

# *market barometer*

Q1 2018



*Elis Plzeň flow calibration rig*

## Focus this issue:



- MCAA 2018
- Ultrasonic flowmeters market
- Company Korner:  
Endress+Hauser's 65<sup>th</sup> anniversary
- Flow Calibration Facility Highlight:  
Elis Plzeň
- AW-Lake's TW Series turbine  
flowmeter

A **Worldflow** publication



Flow Research, Inc.





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# Market Barometer Q1 2018

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*Bergen, Norway      Photo by Flow Research*

**Market Barometer** is part of the Worldflow Monitoring Service. Other publications in this service include the **Energy Monitor** and **Flash Reports**. The **Living Database** provides more in-depth information and analysis about the instrumentation business.

Here is the **Worldflow** publication schedule for upcoming quarters:

*Q1 2018*

**Energy Monitor** — June 2018

*Q2 2018*

**Market Barometer** — July 2018

**Energy Monitor** — August 2018

*Q3 2018*

**Energy Monitor** — September 2018

**Market Barometer** — October 2018

# State of the Industry Report: Q1 2018

## Record attendance, quality presentations, and networking characterize MCAA 2018

*By Jesse Yoder, PhD, Flow Research*

This year's Measurement Control & Automation (MCAA) Industry Forum was another quality event put on by MCAA. Flow Research has been a member of MCAA for the past ten years, and I almost always attend the annual Forum.

This year set another attendance record with 270 attendees gathered at a Conference Center in The Woodlands, Texas, just north of Houston, Texas.

The membership of MCAA is mostly made up of instrumentation and control companies, and many decision-makers typically attend.

I thought the extra time for networking was especially helpful. Even though I didn't get to meet everyone I wanted to, I found the increased networking time enabled me to have discussions with more fellow MCAA members than usual. I hope that this feature will be continued in future MCAA meetings.

In addition to record attendance, this was one of the best programs ever.

The first panel provided some helpful perspectives on trends in the industry and how to deal with them.

Other talks touched on process control, making effective sales, and many other relevant topics. Rick Lazio provided a legislative perspective on the manufacturing sector.



*First panel: (L-R) Don Maness, Phil Hunt, and Peter Martin  
photo by Flow Research*



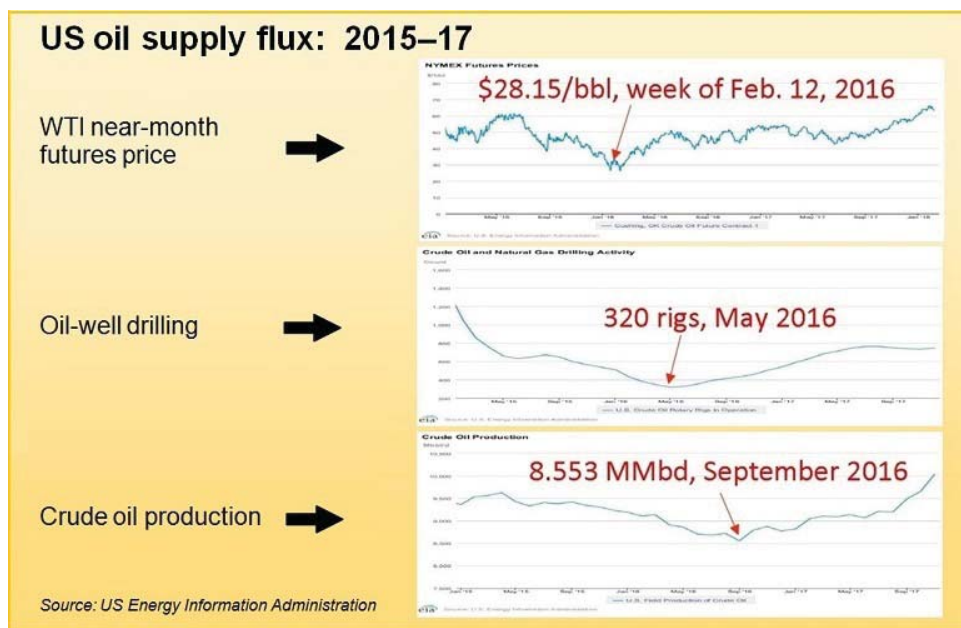
*Bob Tippee photo by Flow Research*

ITR Economics gave its annual reading on the US economy. While the analysis was quite favorable for 2018, ITR cautioned that the economy is likely to see some softening in 2019.

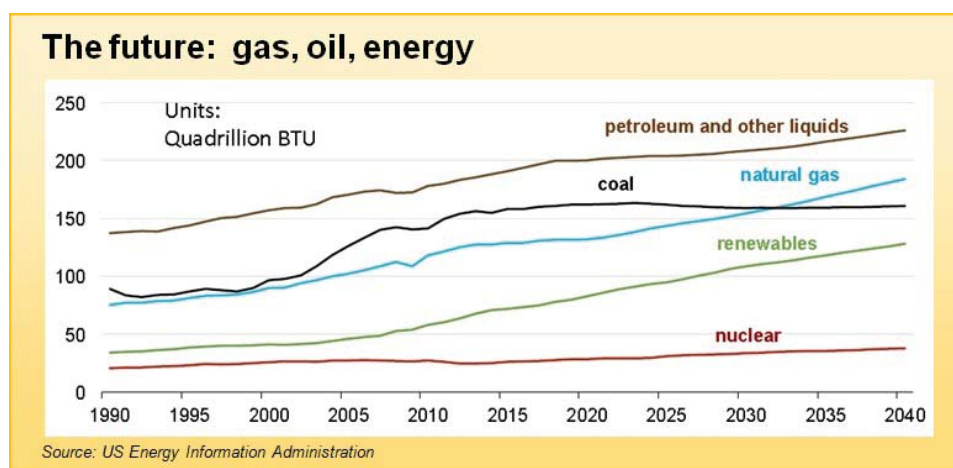
I thought that Bob Tippee's talk on the oil markets was the most interesting and informative. At Flow Research, we study the oil and gas markets, and we have documented the activity in the oil markets since 2011 in a Whitepaper called "Oil's Wild Ride, 3<sup>rd</sup> Edition." This goes into detail on many of the events described in Mr. Tippee's talk, especially the events leading up to OPEC's decision to cut production in November 2016, and the ensuing rise in oil prices. This

increase in oil prices is already benefiting the flowmeter markets, as production activity increases and new instrumentation is required.

