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This Month in History

July 1, 1862 - Happy Birthday Internal Revenue Service (IRS). The IRS was established by an Act of Congress on this day, and President Lincoln signed the first income tax bill.

July 2, 1788 - The United States Constitution was ratified by the required nine states. A committee was appointed to make way for the new American government. The first public reading of the Declaration took place on July 8, 1776, in Philadelphia.

July 4, 1776 - This day, considered the United States of America's birthday marks the approval of the Declaration of Independence by the Continental Congress.

July 6, 1747 - This day marks the birth of Revolutionary War Naval Officer John Paul Jones (1747-1792) born in Kirkcubbin, Scotland. He is most famous for his words shouted at British soldiers, "I have not yet begun to fight!"

July 30, 1863 - This day marks the birth of Henry Ford (1863-1947) in Dearborn Township, Michigan. Ford was considered a pioneer in the automotive industry and introduced the assembly-line production system for automotive manufacturing.

**Educational Outreach Highlights
Folly Quarter STEM Night**

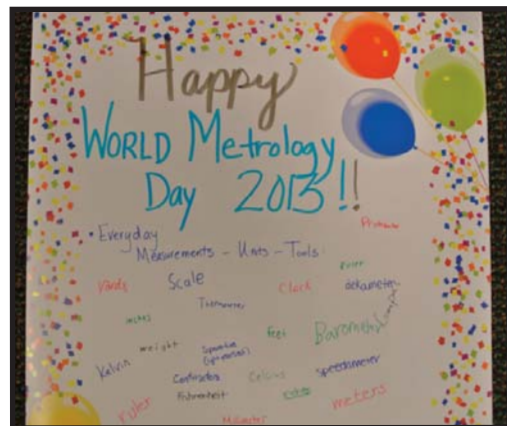
Byline: Elizabeth Gentry

Several Office of Weights and Measures staff members volunteered to participate in the Folly Quarter Middle School Science, Technology, Engineering, and Mathematics (STEM) Night in Ellicott City on March 16, 2013. Carol Hockett, Marc Buttler, and Elizabeth Gentry staffed an exhibit booth.

The event was the first of its kind at Folly Quarter to promote careers in science, technology, engineering and mathematics, which was organized by Sherri Capurso. Ms. Capurso learned about the Office of Weights and Measures (OWM) measurement science education outreach efforts when she attended the NIST Summer Institute for Middle School Science Teachers several years ago.

(<http://www.nist.gov/iaao/teachlearn/>).

The OWM exhibit hosted three activities and was visited by at about 50 parents and students. The theme was Measurements in the Marketplace, focusing on career opportunities such as becoming a Weights and Measures inspector and laboratory metrologist. The first activity, hosted by Carol Hockett, examined the measurement process that is used to ensure the accuracy of gasoline fuel purchases and the cost of tolerance. The second activity, hosted by Marc Buttler, explained the benefits of unit pricing and how consumers can use this tool to make value comparisons when shopping. The third station, hosted by Elizabeth Gentry, created a Happy World Metrology Day poster where students listed their favorite every day measurement, unit, or measuring tool. In addition, NIST SI publications and study aids were distributed (<http://www.nist.gov/pml/wmd/metric/education.cfm>).



Additional pictures on page 4

Laboratory Metrology News

LABORATORY METROLOGY UPDATES

Handbook 105-1, Specifications and Tolerances for Field Standard Weights

An updated draft of NIST Handbook 105-1 for field mass standards is now posted for review in the OWM Contacts System (described later). One day of training at each of the 2013 Regional Measurement Assurance Program (RMAP) events will cover the proposed updates and training on several of the concepts that are now being proposed. One key aspect to consider is that the 1990 version of Handbook 105-1 only covers one class of weights (Class F) and they are not suitable for all weights and measures applications. For example, Class I and II balances and scales require mass standards with tolerances that are tighter than the 1990 Class F tolerances. The United States is moving toward harmonization with OIML R 111 in this version as well, with the additions needed to support U.S. Customary units and the “3s” (i.e., 3 lb, 300 g, and so on). We expect work to proceed on a second draft of this handbook AFTER all 2013 RMAPs are held.

