

# URRF Launch Report

Steve Eves, Mark Coburn and Chris Pearson traveled out to Potter, NY on the weekend of June 22<sup>nd</sup> for the Upstate Research Rocketry Festival (URRF-5) put on by the Upstate Research Rocketry Group (URRG). We only got photos of some of our own rockets and a few that we gleaned from Facebook. The weather forecasts for the weekend changed many times in the week before the launch, so we decided that even 2 days of flying would be okay since we didn't get a chance to fly in Amherst all Spring. The turnout was very light compared to previous years. It was surmised that that weather forecasts scared everyone off. Friday was the best day for flying, but both Saturday and Sunday had low clouds and a ceiling of between 3-4000 feet. Hardly the 17K feet waiver that was advertised. Heavy rain Saturday night and Sunday morning didn't affect the field much, but most of the fliers had already left.



Steve and Chris had built identical LOC/Precision "Top Gun" rockets in memory of Ron Schultz, the founder of LOC who had passed away last year. The great looking decals came from Graphix-n-Stuff in Pittsburgh. They have a motor mount with 7-54mm motor tubes. The use of dual-deploy forced them to be a little longer than the original. Both Steve and Chris were going to fly them with a central K motor and two outboard J motors but high winds on Friday afternoon and a low cloud ceiling on Saturday prevented the rockets from flying.



Steve and Mark (left) load Steve LOC/Precision "Syonic" onto the pad. This is one of the original rockets that Ron Schultz built for his catalog shoot back in the 80's. It flew on a Research J480 using NASSA K2 Fast propellant to 2555 feet and had a perfect recovery.





Mark and Steve along with the pad manager (left) get Steve's "Syonic" pointed straight up. The low clouds can be seen in this picture.

Mark (right) loads his modified LOC/Precision EZI onto the pad. The rocket flew with a Research J415 White motor and flew to 4500 feet. Mark also flew his "I-Roc-EX" on a K550 White motor which flew to 3600 feet, his LOC "Magnum" on a Research K500 to 2800 feet and his "HyperLOC 300" on a Research J275(ish) both using NASSA K2 Fast.



Steve (left) turns on the altimeter on his Wildman "8-Ball" which he flew with a 38mm I250 Research motor using NASSA K2 Fast propellant.

Steve flew his LOC "Mini-Viper" (right) twice. Another of the original LOC kits. The first flight was a testament to retro-80's cluster ignition using a flashbulb and Thermalite, but only two motors ignited. The second flight saw all three AT H128 motors ignite but the increased weight of the reloadable motors made it unstable and it did a nice sky dance before it crashed.







The saga of the full-scale D-Region Tomahawk actually started years ago. This is one of the finished rockets that NOTRA inherited from deceased modeler John Weisheimer in Columbus. It had been stored in a warehouse open to the elements and I had to clean the bird droppings and cat pee stains off the white airframe with Ajax cleanser and a Scrunge pad! Fortunately he had painted it with flat automotive paint, so it looked good after all that scrubbing.

The electronics bay needed to be refabricated and some water damage addressed but it turned out okay. A SC Precision thrust plate and Aero Pac motor retainer were also added.

I was planning on flying it at URRF-4 last year, but poor weather made me skip the launch along with another launch in the fall.



Pictured above (left) is Chris in the back yard with the completed Tomahawk.

At above right, Chris loads the 98mm Research N3100 motor, which was loaded with "Brilliant Blue" propellant. This was his first 98mm motor.

