

The Standard

September 2009 (Vol. 23, No. 3)

Chair's Corner.....	3
2009 NCSLI Conference Report.....	4
Communication Hardware Obsolescence in the Cal Lab	9
MQD Treasurer's report	10
MQD minutes from July teleconference call	11
MQD 2009 ~ 2010 budget	14
The Learning Curve	15
MQD Officers and Committee Chairs	18

June 2009 (Vol. 23, No. 2)

Chair's Corner.....	3
Simmons Scholarship Award Winner.....	4
MQD Minutes	5
MQD Treasurer's Report	6
The Learning Curve	7
CCT Program Update	13
'Green' Calibration Requirements.....	14
ANSI/NCSLI Z540.3-2006 sub-clause 5.3 program launch.....	16
MQD Officers and Committee Chairs	17
MQD Regional Councilors	18

March 2009 (Vol. 23, No. 1)

Chair’s Corner.....3
CCT Update4
The Learning Curve6
Metrology Job Description Update.....12
Why Do We Insist On Reinventing the Wheel?19
Let’s Go Metric.....22
Minutes from December teleconference call25
NSF International Accredited by IAS for Toy Testing.....26
MQD Officers and Committee Chairs28
MQD Regional Councilors29

December 2008 (Vol. 22, No. 4)

Chair’s Corner.....3
The Learning Curve4
MQD Officers and Committee Chairs7
MQD Regional Councilors8
Why Reinvent the Wheel?10

September 2008 (Vol. 22, No. 3)

Chair’s Corner.....3
NCSLI Conference Report.....4
MQD Minutes8
The Learning Curve11

Information Standards Enable Common Activities	15
Metrology Job Description Update	16
MQD Officers and Committee Chairs	20
MQD Regional Councilors	21
How to Renew Your ASQ Certification	23
Inspection Division 2008 Conference.....	36

June 2008 (Vol. 22, No. 2)

Chair’s Corner.....	3
ASQ Measurement Quality Division Liaison Report	4
Woodington Award presentation, MSC 2008.....	5
The Learning Curve	7
So Your Laboratory is Accredited...Now What?.....	11
MQD Officers and Committee Chairs	18
MQD Regional Councilors	19
MQD participation at WCQI	21
Changes Come to Gage Blocks.....	23

March 2008 (Vol. 22, No. 1)

Chair’s Corner.....	3
The Learning Curve	4
TUR vs ‘GUM’ Expanded Uncertainty Statements.....	7
New ISO/IEC Guide 99-2007	9
Continuous Process Improvement: Got Any New Ideas?.....	10

IAS Report	14
Donald S. Ermer - In Memoriam	17
MQD Officers and Committee Chairs	18
MQD Regional Councilors	19
LAB News Release	21

December 2007 (Vol. 21, No. 4)

Chair's Corner.....	3
Instituting a Training Culture.....	4
ANSI/NCSL Z540.1-1994 Withdrawn	5
CCT Program Update	6
The Learning Curve	7
Metrology E&T – Taking the Initiative	9
What Does True RMS Mean?.....	12
AB Liaison Report	13
Ethics – The Final Frontier	14
MQD Officers and Committee Chairs	16
MQD Regional Councilors	18
RABQSA News Release.....	21
ACLASS News Release.....	22
ANAB News Release.....	24

September 2007 (Vol. 21, No. 3)

MQD Officers for 2007 ~ 20083

Chair’s Column.....4

Chair-Elect’s Column5

Important CCT Program Update Information.....6

MQD Meeting Minutes.....7

The Learning Curve9

APLAC Turns 15 Years Old.....12

ILAC Celebrates 30 Years13

AB Liaison Report14

NCSL International Workshop & Symposium Report16

Check Standards Can Save You Time18

MQD Officers and Committee Chairs21

MQD Regional Councilors22

A Quality Calibration System.....24

June 2007 (Vol. 21, No. 2)

Chair’s Column.....3

Chair-Elect’s Column4

Financial Report.....4

Job Descriptions & Education / Training Linkage5

Working Group on Standard Occupation Classification7

A2LA News Releases 10-11

The Learning Curve	13
2007-2008 Simmons Scholarship Winner	16
NCSL International Workshop & Symposium 2007 info.....	17
MQD Officers and Committee Chairs	18
MQD Regional Councilors	19
ASQ WCQI Report.....	21

March 2007 (Vol. 21, No. 1)

