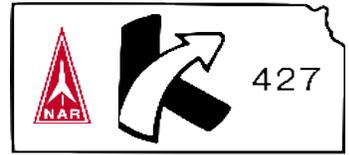


OFFICIAL JOURNAL OF THE
KANSAS ORGANIZATION FOR SPACEMODELING



the **KOSMONAUT**

JULY/AUG 2017

VOLUME 36 NO. 4



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KOSMO CERTIFICATION DAY A GREAT SUCCESS

story and photos by Duane Lanterman

Back in June our club was contacted by some Iowa State University students interning in Wichita about the possibility of our club providing manpower and facilities for their Level 1 and 2 certs. Member Steve Saner did most of the leg work and this past Sat. (July 15) this became a reality. Those three students were joined by an Senior NAR member from Rose Hill, Ks. and a young man from Kingman, Ks. seeking his Jr. Level cert. At the end of the day ISU student Cassie Gearhart had her Level One and Two achieved with a self designed rocket with dual deploy. Level One certs went to ISU student Alex Nielsen, Kansas resident Steve Timmons, and Jr. Level to Aidan Hill. ISU student Michelle Camp with a beautiful Mad Cow Honest John suffered a massive cato but was undeterred in her desire to cert and hopefully will try again yet this summer. Cassie's parents made the 10 hour drive to see their daughter certify. A great day in Central Kansas !! It should be noted that Cassie and Michelle were part of ISU's NASA Launch Initiative program last year and are planning to be involved in that program again this school year.



Illustration 1: Michelle Camp's beautiful Honest John suffered a cato !



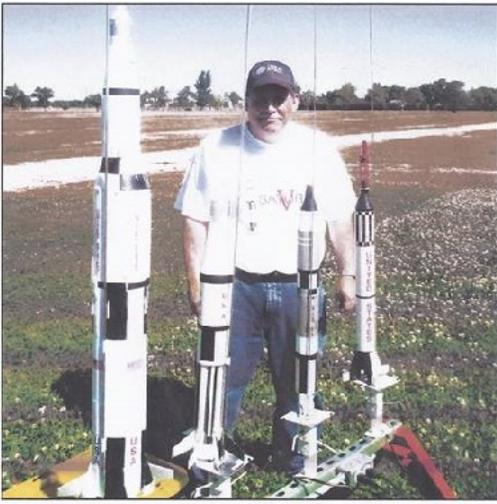
Illustration 2: 4H'er Aidan Hill poses with his Callisto, Steve Timmon's Loc4 in the background



Illustration 3: Alex Nielsen's Crayon



Illustration 4: Cassie poses with her parents, certified Level One and Two !



Kansas Organization of Space Modeling member John Palmer is pictured with some of his sport scale models. (courtesy photo)

Rocket launches scheduled

Members of the Space Tech project in 4-H are gearing up for the Rush County Fair.

These 4-Hers have been working hard to make their rockets and get them ready for the pre-fair launch on July 8. The Kansas Organization of Space Modeling (KOSMO) members will be helping the Rush County 4-Hers launch their rockets at 9 a.m. The public is welcome to watch at the La Crosse Airport.

The launch is an open sport launch for anyone wanting to launch a low-mid power rocket. There will be sport scale model rockets and rockets larger than 4-Hers typically build. KOSMO expects the launch to last from 9 a.m. to 2 p.m., weather permitting. KOSMO will post cancelations on www.kosmo427.org.

During the fair, 4-Hers plan to hold a launch at 8 a.m. Saturday, August 5 at the La Crosse Airport.

Illustration 1: Article from Rush County News



Illustration 3: Payton's QUARK

KOSMONauts ASSIST WITH 4H LAUNCH

The Rush County 4H Space Tech participants under the dedicated leadership of 4H'er and KOSMO member Dennis Elder launched 15 of their rockets in near perfect conditions on July 8th. Assisting with the launch and providing launch equipment were several additional members of our club including Steve Saner, Duane Lanterman, and John Palmer.

