

THE TERRIER-SANDHAWK FLEW BEAUTIFULLY!!!!

'nuff said.

Everything worked out absolutely perfect! I flew the rocket on 2xC6-0 and 1xC6-5 to a C11-5 two weeks ago. I sprinkled just a little bit of BP on some tape to aid in staging, prepped the small 8" chute in the Terrier, inserted the C11-5 in the Sandhawk, prepped its recovery system, and worked a little on the interstage transition. The transition is a little loose on the Sandhawk side because I had to cut it down to make it fit (a miscalculation on my part), so the shoulder is just barely over 1/4th inch long. So, we wrapped some tape on it to tighten the fit, then added small tape strips on the outside of the transition/Sandhawk coupling to help it stay together long enough. Then, after a quick mental checklist, I loaded the igniters (Estes igniters enhanced with a bit of Rocketflite pyrogen) and loaded this thing on the rail. I hooked up the clipwhips, then posed for some pre-flight pics. I re-checked the igniter connection, made sure nothing was touching, then NERVOUSLY walked to the controller. Nervous as heck, I picked up the Estes Command Control launch controller, asked Eugene if he was SURE he had charged the batteries, then inserted the safety key and flipped the switch over. I almost jumped as the controller started beeping at me, then I regained my composure and started the count down. 5...4...3...2...1... LAUNCH!!!

I hit the button. A bright flash of white light caught my eye as the igniters burned, then, almost instantly, the Terrier-Sandhawk jumped off the rail. I was excited there for a split second because it was going straight and true, which meant that all three motors in the booster had lit! There was breeze, so slightly after she cleared the rail, at about 50-75 feet, it weathercocked a bit. Everything was going in slow motion for me, and about halfway through the booster's burn, I noticed that the Sandhawk was starting to tip off slightly. But, just a split-second later, as the booster started to burn out, the Sandhawk turned up nice and straight right as the booster motors burned and flung their flaming hot pieces up the stuffer tube, through the transition, and ignited the C11-5 in the Sandhawk almost instantly after burnout. There was a definite change in the noise between the C6's and the C11! The C11 had what seemed to be an unstable burn, but, as I would find out, it was not the motor. 5 seconds past the booster burnout, EJECTION of the Terrier's small chute. And about 2 seconds later, POP, and ejection of the Sandhawk's parachute. At this point, I was absolutely ECSTATIC! Everything up to this point had worked as designed!!! As I walked out to recover the rocket, I went first to recover the Sandhawk. As I got closer, I noticed something strange. Getting closer still, I saw that the transition had separated from the Terrier, where, as designed, it was supposed to stay. This was likely the result of the powerful staging that had occurred, which caused the Kevlar thread to separate from the FIXIT clay I had rolled it into, and the relatively large amount of tape that I used to shim the coupler as I described, along with the tape along the sides. These were all important factors in why the transition stayed on the Sandhawk. No problem, though. I drilled a 3/16th hole in the FIXIT clay, added some more Kevlar to the line, and epoxied the Kevlar in the hole. I hope it holds! I probably will not fly the Terrier-Sandhawk again until spring next year. I'll probably fly the Sandhawk by itself as much as possible, but as soon as I can, I'll fly her full up (2xC6-0 and 1xC6-5 to a E9-8) I hope I feel crazy when I fly it like that!!!