Northwestern Region
Measurement Training Summit

By Anthony Reed, NCSLI Northwestern Region Coordinator
The Northwest Region stepped things up a little and hosted a two-day Measurement Science Training Summit. This event was held May 20th and 21st at the Seattle Museum of Flight offering white papers, tutorials, hands-on measurement training demonstrations, exhibitors and more. Our attendance for the two days surpassed 200 scientists, engineers, technicians and students from colleges and universities in western Washington. We had exhibitors and presenters as well. A special thank you is extended to The Boeing Company, Fluke Calibration and Vaisala Inc., Canada, for sponsoring this event. With their support many students were sponsored to attend this meeting and celebrate World Metrology Day.

During this event the attendees had the option of 12 hands-on measurement training demonstrations, white paper presentations or tutorials. Hands-on demonstrations were presented by subject matter experts throughout each of the two days. These hands-on demonstrations were centered on the measurement science behind the technology. Ron Clinkenbeard and Mike Spanier from The Boeing Company demonstrated force testing and load cell calibrations. Gary Lewandowski from Agilent demonstrated Cal Pods and calibration verification technology. Bill Le Mesurier representing Eustis/Pyrocom demonstrated a thermocouple calibration. Doug Klein from Hexagon Metrology provided a demo on 3D coordinate articulated arms. David Mihal from Hexagon Metrology demonstrated 3D coordinate measurements using an articulated arm. Daniel Suh and King Nutronics demonstrated in-situ pressure calibration using handheld pressure standards. Mike Sciulli representing TEGAM led attendees through a series of low frequency resistance measurements. Jim Whitley and Shawn Snell guided attendees through low-flow measurements and the science behind those measurements. Andy Hickson representing Western Regional Strain Gage Committee led attendees through a series of strain gage measurements. Michael Curtis and other Starrett associates provided a demonstration on dimensional measurements using a vision system as well as force measurements. Jeff Gust from Fluke Calibration demonstrated the impact of false accept/false reject.

In addition to the hands-on demonstrations we also had several white paper presentations: Andy Hickson, Western Region Strain Gage Committee presented “Reading and Writing Calibration Information into a Load Cell with TEDS (Transducer Electronic Datasheet)”; Jay Hendricks, NIST presented “New Optical Primary Pressure Standard”; LaVar Clegg, Interface, Inc., presented “Practical Uncertainty Estimation in Load Cell Calibration”; Brian Parry, The Boeing Company presented “The Cost of Quality” Jesse Morse, Morse Metrology presented “Effective Calibration Lab Management – In Brief”; Mike Fink, The Boeing Company presented “Maximizing Machine Volumetric Performance by Minimizing Plane Squareness Error”; Gary Lewendowski, Agilent Technologies presented “Cal PODs and the Elimination of Errors” and lastly,
Dennis Lewis, The Boeing Company presented “The Science Behind WiFi Connectivity Onboard Aircraft.”

Tutorials were also made available to the attendees: Michael Boetzkes, Vaisala Inc., Canada, “The Basics of Humidity Measurements”; Jack Somppi, Fluke Calibration, “Introduction into Electrical Measurements and Metrology”; Stephen Bill, The Modal Shop, “Types and Theories of Accelerometers, Dynamic Sensor Types, the Use and Calibration of Each”; and Doug Klein, Hexagon Metrology “Geometric 3D Coordinate Measurement Techniques in the Testing and Manufacturing Environments.” Attendees were encouraged to bring their oldest and coolest metrology artifact to the event. We had two NCSLI Past Presidents Dave Agy (retired), Fluke and Derek Porter (retired), Boeing and Jesse Morse.
judge the artifacts to pick their favorite. First prize was agreed on and awarded. The remainder of the entries were also given a ribbon. Thank you Derek Porter, Dave Agy and Jesse Morse for performing the duties of judge so honorably.

Jack Somppi, NCSLI Western Region VP opened the meeting with a brief discussion on the NCSLI Board of Directors meetings, memberships that are available within NCSLI, the need for volunteers and the focus of testing involvement and inclusion. Jack shared the NCSLI Vision and Mission to the group to let them know that the testing world will be a key player in the advancement of measurement science and it was in our best interest to be as involved as we could.

After a quick explanation of how the meeting would progress we divided everyone into groups, one group for each demonstration. Each demonstration lasted 40 minutes with five minutes for Q&A and a 10 minute break before the next
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