

# NAR JUNIOR HIGH POWER PARTICIPATION PROGRAM

## APPLICANT INFORMATION

Name: \_\_\_\_\_

First

Last

Address: \_\_\_\_\_

Street

Apt.

City

State

ZIP

Birth Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
MM DD YYYY

Phone Number: (\_\_\_\_) \_\_\_\_\_

NAR No.: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

I, \_\_\_\_\_, certify that I am a member in good standing of the National Association of Rocketry. I am 14 years of age or older. I understand that I must comply with all applicable federal, state, and local laws or regulations during and after this flight attempt.

Signed: \_\_\_\_\_, Date: \_\_\_\_\_

I, \_\_\_\_\_, declare that I am a legally recognized adult guardian of the above NAR member, and authorize their participation in this rocketry activity. I understand that I must ensure that all applicable federal, state, and local laws or regulations are followed during this flight and subsequent flights, until the flier reaches the age of 18.

Signed: \_\_\_\_\_, Date: \_\_\_\_\_

## FLIGHT INFORMATION

Date: \_\_\_\_\_ Location: \_\_\_\_\_ Propulsion: \_\_\_\_\_

NAR HPR Certified Flier of Record: \_\_\_\_\_ NAR #: \_\_\_\_\_

## CERTIFICATION CHECKLIST (Completed by the evaluation team)

### Preflight

FAA waiver available(if required)

Safety checklist completed(see back)

Motor is certified

### Flight

Flight was stable

Recovery system deployed

Safe recovery

### Post Flight

Airframe did not sustain major flight damage or airframe zipper

Motor present post flight

Successful Flight?  Yes

No

## CERTIFICATION AFFIDAVIT (Successful flights only, completed by evaluation team)

The undersigned, being members of the National Association of Rocketry have witnessed a flight by \_\_\_\_\_, NAR # \_\_\_\_\_, and the flier has adequately demonstrated the knowledge and skills needed to safely participate in the flight activities of high power rocketry with an installed impulse of up to 640 N-sec. when supervised by an adult flier who is HPR certified at L1 or greater.

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

NAR # \_\_\_\_\_ Membership Expires: \_\_\_\_\_ HPR Certification Level \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

NAR # \_\_\_\_\_ Membership Expires: \_\_\_\_\_ HPR Certification Level \_\_\_\_\_

Cut along dotted lines

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### NAR Junior HPR Participation Verification

Name: \_\_\_\_\_

NAR No.: \_\_\_\_\_ Expiration date: \_\_\_\_\_

Participation Level: "1"

Witnessed by: \_\_\_\_\_  
Authorizing Signature

Witnessed by: \_\_\_\_\_  
Authorizing Signature

Void 1 year after flight date or on expiration date, whichever comes first

Send completed forms (with tests, if applicable) to:

**National Association of Rocketry**  
**P.O. Box 407**  
**Marion, IA 52302**

## HI-POWER ROCKETRY CERTIFICATION CHECKLIST

<p>Is the nosecone or payload shoulder sufficiently tight to prevent drag separation? The nosecone or payload should not wobble side to side or separate from its own weight. Is a vent hole needed to relieve pressure for high altitude flight? Do stage couplers fit snugly to prevent bending or separation during flight?</p>	
<p>Is the body tube thickness adequate to withstand high power flight (typically .050 inch walls or thicker)? Is there pre-existing damage which may weaken the model structure (e.g. tube crimps)? Are screws and fasteners tight, if used?</p>	
<p>Are the launch lugs securely fastened to the model?. Verify no cracking of adhesive joints. Is the launch lug(s) appropriately sized for the model, typically 1/4 inch or larger diameter? Will the launch lugs bind on the launch rod? Taped on launch lugs are not permitted.</p>	
<p>Is (are) the motor(s) sufficient to safely fly the model? Use motor manufacturer's recommendations or recommended motor lists for similarly sized models as a starting point (Also consider model weight, configuration, and finish when evaluating motor capabilities). Is (are) the rocket motor(s) either NAR or Tripoli certified? Motors must be currently certified to be used.</p>	
<p>Is the rocket motor firmly restrained in the model? Check for engine mount integrity to prevent a "fly through" (Is a thrust ring used?). Check for a motor hook or similar motor restraint. Carefully check taped or friction fit motors for tightness. Ask the modeler what adhesives were used during assembly.</p>	
<p>Are the fins fully secured to the model? Check for looseness or cracking at the fin to body tube junction. "Thru the wall" construction is recommended for high power models. Is the fin material compatible with the motor thrust range (1/8 inch minimum plywood is recommended for high power models)? Ask the modeler how his fins are mounted, what adhesives were used (epoxy is preferred), and what fin material was used. Are the fins mounted parallel to the roll axis of the model? Are any warps present which may cause erratic flight?</p>	
<p>Is the model stable? If stability is in doubt require proof of the CG and CP locations. Ask the modeler to show the CG and CP locations and how they were determined.</p>	
<p>Will the model exceed the FAA waiver altitude? Verify compliance by comparing model weight and power with charts/tables (if available) or by calculation. Ask the modeler what the expected performance is and how he made his determination(e.g. computer simulation, similar models)</p>	
<p>Inspect the recovery system. Verify that the shock cord is not cut or frayed and free of burns. Are the shock cord mounts securely mounted to the model? Are sharp edges present which may cut shock cords, parachute risers, and suspension lines? Is hardware, e.g. swivels, screw eyes, sufficiently strong to withstand recovery loads. If required, perform a pull test on the recovery system. Is parachute protection (e.g. wadding) adequate? Check for parachute damage, e.g. tears, burns, which may spread during recovery.</p>	