

ADDITIONAL JANUARY MEETING INFORMATION



Mr. Toney Stricklin served over 32 years as a commissioned officer in the United States Army and retired from active service as a Major General in August 2001. Here he served in a variety of command and staff positions throughout the United States, Germany, Korea, and Vietnam. As an Army General Officer he was assigned to be Deputy Commanding General for Training and Assistant Commandant at the U.S. Army Field Artillery Center at Fort Sill in Lawton OK. In August, 1999 he became the Commanding General of this Fort Sill U.S. Army Field Artillery Center.

Stricklin launched the consulting firm TDRS LLC in 2007, a private firm specializing in the Department of Defense business sector where he is principle owner, President, and CEO. Representing TDRS he served as President of the Unmanned Systems Division of Oklahoma Training Center for Unmanned Systems (OTC-US) from 2008-2012. Located in Lawton, OTCUS was responsible for Unmanned Aircraft Systems operations, training, and testing.

In 2011, Governor Fallin appointed Mr. Stricklin as a State Regent for the Oklahoma State Regents for Higher Education and this year he serves as Chairman. Also in 2011, Governor Fallin appointed him to the Oklahoma Council of Unmanned Aerial Systems to help advance the UAS industry in Oklahoma. He was also previously appointed to the State Board for Career and Technology Education in 2002 and reappointed by the Governor to the same position in 2004 where he served as a board member until 2007. He was also instrumental during 2003 BRAC (Base Closure and Realignment) proceedings in achieving relocation of the Air Defense Artillery School from Fort Bliss, TX to Fort Sill, OK. That action was subsequently approved and the relocation of over 10,000 soldiers, civilians, and family members to Fort Sill was completed.

Mr. Stricklin was selected as a Cameron University Distinguished Alumni in 2006. He holds a Master of Arts Degree in International Relations from Newport College in Rhode Island and a Bachelor of Science Degree in Business Administration from Cameron University, Lawton, Oklahoma. He and his wife Jennifer have three children and reside in Oklahoma City.

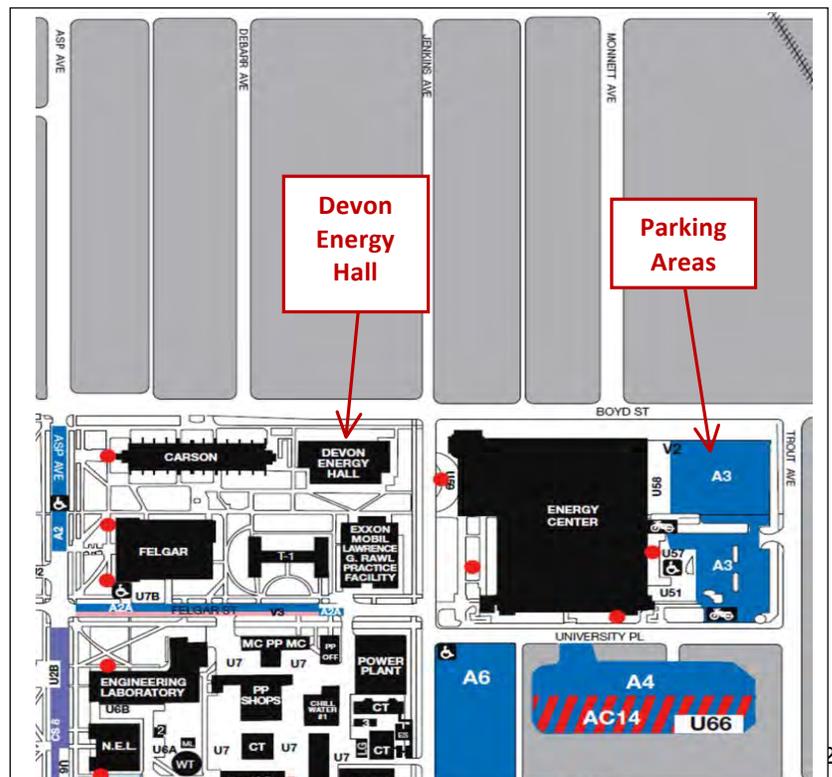
Mr. Gerald Stuckey is a retired Fire Fighter with the Midwest City Fire Dept where he has also served as their Emergency Medical Director. He is also a certified NFPA Instructor through the OSU Fire Service Training service.