Bob showed one chart that compares oil prices, oil rig counts, and oil production together in parallel timeframes:



He also showed a very interesting chart that projects how different forms of energy are likely to grow over the next 20 years. In looking at this chart, it seems clear that we are nowhere near “peak oil” and that the whole idea of “peak oil” may be based on an incorrect metaphor. Oil supply and demand is likely to flatten out gradually over the years, but the idea that it forms a “peak” from which it descends is likely misconceived. Oil supply and demand is more like a sloping plane that is still sloping upwards and may eventually begin not to tile as high but not form a peak like the “peak oil” theorists would have us believe.



If you would like to learn more about MCAA, you can go to [www.themcaa.com](http://www.themcaa.com), or contact Flow Research.





*Cynthia Escher,  
formerly President of MCAA,  
received a trophy honoring her 40 years of  
devoted service to MCAA.*

*Peter Martin, Ph.D.  
VP Innovation and Marketing,  
Schneider Electric,  
Process Automation Business  
was the 2018 Hall of Fame inductee.*

*photo by Flow Research*



*A group picture of both Current and Past Officers and Directors at Large  
from the MCAA 2018 Industry Forum. – photo by MCAA*

**Back Row (L-R)**

*David Wolfe - Acromag  
Charlotte Hill - Retired (Georg Fisher Signet)  
John Schwin - Circor  
Mike Gallager - CENTRO Inc.  
Carl Derian - DynaTech Control Solutions  
Jack Evans - Hawk Measurement America  
Peter Martin - Schneider Electric  
Bharat Naik - Reotemp Instruments  
Trey Rothenberger - Norriseal Wellmark  
Scott Saunders - Moore Industries International  
Bill Hendrick - Onicon  
Wally Stommes - Stone L*

**Front Row (L-R)**

*Joe Coatar - Heartland Controls  
Mike Waters - SOR Inc.  
Bob Carrell - Hoffer Flow Controls  
Gordon Arnold - Sierra Monitor Corporation  
Bruce Thompson - Thompson Equipment  
Company  
Mike Delacluyse - Lesman Instrument Co.  
Stan Ronna - Automation Products Group, Inc.  
Cynthia Escher  
Don Maness - Honeywell  
Jim Hall - Letton Hall Group  
Jim Bolin - Pepperl+Fuchs Inc.  
Jim Winter - Rockwell Automation  
Gary Johnson - Azbil North America*

# Market Research

## How oil prices affect the ultrasonic flowmeter market

*By Jesse Yoder*

The ultrasonic flowmeter market is one of the fastest growing flowmeter markets. In fact, many endusers are replacing traditional flowmeters – especially turbine and differential pressure (DP) types – with ultrasonic flowmeters.

There is, in particular, a great deal of attention being paid to the ultrasonic market for custody transfer, both of liquids and natural gas. In fact, the market for ultrasonic meters for custody transfer of natural gas is one of the fastest growing niches within the entire flowmeter market. In this niche, the ultrasonic market is growing at nearly the same rate as the multiphase flowmeter market is in fiscal monitoring, although overall multiphase growth is still outpacing ultrasonic growth.

Flowmeter manufacturers are focusing a great deal of attention on ultrasonic flowmeters. Much of the industry's research and development effort is currently going into these meters, perhaps at the expense of other meters such as vortex and turbine. Suppliers have made significant progress in enhancing the accuracy and reliability of ultrasonic flowmeters. This has mainly been done by increasing the number of paths or chords, thereby increasing the number of measurement points. Another recent development has been the introduction of dual transmitters.

This measurement technology also benefits from enhancements to its greater diagnostic capabilities. Enhanced diagnostic capabilities, it is claimed, can reduce the need for upstream piping and also increase the ability of the ultrasonic meter to determine sources of error. Remote user access to real-time flow phenomena such as cross-flow and swirl angle enables the user to more quickly identify and to address flow disturbances with corrective actions. This and other forms of self-verification by the instrument provide advanced detection and validation to the operator, further ensuring process reliability.

And, one of the newest meter configurations on the market is the “dual transmitter” type which offers the user a level of redundancy and reliability not previously available on a standard basis. These meters have been developed for custody transfer of petroleum liquids as well as for custody transfer of natural gas, two important revenue generators for suppliers and users alike.

### **Oil Prices from 2012 to 2018**

The inline ultrasonic flowmeter market is heavily dependent on the oil and gas industry. In fact, over 60 percent of inline ultrasonic flowmeters are sold into the upstream, midstream, and downstream oil and gas business, as well as refining. This means that business is good for ultrasonic flowmeters when oil prices are high, and there is a great deal of oil and gas exploration and production going on. When oil prices drop, and exploration and production becomes less profitable, the demand for ultrasonic meters is likely to decline. This is what happened between 2012 and early 2017.

On January 3, 2012, West Texas Intermediate (WTI) was priced at \$102.96. Prices remained relatively stable until mid-August 2014. That month oil prices began a steady decline from the \$100 level down to the range of \$30 per barrel in early 2016. While some of the fluctuations in