



Spring 2003

School Scene

Technology Student Association, 1914 Association Drive, Reston, VA. 20191-1540, www.tsaweb.org

TSA Program Launched Jet Engineer's Career

She Credits Career Tech

By Manny Otiko

As an eighth-grader, Jennifer Davis never dreamed she would one day be designing the next generation of fighter jets for the U.S. Military.

Like thousands of other Oklahoma eighth-graders, she first learned about the impact of technology on society in a technology education class.

Today, Davis is a flight test engineer on the F-35 Joint Strike Fighter, a plane that is destined to replace the current generation of fighter jets.

'My advice to students is to get the best possible education, taking advantage of any opportunity. Try everything. What you like may surprise you.'
-- Jennifer Davis

That's why she is being recognized as one of Oklahoma's

CareerTech Champions. CareerTech Champions are alumni of the system's programs or student organizations who

have found success in a career and attribute much of that success to their career and

technology education experience, according to Pete Buswell, state director.

Davis first came into contact with CareerTech education



An Oklahoma Career Tech Champion: Woodward High School Alumni and former Oklahoma TSA State Reporter Jennifer Davis tests F35 Joint Strike Fighters for her employer, Lockheed Martin Aeronautics.

during her eighth-grade technology education class in Woodward, OK.

Donovan Bowers, TSA state advisor, said technology education teaches students about the impact technology has made on society, the economy, political decision-making and the environment.

Go to Flight Test Engineer on p. 2



In Fast Company: Jaguar 'F1 Team In Schools' Design Challenge Available To Students In The United States

Want to design and race a Formula One (F1) car? Now is the chance for middle and high school engineering wannabes. Technology Student Association students will participate in the *Jaguar F1 Team In Schools'* demonstration competitive

See Jaguar F1 Team in Schools page 3



Spring School Scene 2003

- Transportation Security Administration Shares Our Acronym.....page 3
- Three Sisters Are TSA Leaderspage 4
- Chapter News.....page 6-7
- Pitsco-TSA C02 Racing Website.....page 8

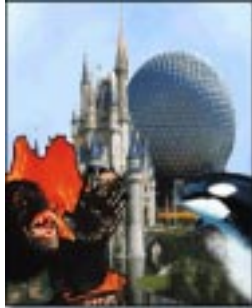
Orlando Bound:

Pack Your Bags and Your Technology Talents for TSA's 25th National Conference

Start checking your travel list – competition materials, clothes, sunscreen and visors — for your trip to Orlando from June 25—29. Be a part of the best national conference ever as TSA celebrates its 25th Anniversary and the TSA National Conference at the Rosen Centre Hotel.

Your friends at TSA will be “Unveiling The Potential In You” as your TSA chapter members and you enter those long-awaited national technology education competitions.

Click on the conference and programs tab on the TSA website. Registration information can be



found at http://www.tsaweb.org/conferences_programs/2003.html.

Good luck with your Orlando conference experience.

‘History In The Making’

Dr. Jack Bacon, a noted historian and expert in spacecraft design, will be TSA's keynote speaker on Thursday, June 26 at 9 a.m. “History in the Making,” Dr. Bacon's address, will help us to understand how the quality of life in the modern world is driven by technology. He will explain how

today's students are at a pivotal point in history because of the tools at our disposal, and the pace at which we make changes.

Dr. Bacon will show us how fast we have blossomed as a society, and how it is the tiny minority of society -- that is the technologically educated few -- who have provided the big changes that make our lives so much better than our ancestors.



Dr. Jack Bacon

Flight Test Engineer, from p. 1

“The curriculum capitalizes on the individual's potential for reasoning and problem solving, for imagining and creating, and for construction and thinking critically through the use of tools and material related to technology,” he said.

“Technology education and the Technology Student Association (TSA) definitely paved the way towards a career in engineering,” Davis said. “I developed self confidence that helped me through college and still helps me today.” “I also loved the competitive aspect of TSA conferences, my time as a state

officer and the friendships I developed,” she said.