Mr. Stuckey has 38 years of experience in robotic aircraft design, construction and operation. Associated awards include Champion of the 2010 National Robotic Aerobatic competition and 3rd place of the 2010 World Robotic Aerobatic competition. Mr. Stuckey is currently owner and partner of FIREFLIGHTUAVS, a manufacturer of UAVs. His company enjoys numerous DOD and military defense UAS projects.

MAP AND PARKING INFO:

Devon Energy Hall is located at the corner of Boyd Street and Jenkins Avenue on the OU campus north edge. It is just east of the Sarkey Energy Center.

Parking is to be available in the parking lots east of the Sarkey Center.



February Engineers Week Activities are Approaching

Engineering Fair: See the banner below via www.oef.org (Oklahoma Engineering Foundation). **Mark the date, Tuesday, February 23, 2016 on your calendar!** Our Section will again host the Rubber Band Powered Vehicle Contest. Volunteers will be sought as the event nears.



The banner features the text "Engineering Fair" at the top left, followed by a row of icons: a microscope, a circuit board, the state of Oklahoma, gears, and a pencil. Below this is a large graphic with the text "STEM EMPOWERS OK" and a colorful arrow pointing right. Underneath the graphic, the text reads: "Engineering Fair Oklahoma! The 2016 Engineering Fair sponsored by GE Foundation February 23, 2016 Oklahoma Science Museum * 2100 NE 52nd, OKC, OK Registration begins at 8:30am Opening Ceremonies begin at 9:00am Contests begin at 9:30am". To the right of the banner is a sidebar menu with three items: "MATHCOUNTS", "Engineering Fair" (which is highlighted), and "Future City". Below the "Engineering Fair" menu item is a description: "The Engineering Fair is an engineering competition having bridge building, eiffel tower, electric motor, essay, ping pong ball launcher, rubber band powered vehicle, and wacky wonder works contests."

MATHCOUNTS: MATHCOUNTS information is also available through www.oef.org. Dates for regional competitions are January 30 (SW OK region), February 6 (East Central OK region, February 13 (NW OK and East OK regions), and February 20, 2016 (Central OK region). Last year they used an on-line sign-up process for volunteers.

For more information about these events or other OEF functions please contact Ms. Adrienne Covington-Graham, OEF Executive Director/CEO, at (phone) 405-528-1435 or (e-mail) info@oef.org.

Joint Engineering Societies Banquet: **The annual Joint Engineering Societies Banquet will be held Thursday, February 25 at the Oklahoma Christian University Gaylord Student Center in Edmond, OK at 6:00PM.** Our speaker will be Colonel Charles M. Gaona, U.S. Air Force Deputy Director of Engineering and Technical Management at Tinker Air Force Base.

NEWS ITEMS OF INTEREST

Keystone Pipeline Company Sues Obama

courtesy: **The Hill** (<http://thehill.com/policy/energy-environment/264982-keystone-developer-sues-obama-over-rejection>)

By Timothy Cama - 01/06/16

The company behind the Keystone XL oil pipeline is filing a pair of legal challenges to the Obama administration's rejection of the project.

TransCanada Corp. said Wednesday that it sued the administration in a Houston federal court that President Obama exceeded his authority in November when he blocked the pipeline's construction.



The company separately filed an international petition under the North American Free Trade Agreement (NAFTA) seeking to recover the \$15 billion in costs and damages it incurred in relation to Keystone.

The unexpected moves bring back to life one of the most controversial environmental issues of recent years, which the oil industry and environmentalists both thought was dead after Obama's decision.

"TransCanada's legal actions challenge the foundation of the U.S. administration's decision to deny a presidential border crossing permit for the project," the Calgary, Canada-based company said in a statement.

"In its decision, the U.S. State Department acknowledged the denial was not based on the merits of the project," it continued. "Rather, it was a symbolic gesture based on speculation about the perceptions of the international community

regarding the administration's leadership on climate change and the president's assertion of unprecedented, independent powers."

Obama has asserted his power to decide the fate of the Alberta-to-Texas pipeline because it would have crossed an international border — an argument TransCanada said is not supported by the law, the Constitution or NAFTA.

