Title	Author	Company	Abstract
Ultrasonic Meter for Gas Custody Transfer Measurement	Bynum Vincent	Cameron	Cameron 's CALDON® LEFM® 380Ci gas ultrasonic flow meter combines world-leading flow control technology with one of the lowest costs of installation and operation of any flow meter on the market today for the natural gas industry. The LEFM 380Ci meter design addresses the needs of the natural gas industry by eliminating the need for flow conditioning, providing a smaller meter installed footprint, reducing the risk of corrosion and/or contamination of internal meter surfaces, and improving safety for technicians servicing the meter. As a world leader in transit-time ultrasonic technology applications, Cameron has integrated its eight-path, dual-plane flow meter design with new technology to introduce the LEFM 380Ci gas ultrasonic flow meter for use in natural gas applications, including, but not limited to, custody transfer metering, fiscal metering, city gate metering, check metering and transfer of product to and from underground storage facilities.
Valve Maintenance	Tommy Grace	Cameron	The presentation is centered around Cameron and Grove products in addition to hands on take-a-part models and show and tell items. Listed below are some of the topics discussed during the presentation. Comparison – Trunnion vs. Floating ball valves; Cameron, Grove, Seat Designs – Self Relieving, Double Piston, Rotating seats; Block & Bleed – Closed Position/Open Position, Block and Bleed demonstration; Secondary Sealant Feature; Sealants and Flushes; General Maintenance; Problem Valve – Leaking past ball and seat; Stem Leaks; Buried Valves – Vent and Sealant Lines; Welding – WxW and WxF Installation; Automation of ball valves, including setting stops. Many animations are used for clarity during the presentation. In addition to ball valves there is a short section about check valves. Written material will be supplied and attendees are free to keep this information.
Mapping	Brady Hustad	Compass Tools	Every utility and government has millions invested in buried and/or hidden assets. With the advancement of GIS we have more accurate location and information on these assets than ever before. However, still in the field, the assets can be hidden by snow, vegetation, or even purposely in people's property for aesthetics. Additionally, despite accurate data, helping the field workers to find the right asset can be challenging, causing repairs and replacements to happen on the wrong assets. Technology has made another leap that can help, Augmented Reality. We will introduce you to a new technology solution that can empower your field workers 'in the last mile' to find the correct hidden asset, plan their job, and effectively save time and effort. We will also discuss how you can implement this into your organization. Additionally, we will discuss the rapidly changing field of augmented reality and what the future might hold. Augmented Reality is no longer a subject of science fiction and superhero movies. It is here and available to improve all of our day to day jobs!

Cathodic Protection	Tom Boussard	Corrosion Mitigation Services LLC	Why Cathodic Protection is not just a good idea: Regulatory Requirements, To whom do the rules apply, Is cathodic protection always necessary?, What are the penalties for non-compliance? How to determine the best method(s) for application of cathodic protection: Structure size, Anticipated coating quality, Current requirement testing, Soil resistivity determination Selecting the best materials for the application:Anode selection for impressed current design, Rectifier selection, Cables, Test Stations, Sacrificial anode size and number determination. Operation and Maintenance: Who is qualified? How do you become qualified? Scheduled maintenance Question and Answer Period
Causes & Cures of Regulator Instability	Paul Anderson	Emerson Process Management	The contributing factors to any pressure control instability are all of the components in a given pressure system. For the regulator itself, these include the valve, actuator, and pilot. The sensing line between the piping system and load itself are also involved. Many instability problems are difficult to resolve because none of these particular factors evidenced themselves as primary causes when investigating an instability. This paper hopes to have helped increase the knowledge of the causes for regulator instability so that each can be separated as potential causes and worked on to provide cures when they occur in the field.
DOT Pipeline Records Program Governance Structure	Curtis Williams	G2 Partners	This presentation will demonstrate the key elements of an integrated management systems approach for a successful DOT Pipeline Records Program. A DOT Pipeline Records Program is implemented under the premise that data and records that accurately reflect the operating and physical characteristics of the pipeline systems are essential to identifying and mitigating threats to natural gas transmission and distribution operations.