Mr. Bowers said that working alongside Davis, who was Oklahoma TSA state reporter from 1995-96, showed him that she had the ability to succeed in her chosen career field. “I watched her develop into a young woman with many talents,” he said. “Jennifer truly excels in her ability for leadership,” he said.

After graduating in 1997 from Woodward High School, Davis went on to the University of Oklahoma graduating with a degree in aerospace engineering in 2002. Now

working for Lockheed Martin Aeronautics in Fort Worth, Texas, Davis said she learned many other lessons from her CareerTech experience.

“CareerTech offers students the opportunity to experience many different careers and options and find their niche,” she said. Davis added that career exploration is critical for young people because too many never adequately plan for their future. “My advice to students is to get the best possible education, taking advantage of any opportunity,” she said. “Try everything -- what you like may surprise you!”

Calling All Members:

Help Document TSA's Historic Conference

By Mary Warner

We need your help! We are looking for TSA members of all types (middle school members, high school members, alumni, advisors, local officers, state officers) to help record the experience of the 25th annual National TSA Conference in Orlando, Florida. We hope to have a selected group of members take photos, film video, and even write a brief day-by-day journal that can be

shared on the National TSA website so that those who are not able to be there with us can get a glimpse of TSA history in the making!

If you are interested, be sure to submit the following information by email to Mary Warner at NationalTSATreasurer@yahoo.com or Doug O 'Reagan at NationalTSAVicePresident@yahoo.com. Please include information such as this example:

NAME: Mary Warner
GRADE: 12
SCHOOL/CITY/STATE: Reston High, Reston, VA
RELATIONSHIP TO TSA (Officer, Advisor, Alumni, etc.): National Treasurer, high school member
INTERESTED IN PROVIDING (Video, Photos, Journal): Photos, journal

Thank you. We hope you will be willing to contribute to this historic TSA event.

TSA: To Share An Acronym

The Other TSA: The Transportation Security Administration

Although the Technology Student Association, named in 1988, is TSA, we now share our acronym with a higher authority.

Ordered by the Aviation and Transportation Security Act, the *Transportation Security Administration* has protected the nation's transportation systems since Feb. 17, 2002. Working mostly at airports, TSA staff members wear special TSA uniforms and I.D. cards and provide civil aviation security.

Their efforts help ensure



freedom of movement for people and commerce. TSA provides security for the traveling public and for all commercial transportation and deployed its own passenger screeners as of Nov. 19 last year.

You may learn what may and may not be taken through a checkpoint by going to the website www.tsatraveltips.us and clicking on prohibited and permitted items.

Everyone needs to play an active role in contributing to air travel security. Together, airlines, airports, travel agents, government officials and the public can contribute to making travel safe, secure and efficient. So be ready to pass through security checkpoints. Thanks to the other TSA, you will have a safe trip.

From Jaguar F1 Team In Schools from Page 1

event at TSA's 25th national conference in Orlando, from June 25-29.

The *Jaguar F1 Team In Schools* event, hosted by Denford (US), Jaguar (US), Pitsco, and TSA, is designed to raise the image of engineering as a desirable career to middle and high school students.

Students will be making something they actually enjoy -- race car models -- and will end up racing them. They will use the computer aided design software. About 20 TSA chapter teams are expected to demonstrate their Formula One race car models at the June TSA conference.

Even the non-licensed, young car buffs know the prestige of Jaguar. "Jaguar Cars are very pleased



to be associated with this challenge. I was impressed by the standard of innovation the pupils showed this year, in 2003," said Mike Beasley, managing director of Jaguar Cars. "It is very important for Jaguar to help ignite the spark of engineering in our schools."

The real Formula One Grand Prix, which attracts worldwide attention to the host country. It features fast cars, which causes vast excitement and spark the imagination. F1 cars require complex engineering that is performed by a diverse design team. In England, the *Jaguar F1 Team In Schools* competition has attracted more than 6,000 students.

"The *Jaguar F1 Team In Schools* challenge was initiated in the

United Kingdom to raise the awareness of engineering among young children in response to the severe shortage of individuals choosing to go into the field," said Paul Koontz, president of Denford. "This is a common problem in many countries around the world. The successes of the Jaguar F1 challenge continue to grow internationally, and it is the responsibility of companies such as ours to expose boys and girls to the exciting and rewarding careers in engineering as they prepare for the future."

