Utah

Mike Coleman



For our NCSLI Utah Section meeting, we met at the Utah State Space Dynamics Laboratory which is a research and development arm of Utah State University in Logan, Utah. It is a very applicable and interesting place to meet because SDL has contributed significantly to research efforts in space-born observations of earth's atmosphere as well as exploring galaxies with highly advanced IR detectors used on satellites used to find asteroids, take high resolution images of galaxies, among other scientific activities.

We started the day with Jack Somppi delivering a message of greetings from the NCSLI Board of Directors including updates on NCSLI activities and events. After that, we were excited to have representatives from the Utah Department of Agriculture – Weights and Measures Laboratory, Brett Gurney, Bill Rigby, and Shelley Walker, present on their legal metrology program. It was interesting to hear the huge impact they have in all our lives, most of which we don't even realize. It was really interesting to hear how the Weights and Measures Lab recently made news in Utah. A few years ago they had received several questions and concerns about scales being used in the trade of precious metals. They began a program in 2013 to visit all the precious metal traders in the state of Utah to check their scales and work with them on making proper measurements. In the first year they found that more than 62% of the scales were out of

tolerance. As they worked with the shops, providing education and training, they were able to see that only 17% of scales were out of tolerance in 2014. This was a great example of how metrology really does make a difference in the world.

After lunch we were able to rotate through multiple demonstrations provided by our meeting sponsors; Additel Corporation, Fluke Calibration, and The Modal Shop. We learned how to make automated low-pressure measurements and automated accelerometer calibrations. We also saw a demo on the importance of understanding emissivity settings in IR thermometry.

Our afternoon technical presentation was provided by Mike Dillon, a Product Group Manager, from The Modal Shop. He spoke on calibration of dynamic sensors (accelerometers). It was very interesting to see how different accelerometer technologies work and the different ways of calibrating them. We were also able to learn how accelerometers can be used for dynamic pressure measurements as well.

We appreciate everyone who helped with this meeting, especially Marla Richman at SDL who did a great job with getting the facility set up for us and a nice catered lunch. She even picked up a variety of Utah State Aggie ice cream for our afternoon snack!

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