyment of the October Skies
experience by volunteering to work as the RSO
(Check in rockets for launch, Level 2 required)
or LCO (you get the microphone and get to
PUSH THE BUTTON... A LOT!) for the launch.
You can also volunteer to help set up (Friday
morning) or tear down the pads (Sunday
afternoon).

You pick the time that's convenient for you!
Sign up NOW to help for an hour or 2 out of the
weekend! You won't be sorry!

To volunteer, contact any of the following club
officers by e-mail or phone (preferably prior to
the launch!) or sign up when you arrive at the
launch.

Either way, I guarantee you'll have the time of
your life!
It's gonna be AWESOME!

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Evening Activities
Movies

Duane Uhl will be showing movies until the wee
hours of the morning. Rumor has it that he will
have a 10-foot projection screen!!

Telescopes

If you have a telescope and plan on staying
overnight, bring it along. The skies can get
pretty dark out there.

September 19th Launch Blue Sky, Wind & Rain

The week leading up to our September 19th launch was a typical warm week in the valley. Temperatures hovered in the high 80's and a couple low 90's to remind us of our receding summer. Weather forecasts had been predicting a dramatic cooling for the weekend, and they sure were correct. I arrived at the dairy just after 8am and the temperature was about 58 degrees and there was a dark overcast to the north.

Fortunately, the harsher weather of the day stayed pretty much to the north and west until mid afternoon allowing TCC to get off another great fall launch.

Through the course of the day, 35 different flyers made 93 flights and burned 106 motors. Among the usual diverse array of rockets, we had five 2-stage flights, one 3-stage flight and three cluster flights of 2, 3, & 4 motors each.

The first rocket off the pads belonged to young Chris Raimondi of San Jose. It was a 30" gold Quest *Icarus* on a C6-5. Chris had been patiently hovering around the launch area while the pads were set up and was quite ready to fly when the 1st call went out for flyers to "bring 'em up!".

During the rest of the day, Chris managed to fly his 14" *Totally Tubular* twice, his big black *Mean Machine* on a D12-5, a teal and red *X-Ray* and 2 great flights of his 30" *Great White* 2-stage on B6-0's, B6-6's!

Steven Raimondi also made a single flight with his 14" blue and white *Tidal Wave* on a C6-5.



Chris and David Raimondi

Meanwhile, dad, David Raimondi, was visiting the high power pads for a couple of nice flights with a 3.5lb 46" red and silver PML *X-Caliber* on an H123 and later on an I285. Dave made both flights with a Gwiz-MC on board for dual deployment.

Of course, Chris wasn't the only flyer chomping on the bit to fly.

Tracy's James Marino, eyeing the dark clouds off to the north, reasoned that he had better hit the pads early. James definitely woke up the crowd with his rebuilt white and red *Cherokee III*. Weighing in at 12 lbs, the 76" X 4" Cherokee roared off the pad on a K695 Redline with a Gwiz MC altimeter handling the deployment. OOOOOH YEAH!

James also flew a 26" yellow *Lil Nuke* on a G33 before hauling out his 7lb white *Archer*. The *Archer* is adorned with a set of decals that James was able to generate from graphics of previous Dairy Aire and October Skies launches. Real nice touch James! Oh yeah, it flew on a J350-M with motor ejection.



James with his Cherokee III

Not to be left out, Rose Marino made a smooth flight with a 60" yellow and red *Sandhawk* on a H128-M. All Right Rose!

Once again, Thomas McLachlan brought out a small stable of 4 different rockets. Among his flights were a 14" white and purple *Lightning* on an F20, an Aerotech *Tomahawk* on an F20, and a 28" orange PML *Cirrus Dart* on a G64-10. Tom topped it off with his 57oz., 70" scratch built *Orange Something* on a PRO38 H150 2-grain and motor ejection.

Over from Santa Clara, Norm Newlon's set of rockets were all custom built creations. They included an orange 30" *Spike* flying on an E9-6, a 39" red *Burnt Weenie* making its first flight on a F50-6, and his blue and white *Menace*, measuring in at "bout that long", on a H180-M. Lastly was Norm's red and blue *Magneto* going up on a G75 with a Magnetic Apogee Detector for deployment. Gee, doesn't that sound exotic!



Norm Newlon preps his Menace

Back once more from Stockton, Jack Garibaldi wowed the crowd with some very unique flights. In addition to his 4' tall, black and grey *LOC IV* going up on a Cesaroni I211?, Jack finally made it off the pad (someone was bending his ear about some technical stuff) with his blue and red *G-Force One*, powered by 4 F25-9s! Real Cool Jack!