Conducting the *Jaguar F1 Team In Schools* challenge in the United States is an opportunity for young people to experience the excitement of real-world engineering. See *Jaguar F1 Team in Schools page 6*

TSA's Silver Reflections, Golden Opportunities

This year, the Technology Student Association celebrates a quarter century of technology education to students. As a K-12 academic community of advisors, state representatives, board of directors, TSA committee members, national staff and students, it is clear that we are all part of not only making TSA succeed, but prosper and thrive.



The newly launched 25th Anniversary TSA Fund has been created to allow financially chal-

lenged schools with interested students start up a new TSA chapter. No donation is too small, however each donation of \$25 will entitle the donor to receive a TSA 25th anniversary pin.

To learn more about the 25th anniversary Fund, check out the TSA website @ www.tsaweb.org, click on conferences and programs.

No Sibling Rivalry In The Blue Grass State: Three Sisters Have A Penchant For TSA

By Jill M. Landsman and Dennis Bledsoe

Three sisters are leaders in TSA: talk about keeping it all in the family. Or, do these sisters play 'Follow the Leader'? The Cave City, Kentucky siblings are not only TSA officers and award-winning TSA competitors at all levels, but they appreciate the benefits of their technology education training. The American sisters, born in Canada with parents who are originally from India, hail from Caverna High School and are students of Dennis Bledsoe, Caverna's TSA advisor.

The oldest Kapur sister, Sujata, a 2001 Caverna High graduate, "learned about the importance of communication through TSA." She said, "I believe that technological advances give student opportunities to be creative while helping develop practical skills."

Sujata attends Western Kentucky University in Bowling Green, Kentucky, and was elected to serve as the Kentucky TSA president, vice-president, and treasurer during her high school years. She is now pursuing a public relations career. Sumeeta, the middle sister, is a Caverna High senior who knows that technological advances make for an easier lifestyle, and not just because of cell phones and the Internet. "Technology education promotes intelligence for tomorrow," she said. "We are lucky to be a part of such a great organization that encourages technology," she said. As a junior, Sumeeta served as the Kentucky TSA historian.

The ideal TSA member is "a hard and dedicated worker," Sumeeta explains. "One who is involved in every aspect of TSA and strives to encourage members to their best." Sumeeta plans to attend the University of Kentucky.

Caverna High freshman,

All In The Family: [L to R] Sisters Sujata Kapur, Sumeeta Kapur, and Aarti Kapur are past or present Kentucky State TSA Officers. Photo by Dennis Bledsoe



Aarti, was elected to the office of Kentucky TSA treasurer at the recent March state conference. She is now focused on her officer status as she continues the trend set by her sisters' predilections to be leaders in TSA.

"I have opened my horizons to many options [since I] still have three more years in TSA," Aarti said. She strives to be a role model and serves as an excellent example for other TSA chapter Caverna High students.

Mr. Bledsoe, their teacher, is pleased that the name Kapur appears

twice on his TSA roster. "It has been

a real pleasure to work with three sisters from the same family," he comments. "I only wish there were one or two more little sisters to introduce to TSA.

"I wish them the best in life. But, I still have Aarti for three more years," he added.

Kapur sisters may share their leadership finesse but they keep their passion for TSA where it belongs – it's all in the family.

SolidWorks Provides Budding Engineers With Software Used By Professionals

SolidWorks Corporation is transforming engineering education for approximately 150,000 students in 1,500 high schools by providing affordable yet professional-grade design software that prepares them for the working world.

Education Editions of SolidWorks® three-dimensional computer-aided design (3D CAD) software include PhotoWorks™ photo-realistic rendering software and SolidWorks Animator animation software to add excitement to design presentations. SolidWorks focuses on ease of learning and ease of use so students can spend more time learning engineering skills than learning how to operate the software.