Handbook 105-7, Specifications and Tolerances for Dynamic Small Volume Provers

An updated draft of NIST Handbook 105-7 for small volume provers (SVP) is posted for review. There are two aspects of this update to consider. One aspect is that a number of updates are being proposed for the traditional SVPs that were originally addressed in this handbook, based on laboratory experience in performing calibrations (which was not the case when the handbook was first published) and the use of SVPs in field testing.

The second aspect that is being proposed in this draft is the inclusion of specifications and requirements (or exceptions) as suggested for the newer technology often called Closed Loop Provers (CLP). The Alternative Test Methods working group and laboratory subgroup have been discussing these topics for some time now. A question is proposed on the cover page of the draft document which provides an opportunity to provide input on whether you think this new technology should be included in this handbook or whether a separate addendum or completely new handbook should be developed for alternative technologies.

We expect work to proceed on this project after field testing comparisons have evaluated and demonstrated suitability and acceptability of alternative test methods.

PROCESS FOR SUBMITTING COMMENTS ON NIST 105-X HANDBOOKS

1. Obtain a user account and log-in password for the OWM Contacts System (if you don't already have one):
<https://tsapps.nist.gov/WMD/default.aspx>

Calendar 2013

Registration for training in the NIST Office of Weights and Measures is handled by Yvonne Branden at yvonne.branden@nist.gov.

Course descriptions can be viewed on the Office of Weights and Measures website by clicking on the name of the course.
<http://www.nist.gov/pml/wmd/calendar.cfm>

July 14 - 18 (5 days)
NCWM Annual Conference
The Seelbach Hilton Louisville
Louisville, KY
Contact: info@ncwm.net

July 14 - 18 (5 days)
NCSLI
Nashville, TN
Contact: www.ncsli.org

August 8
Webinar - Contract Review
2:00 p.m. - 4:00 p.m.
Class No. 5246

August 12 - 16 (5 days)
Fundamentals of Metrology
Class No. 5270
NIST/Gaithersburg, MD

August 12 - 16 (5 days)
Handbook 133, *Checking the Net Contents of Packaged Goods*
Class No. 5261
Sacramento, CA

August 15
Webinar - Document Control and Record-keeping
2:00 p.m. to 4:00 p.m.
Class No. 5247

August 19 - 23 (5 days)
Fundamentals of Metrology
Class No. 5248
NIST/Gaithersburg, MD

August 21 - 22 (2 days)
NTEP Grain Analyzer Sector Meeting
Chase Suites
Kansas City, MO
Contact: NCWM at info@ncwm.net

August 27 - 28 (2 days)
NTEP Weighing Sector Meeting
Albany, NY
Contact: NCWM at info@ncwm.net

August 29
Webinar - Calibration Certificate Evaluation
2:00 p.m. to 4:00 p.m.
Class No. 5245

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2. *Process to Download* and review the draft documents:

To get the Draft HB 105-1 and 105-7 documents, login to the OWM Contacts System and:

- Select **My Items** (top menu)
- Scroll down to the document and press **REQUEST**
- Press **SUBMIT**
- Press **DOWNLOAD**

3. Process to Submit comments:

To comment on the document, login to the OWM Contact System and select:

- **My Comments** (top menu)
- **Submit a Comment** (above list; in the middle of the screen)
- **Select** the document (button on left next to Documents in list)
- Enter Section, Page, Comment and Press **CONTINUE** (at bottom)
- Either **EDIT** or **SUBMIT** (at bottom)

SOP 18 Podcast and SOP Job Aids

Val Miller recently produced a training podcast for the calibration of a five-gallon graduated neck test measure using a slicker-plate type standard and Standard Operating Procedure (SOP) 18. It is posted as a “job aid” with SOP 18 on the **Calibration Procedures** area of the OWM website. The video instructs you to read SOP 18 and 19 prior to watching the video. See: <http://www.nist.gov/pml/wmd/labmetrology/sops.cfm>. While you are checking out the podcast, you can also review the updated spreadsheets from OWM (as used in our seminars) and from Dan Wright (Washington) that are posted with the other SOPs for calibrations. Be sure to validate any of these spreadsheets prior to use in your laboratory! And of course, be sure to provide us with your feedback.