Of course by the time the weather started to roll in, Jack had his 13 lb, 58" X 7.5" black and gold *G-UNIT* sitting on the pad loaded with a Cesaroni J295. Launch occurred just as the most intense part of the weather front was passing through. The *G-UNIT* cocked into the wind and headed off into the west. But the wind blew the descending rocket back and it landed almost next to the pad from which it was launched. WOW!

Additionally, Jack and Gigi Trinchera made 3 more flights with *Flame and Smoke* on an F21-8, *Fire and Smoke* and *Flamin' Yell* on E9-6's. And following up was Jackie G. with his red, white and blue *Freedom* on a B6-4 and C6-5. Jackie also launched a yellow and purple *Big Betty* on a C6-5.



Jack Garibaldi and crew.

The only certification flight of the day was made by Mark Jackson. Mark was making a Level 1 NAR cert flight with his 9 lb, 84" X 4", blue PML *Eclipse* on an I300 with a PML Co-Pilot for dual deployment. If I recall correctly, both chutes deployed at apogee, but otherwise it was a successful flight. Congratulations Mark!



Mark Jackson readies his Level 1 rocket.

Fresno's Wil Ladewig had a real interesting flight with a 5 lb red *Exocet* on a G75J. This was a really neat looking rocket with small fins in the rear and some rather beefy fins more toward the center of the rocket. Upon ignition, the *Exocet* left the pad and made 2 or 3 loops rather close to the ground and impacted just beyond the High power pads. Bummer! (See Wil's analysis of the flight later in this issue!)

Undeterred, Wil came back out with a black Estes *Recon* and had a drag race with grandson Kevin Rose's red *Code Red*, both on C6-5's. I don't recall who won. Nope, not going there! Kevin also flew his red and black *Ruthless* on a D13-7.



Kevin Rose and Wil Ladewig prepare for a drag race.

Also out of Fresno were Jerry and James Cole. James launched a green/yellow 4' LOC *Legacy* for 2 successful flights on F50-9Ws and his 2' white Estes *Amraam* on a C6-7. Jerry's 30" *Black Drum* is getting some real miles on it with 2 more flights on F40-10W's.



James Cole and assistants with the *Legacy*.

After having some mixed luck in the past here at the dairy, Ross Ohmen of Union City had 2 real nice flights. One was a 30" green PML *Io* on a G80. The second was a

real screamer off the pad. With 2 Perfect Flight altimeters aboard for dual deployment, Ross's 2" X 60" *Hornet* tore off the pad on an I 300 for it's maiden flight and made a flawless recovery. Way to go Ross!

Also from Union City were Allen Chan and Glen Gillen.



I'm not quite sure, but from the flight cards, it appears that Allen flew his red, white and blue 2" X 20" rocket on B6-4's twice, and C6-3's twice and under 4 different names; *US ARMY*, *Big Bang Army*, *Superman*, and *BSA Army*. Were these all the same rocket or 4 different rockets? I'm so confused!!

Glen flew a 17" red, white and blue *Freefall* on B6-4, C6-5, C6-3 motors. I think!

From Fremont, Mike Keane doubled up with his 14" *United States* rocket on a B6-5 and a C6-5. Sarah Keane made a single with her blue modified *Fat Boy* on a D12-5 and Connor also singled with his *Orange Bullet* on a 1/2A3-4.

From whereabouts unknown, Dillon and Tyler Miller made 2 flights each with their respective 10" *FireHawks* on A motors.

For those of you that were able to stay overnight at the Dairy Aire launch in May, you might remember Greg Morgan, of Clovis, who treated the evening crowd to some telescopic viewing. Greg made it back out with son George for some daytime rocket flying. Greg's twin engine, custom built *Pip-Squeak* had a flawless launch and recovery on 2 F21-8's. George launched his *Purple* rocket on an A10 and his *Big Bertha* twice on C6-3's.

Fresno's Eric Razavi (did I spell that right Eric?) launched a real sharp looking red and black 40" LOC *Arianna II* on a F50-6T. The 'up' part was nice, but the chute was apparently a bit too tight in the body tube. The *Arianna II* came in hard and the front of the tube did the old accordion impersonation, and Eric was done for the day. Better luck next time Eric!



Eric Razavi and his Arianna II

Jim Norton of Fresno was burning up the Estes Pads all day long. He made flights with his black and orange Estes *Alpha III* on an A8-3 and a custom red *ATW* on a B6-4. He flew his yellow *Mongoose* on a C6-5 single, and then 2-staged on a B6-0 and a B6-6, and yet again on a C6-0 and a C6-7. Repeating the pattern, he then singled with his red *CC Express* on a D12-5 and then 2-staged on a D12-0 and a D12-7. Nice consistent flights throughout the day Jim!



Jim Norton's CC Express (left) on the pad with an unknown rocket.

Sandy Orlandella of Auberry treated us to another launch of her beautiful red/rust colored, 85" X 5", 10lb *Honest John* on an I284. This rocket looks fast just sitting on the ground. Adding the huge smoke trail of the I284 just seems to augment the overall effect of this rocket in the air. Beautiful flight Sandy!

