

# TRIPOLI

## Vegas

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Official Newsletter of Prefecture #24 of the Tripoli Rocketry Association, Inc.

April 1996

## Springfest 96

by Brent McNeely

Like so many others, I got a later start from the house than I would have liked. My wife and I arrived at El Dorado on the almost perfect morning at about 9:30. Rockets were already streaking into the blue sky as we turned off the paved highway and onto the dry lake bed. I couldn't believe the number of cars; it appeared as though about 300 people showed for the Saturday launch.

It didn't take me long to locate Dave's tent (most likely the largest among those there). We set up our table and chairs under one corner then headed out to launch control to see how things looked. There must have been a dozen vendors there—all the big names in rocketry were set up next to the launch center. One vendor was raffling a 20 foot Hercules rocket. I bought three tickets (the winning ticket was four digits higher than mine—I should have bought a few more tickets). I picked up my J-90 & J-135 motors from the Aerotech booth and made my way back to the tent.

When I got back Ron was working feverishly on his 16 foot back monster rocket with Hobbytown in white letters along the side. The rocket had a great flight later that day on a spitfire motor (lots of smoke and sparks). Good job Ron! Next to Ron, Steve Ainesworth was putting together his gyro guided rocket. Steve sent his rocket up later despite very infuriating delays due to a very stupid 'nicest looking rocket contest.' The rocket was announced and had an incredible flight including two or three mid flight course corrections from the guidance system. From the front lines came screams and protests from one of the men among the vendor tents. He came running over the control table telling them they were not allowed to fly rockets with guidance systems at Springfest. It wasn't long before they announced over the PA that they were not allowing anymore guidance rockets on the pad. Bummer. You would think they could have said something before hand about it.

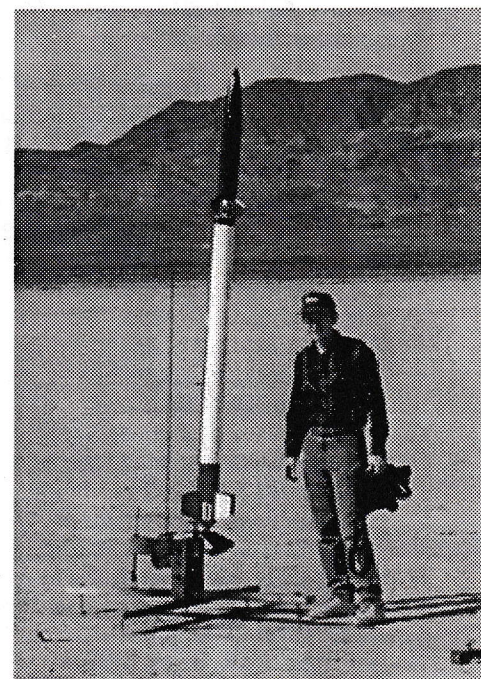
Les worked on his fiberglass rocket. I can't remember if he launched it on Saturday or Sunday. I seem to recall him having a great flight with it on Saturday.

In the afternoon the high altitude window came open and I took my scratch built Poltergeist to the pad. I felt my rocket was unique because of the fly away launch lugs I had put together. The whole rocket weighed only 2.5 lbs (total weight minus motor) with 2.6 diameter and 5.5 ft tall. Although the sky was really getting very overcast, rockets launched anyway practically skimming the bottom of the clouds. It seemed mine deployed a chute at just under clouds with a predicted altitude of 7,000 ft on the J90 motor. I had time to hop in my car and meet the rocket on the other side of the lake bed just as it landed. I zipped the tube about six inches—easy enough to repair.

Ron made a high altitude attempt with a VB extreme in combo with his fly-a-way launch lug. His rocket was powered by a K motor and went ballistic a few feet off the pad; nothing much was left to recover.

I don't remember too many of the other rockets going up that day. I left at about 4:30 got a good nights sleep and came back Sunday. A few of the people had cleared out, but there were still a good number of people there.

The event of the day occurred right in Dave's tent where the Vegas crowd had gathered. As I was eating my lunch and prepping my Orbiter, Dave, Jerry, Ron and others were prepping Dave red and white bomb for launch. When I took a bite of my sandwich I jumped half way out of my chair as a loud explosion went off behind me. There was a crash and breaking of glass. Stunned like everyone else in the tent, I turned around to find Dave's nose cone had exploded off his rocket and shot across the tent sideways behind me to hit the front headlight of my car. Everyone said they were OK and went to inspect the damage to the cone and to my car. Amazingly enough only the headlight was broken. It



cost me a whole \$3.99 to repair (which Dave was kind enough to pay for; thanks Dave!). Apparently the altimeter was armed as the put the cone on and because of some small change in air pressure deployed the chute. I spoke with Adept this last week about this and they say there is a change on the way in the circuitry and it won't happen with future versions of the altimeter. After the shock, Dave and the others took the rocket out to the pad after re-prepping it. It took forever for Dave to get on the pad because the Iris people were out at the far pad for about an hour. Everyone looked on as the countdown commenced. Ignition lit two of the J motors on Dave's bomb, but the main motor didn't ignite. The result was the rocket jumped about four inches, then fell over sideways pointing away from us while the two motors tried to put the big rocket across the dirt. The rocket only moved a foot or two. It was really gut wrenching to watch. After the whole explosion thing in the tent it seemed the gods of rocketry were out to get Dave. The fall on the pad broke one of the fins off the bomb



making another launch attempt impossible that day, even if the gods of rocketry had allowed it.

