



By: Aundrea Tirapelle, LSIT & Greg Sebourn, PLS – Trig Star Co-Chairs

Aundrea is the lead chair for California's Trig Star Program and helps to coordinate events in Central and Northern California.

Greg, a Senior Survey Project Manager for Johnson-Frank & Associates describes himself as "a husband, father, professional land surveyor, educator, adult Boy Scout leader, and political/community activist." To learn more about Greg, go to his blog at <http://gregsebourn.blogspot.com/>.

Trig Star Program

Despite the economic outlook, Trig-Star events are growing and generating buzz throughout California! For those who haven't heard about Trig-Star, it is a national trigonometric competition that brings high school students together with land surveyors. Trig-Star has multiple purposes, the primary being a means of public outreach and education about land surveying.

Trig-Star was created by Russell E. Kastle, RLS, of the North Dakota Society of Professional Land Surveyors. Kastle's idea was a national means of outreach by 1984. The National Society of Professional Surveyors (NSPS) embraced the program as a national competition in 1993 thanks to the efforts of Kent Green and Richard Lomax. National winners, their parents and teachers are treated to the annual NSPS conference where the winner is presented with a trophy and scholarship. It is an amazing experience made more so due to the time and effort of so many great volunteers across the United States.

Last year, in California, nearly 1,000 students from more than 50 high schools participated with the help and sponsorship of CLSA and CLSA Chapters. These numbers represent a 30% increase in attendance and nearly 50% increase in the number of schools participating state-wide from the previous year! Trig-Star is the largest public outreach campaign implemented both locally and nationally reaching parents, students, teachers, and various community members each year. Being well established and continually growing, Trig-Star represents the easiest and quickest way for California's professional surveyors to get their message to the public.

The growing trend is for professional land surveyors to visit high school classrooms to give students (and teachers) a brief overview and history of the profession. This close interaction helps to break the ice and remove the veil of mystery that has obscured land surveying somewhere behind engineering, architecture, and construction. Students are then invited to a local event site, often a community college, to take the Trig-Star test and interact with



TrigStar Orange County Chapter 2011 Winners

working professionals. Many events include local practitioners with equipment and job information. Some events even include lunch for attendees and their parents.

The more traditional model has a professional land surveyor administer one test directly at each high school. There are pros and cons to each model and there is no wrong way in which to hold a Trig-Star event. We asked our California Trig-Star Chapter Coordinators to share their event with the California Surveyor to help encourage more participation. Here are their stories and the impact they have had in their communities.

Sonoma County Chapter – Jerry Miller, PLS & Chapter Coordinator

Sonoma County Chapter held their Trig Star event at Santa Rosa Junior College on April 9th. Fifty-four students from nine high schools participated in the competition. Adrian Devitt-Lee from Maria Carrillo High School won both locally and the state-wide competition with a score of 100% and

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Riverside / San Bernardino Chapter – Tim Rayburn, PLS & Chapter Coordinator

The Riverside / San Bernardino Chapter's Trig Star event was held at Mt. San Jacinto College on March 19th. The event was well attended and received coverage by the regional newspaper, The Press Enterprise. Gail Wesson, Press Enterprise reporter noted that more than 120 students from 16 high schools across the region participated in the event which was held at Mt. San Jacinto College. Thanks in large part to the strong partnership between the Chapter and the college, students were able to learn about land surveying and opportunities in education. ESRI, the GIS software powerhouse generously donated books and software to students. You can read Gail Wesson's article by going to www.pe.com and typing "Trig Star" into the SEARCH box at the top left.

Orange County Chapter – Greg Sebourn, PLS & Chapter Coordinator

This year's event, scheduled for March 12 at Santiago Canyon College, was nearly ended before getting off the ground. Like so many other college's, Santiago Canyon College's budget had been gutted and I was warned early

a time of 11 minutes. To give you an idea of how amazing Adrian's performance was, his score is 13 minutes faster than the student from Santa Rosa High School, Ian VonSeggern, who was state champion in 2007 and 2008. It was great to see so much support from community members, math teachers and parents during the competition and awards ceremony. This competition is sponsored by the Sonoma County Chapter of the California Land Surveyors Association.

