Dear Team America Contestant,

Congratulations! Your team's performance on your local qualification flight has earned you one of the 100 invitations to attend the Team America Rocketry Challenge fly-offs the weekend of May 16-18, 2008 in The Plains, VA. There were 643 teams entered, covering 43 of the 50 states, and yours was one of the 100 best. You can be proud of your achievements in aerospace design and rocketry.

Please fill out and return <u>ALL</u> forms in the Attendance Confirmation & Registration Materials package (Appendix A.) Please be sure to <u>fax AND mail</u> these forms to us. <u>If we do not receive all forms from</u> <u>your team by Friday, April 25, 2008, we will have to offer your spot to one of the alternate teams.</u> If you will not be able to attend the fly-offs, please let us know as soon as possible so that we may offer your spot to one of these alternate teams. Remember that the exact model you fly at the fly-off must have previously been test-flown successfully.

The enclosed information should answer your questions about procedures, lodging, and other aspects of the fly-off. It also addresses many of the questions that we have been receiving from teams over the last several months concerning event rules, legal rocket designs, etc. Please read the entire document carefully. This contestant letter explains and interprets things from the contest rules that have led to questions from contestants. In case of conflict, the official rules take precedence.

Please contact us at <u>rocketcontest@aia-aerospace.org</u> if there are things that you need to know about registration that are not covered by this letter. Check our website <u>www.rocketcontest.org</u> and the NAR website <u>www.nar.org</u> for updates on this event. If you have questions, please ask them by posting a question at http://groups.yahoo.com/group/NARTARC (NAR/TARC Yahoo Group), our online forum. We check this every day, and would like to answer your questions in public for everyone to benefit.

Please **fax AND mail** your Team Confirmation of Attendance and Appendix A forms to:

FAX: 703-358-1133

Mailing address:

Aerospace Industries Association Team America Rocketry Challenge 1000 Wilson Blvd. #1700 Arlington, VA 22209 ATTN: Audrey Koehler

We look forward to meeting you at the fly-offs!

Sincerely,

audunkoch

Audrey Koehler TARC Coordinator Aerospace Industries Association (AIA)

Trip Bark

Trip Barber Vice President National Association of Rocketry (NAR)

TEAM AMERICA ROCKETRY CHALLENGE - TABLE OF CONTENTS

Attendance	3
Team Membership Changes	3
T-shirts and Barbecue	3
Directions	4
Travel & Lodging	4
Rocket Engines	6
Schedule	6
Fly-off Procedures	
NAR Membership and Insurance	9
Rocket Design and Construction	10
Memo for Traveling with Rockets	
Instructions for filling out the Team Press Release	13
Team Press Release	14

IMPORTANT TEAM AMERICA CONTESTANT INFORMATION

ATTENDANCE

Teams that are selected to attend the fly-off <u>must confirm their participation</u> by returning the enclosed confirmation form to Team America Headquarters, so that we receive it no later than **Friday, April 25, 2008**. "Alternate" teams will be notified no later than Tuesday, April 29, 2008. This will be based on how many spots become available from "primary" teams being unable to confirm their attendance by the deadline. We ask that any team that attends do so with an adult chaperone, preferably the supervising teacher, and at least one of the students; it is not mandatory that every student team member attend, but the more the better.

TEAM MEMBERSHIP CHANGES.

You may not add team members after your initial qualification flight attempt. Please notify us in writing if you choose to drop team members. All team members who are registered as of the date of the fly-off (regardless of whether they attend the fly-off) will share equally in any prizes awarded to a winning team. Under most circumstances, all team members on the final team must have made a contribution to the designing, building, and/or launching of the team's entry.

SPECIAL AWARDS

In addition to the prizes and places based on rocket flight performance, 5 teams will be selected by judges who are observing all the teams on the field on the day of the Finals for receipt of plaques at the end-of-day awards ceremony for the following special characteristics:

Best Rocket Craftsmanship Most Entrepreneurial Team (including publicity and fund-raising efforts) Best-Dressed Team (uniform/costume) Spirit of TARC (combination of teamwork, sportsmanship, team spirit) Best Design (includes overall approach to mission)

T-SHIRTS

We have designed a NEW T-shirt this year especially for the finalists in the Team America Rocketry Challenge and available only to team members and supervisors for these teams. It includes a Team America Rocketry Challenge logo specifically designed for the fly-off. It is available for advance-order only, at a price of \$15. If you wish to purchase T-shirts, please indicate the number (by size) on the confirmation form and enclose payment (payable to "AIA") when you send this form in. Shirts that you order will be issued upon arrival, at the registration tables that will be set up at the contestants' pre-flight briefing on Friday evening (explained below) and at the flying site on Saturday.