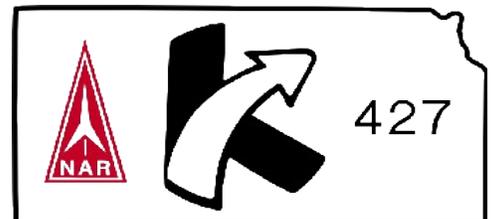
An unplanned issue was discovered several days before the launch as the LaCrosse Airport was undergoing repaving and large equipment was sitting on the runway. Efforts to contact the contractor was unsuccessful. A ball field at the edge of Bison, Ks. was designated as the backup sight and proved to be more than adequate. Add to that almost no wind and we had a Kansas rocketeers dream day.

The kids enjoyed pushing the button to launch their own rockets and there was a very nice assortment of mostly Estes kits that were well made. Volunteers used scopes to record the altitudes that were achieved. At the conclusion of the event a dozen flights were made by KOSMO members including Steve Saner's dual deploy rocket on a G77 to the delight of the crowd .

We had a great time with the young 4H'ers displaying good skills and behavior on the field. At the conclusion the KOSMO members traveled to Timken, Ks. to eat at "The Hill", visiting of course about rockets and digesting some great food too !



Illustration 2: A Great Group of Rush County 4H Kids



KOSMO - NAR #427

More photos from Rush County 4H Launch



Illustration 2: Dennis Elder checks a model before launch



Illustration 1: Steve Saner assists with Urijah's Riptide.



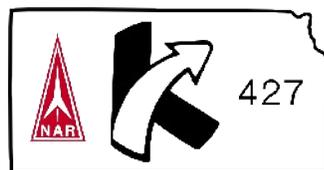
Drawing 1: John Palmer explains the launch controller to a Rush Co. 4H'er



Drawing 2: The Bison ball field area provided a great place to launch right at the edge of town.



Drawing 4: Steve's dual deploy rocket on a G77



KOSMO - NAR #427



Drawing 3: Chase hooks the clips to his nicely done 'White Rocket'

National Rocketry Competition

Steve Saner

As many of you know, the face of NAR competition is changing with the introduction of a completely new set of rules and structure. The purpose of this article is not to weigh the pros and cons of this change, nor is it to explain all of the details of the new rules. Rather, the purpose here is to look at how these changes might affect KOSMO, and in particular KRAMO, and to get people thinking about ways we might want to integrate the National Rocketry Competition (NRC) with our regular operations.

The NRC specifies, at the beginning of each contest year, a set of 6 events that are flown at every sanctioned launch. The results of these flights are submitted to the NAR and posted on an on-line scoreboard. The top 10 (or 10%, depending) are then eligible to compete for national championship awards at NARAM. The six events for this year are:

- C Egg Loft Altitude (using an altimeter)
- A Payload Altitude (using an altimeter)
- A Streamer Duration
- A Helicopter Duration
- 1/2A Parachute Duration
- 1/2A Boost Glider Duration

Under the old rules, sections like ours would design a contest with several events and we would then “sanction” that contest so that points earned in that contest would be reported and recorded by the NAR. So a “sanction” and a “contest” were essentially the same thing. I think it is helpful, under the new rules to recognize that now a “sanction” and a “contest” are really two separate things.

Under the new rules, any launch, whether it is set up as a contest or not, can be an NRC sanctioned launch. **When a launch is sanctioned, it means that anyone can fly any one, or more, of the six NRC events and those results are submitted to the NAR.** We do not pick which events to sanction. All events are sanctioned for the launch and all events must be allowed if the launch is sanctioned.

So what does this mean for a contest launch, such as KRAMO? We could decide that the events for KRAMO are exactly the six NRC events and we could sanction that launch. Doing so would be the closest to the way it used to be. Essentially we would be sanctioning the contest. But, we do not need to do that at all.

Under the new rules, we are not sanctioning a contest, so when it comes to KRAMO, we can have whatever events that we want. The event list can include one or more NRC events of that year. It can include other official events that are described in the rule book. It can also include unofficial or made up events. It is totally up to us and the results of the contest are also totally up to us. We can give awards for each event and for overall winners if we want to. But the results of the “contest” are not in any way reported to the NAR and don’t count for anything under the NAR.