The Liquid and Gas Mega-Rules – what will they look like?	John Jacobi	G2 Partners	In 2010, PHMSA published an Advanced Notice of Proposed Rulemaking (ANPRM) for hazardous liquids under 49 CFR Part 195. October 13, 2015 the Notice of Proposed Rule (NOPR) was published and the public comment period closed January 8, 2016. The gas Mega-Rule (49 CFR Part 192) was published in 2011 and the NOPR has, as of this writing, yet to be published. John Jacobi, former CATS Manager in the PHMSA SW Region, will summarize the public comments on the liquid mega-rule and offer his opinions regarding the content and timing of the “final” changes to 49 CFR Part 195. With respect to the gas mega-rule, if the NOPR is published in time, Mr. Jacobi will summarize the changes proposed by PHMSA and offer his predictions regarding which of the proposed changes will generate the most concern and how the final rule might be modified based on the public comments. If the gas NOPR is not published in time, Mr. Jacobi will summarize the gas ANPRM and offer his opinions regarding what the NOPR will contain.

Cross bore safety depends on quality data management	Geoff Morgan	G2 Partners	The common practice of trenchless boring to install gas pipelines has increased the likelihood of inadvertent intersections with wastewater pipe and the potential for leaks caused by cleaning or sewer blockage removal. A successful cross bore inspection program employs a combination of records research, specialized video inspection, and GIS analytics to reduce public risk by proactively identifying potential leaks before they occur. Two years of sewer inspections in San Francisco have demonstrated the value of data in managing a cross bore program. Research efficiently channels resources where they will be most effective. Data validation ensures that assigned inspections are completed and questionable results are flagged for closer examination. Video QC locates obscured cross bores and allows feedback that inspectors can use to increase success in the field. A unified GIS database provides spatial analytical tools to connect field forms, engineering records, inspection videos, and city infrastructure and permit data. At every stage, managing with data meets the requirements of both risk management and financial oversight. Managing with data produces comprehensive, traceable, and verifiable results from a cross bore inspection program.
Infrared Leak Detection Technologies and Best Practices in the Natural Gas Industry	Robert Botello	Heath Consultants Inc.	In the last decade, we've seen a revolution in gas detection innovation with the introduction of Illuminated Infrared Methane Laser Leak Detectors and Thermal Infrared Gas Imaging Cameras. These two technologies are quickly changing the way companies perform their leak inspections as they provide far superior capabilities with improved speed, sensitivity and range of detection limits which help management direct maintenance efforts in a fashion they couldn't conceive of 10 years ago. This presentation will review these two technologies, how they work and how they are being employed at leading companies in the gas industry. The presenter will provide an illustrative demonstration of both the active and passive plume imaging applications that are being used in the oil and gas industry for the benefits of identifying fugitive methane emissions, directing maintenance, reducing emissions and improving safety
Sick FS500 Ultrasonic Meter	Mark Abshire	Koons Gas Measurement	The cutting-edge technology for ultimate measurement accuracy: the new ultrasonic compact gas meter FLOWSIC500 from SICK enables highly accurate measurement in natural gas distribution. Due to its lack of mechanical moving parts, the FLOWSIC500 is a rugged, dependable and low maintenance device – allowing for a significant reduction in operating costs. It is overload-proof, accurate and monitored by an intelligent diagnostics system. Recalibration is simple and straightforward by replacing the cartridge. The FLOWSIC500 can easily be integrated into existing measuring stations. The FLOWSIC500 operates either on battery power or AC power with battery backup. It complies with all relevant standards and regulations. When utilized in transfer and measuring stations, FLOWSIC500 ensures a continuous and blockage free gas supply

Regulators	Jeff Sharock	Koons Gas Measurement	Hands on training for Mooney Regulators: Key characteristics of the Mooney Flowgrid and Flowmax product lines; Regulator selection considerations (8 variables) to determine what regulator is right for the job; By-component design highlights, inspection considerations, and assembly; Advantages of the Step-Drilled-Hole Throttle plate and "G" series diaphragms; Converting the 2" Standard Port Flowgrid to Large Port; Series 20 pilot function, assembly, & changing operating mode, and conversion to a High Pressure; Understanding valve function as a precursor to troubleshooting; Troubleshooting possible causes of failure and erratic control; Sizing, mounting, and piping Mooney's to work alone or together (ie. Working Monitor set)