POST CONTEST BARBEQUE

We will end the day with an optional barbeque dinner after the award ceremony where teams, NAR and AIA range crew volunteers, and special guests can relax together after a busy day of flying. Much of the cost of this dinner event is subsidized by our sponsors, but there is a small per-person charge of \$10 for anyone who attends the BBQ in addition to registered team members and the team supervisor/adult chaperone (one per team). If you wish to purchase tickets for family members or other guests, please indicate on the confirmation form the number of additional tickets needed and include that amount in your team payment. Tickets will be included with your registration packet.

DIRECTIONS

Local Transportation. Teams must provide their own transportation (rental vehicle) to get from the motel to the launch site, and to/from any airport. The nearest major airport to the flying site and to the motels in Manassas is Washington Dulles (IAD), 17 miles away. Baltimore-Washington International (BWI) is 70 miles from the motels and Reagan National (DCA) is about 35 miles. In planning your travel, please keep in mind that I-66 westbound from the DC area to Manassas and beyond is very heavily congested and very slow-moving by 2 PM on Fridays.

Motels. The designated Team America motels with our group reservations are all at I-66 Exit 47 in Manassas, VA. Take Highway 234 (Sudley Road) south at this exit, except for the Four Points Inn, which is on the north side at this exit. The motels are within the first two blocks after the exit. There are many restaurants in this same area.

Friday Evening Contestant Briefing & Registration. The Friday evening allcontestant registration and briefing is at 7:30 PM at the auditorium of Battlefield High School, 15000 Graduation Drive, Haymarket, VA 20169, about 9 miles from the motels. This could be up to a 30-minute drive on a Friday evening on I-66. To get there, go west on Interstate 66 from your motel toward the launch site (the traffic in this direction is SLOW on Friday evenings!). 7 miles down I-66, take Exit 40. Turn right (north toward Leesburg) at this exit and proceed 1.9 miles to the third stoplight. Turn right at this light (Dominion Valley Drive will be to your left at this light) onto Graduation Drive and the high school is immediately on your left. The entrance to the auditorium will be marked with a "Team America" banner. This is NOT the same location as last year's briefing.

Saturday Launch Site. The launch site is Great Meadow Field Events Center, just south of the tiny town of The Plains, Virginia. To get there, take I-66 exit 31 (which is 16 miles west of the Manassas motels, toward Front Royal), turn left on Highway 245 (<u>away</u> from the town of The Plains and toward Old Tavern) and follow the signs about 2 miles to Great Meadow, which will be on your left.

TRAVEL AND LODGING.

Funding. There are no additional event fees for those teams selected for the fly-offs except for optional T-shirt purchase, however travel expenses to attend are the responsibility of

each team. The entire team does not necessarily have to come to the fly-off, although we expect at least one member plus the supervising teacher to attend.

Sponsorship. We are working with the aerospace industry, encouraging them to sponsor teams and help defray their travel costs for attending the fly-offs. We are providing the name and phone/e-mail of each team's teacher to these sponsors and they will make direct contact with the teams that they wish to sponsor. There is no guarantee that every team will be sponsored, so we recommend that teams solicit sponsorships from businesses in their communities. Remind your sponsors that they may get national media coverage if you win the contest!

Launch Site Parking. There is a huge amount of parking at the launch site, all of it close to the launch range. A local Scout group will manage access to parking, which is free.

Motels. Teams are responsible for making their own lodging arrangements. There are many motels in Manassas, VA, and this is the nearest place to the fly-off site that has a significant number of motels. We have reserved blocks of rooms (mostly non-smoking with two beds) at the following motels, all of which are located within two blocks of the I-66 Exit 47 interchange with Highway 234/Sudley Road. These are reserved under the group name "Team America Rocketry Challenge" for the nights of Friday, May 16 and Saturday, May 17. Please call and book early, as these rooms will be released on April 25 if not reserved by then. Those needing rooms must call in and reserve using individual credit cards. Tax on rooms adds 10% to the rates below. All motels are within two blocks of each other and are surrounded by restaurants and shopping. If you wish to make hotel reservations at places other than those listed below, you should pick among the many hotels that are near this same highway intersection/exit in Manassas.