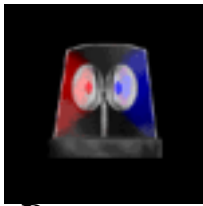
North Carolina's Wake County Public School System benefits from SolidWorks software. Based in the Research Triangle technology region around Raleigh, Wake County technology educators

teach juniors and seniors in 17 area high schools how to use SolidWorks 3D CAD basics. These skills will help prepare them for college and careers.

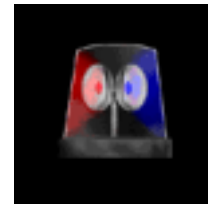
SolidWorks' support of young people goes beyond the classroom. SolidWorks sponsors the Society of Automotive Engineers Collegiate Chapters at universities worldwide, promoting the use of SolidWorks in the design of Formula One race cars and Mini-Baha racers. Meanwhile, SolidWorks' semiannual Student Design Competition offers prizes of up to \$500.

In its newsletter *The Learning Curve*, SolidWorks recognizes several engineering education activities. For information about SolidWorks in education, or a free subscription to *The Learning Curve*, please visit www.solidworks.com/education.





News Bytes



Strolling Down Memory Lane: TSA Memorabilia Display At National Conference

Chapter advisors are urged to contribute either AIASA or TSA mementos at the TSA Memorabilia Booth for your state at the education fair on June 26 at TSA's National Conference. State advisors have been contacted about this opportunity for the complimentary state TSA booth. If a local chapter advisor can share related items, please contact your state advisor.

Webcast Features Student Organization Officers Including National TSA Secretary

TSA's National Secretary Alfonso Dager of McFatter Technical High School in Davie, Florida, visited the nation's capital this winter. He participated in a panel of student officers of Career and Technical Student organizations that was moderated by Congressman John E. Peterson (R-PA) in Washington, D.C. this winter.

The webcast program was part of the Professional Develop-

ment Speaker Series sponsored by the National Dissemination Center for Career and Technical Education.

To learn more about the student leaders in this webcast and how to connect to the show, click on: <http://www.nccte.org/events/profdevseries/20030213/index.asp>, which can be found at the website of the National Dissemination Center for Career and Technical Education, at www.nccte.org.

Attention Teen Talkers, Surfers, Instant Messenger Messengers:

Cell Phone Tips, Etiquette For The Net

As the use of cell phones and online communication increases and becomes entrenched in our daily lives, here are a few safety tips for teen users to consider:

Cell Phone Tips for Teens:

1. Be a "Cellular Samaritan." Use your cell phone to report crime, emergencies, accidents or dangerous driving situations. Usually, dialing "911" is free.
2. Let your wireless network voice mail pick up your calls when it is unsafe to answer the phone, such as when driving.
3. Call roadside assistance when necessary. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor accident where no one appears injured, or a vehicle you know to be stolen, call roadside assistance or other special non-



emergency wireless numbers.

4. While driving, dial the telephone when the vehicle is not moving; use a hands-free microphone to talk. Keep your cell phone where it is easy to see and reach.
5. Get to know your phone and its features, such as speed dial and redial. This enables the user to make a call by touching only one or two buttons.
6. When available, always use a hands-free device.

"Netiquette" Tips For Teens Online

1. Never give out personal information without parental permission.
2. Tell parents if information you come across makes you feel uncomfortable.
3. Never agree to meet in person someone you met online without checking with your parents first.
4. Never send a person your picture

or other item without parental permission.

5. Do not respond to a message that makes you feel uncomfortable. Let your parents know about this kind of message, too.

6. Talk with your parents about rules for Internet use. Discuss websites that are appropriate for you to visit.

7. Do not break the rules you agree upon with your parents.



Chapter News



Missouri TSA Week Proclamation from the Governor

Governor Holden (left of podium) declares Missouri TSA Week for April 21-25. In mid-February, Missouri State TSA officers (l-r) Rachel Cook, state treasurer; Laura McGowan, state reporter; Allison Cook (at podium), state president; Greg Utz, state secretary; Michael Graves, district representative; and Russ Bockhorst, TSA sergeant-at-arms, accept the proclamation.

Jaguar F1 Team In Schools from Page 3

ing, while gaining marketable skills.