Chair's Column.....	3
Letter's to the Editor.....	4
MQD-NCSLI Collaborations Continues.....	6
CCT Program Staus.....	8
Metric Resources Available.....	8
Daniel Child Wins Simmons Scholarship.....	9
The Learning Curve.....	10
MQD & NCSLI Metrology Job Description Initiative Update....	13
Chair-Elect's Column.....	14
NCSL International Workshop & Symposium 2007 info.....	15
MQD Officers and Committee Chairs.....	16
MQD Regional Councilors.....	17
Joe Simmons Scholarship Informational Brochure....	19
MSC 2007 Report.....	20
MSC 2008 Call for Papers.....	27

December 2006 (Vol. 20, No. 4)

Letter's to the Editor..... 4

Chair's Column..... 5

Chair-Elect's Column..... 6

Financial Report..... 6

Demistifying Test Uncertainty Ratios... 7

CCT Exam Review Workshop..... 8

The Learning Curve..... 11

Defining "A Professional" - A personal letter from
Phil Painchaud to Dr. Eugene Watson (1994)... 15

The Learning Curve..... 22

DeWayne Burle Sharp (Obituary)..... 27

Book Review..... 31

NCSL International Workshop & Symposium 2007 info..... 34

MQD Officers and Committee Chairs..... 35

MQD Regional Councilors 36

ASQ Southwest Conference: Seven Basic Quality Tools..... 38

New Books From ASQ Quality Press..... 41

MSC 2007 Brochure..... 43

September 2006 (Vol. 20, No. 3)

Chair's Column..... 3

MQD Annual Report for 2005 ~ 2006.....	4
Chair-Elect's Column.....	5
MQD at NCSL International 2006, Nashville, TN.....	7
CCT Update.....	8
Metrology Job Description Initiative Update.....	9
Unwritten Calibration Technique.....	10
From the Desk of the Editor/Publisher.....	11
The Learning Curve.....	12
Joe D. Simmons Memorial Scholarship.....	14
We Have Lost A Giant: Dr. Eugene Watson 1940 ~ 2006.....	15
Program Committee Report.....	17
MQD at NCSL International Photos.....	18
MQD Meeting Minutes.....	19
CCT Presentation at Worldwide PMEL Workshop.....	21
MQD Officers and Committee Chairs.....	24
MQD Regional Councilors	25
Premier Edition of The Standard.....	27
NCSL International Workshop & Symposium 2007.....	36
MQD / ID Joint Conference Information / Application.....	37

June 2006 (Vol. 20, No. 2)

CHAIR'S COLUMN.....	3
HELP WANTED COLUMN.....	3

WORLD METROLOGY DAY.....	5
CHAIR-ELECT’S COLUMN.....	6
WCGI 2006 IN PICTURES.....	7
THE LEARNING CURVE.....	10
METROLOGY JOB DESCRIPTION INITIATIVE.....	13
ACCREDITATION NEWS.....	15
MQD OFFICERS.....	18
REGIONAL COUNCILORS.....	19
NCSL INTERNATIONAL 2006 FLYER.....	21
MQD CCT CHALLENGE COIN	22

March 2006 (Vol. 20, No. 1)

CHAIR’S COLUMN.....	3
CCT UPDATE.....	6
THE FUTURE OF QUALITY.....	8
THE LEARNING CURVE.....	11
MQD MEETING MINUTES.....	14
MQD MEETING & TELECONFERENCE SCHEDULE.....	16
MQD 2005 ~ 2006 LEADERSHIP.....	17
MQD OFFICERS AND COMMITTEE CHAIRS.....	19
MQD REGIONAL COUNCILORS.....	20
NCSLI WORKSHOP & SYMPOSIUM.....	22
METROLOGY JOB DESCRIPTION INITIATIVE.....	23

MJD SURVEY RESULTS..... 24

December 2005 (Vol. 19, No. 4)

CHAIR’S COLUMN..... 3

LETTERS TO THE EDITOR..... 4

THE LEARNING CURVE..... 5

METROLOGY JOB DESCRIPTION INITIATIVE..... 9

EDUCATOR’S CORNER..... 11

MAX J. UNIS AWARD..... 12

EVENTS CALENDAR..... 12

MQD TELECONFERENCE MINUTES..... 13

MQD 2004-2005 FINANCIAL SUMMARY..... 16

MQD HISTORICAL FINANCIAL SUMMARIES..... 17

JOINT MQD—ID CONFERENCE..... 18

ACCREDITATION NEWS..... 22

MQD OFFICERS AND COMMITTEE CHAIRS.... 23

METROLOGY AS A COMPETITIVE WEAPON..... 34

CALIBRATION: WHAT IS IT?..... 72

CALIBRATION: WHO DOES IT?..... 80

CALIBRATION: WHY IT’S IMPORTANT..... 66

NIST SCHEDULE OF LABORATORY METROLOGY

SEMINARS..... Last 4 pages

September 2005 (Vol. 19, No. 3)