At I-66 Exit 47B (Highway 234 North) in Manassas:

Four Points by Sheraton Manassas - 10800 Vandor Lane, Manassas, VA 20109 - (703) 335-0000. This is freshly renovated and is the nicest of the TARC motels. 25 rooms - \$119.00 + tax

Three other slightly more expensive motels are also located at this exit: Courtyard by Marriott (703)335-1300; Country Inn & Suites by Carlson (703)393-9797; and Fairfield Inn & Suites by Marriott (703)393-9966.

At I-66 Exit 47A (Highway 234/Sudley Road South)in Manassas:

Best Western Battlefield Inn - 10820 Balls Ford Rd., Manassas, VA 20109 - (703) 361-8000 50 rooms - \$99.00 + tax

Quality Inn Manassas - 10653 Balls Ford Road, Manassas, VA 20109 - (703) 368-2800 50 rooms - \$74.00 + tax

Red Roof Inn Manassas - 10610 Automotive Drive, Manassas, VA 20109 - (703) 335-9333 40 rooms - \$81.99 + tax Two other slightly more expensive motels are also located at this exit: Comfort Suites (703)686-1100; and Hampton Inn (703)369-1100. There is also a Super 8 Motel at this exit, which should be avoided based on previous years' experience.

Food Service. There are many restaurants within 2 blocks of the motel area. A free pastry breakfast will be available to team members of early-flying teams on the flying field from 6:30 AM to 9:00 AM on the day of the fly-offs. There will be a food and beverage vendor on the field for lunch for both contestants and spectators. Student contestants and team supervisors with credential badges will receive a free lunch that will be available starting at 11 AM, and a free ice cream dessert at an "ice cream social" that will start at 1:30 PM. Punches will be made in TARC credential badges for each of these; there are no meal "tickets". There will be free water available throughout the day at the NAR Information tent next to the entrance gate to the flying area of the field. Please do not bring cooking devices to the field, but coolers are OK - no glass bottles. We will end the day on Saturday with a barbeque dinner after the award ceremony where teams, NAR and AIA range crew volunteers, and VIP's can relax together after a busy day of flying.

SCHEDULE

Friday Daytime. The staff of Team America will be out at the launch site at Great Meadow from 10 AM until 4 PM on Friday, setting up the flying range and making other preparations for the flyoff. Teams may come out to look the field over during this time, but NO TEST FLIGHTS can be supported and there are no other test-flying sites available locally.

Friday Contestant Briefing. Teams should plan to arrive in Manassas, Virginia on Friday, May 16, in time to be at Battlefield High School in Haymarket (9 miles from the hotels in Manassas) well before 7:30 PM. There will be a 7:30 PM to 9:00 PM all-contestant briefing at the auditorium of this school. Event registration packets, rocket engine orders that were made in advance to the official TARC on-site vendor Hangar11 Hobbies, and rockets shipped ahead to Aurora Flight Sciences to be held for teams, will all be available for pickup at this event starting ninety minutes before the briefing, at 6:00 PM, and will also be available on the flying site Saturday morning. We will make and announce the decision at the Friday contestant briefing if the weather forecast for Saturday is so unfavorable (heavy rain or wind above 20 miles per hour) that the flyoff must be postponed to Sunday.

Saturday Flying Schedule. Teams assigned the first fly-off "launch window" time slot (6:30 AM check-in opening, 8:30-9:30 AM liftoffs) should plan to be at the flying field by 6:30 AM on the day that flying occurs (May 17). See "Time Management" below for more explanation of these "launch windows". Other teams may choose to arrive later than this, but each team should arrive at least an hour before its assigned rocket check-in time. All teams should plan to remain at the flying site until the conclusion of the award ceremony at 6 PM on fly-off day. The barbecue after the award ceremony should end by 8 PM Saturday. Teams should be flexible enough in their plans to be able to stay for a May 18 (Sunday) fly-off if bad weather on Saturday forces postponement of the planned flight day of May 17.

APPROVED ROCKET ENGINES.

Your rocket must be powered only by commercially-made model rocket engines that are safetycertified by the NAR and listed on the **final** NAR Engine Certification List attached to this letter. These engines must be G power level and below, no more than 62.5 grams propellant mass each, and there is a 125 grams total propellant mass limit among all engines.