However, in addition to holding a contest with whatever events we choose, we can also sanction the launch as an NRC launch, which means that participants can fly any of the NRC events and those results are submitted to the NAR.

Let’s look at a possible example of what KRAMO could look like next year. Say we choose the following events for KRAMO 38:

- Open Spot Landing
- Predicted Duration
- A Streamer Duration
- 1/2A Boost Glider Duration
- Kansas Rocket Drags

In the above event list we have chosen two official events that are not NRC events, we have chosen two official events that do happen to be NRC events for this year, and we have chosen one unofficial event that operates under our own rules. Let’s also say that we decide to sanction this launch as an official NRC sanctioned launch.

In the above scenario, any competitor can fly ANY of the NRC events and the results of those flights will be submitted to the NAR. However, only two of those events will have any bearing on the KRAMO contest. The contest and the awards that we give out are only affected by the above listed five events. That there is an overlap of two events on both the NRC list and the KRAMO list is completely our choice. There is no rule that says we have to do that. There is also no rule that says we have to include NRC sanctioning at our contest. The contest is just for us, not the NAR. The sanctioning gives an opportunity to anyone that might be interested in pursuing standing in the NAR competition. We can make the two overlap if we want, but we don't have to.

Once you understand the distinction between NRC sanctioning and a contest launch, you can imagine some interesting combinations. One such idea that I understand one section is planning is that they are going to NRC sanction every launch they have. So anyone can fly any of the NRC events at any launch and those results are submitted to the NAR. However, they are also going to "focus" on one of the NRC events at each launch. They are going to encourage their members to fly at least that one event and kind of have a mini contest on that one event amongst themselves. I don't know if they will give out awards for that event, but they could. They see this as giving the opportunity to those that want to aim for NARAM competition, and also a way to encourage others to at least try competition. This is an example of a creative use of the new rules. I'm sure there are many other interesting ways that NRC sanctioning could be done either in conjunction with a contest or not.

There are some details that should also be considered. You might note that some of the NRC events for this year require some supporting materials. The altitude events require altimeters. The egg lofting event requires eggs. And the payload event requires an official payload. Do we have to provide some or all of those supplies just because we sanction a launch? The guidelines of the NRC say that, by default, each competitor must bring everything they need for any NRC event that they want to fly. They must bring their own eggs, payloads, altimeters, etc. That said, we can provide certain things if we want to. The way most people are planning to handle this is that if the event is part of a planned contest, then those things may be provided. If not, then the competitor will have to bring them. These details should be announced as part of the sanction announcement.

Typically at KRAMO we give awards/recognition to the winners of each contest event, but we also give the same to the overall contest winners. In the old contest model this was baked into the contest structure with points awarded and weighting factors that made winning certain events more profitable than others. All of that has been removed from the official rules. So if we would want to give overall awards, we have to use some kind of scoring procedure. The official rules do specify such a procedure that will be used at NARAM (rule 13.2.4). Basically, each place receives a number of points (first place being the most) and the highest total points is the overall winner. There are no weighting factors that favors one event over another. We can use this same system, or we could devise our own. Again, the sanction is about the NRC events, not the contest, and there are no rules that we have to follow in a contest, except as pertains to any events that are also NRC sanctioned events.

While there are a number of ways that we could approach the NRC, it should also be asked if we want to sanction any of our launches, including KRAMO, as an NRC launch at all? If no one in our club or participating in our launches has any interest in pursuing competition at NARAM and no one cares to try to get into the top 10 on any NRC event, or see their name on the scoreboard, then maybe there is no point in sanctioning anything. That's a viable option too. On the other hand, just because no one may be currently interested in NARAM level competition, it might be worth sanctioning at least one launch to give those an opportunity that might become interested in more competition.

