



# WEIGHLOG

SCALE MANUFACTURERS ASSOCIATION, INC.  
6724 Lone Oak Blvd. • Naples, Florida 34109  
<http://www.scalemanufacturers.org>

FALL-WINTER 2002

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Robert J. Schuller  
*Hobart Corporation*
- Vice President**  
Richard G. Norden  
*FANCOR, Inc.*
- Immediate Past President**  
David R. Castle  
*Weigh-Tronix, Inc.*
- Executive Director**  
Robert A. Reinfried  
*SMA*

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Term expires 2003

- Paul E. Huber  
*A&D Weighing*
- Robert J. Schuller  
*Hobart Corporation*

Term expires 2004

- Todd Manifold  
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- David R. Castle  
*Weigh-Tronix, Inc.*

Term Expires 2005

- Stephen Langford  
*Cardinal Scale*
- Richard G. Norden  
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## STAFF

- Executive Director**  
Robert A. Reinfried
- Technical Director**  
Daryl E. Tonini
- Technical Assistant**  
Philip G. Hannigan
- Meeting Coordinator**  
Kimberly MacLaren

## MEETING ENHANCEMENTS PROVE SUCCESSFUL

The executive session of the SMA Fall Meeting was something out of the ordinary and was very successful according to the participants.

In the past, executive sessions had been limited to members roundtable discussions on current business conditions, voting to adopt SMA Positions on the agendas of the National Conference on Weights and Measures and approving SMA standards.

While these are important activities of our Association, it was felt the value of the meeting could be enhanced to provide members with content that they could not otherwise acquire. So, with that in mind, SMA experimented with an enhanced agenda that included the following:

### SMA Positions

Dave Quinn led the members through the NCWM Board of Directors and NTEP Committee proposals scheduled for consideration at the National Conference on Weights and Measures Interim Meeting, in January 2003. The positions approved by vote of the membership present are included as part of a consolidated SMA Position Document.

Daryl Tonini led the members through the NCWM Specifications and Tolerances Committee proposals, scheduled for consideration at the National Conference on Weights and Measures Interim Meeting, in January 2003. The positions approved by vote of the membership present are included as part of a consolidated SMA Position Document.

The *SMA Standard for Vehicle Scale Characterization*, with minor text corrections, was approved unanimously by those official representatives in attendance. SMA staff authorized editorial privileges.

The *SMA Standard for Software Sealing Method of Access*, with minor text corrections, was approved unanimously by those official representatives in attendance. SMA staff authorized editorial privileges.

## CONFORMITY ASSESSMENT UPDATE

In his report to the SMA membership at the Mira Monte meeting, NCWM Chairman-Elect Dennis Ehrhart, Arizona Department of Weights and Measures presented an update of the discussions taking place at the NCWM Board of Directors and in public weights and measures forums. Ehrhart



Bob Schuller of Hobart Corporation, accepts his company's SMA PMT Certification from SMA Vice President, Rick Norden FANCOR, Inc.

reported that the Board received a report from their Conformity Assessment Work Group at the Annual Conference in Cincinnati last July. The report was also presented to interested Conference

members on two different occasions. There was considerable feedback from these venues addressing the issues of (a) does NCWM impose conformity assessment standards on all device



Jay Visco of HBM, Inc. accepts his company's SMA PMT Certification from SMA Vice President, Rick Norden FANCOR, Inc.

manufacturers? (b) Do we consider starting with devices affected by influence factors first? (c) Who will pay for that and how much will it cost? (d) How many more additional staff will be required to operate the program? (e) How many audits will we conduct each year? (f) Are there other approaches we might consider? (g) Will this program add real value to the NCWM Certificate of Conformance?

Based on feedback from the public presentations and from further Board discussion, an alternative proposal has been put forward for consideration. The alternative proposal is very responsive to the questions raised in Cincinnati. In the first instance, it appears that the program will focus first on the