Engine Vendor Support. Hangar11 Hobbies will be onsite at the fly-offs as a rocket engine vendor. They have both Estes engines of all types and most of the E, F and G engines that Aerotech and other manufacturers now have in production. **IF YOU CANNOT TRAVEL BY AUTO TO THE FINALS WITH YOUR ENGINES (see below) YOU SHOULD ORDER THEM IN ADVANCE FROM HANGAR11, FOR DELIVERY ON-SITE AT THE FLY-OFF.** Do not assume that Hangar11 will have engines in stock on the field that you did not order in advance. They will be the only on-site vendor. Hangar11 can be reached at:

Hangar11 Hobbies, Inc. 24 Hallock Drive Suite 1 Washingtonville, NY 10992 www.hangar11.com (845) 926-1959

Transportation. It is ILLEGAL to put model rocket engines, igniters, or other pyrotechnic materials in your baggage on an airplane, **DO NOT TRY THIS**. It is also illegal to ship a rocket motor by UPS or USPS without disclosing to the shipper that you are doing this and these shippers will not accept motors for shipment by private individuals.

Shipping Rockets and Launch Equipment. You may ship your model rockets and launching equipment to us and they will be given to you at the contestant briefing on May 16. A vendor with the proper license may also ship engines that you have ordered to this location. Make sure you use a shipper that utilizes a tracking system to confirm delivery of your rocket.

Trip Barber/Team America c/o Aurora Flight Sciences Corporation 9950 Wakeman Dr. Manassas VA 20110 Hold for Team America Team #____, ____ High School

FLY-OFF PROCEDURES.

Preparation Area. There will be a marked-off area at the launch site close to the flying range that is designated for "teams only". This is where your team should go, and park, upon arrival on the field. There will be a row of tents with worktables available for your use in prelaunch rocket preparations, or you may operate out of your vehicle or a tent that you set up next to your vehicle.

Time Management. Each team will be assigned a one-hour "launch window," preceded by a one hour "prep window". **These time assignments will be posted on our website www.rocketcontest.org no later than May 9, 2008, and are not negotiable. You must fly during your assigned window.** Between 18 and 24 teams will be assigned to each one-hour window period, and each may fly at any time during that period. You will not be allowed to set up your rocket or launch system on the flying range until your prep window time slot begins, the hour before the launch window. You should plan to be issued your eggs and to present your rocket to us for pre-flight safety and rules-compliance inspection prior to this prep window. This means that you should plan to be on the flying field at minimum of an hour prior to your prep window (two hours prior to launch window) -- earlier if you still need to do registration on the field because you were not at the Friday evening contestants' meeting. The first launch window will open at 8:30 AM on the fly-off day (with a 7:30 AM prep window), so teams who get assigned this window should be prepared to be on the field by 6:30 AM on Saturday, May 17.

You must fly your rocket during the one hour launch window, and will be disqualified and must clear the pad if you fail to achieve liftoff during this window. Misfires are not an excuse for missing an assigned launch window -- so do not wait until the last moments of your window to fly.

The top 18 teams based on scores from first flights (all of which must be completed by 1:30 PM) will be asked to make a second flight during a final "flyoff" round to be held between 3:00 PM and 4:00 PM. These 18 teams will be notified as soon as possible after 1:30 PM. The top 18 places in TARC 2008 will be awarded to these teams, ranked on the basis of the SUM of the scores from their two flights. Any team among the 18 that cannot make a second flight will be ranked behind all teams that do make a second flight. The remaining places below 18th will be ranked on the basis of first flights only.

Students Only. All elements of rocket design, preparation, and flight are to be done by student members of teams. Only student team members -- no teachers, mentors, parents, or non-team members -- may go onto the flying field, pad, or approach the pad which includes assisting with rocket preparations before flight. Anyone can help on recovery if the rocket drifts outside the main flying field area.

Primary and Backup Models. We recommend that you bring two models to the flyoff, if possible. If your primary model's egg section lands in a tree, power line, or other dangerous place where it is visible to the judges but cannot be recovered safely, or if you experience a rocket engine catastrophic failure as judged by the Range Safety Officer (burst engine or complete failure of the ejection system, with the cap still retained in place on the ejection charge), or if you have an altimeter failure (an altitude reading of greater than zero but less than 50 feet after a normal qualified flight) the judges may allow you to have a second flight. Otherwise only one flight attempt is allowed. If a rocket clears the pad and becomes airborne, this is considered a "flight attempt". If there are any "backup" flights allowed, there will be a few time slots reserved for this purpose in the last first-flight launch window of the day (12:30-1:30 PM).