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Trig Star Program



on by college administrators that funding for the annual event just wasn't available. Not easily deterred, I approached the Chapter about footing the bill. After some discussion, the Chapter voted to provide 100% of the upfront funding. Thanks to our sponsors, Johnson-Frank, Psomas, RBF Consulting, OC Surveys (County of Orange), Port of Long Beach, and Professional Engineers in California Government (PECG), the OC Chapter was able to hit a homerun with another successful event.

Santiago Canyon College donated facilities and equipment while many college employees donated their Saturday morning. Vital Link, a local not-for-profit community partner helped get the word out to the high schools and manage the details of the event as well as register participants. With a dozen schools represented by nearly 150 trigonometry and math students with their parents, the event was a trigonometric calculation feeding frenzy. SOH-CAH-TOA was the word of the day! The winners were lightening fast but not fast enough to beat out Santa Rosa winner Adrian Devitt-Lee from Maria Carrillo High School. All three OC Chapter winners attend Trabuco Hills High School. Freshman Kavan Zommers placed first. Second place winner and freshman is Uma Rajpurkar. Gabriel Harh rounded out the top three. OC winners received \$500, \$300, and \$200 respectively making their investment in preparation for the event a real pay-off! Winners along with their parents and teachers were invited to attend an upcoming Orange County Chapter dinner meeting.

Trig Star 2011-2012

It is time to start planning for the 2012 Trig-Star Program! Like any other event, Trig Star events are made better with careful planning. You have tremendous resources at your fingertips to help make your event a success. The CLSA website has many resources at <http://www.californiasurveyors.org/trigstarcoord.html>. Previous exams are available at <http://www.nspsmo.org/> and click on "NSPS Trig-Star Program" on the left side of the home page. If you would like to have a Trig Star event and need help getting started, please contact CLSA Trig Star Co-Chairs Aundrea Tirapelle or Greg Sebourn. ■

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Geography Quiz

by: Anne Hoppe, PLS
and Germar Berhhard, Ph.D.

First mapped by Danish land surveyors in the early 1900's, this European country sits on a geologic ridge and is growing by 2 cm per year. Among its many natural wonders are features like the one pictured; this one is regarded as the largest of its kind.

Answer on page 39





TRIGSTAR SUCCESS

TrigStar is a national annual high school mathematics competition based on the practical application of trigonometry. Students that participate are not only provided with an opportunity to earn awards, but also leave with a better understanding of the technical profession of Geomatics, which includes Land Surveying and Mapping!

CLSA has used the TrigStar program to advance communication with local high school students to explain how trigonometry is used to solve surveying and mapping problems. The local chapters of the CLSA, individual members and CalTrans employees make up the TrigStar program for California.

THE PURPOSE OF TRIGSTAR IS:

- ☆ To promote excellence in the mastery of mathematics in high school.
- ☆ To honor high school students who have demonstrated their superior skill among classmates at the local, state, and national levels.
- ☆ To acquaint the high school students with the use and practical applications of mathematics in the Geomatics professions.
- ☆ To build awareness of Geomatics as a profession among the mathematically skilled high school students, career guidance and pathway counselors, and high school math teachers.

HISTORY OF TRIGSTAR

Russell E. Kastle, RLS and member of the North Dakota Society of Professional Land Surveyors created the “Trig-Star” program. Russell was the ACSM Delegate / National Society of Professional Surveyors (NSPS) Governor from North Dakota, and in 1983 Russell was looking for something to accomplish during his tenure. The idea for Trig-Star came from the success of Engineer’s Week. Russell thought there must be something surveyors could do to promote the profession, so he wrote a proposal for the “Trig-Star” program and presented it to the NSPS Board of Governors in Salt Lake City, Utah in the fall of 1983. The idea was embraced, and by the fall of 1984 Trig-Star contest packets were being sent to land surveyors across the United States. The contest is still run in much the same way as Russell proposed, and Russell still sponsors the contest at the local level every year.