CHAIR'S COLUMN..... 3

LETTERS TO THE EDITOR..... 4

EVENTS CALENDAR..... 5

CCT UPDATE..... 6

METROLOGY JOB DESCRIPTION INITIATIVE..... 6

THE STANDARDS COMMITTEE ACTIVITY..... 7

CONSIDERATIONS IN DETERMING CALIBRATION
STATUS.... 8

THE LEARNING CURVE..... 11

MQD MEETING MINUTES..... 12

NCSLI WORKSHOP & SYMPOSIUM PHOTOS..... 16

MAX J. UNIS AWARD..... 18

MQD OFFICERS AND COMMITTEE CHAIRS..... 23

MQD / ID CONFERENCE PAMPHLET..... 25

MSC 2006 PAMPHLET..... 31

June 2005 (Vol. 19, No. 2)

CHAIR'S COLUMN..... 3

CHAIR-ELECT'S COLUMN..... 4

CCT UPDATE..... 6

METROLOGY COMMUNITY NEWS..... 6

THE METROLOGY HANDBOOK..... 7

ASQ RECERTIFICATION PRIMER.....	8
THE STANDARDS COMMITTEE ACTIVITY.....	9
THE LEARNING CURVE.....	10
THE LEARNING CURVE.....	11
ANNOUNCEMENTS.....	12
METROLOGY JOB DESCRIPTION INITIATIVE.....	13
MQD MEETING MINUTES.....	15
EVENTS CALENDAR.....	16
MQD SPONSORED NCSLI SESSION.....	21
CORRECT & IMPROVED GAGE R&R MEASUREMENT STUDIES.....	22
MQD OFFICERS AND COMMITTEE CHAIRS.....	33

March 2005 (Vol. 19, No. 1)

Chair's Column.....	3
The Standard goes electronic	4
1 st Annual MQD/Inspection Div. Conference	4
The Learning Curve	5
CCT Update	6
Upcoming Events.....	6
Department of Labor Job Description Initiative	7
Standards Committee Activity	8
Metrology Community News	9

MQD Meeting Minutes.....	10
Joe Simmons Scholarship Awarded.....	11
Joe Simmons scholarship solicitation	12
New officer bios.....	13
MQD Officers	18

Winter 2004 (Vol. 18, Issue 1)

Chair’s Column.....	1
Advertising & Article Info.....	2
Chris Grachanen-CCT & Website Updates	3
CCT Exam Pass Lists	4
Phil Painchaud-The Learning Curve.....	6
Editor’s Note.....	8
Jay Bucher-Metrology Handbook Update.....	8
Phil Stein-The Contrarian Metrologist.....	9
William McCullough-Standards Activity.....	10
Joint Division Conference-Call for Papers.....	11
Canada INMS NRC CMM Workshop	12
Jack Gale-Zero Sigma	13
Upcoming Events.....	14
MQD January CC Meeting Minutes	15
Division Finances	16
MSC Photos.....	17

MQD Officers List.....	18
Regional Councilors List.....	19
Simmons Scholarship Application Appendix	

Fall 2004 (Vol. 18, Issue 2)

Chair’s Column.....	1
Editor’s Note	2
Advertising & Article Info.....	3
Chris Grachanen—CCT Update	4
Upcoming Events.....	6
Phil Painchaud-The Learning Curve.....	7
Jay Bucher-Metrology Handbook Update	12
Phil Stein-The Contrarian Metrologist.....	15
William McCullough-Standards Activity	16
Myron Bowers-Paperless Lab.....	18
Jay Bucher-Paperless Lab.....	21
MQD CC Meeting Minutes	30
Division Finances.....	32
MSC, AQC Photos.....	33
MQD Officers List.....	37
Regional Councilors List	38

Winter 2003 (Vol. 17, Issue 1)

Editor’s Column 3

CCT Update 4

CCT Exam Dates 5

Standards News 6

The Learning Curve 7

Upcoming Events 7

Phil Stein’s Latest Paper 9

MQD Officers 24

Regional Councilors 25

Summer 2003 (Vol. 17, Issue 2)