Equipment. The launch system provided for contestant use will have individuallyassigned, well-spaced pads with a single, 6-foot-long, 1/4-inch diameter launch rod on an adjustable pivot and one pair of high-current 12-volt electrical igniter leads with a single pair of micro-clips at the end. These will provide enough current from our launch system from a car battery through 60 feet of 16-gauge wire to light any igniter or cluster of up to 4 igniters. Teams are not required to use the launch system and rod that we provide. They may bring their own launch pads, towers, rails, or other hardware, "clip whips" to light clusters of motors from our single pair of micro-clips on the ignition wires, and even their own electrical launch systems if they need anything different from what we provide. Such individual launch systems must comply with the NAR Safety Code requirements and will be subject to our safety check and approval. A minimum rod diameter of ¹/₄ inch and rod/rail length of 6 feet is required.

Returns. All teams that have a safe and otherwise qualified flight must return the section of their model that contains the eggs and altimeter to the "Returns Table" for post-flight inspection of the egg and recording of altimeter reading. This must be done no later than 2:00 PM for first flights, which is 30 minutes after the final "launch window" for the first-flight rounds closes; and it must be done by 4:30 PM for flights from the final flyoff round. We will have several 35-foot extendable poles available to assist teams in plucking rockets from trees if this unfortunate circumstance occurs.

NAR MEMBERSHIP AND INSURANCE

You are not required to be a member of the National Association of Rocketry to participate in this contest as a teacher or team member. But we certainly encourage membership, and you may need to become a member if you need insurance coverage for rocket flying in addition to whatever coverage may be provided by your personal insurance.

Your NAR membership includes personal liability insurance to cover YOU against liability claims from rocket activities conducted in strict accordance with the NAR Safety Code. This individual insurance does not cover others (such as your school or the owner of your launch site.)

If your school, school district, or other landowner of your rocket launch site requires liability insurance, your team can obtain "site owner insurance" coverage for this potential liability by having your teacher and at least three student members of the team members join the NAR and then having the teacher order "site owner insurance" from NAR Headquarters. This insurance is not available to provide personal coverage for school officials, only for the legal owner of launch sites. This additional coverage costs \$15 per entity insured and requires filling out either an online form or a mail-in form, both available at the Team America section of the NAR website.

ROCKET DESIGN AND CONSTRUCTION.

First and foremost, read the Model Rocket Safety Code of the NAR, and the Team America rules, very carefully. These answer many questions about what is allowable and what is not. We have been asked many questions of interpretation, and have provided answers both individually and via the FAQ on the website. If you are in doubt about your design's compliance with our rules, it is better to ask us early than to find out at the fly-off that what you did is not allowable. Remember that your rocket cannot weigh more than 1500 grams at liftoff (with egg and rocket engines), or contain more than 125 grams of propellant in total in all of its rocket engines.

Some of the common topics of questions we have been asked about rocket designs have been:

Design Changes. You are free to change your team's design in any manner that you wish up until the moment you check in at the fly-off. You are not required to use the same design that you flew for your "qualification" flight. But if you plan to fly a new rocket design at the fly-offs, it must have been test flown before the flyoff. <u>All rockets flown at the flyoff must have been test-flown previously</u>.

Engine Selection. Make sure that you have or can get the rocket engines you plan to use with your design at the fly-off, or change your design to suit the engines that you <u>can</u> get. Many teams are having problems with very slow liftoffs that make their rocket vulnerable to tipping over in flight ("weathercocking") in windy conditions. This is the result of an inadequate thrust-to-weight ratio for the rocket. If the average thrust of your engine(s) in <u>Newtons</u> (the unit of measurement of thrust that is labeled on the engine) is not greater than 20 times the liftoff weight of the rocket in <u>pounds</u>, then your rocket is underpowered and may weathercock. For example if you are using 3 Estes D12 engines, the average thrust is $3 \times 12 = 36$ Newtons. 36 divided by 20 is 1.8, so this cluster of three engines should provide enough thrust for safe liftoff of a rocket weighing up to 1.8 pounds. One D12 cannot safely lift more than 0.6 pounds. This is a rough rule of thumb for your use in safe rocket design, not a rule that we will enforce at the fly-offs.

