

## NARAM 58 High Power Event #1 - Level 1 Set Altitude

Note: Sections 1 and 2 of the United States High Power Rocket Sporting Code shall govern the overall conduct of this event.

### 1.1 Scope

The Contest Director shall set the target altitude in the contest announcement. This value shall appear in the sanction form and all appropriate contest information. The target altitude shall be a multiple of 100 feet between 500 and 15,000 feet. All contestants shall attempt to achieve this same Set Altitude.

**The target altitude for this competition at NARAM 58 is 3600 feet AGL.**

### 1.2 Flights

1.2.1 Only a single official flight is permitted in this competition. Official flights shall be declared prior to launch by completing a competition flight card.

1.2.2 There is no limit on flights of the entry at a rocketry event prior to declaring an official flight.

1.2.3 The entry may not separate into two or more unattached components in this event.

### 1.3 Installed Impulse

1.3.1 Entries will utilize only a single rocket motor.

1.3.2 The installed impulse shall be no less than 160.01 Newton-seconds and no greater than 640.00 Newton-seconds

### 1.4 Control

1.4.1 The entry shall not utilize any means of external control to control the altitude of the entry (e.g. remote control).

1.4.2 Altimeters for the first deployment event must be set to apogee detect.

### 1.5 Scoring

1.5.1 In the event of multiple altimeters, the RSO will average the reports and round to the next-highest 1-foot increment to get the reported altitude.

- 1.5.2 The reported altitude of the entry will always be rounded up to the next highest 10-foot increment (e.g. 673 feet will be recorded as 680 feet).
- 1.5.3 The altitude error will be calculated as the absolute value of the difference between the reported altitude and set altitude (**3600 feet for NARAM 58**).
- 1.5.4 The percentage error will be calculated as the altitude error divided by 3600 times 100.
- 1.5.5 The entry with the lowest percentage error and a qualified flight is the winner.

## NARAM 58 High Power Event #2 - "H" Motor Multiple Eggloft Altitude

Note: Sections 1 and 2 of the United States High Power Rocket Sporting Code shall govern the overall conduct of this event.

### 2.1 Scope

- 2.1.1 Multiple eggloft comprises a single event open to any rocket that carries anywhere from two to six large Grade A hens' eggs. The Contest Director will determine the motor class, and contestants will pick the number of eggs in their entry.

### 2.2 Flights

- 2.2.1 Two official flights are permitted in this competition. Official flights shall be declared prior to launch by completing a competition flight card.
- 2.2.2 There is no limit on the number of flights of the entry at a rocketry event prior to declaring an official flight.
- 2.2.3 The entry may not separate into two or more unattached components in this event.
- 2.2.4 Flights shall be recovered by a minimum of one parachute.

### 2.3 Installed Impulse

- 2.3.1 Entries may be clustered.
- 2.3.2 The installed impulse shall be no less than 160.01 Newton-seconds and no greater than 320.00 Newton-seconds
- 2.3.3 The entry shall contain one motor having a minimum impulse of 160.01 Newton-seconds

## 2.4 Eggs

- 2.4.1 The Contest Director will provide all eggs (USDA Large hen's) for this event. Eggs will be numbered and/or uniquely marked to indicate their source.
- 2.4.2 Egg identification will be recorded on the flight card at the time of issue.
- 2.4.3 Contestants must notify the contest officials a minimum of one day in advance of their flights, including the number of eggs required and number of planned flights.
- 2.4.4 Eggs will not be screened for weight or diameter for this event.

## 2.5 Returns

- 2.5.1 All entries shall be returned following their flight for egg inspection.
- 2.5.2 Egg enclosures shall not be opened until presented for post flight inspection

## 2.6 Scoring

- 2.6.1 The number of eggs carried will determine an altitude factor, refer to Table 1. The actual measured altitude will be multiplied by the altitude factor to determine the flight score.
  - A) Flights with no damaged eggs will use the second column to determine the altitude factor.
  - B) Flights with damaged eggs will use the third or fourth columns to determine the altitude factor.
- 2.6.2 The highest flight score for a qualified flight by a contestant will be considered for placing.
- 2.6.3 The highest flight score for a qualified flight shall be declared the event winner.

Table I. Altitude Factor

Number of Eggs	Altitude Factor (all undamaged)	Altitude Factor (damaged eggs)	Altitude Factor (damaged eggs)
2	1	0 (any damaged eggs)	
3	1.2	0 (any damaged eggs)	
4	1.5	.5 (1 damaged egg)	0 (>1 damaged egg)
5	2.1	1 (1 damaged egg)	0 (>1 damaged egg)
6	3	1 (up to 2 damaged eggs)	0 (>2 damaged eggs)