Chair’s Column 1

Advertising & Article Info 2

CCT Update 3

Publication Update 4

Editor’s Note 4

The Learning Curve X 2 5

The Contrarian Metrologist 9

Upcoming Events 10

MQD April Meeting Minutes 11

MQD Officers List 12

Regional Councilors List 13

Fall 2003 (Vol. 17, Issue 3)

Chair’s Column..... 1

Advertising & Article Info..... 2

Chris Grachanen-Certification..... 3

Division Membership Trend..... 5

Phil Painchaud-The Learning Curve..... 6

Phil Stein-The Contrarian Metrologist..... 8

Editor’s Note..... 10

Division Conference News..... 10

Simmons Scholarship 10

William McCullough-10012..... 11

Division Finances 13

Jay Bucher-Calibration..... 14

Jack Gale-Repair 26

Upcoming Events..... 27

MQD August Meeting Minutes..... 28

MQD October Meeting Minutes 29

MQD Officers List..... 30

Regional Councilors List..... 31

Spring 2002 (Vol. 16, Issue 1)

Editor’s Column 3

When Your Company Needs A Metrology Program, But Can't Afford To Build A Calibration Laboratory	4
ISO 9000 at HP: A Case Study Profile	12
Latest Metrology News	23
The Learning Curve	24
MQD Liaison News	27
CCT Update	31
Ethical Work Culture	32
Leasing Metrology Equipment	32
NIST News	35
Roving Reporter: Metrology News from the Trenches	36
On the International Scene	42
World-Wide National Standards Bodies	43
Membership Report	44
MQD Teleconference	45
MQD Officers	46
Regional Councilors	47

Spring 2001/Winter 2000 (Vol. 15, Issue 1)

Editor's Column	1
Past Chair's Column	4
Website Update	6
Contrarian Metrologist	6

The Learning Curve	8
CCT Update	10
Inspection Division	12
12 Steps to Useful Software Metrics	13
Trusting Measurement Results in the Chemical & Process Industries	22
Profile on: NCSL International	23
Pythagorean Theorem to the Rescue	26
Upcoming Events	34
A2LA News Update	35
World of Metrology	37
2001 Measurement Quality Conference	38
Met/Tech Books	39
Measurement Uncertainty Ref. & Guidance Doc.....	43
Measurement Uncertainty Training & Consulting Sources	44
Membership Report	45
MQD Officers	46
Regional Councilors	47
 Summer 2001 (Vol. 15, Issue 2)	
Editor's Column	1
Contrarian Metrologist	3

The Learning Curve	5
Combining the “Information” & “Measurement” Worlds	9
Here Be the Dragons of Metrology	14
Standards Scene	17
CCT Update	19
Special Feature About CMMs	20
Book Review	29
Past Chair’s Column	29
A2LA News Update	30
International Search for Metrology: Using the EEVL Engine	32
Membership Report	33
2001 Measurement Quality Conference	34
MQD Officers	38
Regional Councilors	39
 Fall 2001 (Vol. 15, Issue 3)	
Editor’s Column	3
A Firefighter’s Story.....	4
Metrology of a Disaster	5
When Terror Strikes	7
The Learning Curve	15
Contrarian Metrologist	18

Zen and the Art of Uncertainty Analysis	20
CCT Update	22
Calibration Technician Job Analysis Study	24
Laboratory Accreditation Bureau (L-A-B)	28
The Haunting Scribble of Metrology in Seismic Shifts.....	29
Industrial Metrology Resources: An A to Z Listing	29
Book Review	34
Membership Report	34
MQD Officers	36
Regional Councilors	36

Fall 2000 (Vol. 14, Issue 3)

Editor's Column	3
Contrarian Metrologist	4
The Learning Curve	7
CCT Update	9
History & Current Status of Metrology Education	10
Overview Profiles on Best Practices	12
Reporting Capability Numbers	20
Standards Scene	25
NIST News	27
NVLAP Notes	28
Standards Update	29

NIST/NACLA Partnership Proposal	30
A2LA News Update	31
Profile on Metrology: What is CAL LAB?	32
Metrology Freeware	33
Educational Institutions that Offer Metrology	
Programs or Classes	34
Metrology Links	35
Obituary	37
1999 MQD Member Survey Results	38
MQD Council Minutes	40
Measurement Science Conference	42
Membership Report	43
Conference Calls	43
Upcoming Events	43
MQD Officers	44
Regional Councilors	45