**On THE RULES TO FLY BY for the Savannah Science Seminar** Rocketry Contest:

(1) The object of this event is to have one flight (the first flight) achieve the best performance in two objectives. These two objectives, defined below, are titled ***Highest Vertical Displacement***, and ***Egg Loft***.

(2) Teams of three or four will be used, and will be given identical kits for the rocket. The students will use the kits to build a rocket as well as be able to provide a payload that will support success with the two objectives. Construction of the rocket, and payload must be safe, i.e., no hardwood dowels, sharp metal objects or hazardous materials, etc. Scoring is by a combination of results from the two objectives as defined under the scoring section. Total score for the will be decided using the two objective scores in a weighted formula. The team with the best point score wins the event. All participating teams will yield points to their overall seminar score.

(3) The model rocket must stay together during flight, no separation of any parts of the rocket is allowed. Also crimping of the body or other structural failure prior to ejection is cause for disqualification. Unstable or looping flight will also be disqualified.

***EGG LOFT OBJECTIVE***

The object is to have the flight with one egg (provided at the site) as a payload. The condition for points associated with this objective is that the egg must be recovered intact with no signs of cracking or breaks. The model must stay together, no separation of any parts of the rocket is allowed. The egg must travel with the model to landing.

***HIGHEST VERTICAL DISPLACEMENT OBJECTIVE***

Each team will be provided an altimeter that will measure the flight path data (including the maximum height achieved). This data will be used to determine the ranking among all the teams.

**GENERAL CONTEST RULES**

**1.** When preparing for an official flight the motor must be verified by a contest official before installation in the model. The motor must be verified that it is of the correct impulse class and that it is a NAR contest certified motor. You must return the model for inspection by a contest official for verification of the engine or the flight is disqualified. At this time the model also is checked for safety.

**2.** Returns - as indicated above, scoring will involve the first flight, even though in the event, you may have the opportunity for multiple flights, it is the first flight from which all scoring will take place. There will be verification that no in flight structural failure occurred and that the engine has remained in place in the model. No ejection of motors from a model is allowed in this competition. The egg for the Egg Loft Objective will be provided at the competition, and verified upon return to earth.

**3.** As flights take place, each one is ruled by the RSO (or his designate) as to whether the flight is qualified or not.

**4.** Scoring - Points are awarded for each event according to the following formula:

The Altimeter reading will be recorded and ranked from highest vertical displacement to lowest. The highest will be given a score of 6, the second highest will be given a score of 5, etc… In the unlikely event that two rockets record exactly the same height, the ranking score will given to each, and one ranking number will be skipped.

***The egg loft score, per egg, will be:***

1.0 – if the egg survives in tact with no cracking
0.5 – if the egg shell is cracked but remains together (with no liquid leaking)
0.0 – if the egg is cracked to the point where its contents leak

***The formula for rocket launch:***

A = Altimeter Ranking
E1 = Egg Loft Score, first egg
E2 = Egg Loft Score, second egg - NOT APPLICABLE THIS LAUNCH

**Score = 2 x A + (E1) x A**

***Overall winners of the contest are decided according to points. Your group contest score will be added to your individual scores for determination of the overall seminar winners.***