Rounding out the Auberry team were Amanda Kaestner and Storm McNerney. Amanda had a real nice 80" *Mean Machine* flying on a D12-5 and a *Big Bertha* on a C6-5.

Storm kept quite busy with her 30" *Mercury Redstone* powered by a C6-5, 48" blue *Payloader* on a D12-5, a 3-staged 41" red Estes *Commanche-3* on a D12-0, C6-0, and C6-7, her black *Big Daddy* on a D12-5, and finally her *Freefall* on a C6-5.



Vito and Sandy O. with Storm after her Commanche 3 flight.

Selma's Tim Sheehan had his 87" *Just a Red Rocket* flying with ease on G38-7J's twice, and once on a G35-4W.



Tim Sheehan prepping for launch.

It appears that Mike Smith, also of Fresno, was really looking to drop the hammer at this month's launch. Mike's newly built 65" X 5.5" Skunk Works (PoleCat?) Nike Smoke, dubbed *Sancha*, definitely didn't wait around when the J800W was lit off. Then, doing a disappearing act was Mike's 3" scratch built un-named grey rocket on I435T. My neck can't take a lot of this Mike!



Mike and Mikey Smith pose with the Sancha.

It seems to me that every time I see Terry Swift out at a launch, he has yet another set of rockets to fly. This month, Terry brought out a 22" white and yellow Semroc *Javelin* to fly on a F20-7W, a white and red Semroc *Jaguar* on a G40-10W, a Dayglo orange *Mean Machine* on a E30-5, and a yellow 6' *Richter Recker* on a cluster of 3 D12-5's. Topping it off was a custom built red 6' 38mm min. diameter on Cesaroni Pro38 I 205-14. I'm not sure if Terry recovered this rocket as it was launched out of sequence due to some technical problems at the LCO table. Sorry Terry.

Taking a few minutes out from manning the CK's booth with Crystal, Fresno's Bret Wilkins launched his slightly shortened yellow PML *Explorer* on an H180W.

San Jose's David Cummings set up for the very last launch of the day just as we were tearing down the range. Talk about disappearing acts. Dave set up his white LOC *Vulcanite* loaded for bear with an I435. The

button was pushed, and that was about the last anyone saw of it except for the smoke trail disappearing into some high clouds.



David Cummings just prior to the Vulcanite's flight.

As I was getting ready to leave for home, Dave and his group were scanning the horizon and setting out to search for the lost rocket. According to Dave Raimondi, "Dave Cummings did simulations on it post flight and it should have gone Mach 1.2, and 6000+ft. With the wind drift it would have drifted over two miles away."

The last word I have is that Dave was not able to recover his rocket. Another sacrifice has been offered up and accepted by the rocket gods.

Well, even with the somewhat erratic weather, this TCC launch went very well.

A big THANK YOU needs to go out from one and all to Jim Abrames for pulling triple duty for this launch! Not only did Jim pull out the equipment trailer, set up, and tear down... Jim signed in flyers, pulled RSO Duty and manned the LCO microphone for the entire day!

~Gary Walker



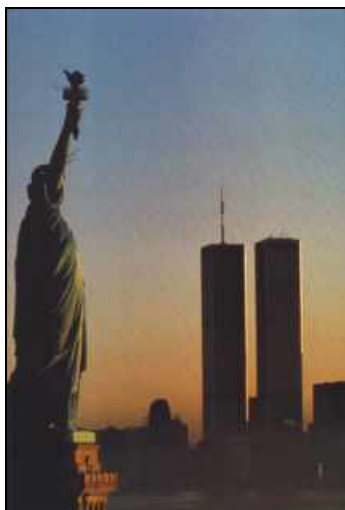
Norm Newlon's *Burnt Weenie*.



Photo by Norm Newlon



Space Ship One on it's way to capturing the X-Prize.



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 currently suspended. For more information, call one of our officers, check out our club hotline at 559-447-5888, or see our web-site at ...

www.tripolicentralcalifornia.com

(Yes, it's now current!)