Although Russell’s vision was that the contest would be a local event, matching surveyors with high schools, the program has evolved into a national contest with scholarship awards. The initiative for the national contest began with a Trig-Star sponsor from the North Central Florida Chapter of the Florida Society of Professional Surveyors, Kent Green, who had been successful in

promoting the program at the chapter level. In 1993 Kent proposed that NSPS sponsor the program as a national contest. Kent was assisted by Richard Lomax, then NSPS President, and NSPS began a national contest. The process of determining the national Trig-Star winner began. NSPS formed the Trig-Star Committee, and Larry Doss from Tennessee became the first chair of the Committee. Larry crafted guidelines and implemented the national contest format. He secured scholarship awards from NSPS, and money to bring the contest winner and their teacher to the ACSM annual convention.

John Chagnon took over as committee chair at the ACSM annual meeting in 1998. His first task was to standardize and improve the quality of the contest materials. With the help of Don Murphy of Cedar Rapids, Iowa the test has improved every year. The format is one that allows teachers to teach for the test, allows students of varying abilities to score, but also allows the best and brightest to be identified. With the help of the dedicated volunteers on the Trig-Star Committee and input from state societies like the Wisconsin Society of Land Surveyors, NSPS has developed complete and easy to follow instructions to insure the success of each local contest.

The Trig-Star Committee has also created the NSPS Foundation Trig-Star Scholarship Endowment Fund (a 501c(3) entity) in 2000. The purpose of the scholarship fund is to provide financial assistance to high school graduates who demonstrate excellence in the field of trigonometry and to enhance and expand the Trig-Star program. The 501c(3) status means that all donations are fully tax deductible. Scholarship fund distribution is limited to high school graduates who became the Trig-Star of their respective high school, became the state Trig-Star winner, and placed first, second, or third in the national Trig-Star competition.

The Trig-Star program operates on a budget of \$12,000 per year, of which \$7,000 a year is given out as awards. The program depends on the hard work of many volunteers at the national, state, and local level. All fifty states, the District of Columbia and Puerto Rico participate in this program.

WHAT HAPPENS DURING TRIGSTAR PROGRAM?

The math departments from high schools throughout the state are contacted sometime between September and December. They are invited to participate in the TrigStar program scheduled in the spring. Some of the chapters have partnered with local community colleges to put on a full blown event. The Orange County Chapter, CLSA, and Santiago Canyon College co-sponsor a free, full day of activities with their program. Local chap-

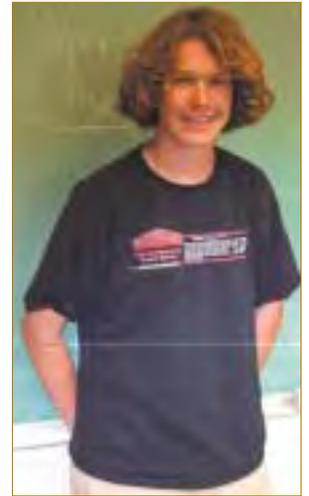
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AND THE WINNER IS...

For the second year in a row, Ian Vonseggern of Santa Rosa High School was Sonoma County's first place winner and the overall State Champion! He was the **ONLY** perfect score and finished in less than 60 minutes! Ian also placed second in the nation!



Ian, a senior, has participated in Sonoma County's TrigStar program for three years now and has placed in the top five all three years, winning and repeating the past two years. Is there a "three-peat" in our midst?

Ian was awarded \$300 from the local contest, \$1000 from CLSA and \$1500 from NSPS. Not a bad haul for a couple of hours work!

SO WHAT KIND OF TRIGSTAR ARE YOU?

Included with this article is one problem from this year's exam. You may use any study materials and a calculator (no programs) to answer it. The correct answers are also given separately. Just as an incentive, Ian finished the entire exam (a total of four problems) in 22 minutes and 20 seconds and scored a perfect 100! He only had a TI-86 calculator.

GET INVOLVED!