Requests for additional information regarding these items can be address to Georgia Harris at gharris@nist.gov or Val Miller at val.miller@nist.gov.

August 27 - 28* (2 days) (*full*)
Handbook 130, Price Verification
Orlando, FL
Class No. 5273

August 29 - 30* (2 days) (*full*)
Handbook 130, Price Verification
Miami, FL
Class No. 5272

September 9 - 13 (5 days)
NEMAP*
Class No. 5218
Harrisburg, PA

September 10 - 12 (3 days)
Vehicle and Axle-Load Scales
Class No. 5274
Augusta, ME

September 16 - 20 (5 days)
MidMAP*
Class No. 5219
Springfield, IL

September 18 - 19 (2 days) (*full*)
Handbook 130, Price Verification*
Marlboro, MA
Class No. 5271

September 22 - 26 (5 days)
Western Weights and Measures Association (WWMA)
Kalispell, MT
Contact: Tim Lloyd at tlloyd@mt.gov

September 23 - 27 (5 days)
SWAP*
Class No. 5220
Phoenix, AZ

October 4 - 5 (2 days)
NTEP Measuring Sector Meeting
Embassy Suites Charleston
Charleston, WV
Contact: NCWM at info@ncwm.net

October 7 - 9 (3 days)
Southern Weights and Measures Association (SWMA)
Embassy Suites Charleston
Charleston, WV
Contact: Richard McComas at rich.d.mccomas@wv.gov

October 16 - 17 (2 days)
Northeastern Weights and Measures Association (NEWMA) Interim Meeting
Holiday Inn Norwich
Norwich, CT
Contact: James Cassidy at jcassidy@cambridgema.gov

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WEIGHTS AND MEASURES IN THE NEWS

Lube Report

Bulk Oil Draw Regulators' Gaze

http://www.imakenews.com/lng/e_article002728866.cfm

Kansas - *cjonline.com* *The Topeka Capital-Journal*

Scale technicians revolt against new state policy: Licensed technicians say competitors reviewing installations will not help meet goal of increased accuracy

<http://cjonline.com/news/2013-06-26/scale-technicians-revolt-against-new-state-policy>

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Wishing you a wonderful summer!
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OWM Office Staff Pictured: Carol Hockert and Marc Buttler



In the Field

Is there a W&M topic that you would like to have appear in the *Weights and Measures Connection*?

How can we better serve our W&M community?

Do you have a safety tidbit to share?

Do you have a W&M event that you wish to post in the *Connection's* calendar?

Submissions can be sent to the Editor, Linda Crown at Linda.Crown@nist.gov

October 17
Webinar - State Laboratory Annual Submission Process**
2:00 p.m. to 4:00 p.m.
Class No. 5249

October 21 - October 25 (5 days)
Packaging and Labeling
Glendale, AZ
Class No. 5269

October 21 - November 1 (2 weeks)
Mass Metrology Seminar
Class No. 5250
NIST/Gaithersburg, MD

October 31
Webinar - Internal Auditing Best Practices
2:00 p.m. to 4:00 p.m.
Class No. 5251

November 18 - 22 (5 days)
Volume Metrology Seminar
Class No. 5252
NIST/Gaithersburg, MD

2014

January 13 - 17 (5 days)
Fundamentals of Metrology Seminar
Class No. 5276
NIST/Gaithersburg, MD

January 19 - 22 (4 days)
National Conference on Weights and Measures (NCWM) Interim Meeting
Albuquerque, NM
info@ncwm.net

February 6
Webinar - Conducting an Effective Management Review
2:00 p.m. to 4:00 p.m.
Class No. 5255

February 20
Webinar - Internal Auditing Best Practices
2:00 p.m. to 4:00 p.m.
Class No. 5256

March 3 - 14 (2 weeks)
Mass Metrology Seminar
Class No. not available
NIST/Gaithersburg, MD

March 31 - April 4 (5 days)
Fundamental of Metrology
Class No. 5275
NIST/Gaithersburg, MD

*Invitation Only

**Limited to State Laboratory Program Participants