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**UPCOMING MEETINGS OF INTEREST TO SMA MEMBERS**

**NCWM Interim Meeting**  
Omni Jacksonville Hotel  
Jacksonville, Florida  
January 12-15, 2003

**SMA Annual Meeting**  
**Marco Island Hilton Hotel**  
Marco Island, Florida  
April 23-26, 2003

**Central W&M Association Annual Meeting**  
Amway Grand Hotel  
Grand Rapids, Michigan  
May 4-8, 2003

**Northeast W&M Association Annual Meeting**  
Holiday Inn  
Grantville, Pennsylvania  
May 12-15, 2003

**NCWM 88<sup>th</sup> Annual Meeting**  
John Ascuga's Nugget  
Sparks, Nevada  
July 13-17, 2003

**NTETC Weighing Sector Annual Meeting**  
Picadilly Inn  
Fresno, California  
September 11-13, 2003

**Western W&M Association Annual Meeting**  
Picadilly Inn  
Fresno, California  
September 14-19, 2003

**Southern W&M Association Annual Meeting**  
Charlotte, NC  
October 4-8, 2003

**SMA Fall Meeting**  
**LaPlaya Beach Hotel**  
Naples, Florida  
November 5-8, 2003

*Fall Meeting ... continued from page 1.*

**Market Size**

Paul Huber and Bob Reinfried briefed the members on a Market Size study they had conducted and led the discussion on what type of statistics the group wanted included in future analysis. A copy of the slide presentation was included as an attachment to the minutes (sent out to members last month).

**Business Conditions**

Bob Reinfried distributed the results of the SMA How's Business Survey that was conducted in advance of the meeting to participating companies. It was broken down into two sections. The first had to do with economic activity and indicators. The second had to do with benefits and costs.

The consensus was that this was a valuable report and that the benefits survey should be expanded.

An ad hoc statistics committee was established consisting of Todd Manifold, Rick Norden, Bob Schuller, Paul Huber and Bob Reinfried. Email along with conference calls will be used to help develop the expanded statistical and benefits surveys.

Then, President Schuller led a roundtable discussion of business conditions underlying the numbers. Among the many items surfaced, the following appear to have been the most common consensus of the members who were there.

Though it was a bad year, there appears to be some upturn in orders occurring. However, there were no good estimates as to when conditions will improve.

Medical insurance costs are growing at the same rate as last year.

Short measuring seems to be a growing concern in the marketplace. This can help SMA promote quality measuring systems if we can help quantify some of the economic damage as represented by a growing number of law suits. SMA will be researching data regarding the prevalence of short measuring.

Members also discussed several areas of interest for future presentations at SMA meetings that will enhance the value of

member attendance. Some potential areas discussed included: A weighing and measuring technology requirements perspective from the Dairy Association, Medical Care options for employers and employees, and an in-depth seminar on contracts management. One of these topics will be included at the Annual Meeting. If you have a preference, please contact the SMA staff or Bob Schuller to let your views be known.

It should also be noted that during the General Business Session open meeting a presentation was made by the Uniform Code Council regarding RFID and EPC technologies which was well received.

*It is important to remember that SMA is your Association. The benefits you derive from membership are directly proportionate to your participation in the activities of the Association. We look forward to your inputs and to seeing you at the Annual Meeting in April.*



(left to right) Mark Armstrong (Vishay Tedeia-Huntleigh), Jay Visco (HBM, Inc.), Steve Beitzel (Systems Associates, Inc.) and Steve Langford (Cardinal Scale Mfg. Co.) enjoy the opportunity to network at the SMA Fall Meeting.



(left to right) Tom O'Connell (Weigh-Tronix, Inc) and his wife, Susan, enjoy a break with Jill and Bill Norden (FANCOR, Inc.) at the Fall Meeting reception and banquet.

issues associated with equipment subject to influence factor effects.

### **Influence Factors**

Under the alternative proposal, the influence factor requirements must be verified by an outside certified body. This may be a second party audit such as with the SMA PMT certification. It may also be a third party audit such as EU directive 90/384. NCWM may also develop a procedure for a second party verification audit. The key element is that the processes to insure compliance with influence factors are verified. Some additional items related to influence factors are proposed:

- Requirement will be retroactive;
- There will be a phase-in period of three years;
- This certification is site specific and will focus on the site that controls the quality of the device.

### **For all devices:**

- An NTEP CC will expire 5 years after the last complete NTEP laboratory evaluation.
- Phase-in will start immediately and will be staggered to avoid an overload to the NTEP system. This will begin with the oldest date of issue and moved forward.
- The Certificate expiration date and phase in will be certificate specific and not Company specific.
- The device will require re-evaluation by an NTEP Lab.
- The information contained in the CC will be improved and expanded.

### **Initial Verification in the Field**

Initial Verification is completed by a State or Local weights and measures official within the first thirty days of a new installation. Initial verification includes inspection of the device, not just performance testing.