I would like to encourage all members to join us in this opportunity to strengthen the land surveying workforce in California as well as promote public awareness of the land surveying profession. To volunteer or get more information, contact Aundrea Tirapelle, CLSA TrigStar Coordinator at atirapella@rbf.com ❖



ters of CELSOC and CLSA from Sonoma County co-sponsor their event with the Civil Engineering, Surveying and Geospatial Technology program at Santa Rosa Junior College.

In Sonoma County, the math teachers are sent study materials, practice exams and a mentor. All the high schools are asked to participate. Scheduling the exam is somewhat tedious. Trying to shoehorn the event between SAT testing, STAR testing, proms, sporting and other math related events can be a little difficult. A short presentation is made about the Geomatics profession and how surveyors make Trigonometry "work" for them.

The exam is a timed exercise of sixty minutes, during which students must solve four trigonometric problems that incorporate the use of right triangle equations, the law of sine's and cosines, and other geometrical equations.

Winners are determined by the most correct answers in the fastest time. The State of California's TrigStar program has three levels of testing and awards. The first level is the local level. The second level is the state level and third level is the national level.

Sonoma County awarded over \$1400; \$300 for first, \$200 for second, \$100 for third place, \$75 for fourth through sixth; \$50 for seventh through tenth and \$50 for first place at the individual high schools not in the top ten county-wide.

Jerald P. "Jerry" Miller has been the program coordinator for the Civil Engineering, Surveying & Geospatial Technology program at Santa Rosa Junior College since 1993. A graduate of California State University, Fresno, in Surveying and Photogrammetry, he is licensed as a Professional Land Surveyor in the State of California. With over twenty-seven years of practical and professional experience in the civil engineering and land surveying professions, he has worked for many local firms and public agencies in Sonoma County. He has also operated a private consulting firm for surveying & mapping services, exam preparation, continuing education, professional & curriculum development since 1993.

Jerry is the Vice Chair of the Northern California Section of the American Congress on Surveying and Mapping and is an active member of the Sonoma County Chapter of the California Land Surveyors Association. He is a frequent guest speaker for many professional engineering and surveying societies and organizations.



Trig-Star Shines Brighter in Sacramento Area – Claims State Title

Trig-Star, the nationwide competitive exam in high school trigonometry given by the National Society of Professional Surveyors, and sponsored on a local level by CLSA, has climbed to a new level this year in the Sacramento area. Every facet of the program is showing growth and excellence, including producing the state champion Trig-Star.

Kyle Jewhurst, son of Victor and Nancy Jewhurst of Elk Grove, produced a score of 100% in the shortest time of 32 minutes and 37 seconds. Kyle is a student of Terre Schlager at Laguna Creek High School and was one of 12 students who took the exam there. Kyle will receive \$75 for the best performance in a local high school, and \$750 for being the California Trig-Star. He will now take the second-level exam to compete with the Trig-Stars of other states for major scholarship money and the chance to bring a teaching excellence award to his teacher.

Russell R. Smith, a Caltrans Photogrammetrist and resident of Elk Grove, is in his second year as the Surveyor/Proctor for Laguna Creek and is proud of Laguna Creek's repeat performance as the best area school in the competition. Laguna Creek's Rae Zhou placed 6th in the state last year closely followed by Thomas Wong of Elk Grove in 8th place. Both of these schools should be watched in the coming years as state and national contenders in the Trig-Star program.

This accomplishment is a fitting symbol of pride for the real winner of the program this year, our community. The surveying community in this area really stepped forward to the call to arms in the Dec. 2002 Focal Point, supporting a 50% growth in going from 4 schools to 6 schools, and giving the exam to 168 students. Following are the vitals on the program's birth, growth, and how it now stands. Here are the names on our new "Wall of Fame":

Year 2002

High School	Surveyor(s)
Elk Grove	Rudy Lopez
Laguna Creek	Russell R. Smith
Yuba City	R. Lee Hixson
Rio Linda	Don Ivy, Dave Fredrickson

Supporters: R. Lee Hixson, Reed Bekins, Carl C'DeBaca, Paul Fredrickson, Jerold Peterson
These supporters donated personal funds and time to start Trig-Star in the Sacramento Area.