Keyless Automobile Ignition Systems Are Fatally Flawed, Critics Say (abridged for length)

(<http://www.nbcnews.com/business/autos/keyless-automobile-ignition-systems-are-fatally-flawed-critics-say-n490111>)

NBC News (by Herb Weisbaum, Jan. 5, 2016) You wouldn't deliberately leave your car running after you pull into the garage, but if that car has a keyless push-button ignition you could forget to turn it off. **With an attached garage, the carbon monoxide spewing out of the tailpipe could very easily seep into your house, causing illness or death.**

"We have documented at least 19 fatalities that are specifically attributed to keyless ignition vehicles since 2009 and 25 more close calls," said Janette Fennell, founder and president of the safety group KidsAndCars.org. "As more keyless ignition vehicles are sold, we are going to see these predictable and preventable injuries and deaths increase."

Keys are clearly on the way out. Keyless ignitions are now standard in 245 models and optional in 31 others, according to the automotive website Edmunds.com.

The current keyless ignition systems have "an inherent design defect," according to Sean Kane, president of Safety Research & Strategies and a researcher and consultant for plaintiffs' lawyers in consumer-product cases. The way he sees it, manufacturers changed the relationship between the driver and the key and without warning them of the resulting safety hazard.

"In the past, you had a traditional metal key that you could only remove from the ignition when you shifted the vehicle into park and the key had been turned to the off position," Kane explained. **Keyless ignition vehicles completely upend that relationship. In most vehicles you can exit with the fob - which most drivers believe is the key - and the engine will keep running until it is out of fuel. You need the fob to start the vehicle, but it plays absolutely no role in turning it off."**



A driver presses a keyless ignition button.

Change is slow in coming: **Federal safety regulators know about the hazard.** In December 2011, the National Highway Traffic Safety Administration (NHTSA) said keyless vehicles posed a "clear safety problem" and it proposed rules to require an exterior alarm system to warn drivers who walk away from a car that's still running or capable of starting without the fob being present. Five years have passed and the agency has not taken any action.

Sen. Bob Casey, D-Pa., wants NHTSA to get moving on finding a solution for this growing problem. **Carbon monoxide poisonings related to keyless ignitions have been blamed for several deaths and many injuries in Pennsylvania.** "Without an alarm or automatic shut-off feature for ignition systems, drivers, families, neighbors and emergency responders could be at risk for carbon monoxide poisoning."

Not good enough, critics say: Critics say NHTSA's proposed rule won't solve the problem because it would only require a warning alarm that the car is running. They want an automatic engine shut-off. They claim it's something that could be accomplished with a software update.

Clarence Ditlow, executive director of the Center for Auto Safety, blames the carmakers and the government for not taking action to correct a defective design. "There's a safe design that can prevent these deaths and injuries - an auto-shutoff," he told NBC News. "Any time you have an alarm a certain number of people won't hear it or in their rush will neglect to process it. Also, so many people are simply hardwired into thinking that when they take the fob out of the car the ignition is off or will turn itself off."

Kane, of Safety Research & Strategies, said he is "very disappointed" with NHTSA's proposal for a warning alarm. He, too, is urging the agency to require an auto-shut-off. "The real fix should be in preventing the hazard, not just mitigating it," he told NBC News. "There's no reason a car should be running for more than 30 minutes unattended. There's just no good argument for doing that."

When NHTSA announced the proposed rule, it said it did not call for an auto-shut-off because there are "many situations in which a driver intends to leave some electrical system or the engine in the vehicle running without his or her presence."

NHTSA gave two examples: leaving a passenger with heat or air conditioning while the driver runs an errand or keeping the engine running to prevent having to restart the car in a very cold climate. "This is completely contrary to the last 40 years of NHTSA's history," Kane told NBC News. "If you leave a car unattended and the car is running - you have a safety hazard on your hands."

Taking automakers to court: **New York City attorney Martis Alex calls the keyless fob "a deadly defect" that is marketed as a convenience.** She wants to force carmakers to fix the millions of vehicles on the road and those that are manufactured in the future.

Alex is the lead attorney for a class action lawsuit filed by her law firm, Labaton Sucharow, against 10 automakers, all of which make vehicles with keyless ignition systems and no auto shut-off. "We want the auto manufacturers to fix the problem. They know how to fix it. They have fixed it in some cars and that is very troubling to me," Alex told NBC News.