“Educators agree that it is important that engineers of the future learn industry-standard software skills,” said Rosanne T. White, National TSA’s executive director in Reston, VA. “By participating in the *Jaguar F1 Team In Schools* challenge through TSA, our students will be able to make more informed career choices while having a good time. We are pleased that Denford, Jaguar and Pitsco are making the *F1 Team In Schools* design challenge available to our students.”



Designing and racing model Formula One cars encourages both boys and girls alike to use CAD/CAM (computer aided design and computer aided manufacturing) software and manufacturing techniques in an innovative way. Participating TSA students become part of an F1 team of two to six members who design, construct and race their F1 model race car using the software while fulfilling specific guidelines.

From design through to manufacture, assembly, testing and racing, the *Jaguar F1 Team In Schools* competition requires that the students create a 3D virtual prototype of their race car design using CAD software. They design car bodies, wheels and axles, assemble them and produce 3D Formula One renderings. Identical engines—compact carbon dioxide (CO2) power plants—will power the model race cars.

At the upcoming national conference, teams will test and exhibit the race cars while presenting a portfolio and oral presentation of their work. Judging criteria are: safety, aerodynamics, engineering, aesthetics, quality and manufacture, race times through a wind/smoke tunnel and team presentation.

For information about the *Jaguar F1 Team In Schools*, visit www.f1inschools.us.



Mallory Thompson of Louisville TSA presents Mr. Joe Nelson, TSA, Inc. Board of Directors member, with a \$250 check for TSA’s 25th Anniversary Fund. Her chapter earned the winnings as the canned food drive’s top contributor.



Mrs. Valerie Taylor (left), coordinator of Mississippi TSA, presents Mallory Thompson of Louisville TSA with the plaque recognizing that her chapter is the state winner of the TSA canned food drive.

Photos by Jessica Chandler

Mississippi TSA Hosts Fundraiser With Prize Donated to TSA Fund

By Jessica Chandler

The Mississippi Technology Student Association recently completed a statewide canned food drive. All chapters were encouraged to participate, with the statewide winner receiving \$250. Nearly 5,000 cans were collected. The overall state winner, Louisville High School TSA, collected about 2,060 cans. The chapter members donated their \$250 to the TSA 25th Anniversary Fund.

Madeira Beach MS TSA Chapter’s Spring Fling Dance Fundraiser Was A Hit

By April Farley

Madeira Beach Middle School TSA in Pinellas County, Florida, recently had a Hawaiian-theme school dance called Spring Fling that was sponsored by the TSA chapter.

The principal, Ms. Poff, called the school cafeteria dance a big success. Prizes were tiki cups and leis. TSA hired a DJ for entertainment and provided drinks and snacks. Ticket sales and concessions earned about \$280.



Chapter News

Pie Squared: Delaware TSA Members Toss Pies For Charity

By Chris Carper and Shawn Nicholson

The Delaware State Officer Team members recently spent a weekend in Bethany Beach, planning their annual State Conference which took place on April 14 at the Harrington, Delaware, state fair-grounds.

Topics such as materials needed for events to the style and sizes of conference tee-shirts were discussed. About 350 students, advisors, judges, and parents were expected. Fran DeWalt, of DES, demonstrated and displayed Pitsco/ Lego robotics.

For the first time, Delaware TSA will contribute to the Red Cross Foundation – by throwing pies! All of the officers, management team, and even Delaware Senator Thomas Carper will sacrifice themselves—or at least their dignity—by receiving a pie in the face.

Since the size of the pie will be determined by the contribution, some TSA “targets” are bound to receive enough whipped cream to fill a baby pool, while others will merely get a Twinkie in the face. The Red Cross will be the recipient of the proceeds.

Even though we are focused on the conference, Delaware is already making plans to hit the road and travel to Orlando, Florida, for this year’s national conference.

Chapter News Wanted:
Please submit your chapter’s news for the Summer *School Scene* to:
jlandsman@tsaweb.org

Cavera High’s TSA Attends Workshop, State Capitol


Caverna High School TSA officers along with Kentucky State Officers Devon Bledsoe President and Sumeeta Kapur attended a Career and Technical Student Organization Leadership Day in Frankfort, Kentucky. The students attended a leadership workshop at Frankfort High School and then met with their representatives at the state Capitol. Representative Dottie Sims furnished tickets, and the group attended a session in the gallery of the House. The Caverna TSA was invited to display in mezzanine area of the state Capitol to highlight how TSA is integrated into the curriculum.