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***All pictures
on this page
courtesy of
David
Raimondi of
San Jose.***

Clock-Wise from upper left

1. Pad 2 ?, Pad3 My Mercury Redstone, Pad 4 Steven's Tidal Wave
2. My X-Calibur on pad 9 pre flight.
3. Rocket from pad 2
4. Mercury Redstone
5. Tidal wave
6. X-Calibur on the first dual deploy flight
7. X-Calibur coming down on dual chutes
8. Christopher's Mean Machine

Dave Raimondi
NAR 82678 L1
LUNAR 1220





Photos by Gary Walker

Wil Ladewig's Exocet Flight
From Wil Ladewig
Tripoli Central California Launch (SEP 19.04)

For me, a STORM CELL blowing in from the West was an event stopper - with wind shear having an adverse negative impact on my old "The Launch Pad" Exocet rocket's stability. Here's the conclusion:

LESSONS LEARNED

- 1.) upgraded a "The Launch Pad" Exocet - so that it could fly on a single reloadable 29mm motor instead of the stock 24mm single use motors that in the past had reliability issues (from a bad run of Estes D blowing out the front of the motor).
- 2.) The 29mm motor's additional weight put the rockets CP/CG at marginal (CP 1 caliber behind CG).
- 3.) A storm cell blowing in from the West - began creating gusting winds. I prep the rocket anyway - proverbially throwing caution to the wind.
- 3.) The Exocet launches on a G75, and flies nicely straight up for approximately 100 feet - then loops violently (classic fundamental stability problem) as it hits what I can only surmise as wind shear induced instability. Here's an interesting read from a past Tripoli Central California launch - of course, I happen to dig this up as 20/20/ hindsight: <http://www.apogeerockets.com/education/instability.asp> - special thanks to Bob Dalquist for the writeup.
- 4.) I recover the remains - all fins and integral assembly is intact - the forward section of airframe and nose cone completely munched from violently hitting the ground - spectacular flight but "OUCH"...
- 5.) So I gambled and lost - in that the rocket being susceptible to wind induced instability (The Exocet has 4 larger fins at about CG, and 4 smaller fins at AFT).
- 6.) Conclusion - for rockets with larger fin surfaces other than just AFT, add an additional caliber of nose weight to insure CP stays behind CG - to mitigate the ever unpredictable winds.

SUGGESTION - RECOVERING FOUND ROCKETS:

- 1.) My Son and I prepped a small Estes 18mm airframe rocket with a reloadable 18mm E motor.
- 2.) The flight off the hobby rails up close was impressive - straight up, very fast and out of sight - quite a punch for just an E ;)
- 3.) Unfortunately, because the rocket went so high, and was so small nobody was able to track apogee.
- 4.) Happens that the rocket separated in flight - we were able to track down the nose/chute, and somebody else found the remains of the airframe, but no motor casing. The motor, being a reloadable was recoverable, but was probably buried deeply into the ground at impact.
- 5.) Recommendation: When somebody finds a catastrophic rocket crash, please mark the area before recovering - if that's your kind intent in helping out with finding somebody's lost rocket remains. That way, the owner is able to inspect for missing motors or other recoverables of value.

cheers,
Wil Ladewig

BALLS 2004 Flight of the *Crap Shoot*

The planned flight of Richard King and Gary Vielbaum's Crap Shoot on an 'N' motor at the BALLS 2004 launch at Black Rock didn't go quite as expected. Here are some thoughts on the flight from the 2 principals.



Some specs about Crap Shoot's flight/plight I guess is in order...

Crap Shoot was set up almost identical to its maiden flight at our local launch on the K700. Not to play "I told you so," but when the N motor was installed, it felt decidedly bottom heavy to me. No changes in weight distribution were made as Gary's software indicated his CG was one caliber greater than the CP. Gamblin Money's was nearly two calibers in comparison.

The motor lit and the light rocket became unstable shortly after leaving the tower which is twelve feet tall. It did the "surrender Dorothy" (remember Oz?) sky writing before becoming stable. It found stable flight in the horizontal position, making for a Mach 2 cruise missile about a mile down range wherein it slammed into the playa into quite a few pieces.

The nose cone was never recovered which had all the electronics. The motor case is fine and will be used for future EX projects. Had this project worked perfectly, I doubt it would have cracked 40K. I showed the motor to seasoned EXers and they all agreed my motor was a baby N as opposed to the "100% N" as the maker had billed it. Oh well.... Maybe I'll stuff it into a Chubsy....

Richard King

Apparently I did not factor enough stability into the vehicle. It is interesting to note that I saw some great flights with 1.24 caliber's of stability. Crap Shoot had 1.0 which apparently was insufficient. I suppose if the motor came up to pressure quicker that may have made a difference, but as Karl Baumann said, one caliber is the minimum recommended.

There is always next year! Some of the TCC members have done extremely well with creating their own motors. I am building another vehicle to accommodate a full N. Richard was able to save the motor case. I would be willing to try it again if someone wants to make up another motor.

See you in Oct!
Gary Vielbaum

Check out the BALLS 2004 Pictorial by Mark Canepa on the TCC web-site. ~GW



**All Photos
by
Gary Walker**





**All Photos by
Gary Walker**



Details about our experience with the Rocket Rover Lander Challenge will be in the next issue of CVRN.



WALKER TEAM ROCKETRY - Merced, CA
Michael, Chris, Gary (Dad), and Brandon Walker