Staging. Use of more than one stage is not permitted this year.

Commercial vs Custom Parts. The flight vehicle must be made by the student team members. You may use commercially-available "off the shelf" component parts (body tubes, nose cones, egg capsules, etc.) and may adapt rocket kits for the event -- or you can scratch-build components if you prefer. If some company should release a kit specifically for this event or for the NAR "Eggloft" contest event you would not be allowed to use such a kit. Having a custom flight vehicle part fabricated by a composite or plastics company or custom wood machining company (even if it is to your design) does not constitute sale of a "standard off the-shelf product" and is not allowed. Having a mandrel fabricated to your specifications that you wrap fiberglass on to make your rocket body (for example) would be OK. In this case the company is making a tool that you are using, but you are making the part that flies.

Metal Parts. You may only use non-metal parts for the nose, body, and fins of your rocket, those parts that are the main structure of the vehicle. Fiberglass is OK. You may use miscellaneous metal hardware items such as screws, snap links, engine hooks, electronic circuit boards, and (if you wish) commercial re-loadable metal rocket engine casings.

Recovery. Your rocket may be recovered in several separate sections if you wish. Time will be recorded from the moment of liftoff to the moment that the first part of the portion of the rocket containing the eggs touches the ground, ceases its descent (e.g. lands in a tree), or disappears from the sight of the timers. We will ask a student team member to stand with our timers to identify which section of the descending rocket contains the eggs and should be timed. Each section or piece of the rocket must come down <u>safely</u>. A heavy piece (nose cone, body section, rocket engine casing, etc.) that falls to earth in a stable, non-tumbling/non-gliding mode at high speed without a recovery system of some kind (parachute, streamer, etc.) at any point in its recovery phase is not safe, and flights that have this happen will be disqualified for being unsafe. Note in particular that having a rocket engine casing pop out of your rocket in flight and fall separately without a recovery system, or separating the entire recovery system from the rocket during flight <u>will</u> result in a disqualification. The only part that must be returned to the event officials after the flight is the part with the eggs and the altimeter.

Rockets may not be controlled by human intervention; radio control is prohibited. If your rocket communicates with a ground-based computer during flight this computer must be handed over for custody to a designated event official during the rocket's flight and cannot be touched by a team member during the flight. Flight control systems carried onboard the rocket such as electronic or other forms of timers, altimeters, etc. that control duration in some safe manner are permitted.

Electronic parachute deployment or duration-control systems (e.g. "dethermalizers") must be SAFE. If they are designed to sense acceleration or deceleration of the rocket as the basis for starting an ignition or ejection sequence, then there is a great risk that they can trigger on the ground or in your hands if you drop or jog the rocket while carrying it. Such systems must have a power switch, plug, or other disconnect mechanism that permits you to maintain them in a completely "safe" configuration until they are placed on the launching pad, and will not be allowed to fly if they do not.

The field for the fly-off is not huge (see the site map posted on the www.rocketcontest.org website), so be judicious in your choice of recovery system size; if you deploy a large parachute and there is much wind on fly-off day, you could be watching your rocket's egg section land in the top of a tree and be forced to use your backup rocket for a second flight attempt. We will have some 35 foot poles to help pluck rockets out of the lower portions of trees, if you are unlucky on landing.





Aerospace Industries Association 1000 Wilson Blvd. #1700 Arlington, VA 22209

MEMORANDUM FOR AIRLINES AND TRANSPORTATION SECURITY ADMINISTRATION

Subject: Traveling with Rocket Models

The Aerospace Industries Association, trade association for the U.S. aerospace industry, and the National Association of Rocketry, the nation's non-profit educational organization for hobby rocket consumers, are co-sponsoring a national model rocket contest for secondary school teams on May 17, 2008, in The Plains, VA, near Washington, DC. Other partners of this contest include NASA and numerous aerospace companies. This event, called the Team America Rocketry Challenge, is the largest model rocket contest ever held; it has involved over 6,000 secondary school students on 643 teams from schools in 43 states.

The 100 best of the 643 rocketry teams from around the U.S. have been invited to travel and bring their rockets their rockets to compete in the final fly-off for selecting the national winners of the Team America Rocketry Challenge on May 17. The fly-off will be attended by senior NASA executives, Members of Congress, and the national media.