On the Kentucky state Capitol steps, Dr. Phillis AlterDice, (left) president of the Career and Technical College Program for the State of Kentucky, gives Devon Bledsoe (center) and Sumeeta Kapur (right) a proclamation signed by the governor declaring Career and Technical Education Week.

Caverna was chosen to present because of its outstanding Technology Student Association chapter. Currently, two state officers are from Caverna. Devon Bledsoe serves as Kentucky State TSA president, and Sumeeta Kapur is the Kentucky State TSA historian.

Make sure they stand out.



Many kids use their technology skills to benefit their school and community. The National Technology Achievement Award recognizes them for their contributions. Award pins are available in elementary, middle, and high school levels. Order them for all of your deserving students!



Visit www.technology.org or call 703-860-9000.

Sponsored by the Technology Student Association and the National Association of Secondary School Principals.

NTA/ACS/SSP



The mission of the Technology Student Association is to prepare our membership for the challenges of a dynamic world by promoting technological literacy, leadership, and problem solving, resulting in personal growth and opportunities.

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Editor

Jill M. Landsman

National Officers

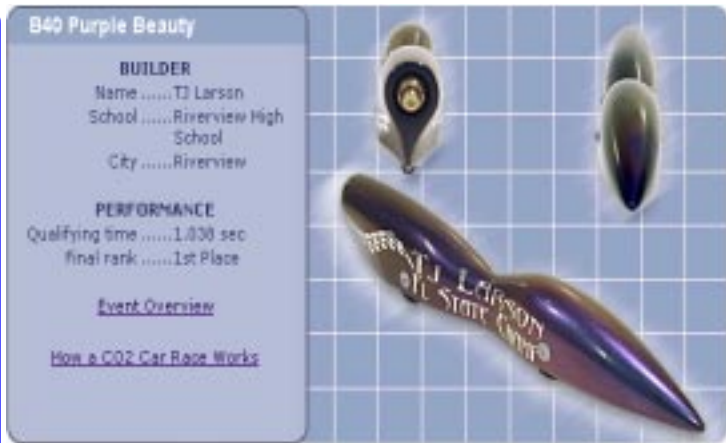
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TSA-Pitsco CO₂ Racing Website Spotlights The Best

Specifications, animated launch and details of national finalists among features

What does it take to win a state or national Technology Student Association Dragster Design Challenge? A lot of planning, attention to detail, and hard work.

Visit the new TSA-Pitsco CO₂ Racing website developed by Pitsco, Inc. From an explanation of the various competitive events to design and construction tips to an animated launch to full specs and pictures of the nearly 60 U.S. and Australian championship qualifiers, this site offers a comprehensive view of competitive CO₂ racing in both dragster design and transportation modeling categories.

"The information on the site educates readers about the racing events and cars, as well as ignites enthusiasm for participating in the national conference competitions," said TSA Communications Manager Lynda Haitz. "The explanations and visual effects capture the excitement of past events and inspire interested students for future CO₂ car design and racing."

Pitsco, the leading producer of CO₂ dragster

supplies and materials for more than a quarter century, sponsors and stages the national dragster design and transportation modeling competitions.

"For more than 20 years, TSA has enjoyed a productive partnership with Pitsco," Haitz said. "Pitsco's dedication to CO₂ racing and its involvement in sponsoring the racing events at TSA's national conferences help to make dragster design and transportation modeling some of the most sought after and successful competitive events each year."

Students enjoy seeing the fruits of their labor on display via the web. "Photographs and detailed specs make the information much more interesting," Haitz said. "It spotlights the amount of hard work and preparation that competitors put forth to make it to the top 10."

Visit the TSA-Pitsco CO₂ Racing website at www.pitsco.com/TSA2002/TSA02main.asp. To learn about standards-based dragster design curriculum and activities, see the Science of Speed at www.science-of-speed.com.