- Field personnel that will be conducting Initial Verification will be educated and trained as to what is required and will also be reviewed for their ability to be thorough and consistent.
- Field inspectors will have adequate information such as photos and other items to assure that a device can be verified.
- All Information will be kept at the state level. Only confirmed instances of failure to meet type will be maintained by NTEP

## **FAIR MEASUREMENT ACT**

Aves Thompson, Director Measurement Standards and Commercial Vehicle Enforcement, Alaska Department of Transportation (Aves\_Thompson@dot.state.ak.us), a past chairman, National Conference on Weights and Measures, and author of the Fair Measurement Act (FMA) proposal addressed the SMA Fall Meeting at the MiraMonte resort in November.

The FMA is a proposed bill for the establishment of a Federal grant program to be known as the Weights and Measures Assistance Program (WMAAP) to provide financial assistance to states to secure uniformity in weights and measures laws and methods of inspection. The objective of FMA is to ensure that the Secretary of Commerce, States, and other political jurisdictions work in partnership to establish programs to improve uniformity in state and local weights and measures laws, method of inspections and enforcement and to support an equitable national commercial market place where both buyer and seller are confident that trade measurements are appropriate.

Historically and by constitutional mandate, U.S. weights and measures programs are the responsibility of the individual states. According to a NIST estimate, weights and measures laws impact transactions involving more than \$4.5 Trillion or 52.8% of the gross domestic product. However, more and more states are failing in their responsibility to adequately fund and staff their programs. Loss of national market place confidence is a very real problem. Consumers, manufacturers, distributors, retailers, importers, exporters, buyers and sellers will all be negatively affected as state weights and measures programs are diminished through lack of predicable long term funding. The FMA provides funding to support weights and measures regulatory and enforcement efforts that foster and promote national market place confidence.

Thompson poses the question as to whether the FMA is an effort to federalize weights and measures. He states that it is not. Will there be strings attached? He answers that certainly there will be. Consider federal requirements for states to adopt seat belt laws and speed limits in order to qualify for federal support for highway construction programs. However, without an infusion of resources to weights and measures and continued dwindling budgets at the state level, it may only be a matter of time that someone or perhaps a gross failure at the state level will make a strong case to pre-empt state control of weights and measures.

Thompson has carried his proposal to the 2002 NCWM and to the Western and Southern weights and measures associations. It is on the agenda for the 2003 NCWM Interim Meeting in Jacksonville, Florida in January. There seems to be a recognition among weights and measures

officials that something must be done, and soon, to prevent serious consequences at the state program level. He has also discussed the proposal with NIST where there is interest and recognition of the national weights and measures funding situation.

## **SOFTWARE SEALING STANDARD APPROVED BY SMA**

At the 74<sup>th</sup> NCWM in 1989, the National Conference on Weights and Measures approved the general use of audit trails as an approved method for the sealing of electronic adjustable features on devices. Since then, many manufacturers have taken advantage of this sealing method. However, each device manufacturer has generally been free to implement the audit trail sealing alternative as he sees fit. Because there are no standards specified as to how this information can be accessed by field inspectors, there has been a proliferation of methods to access the audit trail. This has led to confusion and even apprehension among inspectors: the apprehension has further led to policies in a few jurisdictions which have discouraged field staff from "fooling around" in an effort to retrieve the information in the audit trail software.

In an effort to demystify the use of audit trails, the Weights and Measure Division at NIST has prepared a training module addressing the general requirements for sealing using software techniques. This information has been presented at NIST sponsored training seminars and a "light" version has been presented to each of the regional Weights and Measures annual meetings in 2002. Industry joined NIST in this effort with Gasoline Pump and Scale Manufacturers presenting details of the features and characteristics of scale and pump audit trail implementation methods.

The SMA standard defines a uniform procedure used to access the parameter and calibration counters for Category 1 and 2 scale sealing methods and the event log used in the Category 3 scale sealing method. The specific requirements for the software sealing methods are contained in NIST Handbook 44, section G-S.8 Provision for Adjusting Electronic Adjustable Components

The SMA standard, "Software Sealing Method of Access" was approved at the Mira Monte 2002 Fall Meeting of SMA. The standard was reviewed by the SMA Technical Committee and made a recommendation to the membership that it be adopted. This action was completed at the general membership meeting on Friday, November 8, 2002.

The standard is available at no charge on the SMA web site [www.scalemanufacturers.org](http://www.scalemanufacturers.org).