KorTerra: the Most Trusted Software in the Damage Prevention Industry	John Christiansen	KorTerra	Gain insight into the most trusted software in the damage prevention industry. KorTerra's KorWeb software is a web-based One Call ticket management system created to increase efficiency in locating and ticket processing, while cutting costs by eliminating unnecessary manual processes. KorWeb is used by contract locators, One Call Centers, utilities, municipalities and pipeline companies to protect underground facilities, prevent service interruptions and allow excavators and homeowners to dig safely. You will also get a look into KorTerra's latest redesign of its latest version of KorWeb
Outcome Based Valve, Actuator, and Instrument Selection for ESD's	Bobby Avary	MRC Global	This will be an interactive class/discussion covering the following valve selection (ANSI class, type, materials of construction, size, etc.) for ESD applications. Once the valve is selected, we will determine the actuator type and size for the application. We will look at power sources to include electric, electro-hydraulic, pneumatic (sourcing power from the line or using compressed air), and self-contained hydraulic actuators. We will discuss component parts, including the use of solenoids, limit switches, speed controls, regulators, pilots, manifolds, manual and automatic resets, filters, and the ability to communicate with RTU's. The group will size 2 quarter turn actuators on ball valves. If time permits, we can discuss control valves. Handouts covering the selection process discussed will be given. Participants are encouraged to discuss specific applications.
Integrity Management	Lauren Tipton	NC Integrity Plus	Natural Gas operators must understand and implement both the requirements and intent of the pipeline integrity management rule, in order to create a formal and effective Integrity Management Program (IMP). A complete integrity management program should take a risk-based approach to the management of the operator's assets. The IM regulation cycle consists of the following steps: identifying high consequence areas, performing risk analysis, selection of an appropriate assessment method, prevention and mitigation of risk factors, and continual evaluation and improvement. Attendees will gain a conceptual understanding of the intent of the IM rule and a better idea of how to focus their resources to enhance pipeline integrity
Electrofusion	Jim Whitaker	Secor	3 hour hands on training for electrofusion of PE plastic pipe. SECOR will to demonstrate the installation of Electrofusion Fittings. This demonstration will include a discussion of the various types of polyethylene pipe used for natural gas as well as information regarding print-lines, sizing standards, MAOP's / SDR and special handling and installation considerations for polyethylene pipe. Also discussed will be the comparison of Electrofusion versus Thermal (Heat) Fusion. The demonstration will include a hands-on (by all attendee's) of electrofusion fittings. Fittings used for this demonstration will include both Couplings and Tapping Tee's.

What Lies Beneath? Technology trends in underground pipeline locate, inspection and mapping operations	Dennis Heath	Tri-Global Technologies	Presentation topic would review general mapping guidelines for underground utilities and technology trends that we are observing being adopted worldwide to meet local, state, and federal standards. Providing user case studies and technology assessments commonly used within utility locate and mapping operations. I have been requested to repeat workshops at the annual Common Ground Alliance conferences on the same topic and would be happy to present this message in a much more condensed manner to your stakeholders who might not be in attendance.
Trenchless Methods for Service and Mainline Pipe Rehab and New Install	Dave Holcomb	TT Technologies Inc	TT Technologies is an equipment manufacturer of underground trenchless equipment used for new installation and rehabilitation. TT to present on the different trenchless equipment options available for new gas service and mainline installs, be it horizontal directional drilling, pit launched HDD, or horizontal boring. TT to also provide extensive information on trenchless pipe rehabilitation options available for gas service and mainline, be it hydraulic pipe bursting equipment, pneumatic split and pull system, pull and split winching systems, or mini-pipe splitting systems
Improved Vacuum Excavation Policy and New Process for Returning Original Spoils to Hole	Don Buckner	Vac-Tron Equipment, LLC	1) Improved policy pertaining to vacuum excavation to be used by utility owners and contractors, proposing a national standard on the tolerance zone and how to work in that zone. 2) Vac-Tron has developed a new method and machine that takes original spoils and processes it into either flowable fill or dry fill while also removing larger rocks, returning clean fill to the hole. This is a huge time and money savings. I would like to speak on both subjects.