



For Immediate Release

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Solar Vehicles Designed by 5th to 8th Grade Students Racing for Glory in Junior Solar Sprint

National Junior Solar Sprint is a “green” car-design competition that teaches principles of Science, Technology, Engineering, and Mathematics (STEM)

Washington, D.C. — June 25, 2015 — Next week, middle school students will race their custom solar vehicles in the national Junior Solar Sprint (JSS) competition near Dallas, Texas. The event will feature “green” cars designed and built by 5th through 8th grade students whose goal was to develop the fastest, most interesting, and best crafted vehicle possible.

Each JSS team was required to design and build a model car no larger than 30 cm x 60 cm x 30 cm. The cars must be powered by sunlight using a solar photovoltaic cell that converts the sun’s energy into electricity. Students must consider such critical factors as aerodynamic drag, rolling resistance, weight, and drive train when designing their cars for speed and reliability. In addition to the speed of the vehicle, they are judged on factors such as creativity and originality of design, quality of construction, and a project log that details the design details, drawings, and components.

More than 800 students from across the country entered regional Junior Solar Sprint competitions. Three large regional events were hosted by U.S. Army research laboratories, with other events at schools and other facilities. Approximately 200 students total progressed to the national competition, with three teams from the Army competitions joining about 80 teams from other regional events.

“Students thrive in environments where they create hands-on projects that have real-world applications,” said Louie Lopez, Army Educational Outreach Program (AEOP) Cooperative Agreement Manager, U.S. Army Research, Development, and Engineering Command. “That is exactly the environment that AEOP aims to provide young students through Junior Solar Sprint, one of the AEOP’s STEM competitions. It is through programs like Junior Solar Sprint that we try to encourage young students to pursue STEM disciplines and careers. Even though they’re young, these students at JSS recognize the need for high-performing vehicles that are energy-efficient. How exciting for them to see that their efforts can solve huge challenges for society. It gives them an appreciation for the concepts they’re learning in school. Plus – winning a race is always fun!”

“Students have an exciting opportunity to apply the scientific concepts they are learning in class to a real-world challenge with Junior Solar Sprint,” said Lynda Haitz, national program manager for JSS at the Technology

Student Association. “Kids develop teamwork and problem-solving abilities, investigate environmental issues, gain hands-on engineering skills, and use principals of science and math.”

Students who participated in Junior Solar Sprint said they benefitted in the following ways (among many others):

- I had fun. I learned new things, I worked with a team.
- Improvising (changing the design/plan)
- Learned the process: testing - changing - rebuild - collect data (repeat)
- Learned more about STEM careers – and I want to continue with STEM
- Persistence: lots of trial and error
- Learned about new STEM concepts: alternative energy, manufacturing and design skills, quality control testing
- Work as a team; have to sometimes let other people take the ropes

“Hands-on science and engineering, reinforced through programs like Junior Solar Sprint, helps middle school students grasp concepts like these. That’s our goal! We’re proud to continue to help shape our nation’s future generation of scientists and engineers with JSS and other AEOP programs,” said Lopez.

The 2015 national JSS competition will be held in conjunction with the national TSA conference, June 28 – July 2, 2015 at the Gaylord Texan Resort and Convention Center in Grapevine, Texas. Junior Solar Sprint is an AEOP program administered by the Technology Student Association (TSA) on behalf of the Army.

About AEOP

The Army Educational Outreach Program (AEOP) is comprised of Army-sponsored research, education, competitions, internships and practical experiences designed to engage and guide students as well as teachers in science, technology, engineering, and mathematics (STEM). From elementary school through graduate school, students of all proficiency levels, interests, ethnic, economic and academic backgrounds are encouraged to participate in real world experiences involving these important disciplines. More information is available at <http://www.usaeop.com/>, at the Twitter handle @USAEOP and at www.facebook.com/goAEOP.

About TSA

The Technology Student Association (TSA) is a national organization of students engaged in science, technology, engineering and mathematics. Open to young people enrolled in or who have completed technology education courses, TSA’s membership includes more than 230,000 middle and high school students in 2,000 schools spanning 49 states. TSA partners with universities and other organizations to promote a variety of STEM competitions and opportunities for students and teachers. TSA is supported by educators, parents, and business leaders who believe in the need for a technologically literate society. From engineers to business managers, our alumni credit TSA with a positive influence in their lives. Visit the [Technology Student Association website](#) for more information.

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