I flew my Orbiter after that on a J135 for a nice flight. I got three of four thousand feet off it and not a scratch (a first for me).

A bit later everyone gathered at the front lines for a truly wondrous flight. The Iris. Now that is a rocket to see. I'm not sure how tall this thing was; my guess was about 25 feet or so. The thing look truly awesome when it left the pad on a big M motor. That is 'M' as in 'Marvelous!' It wasn't long after that the wind picked up and everyone called it a day. I must say it felt like Christmas for me; I didn't want it to end. I can't wait until my next fest launch. I just have to say I love living in Las Vegas where we have the nice dry lake beds for rocket launches like Springfest. We are a lucky people.

## Ejection Charge Conversion and Powder Measure Guide

by Mike Alber

The following computations were made with GOEX 4F black powder and a Lyman D5 scale. Sample weights of ejection charges were taken from the following Aerotech motor reloads, F12-5J, F22-7J and I154J. Grams were converted to grains as the scale measures in grains.

One pound = 7000 grains or 453.6 grams

One ounce = 437.5 grains or 28.35 grams

One gram = 15.4 grains

0.25 grams = 3.85 grains

0.4 grams = 6.1 grains

0.5 grams = 7.7 grains

0.7 grams = 10.78 grains

1.4 grams = 21.56 grains

2.1 grams = 32.3 grains

The Aerotech contained the following loads;

24 mm F12-5J 8.3 grains or .54 grams

29 mm F22-7J 11.8 grains or .77 grams

38 mm I154 24 grains or 1.56 grams

Robby's Rockets recommends the following: "the 0.25 to 0.50 gram charge for Estes style tubes 2" or larger. Use 0.75 to 1.25 grams for 2" to 3" heavier body tubes, 1.50 to 2.00 grams work nicely in 3" to 4" tubes."

For lack of a powder scale, there are several things available which will throw a measured charge. Gun stores carry an adjustable measure for black powder for about \$7.00. The following items also give a good measure of power (4F):

Empty Cartridge Case	Grain Weight of Black Powder
45 Colt	42 (2.7 grams)
45 Auto	28 (1.8 grams)
38 Special	24 (1.5 grams)
30 Cal. Carbine	20 (1.3 grams)
9 mm	15.4 (1 gram)
22 long	5 (0.32 grams)
1/4 teaspoon (level)	20 grains

You can solder a section of coat hanger to your shell case for a handle and use the body tube diameter vs. ejection charge weight chart for an additional guideline. I have a large supply of 9 mm and 38 special cases and if anyone would like a set of dippers, I would be happy to supply them a set with handles just for the asking.

**Congratulations to Mike Alber and Danny Thistle who confirmed at Springfest and joined Tripoli Las Vegas!**

## Leadership List

President ..... Leslie Derkovitz • 875-1904  
 Vice President ..... Tom Blazanin • 388-9644  
 Secretary/Treasurer .... Lance & Robbie Tharpe • 261-1  
 Prefect..... Tom Blazanin • 388-9644  
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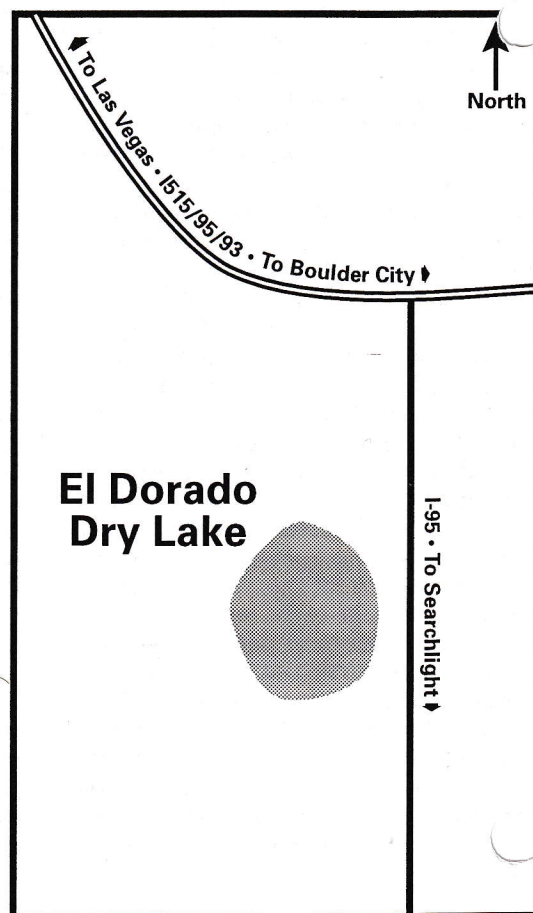
## Launch Dates

April 20 ..... El Dorado Dry Lake Bed  
 May 18-19 ..... Delamar Dry Lake Bed  
 June 22 ..... El Dorado Dry Lake Bed  
 July 20 ..... El Dorado Dry Lake Bed  
 August 17 ..... El Dorado Dry Lake Bed  
 September 21 ..... El Dorado Dry Lake Bed

## Meeting Dates

Every Thursday prior to a launch date

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