

## **Parker Model Rocket Club**



Dear Parker Parent,

The Parker Model Rocket Club is starting its seventh year this fall. This year we are again focusing on the Team America Rocket Challenge (TARC) contest, which is described in more detail in an attached flyer. I expect to enter two or more teams from Parker in the contest. We will be meeting after school at Parker on Tuesdays from 3:40 to 4:50 PM in room 62, and will also hold practice launches on some weekends. We will meet weekly through the end of the school year.

Students who do not wish to participate in the contest or in the non-TARC team are welcome to attend meetings and launches, and, depending on the arrangements made for the launch field, launch their own rockets with us. No activity fee is required for non-team-members. However, much of our activity will be centered around the TARC contest. Students are also welcome to check out the club for a while before deciding whether or not to join a TARC team.

Students are not required to attend every meeting and launch as long as they stay in contact with the rest of their team; I expect that many will need to take time out for sports and other activities. However, it's best if they can attend as we will be learning a lot of rocket science in the fall and working hard to construct contest rockets through the winter.

I've attached a Parker Consent and Release Form for which we need a signed copy for each student who participates in club activities. Also attached is a TARC Consent and Release Form for which we need a signed copy for each student who participates on a TARC team.

As in previous years, we will collect an activity fee from each student to fund the teams. Please see the attached budget sheet for a discussion of the activity fee and the activity fee form. Parker's policy is that fees should not present a barrier to any student participating in school activities. To this end Parker Student Services has an after-school scholarship program funded by the PEF for families who find activity fees a hardship. If this activity fee is at all a hardship for you, please do not hesitate to contact Terry Weisinger for more information on the scholarship program.

If you have any questions or concerns, please do not hesitate to contact me via email to [stevebyan@mac.com](mailto:stevebyan@mac.com) or by phone at 978-486-4241. Thank you.

Sincerely,

Stephen M. Byan

<b>TARC Budget per Team</b>	
<b>Team registration fee</b>	\$105.00
<b>Perfectflite altimeter</b>	\$64.95
<b>RockSIM simulation software</b>	\$123.60
<b>rocket parts for four rockets</b>	\$130.00
<b>rocket engines for 36 flights</b>	\$466.20
<b>Handbook of Model Rocketry</b>	\$17.00
<b>misc supplies (paint, wadding, tracking powder, etc)</b>	\$100.00
<b>per-team share of common equipment expenses (spare altimeter, launcher, etc)</b>	\$50.00
<b>Total cost per team</b>	<b>\$1,056.75</b>
<b>Fee per student assuming six team-members</b>	\$176.13

Our expenses are about the somewhat higher than last year, assuming the students choose the most economical rocket engines. The engines we have used in the past have almost doubled in cost, so we may exceed the budget if they choose to use the familiar rocket engines. The cost of the simulation software has also increased this year.

I'm unsure of the number of students per team; my guess is that we'll be fielding two or three teams with somewhere between five and six members. I believe we have a small surplus from last year so I am setting this year's TARC activity fee to \$150 per student with a maximum of \$300 per family. For comparison, note that the Parker sports teams ask for a \$225 activity fee.

Please make your checks for \$150.00 payable to the "Parker School", include "Model Rocket Club fee" in the memo field, and put them in an envelope addressed to **Diane Kruse**. You may either mail them to Parker attention Diane Kruse or have your kids give them to Bridgit in the Parker office and ask her to put it in Diane's mailbox.

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## **TEAM AMERICA ROCKETRY CHALLENGE**

### **\$60,000 in Annual Prizes for Students & Schools**

- This event is an annual nation-wide rocketry-based aerospace design and flying challenge competition for student teams of 7<sup>th</sup>-12<sup>th</sup> graders.
- It is conducted each year starting in September, leading to a competitive face-to-face fly-off in mid-May among the top 100 teams. The prizes are \$60,000 in cash plus a free trip to the Paris Air Show for 1<sup>st</sup> place. The fly-off is held at The Plains, VA, near Washington, DC.
- It is sponsored by the Aerospace Industries Association (AIA) on behalf of America's aerospace industry, and by the non-profit National Association of Rocketry (NAR).