Year 2003

High School	Surveyor(s)	Corporate Sponsors
Elk Grove	Rudy Lopez	Radman Aerial Surveys (Carol Radman)
Laguna Creek	Russell R. Smith	GeoMaps, LLC. (Baldur Tryggvason)
Yuba City	R. Lee Hixson	G.C. Wallace of California, Inc. (John Klamm)
Rio Linda	Don Ivy, Dave Fredrickson, Carl C'DeBaca	Nolte, Associates, Inc. (Carl C'DeBaca)
C.K. McClatchy	Luke Wilson, Marc Van Zuuk Kevin Akin, John Gilmore	HJW GeoSpatial, Inc. (Susan Jackson)
Hiram Johnson	JED DeGraff, Diane Canzoneri	Psomas (Paul Enneking)

West Campus

Administration: CLSA-SAC Chapter Officers; Corporate Sponsor Backup: Andregg, Inc. (Chris Curtis)

The most remarkable story in this year's Trig-Star program is the first-year effort at C.K. McClatchy High School. Luke Wilson, CA State Forest, tested 99 students with the help of three other surveyors and two teachers. Luke's efforts of pursuing buy-in of the program in a high school from the top will serve as a model for future years and demonstrates the tremendous potential for outreach to the new generation of surveyors.

The birth of this program depended upon individuals who saw its value and made a personal commitment of time and money to give it a beginning. The growth has been made certain by these same surveyors, and other dedicated individuals, along with the Corporate Sponsors listed above. There is commitment in the business community to facilitate even greater outreach in the future. That growth utterly depends on the commitment of more surveyors to participate. The number of schools involved in this truly worthy program will increase or falter purely on the will of the surveying community.

Congratulations to Kyle, his parents and teacher, and to the teachers, surveyors, and Corporate Sponsors who have made this program a success in this area.

Jerold L. Peterson
Trig-Star Wienie
Sacramento Area



Unique Partnership Yields Success for Surveys and Adopt-A-School

Partnership at Caltrans takes many forms. The annual TrigStar collaboration between the Department's Surveys program and Adopt-A-School program, the California Land Surveyors Association (CLSA), the California Transportation Foundation (CTF) and high schools statewide is an example of a partnership that provides rewards for all involved.

The TrigStar contest is a nationwide trigonometry competition for high school students sponsored by the National Society of Professional Surveyors. There are local, state and national levels to the competition. The local level is where partnership pays off.

Each year CLSA purchases a statewide license to conduct the TrigStar contest and makes that license available to surveyors statewide through local chapters and to the Department through the Office of Land Surveys. Access to the statewide license at the local level makes the entire effort possible. Introducing the students to surveying benefits CLSA's membership and the Department by raising the public awareness of the profession, encouraging young people to consider a career in surveying (qualified surveyors are hard to find for both the private and public sector).

In some locations, the local CLSA chapters partner with Caltrans to avoid redundant contacts with the high schools and to ensure broad, diverse local participation.

CTF provides the award plaques and cash prizes for the schools locally sponsored by the partnership, thus adding the list of fine projects supported by CTF and helping the rest of the partnership with the funds needed to conduct the local exams. (Note: In addition to CTF, many other generous sponsors fund the contests conducted through the local CLSA chapters.)

The Adopt-A-School program helps bring the Department's Surveyors and local high schools together, provides administrative support for the effort and functions as the liaison with CTF.

The high schools benefit by supplementing the learning experience with exposure to working professionals. The surveyors help the students to understand that much of the geometry and trigonometry they have been learning applies in "real life". Exposure to the fact that understanding triangles, arcs, and parabolas makes modern living possible and that people are well paid to apply mathematical knowledge is a thought provoking experience that helps students relate what they are learning in high school to their potential for success after high school.

The Department's surveyors visit the schools, discuss the long proud history of surveying, demonstrate how their vital profession relates to society at large and

encourage students to study for and participate in the contest. This often reminds the surveyors of why they became surveyors in the first place, contributing to good morale, and provides the opportunity to perform some public speaking contributing to personal and professional growth.