In order to attend the fly-off, many of the high school teams must fly to airports near Washington, DC. They must travel carrying the model rockets that they have worked so hard over the last year to design, build, and flight test. Their rockets are made of non-metallic materials: paper, plastic, and balsa wood. They are non-explosive and completely inert. The expendable single-use commercially-made model rocket engines that power them (which contain the only flammable materials in the rocket when it flies) are being provided upon their arrival. These cannot be shipped on aircraft.

Model rockets not containing engines are perfectly safe and inert, and bringing them onboard an aircraft does not violate any Federal regulations. If you have questions, please contact J.J. Gertler at the Aerospace Industries Association during business hours at (703) 358-1095.

INSTRUCTIONS FOR FILLING OUT THE PRESS RELEASE

Congratulations on making the Team America finals. We are looking forward to working with you to ensure that your local newspapers, television and radio stations know that you are representing your hometown at the finals on May 17.

A **press release** is enclosed to complete and send to your local media. You may want to assign one student on your team to be the **Team Press Liaison**, who will be responsible for filling and distributing the release, and making arrangements for local press to come and interview your team.

Please fill out the information needed and send copies out as quickly as possible. You may want to include quotes from team members and a photograph of the team at work on its model rocket. AIA is working to have national news coverage of the contest, and we will send out press releases to major media outlets, but we will not reach every local media outlet.

AIA will have camera crew at the event to tape and interview teams and send the footage via satellite to local television stations the day of the event. This is a great opportunity for your home town to see you in action at the finals of the Team America Rocketry Challenge. But, we need your help to get your local television station interested in following the contest and downloading the footage in their newsroom. Please let AIA know if local television stations are interested in covering your team.

Please keep your local media and your high school newspaper informed about your progress in the contest and encourage them to talk to the team and take photos of the students and the rockets they design.

See the following example on the next page for the press release. The **bold <u>underlined</u>** words need to be changed to reflect your town, high school and team names.

Team America Press Contacts:

Television: Lauren Airey, <u>lauren.airey@aia-aerospace.org</u>, 703-358-1078 Print and Radio: Matt Grimison, <u>matt.grimison@aia-aerospace.org</u>, 703-358-1076

FOR IMMEDIATE RELEASE

CONTACT: Joe Smith, Team Supervising Teacher 222-222-2222 smith@highschool.edu

"Real World" physics—

MAPLETOWN TEAM QUALIFIES FOR WORLD'S LARGEST ROCKET CONTEST

<u>Mapletown, NY</u> -- <u>Nine</u> students from <u>Mapletown High School</u> qualified to compete in the finals of the prestigious Team America Rocketry Challenge, the world's largest model rocket contest.

Over 6,000 students in 643 teams attempted to meet the contest's rigorous requirements of the contest, but only the top scoring 100 high school teams qualified to compete in the national contest.

Student team members include: Eric Johnson, Senior, Jan Whitmore, Senior, Josh <u>Reed, Junior, Keith Sullivan, Freshman, etc.</u> Eric Johnson said he was looking forward to the team's trip to Great Meadow, in The Plains, Virginia, for the May 17 national fly-off and expected his team would place among the top ten teams. The most difficult problem to overcome, <u>he said</u>, was <u>etc., etc., etc</u>. The best part about this contest, said <u>Josh Reed</u>, is <u>etc., etc.</u>

The contest requires that students design, build and test a model rocket that can fly for as close to 45 seconds total flight duration and 750 feet maximum flight altitude as possible with a payload of two raw eggs, and successfully parachute the eggs back to the ground unbroken. The top ten teams will share a prize pool of \$60,000 in cash, and the winning team will get a free VIP trip to the Farnborough Air Show near London in July.

Team supervisor <u>Joe Smith</u>, <u>Mapletown High School science teacher</u>, said the contest is an excellent opportunity for students to learn hands-on lessons in aerodynamics in a nonclassroom setting. Participants apply concepts of physics like computing trajectory and eliminating drag to their models and see the results immediately, <u>Smith said</u>. "There's a deep satisfaction in knowing things you have learned are helping launch something into the sky," <u>Smith said</u>. "This brings these concepts home to the real world for the students."

The project had the teams building rockets in a manner not too far off from professionals. The contest promotes teamwork, delegation of tasks and group decisions, <u>Smith said</u>.

The ambitious undertaking has costs, and the team is looking for sponsors to help defray the cost of hotel and travel to the Washington, DC area.