## VEHICLE SCALE CHARACTERIZATION STANDARD ADOPTED

Culminating a three year effort, the SMA Technical Committee's heavy capacity working group presented its Vehicle Scale Characterization standard to the Technical Committee at the SMA Fall Meeting at Mira Monte Resort in November. This effort had proceeded under the leadership of Leon Lammers, Weigh-Tronix working with Steve Langford, Cardinal, Dave Quinn, Fairbanks, Darrell Flocken, Mettler Toledo, and Tom Luna, Scales Unlimited. The Technical Committee then recommended that the membership adopt the document as a SMA standard. This was done during the general business session of the meeting.

The purpose of the standard is to provide criteria for characterizing the service life of a vehicle scale based on the concentrated load capacity (CLC) rating of the platform. Potential scale owners and operators desiring to select the proper vehicle scale for a given application can use this knowledge.

The service life of a vehicle scale is dependent on the cumulative number of load cycles and the level of the load-induced stress developed during the load cycles. The number of loads is determined by the number of weighments multiplied by the total of the single axles and groups of axles per vehicle. To quantify the level of load-induced stresses in the scale system, the CLC rating is used as a baseline load for determining the expected service life of the device.

The standard provides tables for service life recommendations for platform spans of less than and greater than fifteen feet. The tables are based on a design fatigue life of scale structural members developed from nationally accepted engineering standards and specifications e.g. the American Institute of Steel Construction (AISC) "Manual of Steel Construction" and the American Association of State Highway and Transportation Officials (AASHTO) "Standard Specification for Highway Bridges". Manufacturers are cautioned to verify design compliance with the fatigue life criteria of these standards using full CLC load ratings.

A copy of this standard is available at no cost from the SMA web site: [www.scalemanufacturers.org](http://www.scalemanufacturers.org).

## REVISED EPO HANDBOOK 112 NOW AVAILABLE

NIST Handbook 112, 2002, Examination Procedure Outlines for Commercial Weighing and Measuring Devices, A Manual for Weights and Measures Officials is now available from NIST. Handbook 112 was first published in 1973 by the Office of Weights and Measures. NIST developed these EPOs and compiled them into this handbook to serve as a guide for the field examination of commercial weighing and measuring devices. It includes inspection and test procedures, with code references to NIST HB 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices".

Although this publication was prepared primarily for use by weights and measures officials of the Federal, State, and local jurisdictions, it is also useful to manufacturers and other commercial and industrial organizations and individuals involved in the design, sale, service, or use of weighing and measuring devices.

The EPOs have been updated to include references to the 2002 edition of NIST HB 44 and to recognize electronic equipment. Some of the EPOs that appeared in the original version of NIST HB 112 have not been updated and are not included in this document.

## WEIGHT CARTS

Draft calibration procedures, specifications and tolerances, and field testing procedures are available for review. SOP 33, HB 105-8 and a modified EPO were discussed at the regional metrology meetings this Fall. It is hoped to move forward with final publication soon thereafter. Suggestions and feedback are important to the review process. Please be sure to provide specific recommendations on your comment form. Contact [val.miller@nist.gov](mailto:val.miller@nist.gov) for additional information.

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*SMA will be happy to include member company news in its next edition of members will have their Official Representatives or Public Relations Departments copy SMA Headquarters by mail, fax, or e-mail when they distribute press releases or other information that they want our readers to know.*

## SMA MEMBER COMPANY NEWS

**A&D Weighing** announced the appointment of *Timothy C. Campbell* as its new Business Development Manager for the central U.S. region. He will be responsible for increasing market share in a 13 state area by providing support for the A&D Weighing dealer network through sales, technical training, and applications assistance.

## FLOCKEN PRESENTS SMA PAPER

Darrell Flocken, Mettler Toledo presented a SMA paper, "The Pattern Approval Process: The Past, The Present, the Future, As Told By An Instrument Manufacturer" at the OIML Seminar, "What Will Legal Metrology Be In 2020?", organized by the BIML in September 2002 in conjunction with the 37<sup>th</sup> CIML Meeting. The symposium was organized and chaired by Bernard Athané, Former BIML Director.

Athané stated that legal metrology and the OIML will face a number of developments during the next ten or twenty years, including: technological progress with the development of 'intelligent' instruments that are able to detect and compensate for their own inaccuracies; worldwide and regional politic-administrative changes with an increasing globalization of our world and, in parallel, an accelerated development of regional integration; financial restrictions on public budgets (see Weighlog article on FMA); and the need for efficient consumer protection; the use of manufacturers' quality systems.

Flocken's presentation was the only paper representing the manufacturers' viewpoint and was favored with considerable discussion at the end of the paper. It is expected that the seminar papers will be posted on the OIML website ([www.oiml.org](http://www.oiml.org)) with selected papers being published in the OIML Bulletin.