On behalf of the surveyors, engineers and other professionals they represent, the Professional Engineers in California Government (PECG) have donated \$1000 to CLSA's statewide TrigStar effort each of the past two years. This generosity supports the cash awards for the statewide winners and allowed for the establishment of a statewide third place prize, thus increasing the number of highly commendable professional outreach efforts PECG supports. Though PECG does not sponsor the local contests, their contribution to the statewide effort, on behalf of the Department's employees, is further evidence of how the spirit of partnership can build bridges between various groups with common goals.

This partnership is focused on commitment to helping young people succeed, a desire to reach out to the community as a Department and as a profession. Most importantly this partnership is about a group of young people who are all winners regardless of how they placed in the contest.

This year's effort was special because one of the Caltrans Surveys/Adopt-A-School/CTF/CLSA sponsored students won the statewide competition, becoming California's "TrigStar" and our state representative in the national contest. For his story, see (create two boxes, one for the statewide effort, one on the winner)

TRIGSTAR... Easy, Fun & Rewarding!

The TrigStar Program Contest is an annual high school mathematics competition sponsored by the National Society of Professional Surveyors based on the practical application of Trigonometry. The program recognizes the best students from high schools throughout the nation.

The purpose of the TrigStar Program:

- ☆ To promote the study of trigonometry in high school and to promote excellence in the mastery of trigonometry by honoring the individual student who has demonstrated superior skill among classmates at the high school level.
- ☆ To acquaint the high school trigonometry students with the use and practical application of trigonometry in the surveying profession.
- ☆ To build an awareness of surveying as a profession among the mathematically-skilled high school students, career guidance counselors and high school math teachers

Trigstar Contest Levels:

- ☆ Level 1 is given at local high schools. There is one winner from each participating high school.
- ☆ Level 2 is the national test. The state winner from each participating state is eligible to compete for the National Trig-Star title

How the Program is Implemented:

- ☆ The program begins with a presentation by a Land Surveyor to help participants understand the land surveying profession.
- ☆ A timed examination is administered during which students must solve trigonometric problems that incorporate the use of the right triangle formulas, the law of sines, and the law of cosines. The student with the highest score and fastest time will be named the "TrigStar" for each high school participating in the program. The scores and times of the Trig Stars are reviewed to determine the State Winner and Runner-up in California. The State Winner will qualify to take the National Exam.

TrigStar Timeline:

September – December

- Contact Schools

December – January

- Finalize & Confirm Presentation Date

February – April

- Give Presentation & Administer Exam

April – May

- Awards & Recognition
- Submit Items to State Coordinator

Get Involved!

The California Land Surveyors Association is encouraging you to join us in this opportunity to strengthen the land surveying workforce in California as well as promote public awareness of the land surveying profession.

CLSA has numerous resources available to assist volunteers including:

- Guidelines & Rules
- Testing Dates
- Sample Letters
- Video & PowerPoints
- Posters
- Plaques & Certificates
- Sample Press Releases ❖



To volunteer or for more information contact:

Aundrea Tirapelle, CLSA Trig-Star Coordinator
atirapelle@rbf.com

or

CLSA Central Office
clsa@californiasurveyors.org



Trig-Star Winner

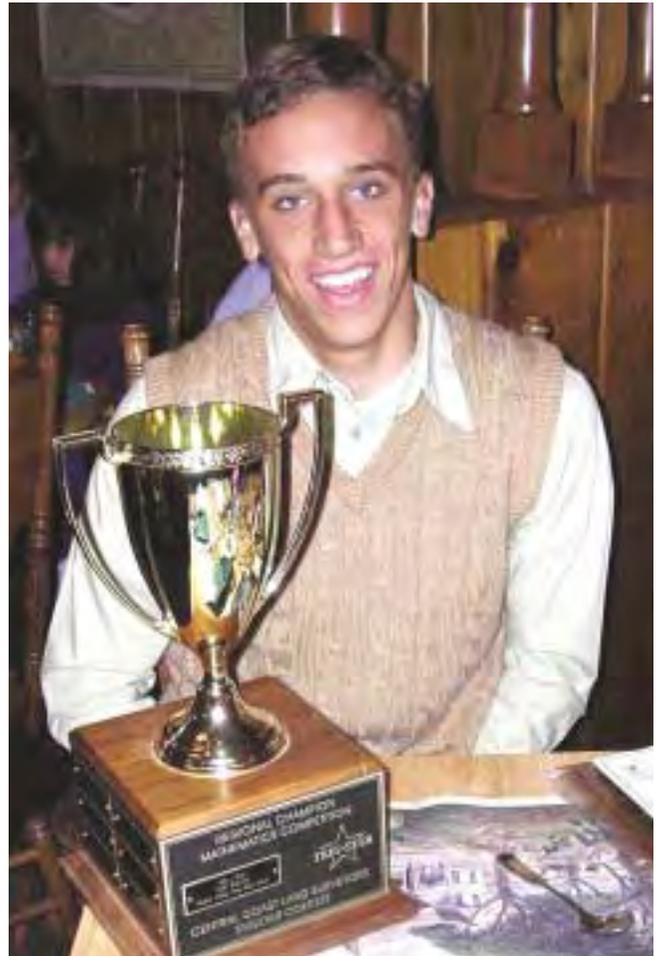
Congratulations to Ian Vonseggern. Ian was the California Trig-Star winner and also placed 6th in the national contest.

L to R, Noreen Carvolth, President of the Santa Rosa City Schools Board of Directors, Ian Vonseggern County, California Trig-Star Winner and Jerry Miller, PLS, Sonoma County Chapter Trig-Star Chair, SRJC Civil & Surveying Technology Program Coordinator

Trig-Star

This year's state winner of the Trig-Star competition was Sam Wilson from Mission College Prep. High. With the one and only perfect score in the state, Mr. Wilson was able to take home a \$1000.00 in prize money. Both George Marchenko and Phil Reimer of the Central Coast Chapter sponsored the local high school, and donated their personal time to give the presentation and proctor this year's exam.

Second place winner Brian E. Adams of Durham High, followed with an impressive score of 95. With help from Thomas Taylor and Donald Vaught of CalTrans, Mr. Adams was able to receive prize money in the amount of \$500.00.



Sam Wilson from Mission College Prep. High
Winner 2004 Trig-Star Competition

Third place went to Dan Desmand of Trabuco Hills High. Mr. Desmand was one of 120 students who took the exam at his school and was able to win taking home \$250.00. Special thanks goes to Tony Cuomo of the Orange County Chapter who proctored the exam.

Overall twenty-six schools and seven hundred students participated in the 2004's competition. Caltrans, headed up by Tom Taylor, sponsored seven of this year schools, which is an increase from 2003 where only four schools were involved.

Much appreciation goes to the PECG (Professional Engineers In California Government) who donated \$1000.00 to the Trig-Star program, which helped increase the winning prize money for these students. Also special recognition should be given to all the sponsoring surveyors who have given up time of their own to see that this program is a success, thank you. ❖



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2001 Trig-Star State Champion
Charlie Huang

California Honors Trig Star 2001 Winners

Charlie Huang of Trabuco Hills High School is this year's State winner. A freshman and son of Shih-Szu Fu and Dah-Ming Huang living in Rancho Santa Margarita in Orange County. His time was the fastest in the state as compared with the other top students taking the exam. CLSA awarded Charlie \$750.00 and a plaque acknowledging his efforts. Charlie is enrolled in several honors courses at Trabuco Hills High School his interests include basketball and video games. Mike Fatigati (Charlie's classmate) took second place in the state. Mike received \$250.00 and a plaque from CLSA. In addition to the honors courses Mike Fatigati is enrolled in he also participates in Freshman Basketball and is active in Ministry at his church.

Steven Robitaille, Honors Geometry Program instructor, has been teaching for 13 years at Trabuco Hills High School. The honors geometry program has incorporated a rigorous trigonometry section with mostly multi-step problems that challenge students Mr. Robitaille reported. He is quite impressed with his student's achievements and enjoys participating in the Trig Star program each year.

Trabuco Hills High School was co-sponsored by Guida Surveying of Tustin and the Orange County Chapter. Alan Brooks of Guida Surveying gave the presentations and administered the exam.