Take a Look – ASME e-Learning Courses. Here is one Example:

EL539 - Hydraulic Design of Liquid or Water Piping Systems Online Self-Study Course

Availability: Always Online

Member Price: \$295.00

List Price: \$395.00

PDHs: 10.0

*This self-study course is designed to be taken at your convenience, and on your own schedule. You have **90 days** to finish the course once you begin.*

This course is designed for new practicing engineers or experienced engineers entering new area of practice or seeking refresh course in fluid flow or pipe hydraulics.

This course covers the basic fundamentals and flow equations used for sizing flow lines or solving the line pressure drop of steady-state simple hydraulic systems flowing non-flashing incompressible Newtonian liquids or water. Industry's generally accepted fundamental Darcy's equation and the empirical Hazen-Williams formula for water flows are introduced as the models of calculating the frictional pressure drop.

Explicit equations between the pipe pressure drop and parameters, such as pipe inside diameter, fluid's flowing velocity or flow rate and pipe run length are also provided in order for the participants to gain insight of their direct relationship. Working equations provided in this course allow participants effectively perform hydraulic analysis and evaluate design options of de-bottlenecking their piping or flow line infrastructure for future service requirement.

For construction of oil refineries, gas or chemical processing plants, piping installation typically contributes 30 to 50% of the total investment cost. The percentage is even higher for the cross-country pipe line projects. Therefore, efficient and effective piping design is important for the success of the project and life cycle cost.

Flow hydraulic calculations and designs directly impact the infrastructure of the pipe system to be installed. Line sizing with considerations for future conditions of flow resistance, flowing velocity and frictional pressure drop to meet special service requirement, is an integral part toward successful hydraulic design.

This course presents underlying principles and commonly used one-dimensional Newtonian isothermal incompressible equations for practicing engineers to perform steady-state hydraulic analysis and calculations for the liquid and water piping systems. Pipe pressure drops are due to friction and static change.

You Will Learn To:

- Explain the basic principles that govern the fluid flow in pipes.
- Describe the process for pipe selection.
- Perform calculations for various aspects of piping systems.
- Describe pressure drop and flow resistance.

Who should attend:

- Anyone who is interested in learning about the basics of fluid flow and pipe hydraulics.

You will need:

- A personal computer, Web browser, Internet connection, and software to display PDF files (such as Adobe Reader®).

See <https://www.asme.org/shop/courses/asma-training-development/online-classes> for more information on ASME e-Learning courses – These are great to fulfill Professional Engineer PDH requirements!

Chair's Corner

To those who were able to join us for last month's meeting with Mr. Phil Crissup, OG+E Vice President, discussion of new emerging energy sources, i.e. solar, wind, etc. – I trust you enjoyed this timely and relevant presentation. Hope that you will be able to join us this month at the OU Devon building first floor classroom for a current discussion of new drone (unmanned aircraft) technology and pending FAA registration changes. All ASME-Central Oklahoma Section members, SWE Section member, AIAA Section members, students, and guests are welcome to join us.

Thanks,

Tom Betzen, Chairperson, ASME Central Oklahoma Section

Future ASME-Central Oklahoma Section Events

Date	Location	Program Topic and Speaker
Thursday Jan. 28, 2016	Devon Energy Hall OU Campus, Norman OK	Joint Meeting with Oklahoma AIAA and SWE Sections "DRONES, UNMANNED ARIAL SYSTEMS & THE FAA"
Saturday Febr. 20, 2016	Okla. City Comm. College 7777 S. May Ave., OKC	Central Okla. Regional MATHCOUNTS Competition
Tuesday Febr. 23, 2016	Okla. Science Museum 2100 NE 52 nd St, OKC	OEF Engineering Fair
Thursday Febr. 25, 2016	Gaylord Student Center OC Campus, Edmond	Joint Engineering Societies Banquet SPEAKER: Col. Charles M. Gaona, USAF Deputy Director of Engineering and Technical Management at TAFB

Please visit our Section website:

https://community.asme.org/central_oklahoma_section/default.aspx

IT'S BEEN REVAMPED. Check event updates and other useful information!