### **PURPOSE**

The purpose of the Challenge is to teach students aerospace science and systems engineering by having them design and build a safe and stable model rocket that lifts a fragile payload (one raw egg) to exactly 750 feet and has a flight duration of 48 to 50 seconds, at the end of which it returns this payload to earth safely and undamaged using a 15-inch diameter parachute as its recovery system.

- Models must be made of non-metal materials such as balsa, paper and plastic, must weigh no more than 650 grams at liftoff, and must use commercially-made, NAR safety-certified model rocket motors in power class "F" and below widely available in local hobby stores.
- Altitudes are determined by a small, accurate commercially-made electronic barometric altimeter carried within the rocket, and read after the flight.

### **ELIGIBILITY & ENTRY**

- Entry is open to groups of 3 to 10 students (7th - 12th grade) who must enter as a team sponsored by a public or private school, home school association, or non-profit youth group.
- Visit the event website <[www.rocketcontest.org](http://www.rocketcontest.org)> to register. Entry opens in early September and closes 30 November. Visit the NAR website <[www.nar.org](http://www.nar.org)> for information about America's largest sport rocketry organization and check out the "Educational Resources" web page while you are there.

## **Parker Model Rocket Club Consent and Release Form**

### **Permission to participate in club rocket launches:**

I grant my child, \_\_\_\_\_, permission to participate in model rocket launches with the Parker Model Rocket Club. I hereby release Steve Byan, Diane Kruse, and the Parker School from all claims, demands, liabilities, damages, costs, and expenses that I may now or hereafter have arising in connection with my child's participation in the model rocket launches. I understand that normal safety precautions will be taken, launches will be conducted following the NAR Safety Code, and that students are expected to act responsibly.

The club plans to hold a number of weekend TARC practice launches. The dates and times for these launches will be communicated to students and families via email and information sheets handed out at the meetings. This form provides blanket permission for students to participate in any and all after-school or weekend launches.

Parent/Guardian Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **Parker Model Rocket Club Parent email contact information**

Email is our primary means of informing students and parents about club activities. If you wish to be included on our email list to receive notifications of upcoming meetings, meeting cancelations, and upcoming rocket launches, please provide your email address below.

Parent email address(es): \_\_\_\_\_

### **Your student's T-shirt size**

Men's S	Men's M	Men's L	Men's XL	Men's XXL
Women's S	Women's M	Women's L	Women's XL	Women's XXL

## TARC 2013 Parent/Guardian Consent & Release Form

*A form must be completed for each student participant. Application will not be processed without receipt of all students' Parent/Guardian Consent Forms. It must be typed, or printed legibly. This section is to be completed and signed by a Parent or Guardian. If the student is 18 years of age or over they should complete and sign the form themselves.*

I authorize my child (Full Name of Child), \_\_\_\_\_  
to participate in the Team America Rocketry Challenge.

He/She attends \_\_\_\_\_ (school)

I certify that my son/daughter is in \_\_\_\_\_ grade and is \_\_\_\_\_ years old.

I hereby release Aerospace Industries Association and/or National Association of Rocketry and their respective member companies, affiliates, Board of Governors/Trustees, licensees and assigns from all claims, demands, liabilities, damages, costs and expenses that I may now or hereafter have against Aerospace Industries Association and/or National Association of Rocketry arising in connection with student's participation in the Team America Rocketry Challenge.

I hereby grant to Aerospace Industries Association and/or National Association of Rocketry and their respective member companies, affiliates, Board of Governors/Trustees, licensees and assigns the right to photograph and/or videotape and use the videotape and/or photograph of the below named student during participation in any events related to the Team America Rocketry Challenge and the right to use this media without further compensation to me or student or any limitation whatsoever.

Parent/Guardian Name: \_\_\_\_\_

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

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Day: \_\_\_\_\_ Evening: \_\_\_\_\_ Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

Supervising Teacher/Adult: \_\_\_\_\_

Organization/SchoolName: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_