Again this year's involvement from our membership has increased over last year. We had 350 students at eleven high schools throughout the state. Six chapters ran successful programs together with private companies and one public agency. Below is a chart showing participating Chapters and members.

Chapter	High School	First Place	Local Sponsor	Coordinator Surveyor
Orange County	Trabuco Hills, Mission Viejo	Charlie Huang	Guida, Surveying	Alan Brooks
Sacramento	Florin, Sacramento	Stella Chu	Caltrans	Ken Fritz
Marin County	Sonoma Valley, Sonoma	John Simonitch	Phil Danskin & Assoc.	Phil Danskin
Central Coast	Paso Robles	Brett Banakis	Randy Woodjack	
Central Coast	Templeton	Ryan Bulger	Randy Woodjack	
Central Coast	San Luis Obispo	Brian Koellish	Randy Woodjack	
Central Coast	Morro Bay	Sam Lin	Randy Woodjack	
Central Coast	Mission College Prep	Michael Morici	Randy Woodjack	
Sonoma County	Maria Carrillo, Santa Rosa	Natalie Valentine	Hogan Ford Land Surveying	Mike Ford
San Diego	Rancho Buena Vista, Vista	David Chung	BHA Inc.	Armand Marois
San Diego	Mesa Program, San Diego	Bernadette McNurlan	Rick Engineering	James Arnold Don Woolley



L-R Alan Brooks, Charlie Huang,
Mike Fatigati, and Ralph Guida, IV



David Chung

The National Society of Professional Land Surveyors (NSPS) administers the annual competition. The program's goal is to recognize the best students of mathematics across the United States. NSPS creates the test utilizing real life scenarios of problems that surveyors encounter. Once a State winner has been determined the student will take another exam to decide who will be the first, second and third place finishers in the nation. The winners are awarded the Richard E. Lomax National Trig Star Scholarships as follows:

National 1 st Place	\$1000.00
National 2 nd Place	\$ 500.00
National 3 rd Place	\$ 250.00

Continued on page 17

Concerns Regarding Land Surveyors Right Of Entry

Pursuant to B&P Code Section 8774

Over the past six to eight months the Board has received numerous complaints against land surveyors who have entered private property to perform surveys. Most of the complaints were relative to the lack of courtesy and notice given to property owners by the land surveyors in question. Many of the property owners stated that they were home and that the land surveyor did not come to the house to announce the purpose of being on the property and inform them of the surveyors right to be on the property to perform surveys. A few of the land surveyors were rude and discourteous. Some of the problems created by the surveyors were cut landscape trees and bushes, broken gardening pots, painted fences, driveways and walks, torn down fences and monuments and stakes left above ground in pastures and fields containing livestock. Other surveyors have driven vehicles onto properties without permission. Even though notice is not required, either a visit to the residence on the property to inform the property owner or their agent of the purpose of entry, or a letter stating such is suggested.

The point of this article is to alert the land surveying community that the Board, as well as a few legislators, are receiving such complaints and that the "Right of Entry" to perform surveys may be in jeopardy if these types of actions continue. Please use this very unique right in a courteous manner and respect the property rights of the public. Surveyors must remember that they only have the right of entry to perform surveys and that they are civilly liable for their actions on private property.



NEW ITEM!

**CLSA has added
Right of Entry Door Hangers
to the publication list**

See Publication Order Form

Trig Star - Continued from page 16

The Richard E. Lomax Teaching Excellence Awards are distributed to the students' Math Teachers

National 1st Place \$1000.00

National 2nd Place \$ 500.00

National 3rd Place \$ 250.00

The Trig Star Program is an excellent tool to help build awareness of Land Surveying as a profession among high school students, career guidance counselors, and high school math teachers. With our current shortage of a skilled workforce we need the benefits that Trig Star provides. So I encourage all surveyors to take up the challenge and find a high school to compete in next year's contest.

Please contact Armand Marois, California's Trig Star Coordinator, for more information at amarois@attglobal.net or visit the ACSM/NSPS web site at www.acsm.net/nsps/trigstar.html



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