

Team America Rocketry Challenge

The Industry Challenge: *Tens of thousands of engineers will retire in the next decade.* In an effort to encourage students to study math and science and to consider related careers, the Aerospace Industries Association (AIA) and the National Association of Rocketry (NAR) created the world's largest model rocket design and launch contest, the Team America Rocketry Challenge (TARC).

TARC participants learn the basics of engineering design used by scientists and engineers in the real world. Students must design, build, and fly a model rocket that carries two raw eggs to an altitude of exactly 825 feet, stays airborne for 48 to 50 seconds, and returns to the ground by two parachutes with the egg payload uncracked. The process of designing, building, and flying a moderately complex flight vehicle teaches many concepts of teamwork as well as physics, engineering, aerodynamics, flight mechanics, stability, and electrical circuitry.

Now in its twelfth year, TARC is sponsored by AIA and the National Association of Rocketry, with co-sponsorship by NASA, the Defense Department, the American Association of Physics Teachers, and AIA member companies.

Guests: The day-long final competition includes *extended availability of prominent officials from NASA and DoD.* Many distinguished guests have attended the TARC Finals each year, including Secretary of Defense Robert Gates, Secretary of the Air Force Michael Donley and former Apollo 11 astronaut Buzz Aldrin. Previous year's finals also receive live national media coverage, including extended coverage on CNN, NBC and CBS.

Participation: Teams consist of three to ten students in 7th through 12th grades. After completing local qualification flights, the top 100 teams nationwide are invited to Virginia for a national final fly-off in mid May in The Plains, VA. The winning team competes in an international fly-off with the winner of the British and French versions of TARC in June 2014.

