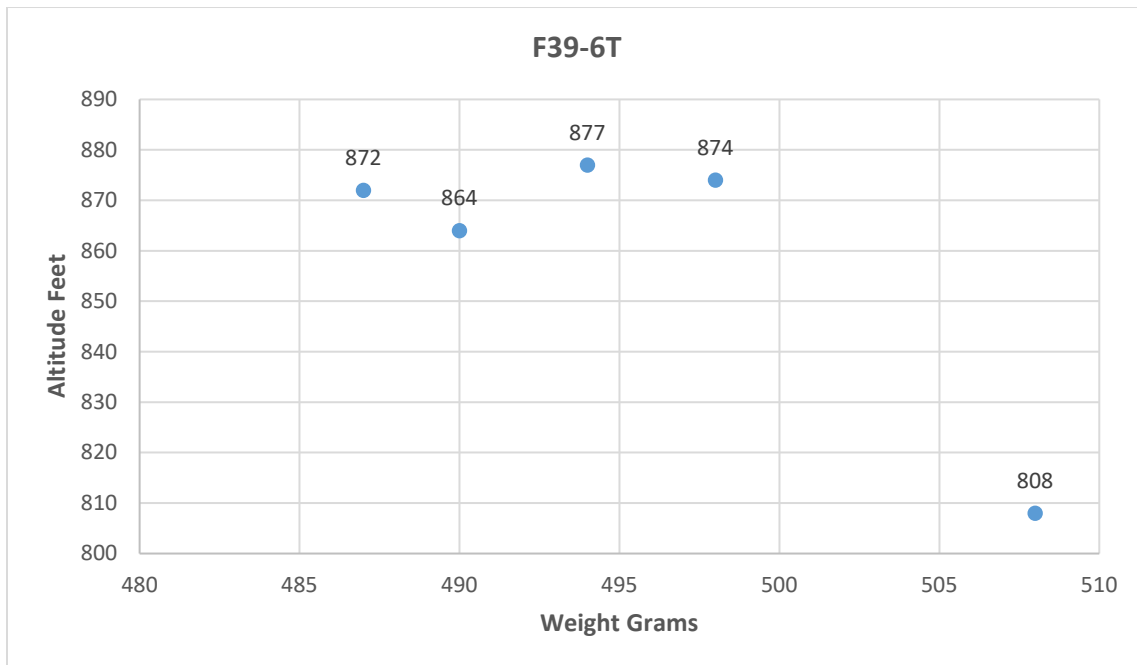


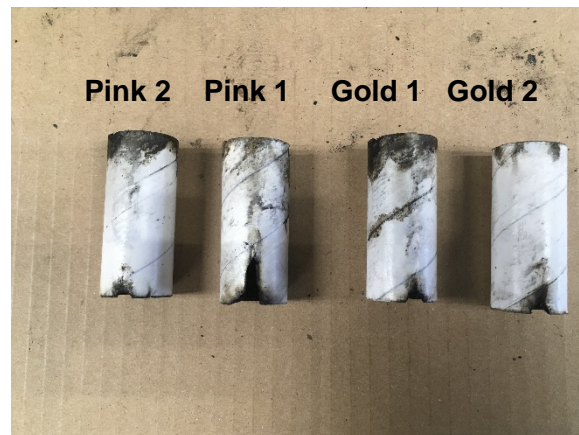
Launch March 2, 2019
Great Meadow
Motor Autopsy

On March 2, we launched three rockets two times each. The rockets were almost the same design. They all used F39-6T motors. Four flights were similar in results, but two were very different. One had the chutes ejected right after launch, and one was 60 feet or more lower than the other four. We examined the motor casings and insides to see what might have happened.

Team	Rocket	Flight	Motor/Lot/Pack	Weight	Altitude	Comment
5179	Gold	1	F39-6 04091808 1	490	864	nice flight, slow descent
5179	Gold	2	F39-6 04091808 1	498	874	nice flight, slow descent
5180	Multi	1	F39-6 04091808 0	487	872	ok flight, chutes tangled
5180	Multi	2	F39-6 04091808 2	504	545	crash, ejection immediately
5181	Pink	1	F39-6 04091808 3	508	808	nice flight, low, igniter issue
5181	Pink	2	F39-6 04091808 3	494	877	nice flight, high, slow descent



Here are the motors from the two Pin k and God rocket flights.



Notice the burn marks on the Pink 1 motor insulator. It is likely that the igniter was not fully inserted, which caused fuel to burn but not create thrust.

Here are the two motors from the Multicolor rocket flights.



Notice the destroyed delay element in the second flight. After reviewing and disassembling the other two motors from the same lot/pack, it was determined that they were assembled incorrectly.