As we approach our annual meeting and decide what we want KRAMO 38 to look like, I hope this has given some perspective and food for thought. This is really an opportunity to rethink how we approach competition both as a club and individually. To what extent do we want to encourage competition? To what extent do we want to encourage competition at the national level?

Finally, if there is someone reading this that would like to pursue NAR level competition in one or more of the NRC events, please make that interest known. One of the things about the new rules is that sanctioning a launch is supposed to be easy. So if someone out there wants to pursue something, it should be fairly easy for the club to accommodate that in one way or another.

Thanks for this very interesting article Steve. Steve Saner has been our KRAMO Contest Director for a number of years. I believe it will be hard to find a better explanation of the new rule structure that what you have read here.
D.L.- KOSMONaut editor

SPORT LAUNCH REPORT - AUG. 5TH

It certainly didn't look like it was going to happen. As the week headed towards the weekend the weather forecast for Hutchinson included a good chance of rain and wind gusts over 20 for just about the entire time slot we had planned for the launch. Members were invited out to the field but most likely lunch together was going to be the main activity. Saturday morning broke with no clouds in the sky and there was wind but below our 20 mph safe zone. The faithful few showed up as usual and 11 flights were made before we broke shortly after noon and headed for a meal together and discussions about all things rocketry. The wind continued to pick up and for all practical purposes our morning session was all that was safe to launch on that field.



Illustration 2: The "Four Amigos"



Illustration 1: Keith launches Steve's Comanche 1

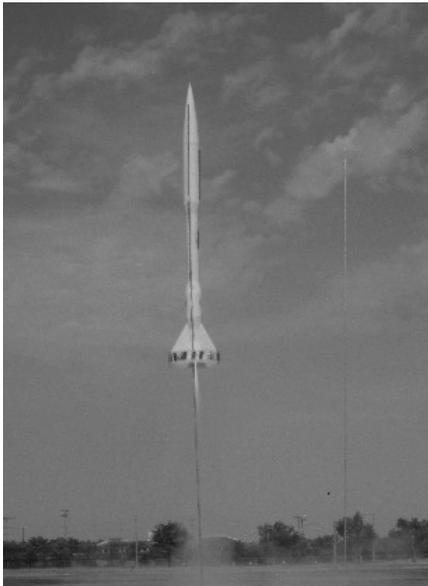


Illustration 4: Duane's Redstar SpaceShip



Illustration 3: John with what else, a sport scale model !



EDITORS NOTES – Just a few notes as we wrap up this issue. It has been a rewarding flying season so far helping with the 4H'er and college students. We encourage you members as time allows to join us out on the field and enjoy our company and have fun doing what we love to do.

Welcome new member Bradley Smith out of Leavenworth, Ks. Look forward to seeing you at a launch soon. As most of you know our president Keith Ravenstein has been battling cancer. As things stand as I write this he should be finishing his chemo and radiation by the end of the month. It has been a challenging journey for Keith but things are looking up. Please keep him in your thoughts and prayers.

KOSMO 2017 LAUNCH CALENDAR



Final Frontier Fun Fly — Saturday, September 16, 2017

10:00am - 5:00pm

Ellinwood, KS - Lanterman Family Farm

10,000ft Waiver BBQ available at Noon (for a small fee)

Alternate date in case of bad weather: September 30, 2017

Launch Fee \$3

Rocket-tober Fest — Saturday, October 14, 2017

10:00am - 5:00pm

Ellinwood, KS Airport or Lanterman Farm

10,000ft Waiver

Alternate date in case of bad weather: October 28, 2017

Launch Fee \$3

Nightflight — Saturday, November 11, 2017 – No Launch Fee

3:00pm - 7:00pm

LIGHTED ROCKETS FROM SUNSET UNTIL 7PM

Kansas State Fairgrounds Parking Lot, Hutchinson, KS



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Coming up in the next KOSMONaut

**JOHN PALMER'S SPACE CAMP
EXPERIENCE and HIS PRESENTATION TO
THE DERBY ELEMENTARY SCHOOL**

**PLUS COMPLETE COVERAGE OF THE
FINAL FRONTIER FUN FLY LAUNCH**

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