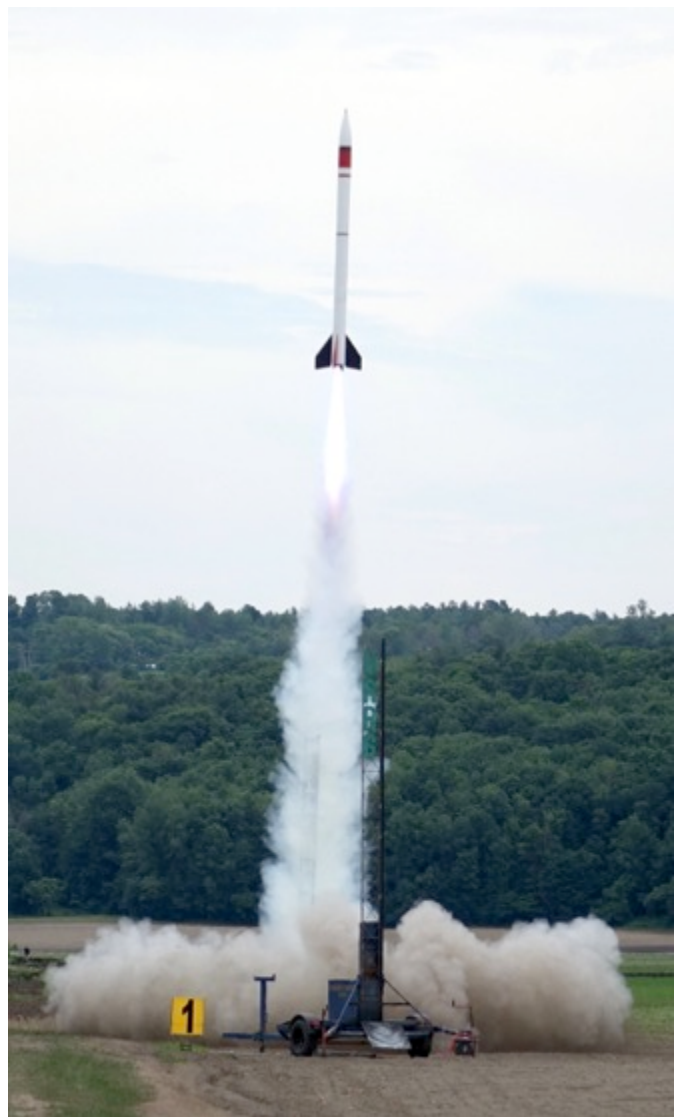
Steve and Mark load the bottom half of the Tomahawk on the away cell (left). The rocket was transported in two pieces and assembled on the pad because it was so long!





Chris (above) inserts the igniter, which was the size of your thumb, into the motor after turning on the four Missileworks RRC-3 altimeters. The rocket would separate into two pieces at apogee and deploy drogue parachutes. The electronics bay had redundant ejection charge canisters with 11 grams of black powder in each! The upper section would be a traditional dual-deploy, ejecting its parachute at 800 feet, while the booster was equipped with a Tender Descended which would keep the parachute in the rocket until it reached its deployment altitude and then would activate, allowing the drogue parachute to pull the main parachute out. At least this was the plan.

Steve, Mark and Chris (above right) pose for the obligatory rocket-on-the-pad shot. Because of the size of the motor, the rocket had to be flown at the far away cells. They were the only pads that were equipped with Unistrut rails for really big rockets.



The lift-off weight of the rocket was 115 pounds. The motor ignited with no delay and boosted straight up with no spin or weather cocking. Deployment was at 5100 feet right below the cloud deck. A video of the flight is posted on the NOTRA Facebook page. For reasons that are still unknown, the main parachute on the booster section deployed at apogee. The upper section deployed its main and landed in a field not too far from the pads, while the booster drifted into the corn fields some distance away. Despite six hours of searching both on foot and with a drone, the booster could not be located, even though Steve and Mark both had a good line on it. It is speculated that it was stolen, as had been at least one other rocket at the launch. Info about the rocket was given to the launch director and recovery crew and a reward was offered for its return. To date there has been no word. Hopefully it will be recovered at the harvest. The rocket itself will probably be trashed but the motor case, electronics and parachute will hopefully be okay.

Many thanks to both Steve and Mark for helping me look for the rocket, taking time away from launching their own rocket to do so.



Following are some pics of other rockets flown at the launch but no information is available about them.







