



Test Monitoring Center

@ Carnegie Mellon University
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<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 19-012
DATE: April 17, 2019
TO: Eric Donovan, Chairman, L-42 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-42 Rater Calibration from October 1, 2018 through March 31, 2019

Attached is a summary of L-42 rater calibration activity this period.

DJB/djb/mem19-012.djb.doc

cc: Frank Farber

Jeff Clark

L-42 Surveillance Panel

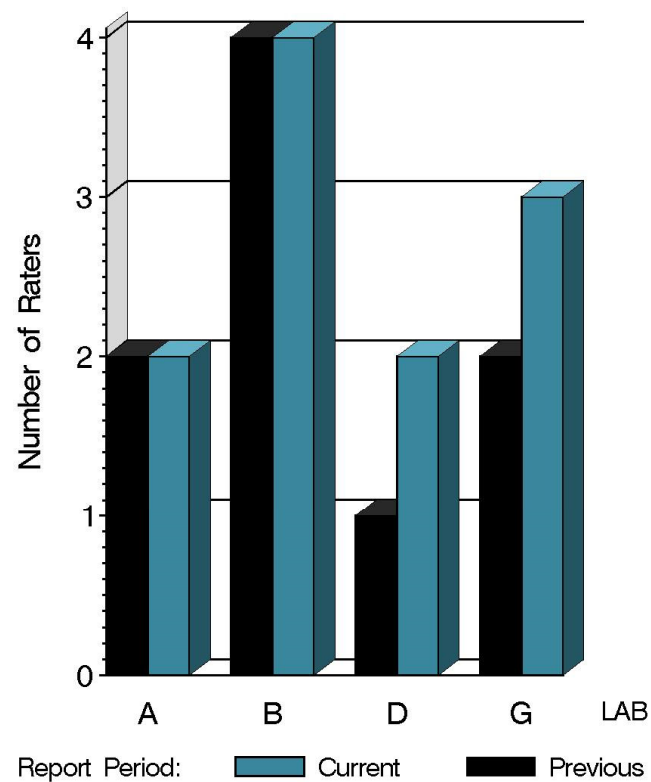
<http://www.astmtmc.cmu.edu/ftp/docs/gear/l42rc/semiannualreports/l42rc-04-2019.pdf>

Distribution: email

L-42 Rater Calibration

	Reporting Data	Calibrated on 3-31-19
Number of Labs	4	4
Number of Raters	11	11

BY-LAB RATER
DISTRIBUTION



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L-42 Rater Calibration

Test Distribution by Validity

		Totals	
		Last Period	This Period
Accepted for calibration	AC	11	12
Rejected (Mild)	OC	1	1
Rejected (Severe)	OC	1	1
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	15	26
Total		28	40

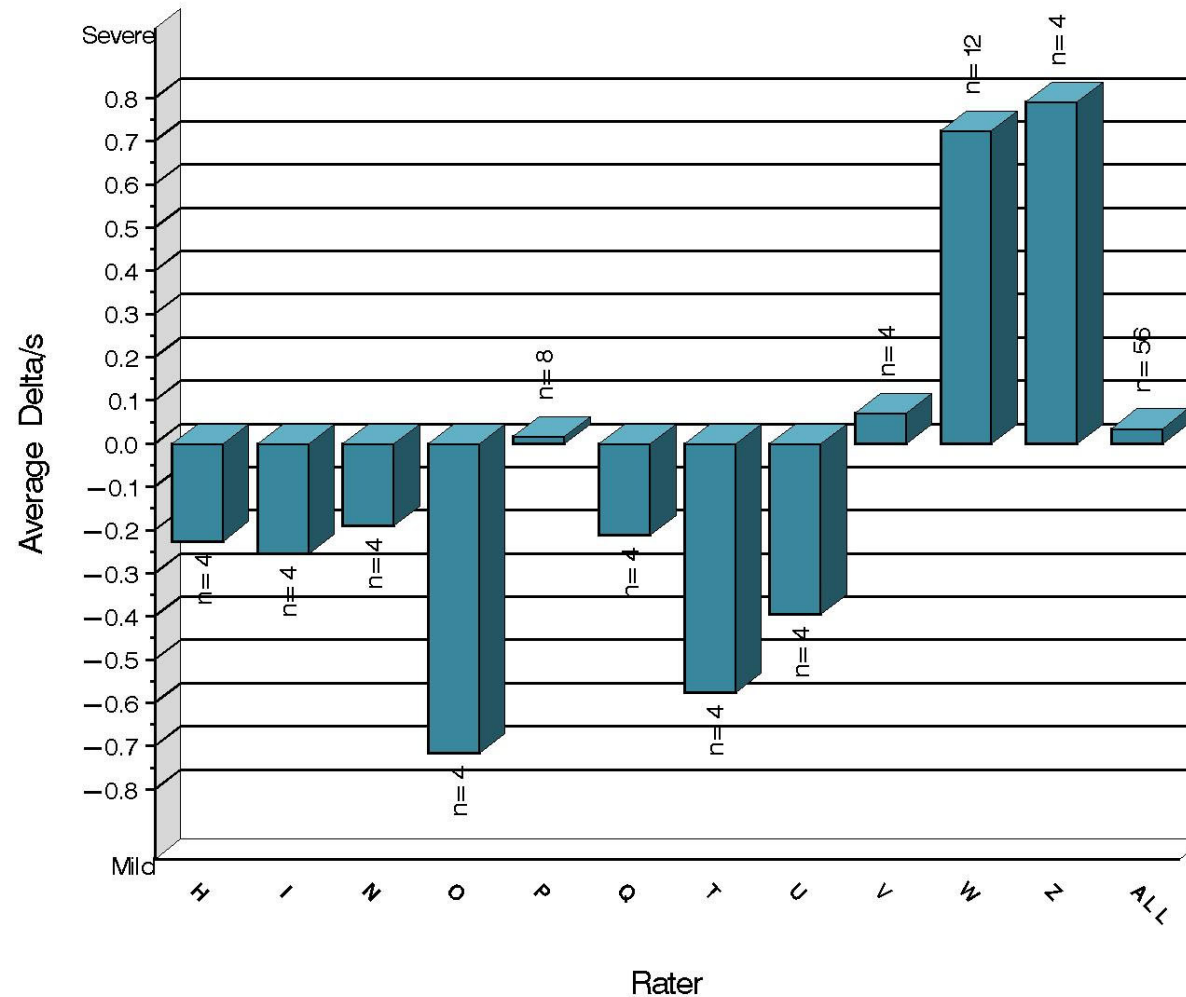
L-42 Rater Calibration

Rater	N	PSCR		RSCR	
		Avg Yi	STD*	Avg Yi	STD*
H	4	-0.226	0.359	0.051	0.258
I	4	-0.255	0.732	-0.892	0.490
N	4	-0.190	0.595	-0.709	0.230
O	4	-0.717	0.927	-1.736	1.185
P	8	0.016	0.506	0.177	0.522
Q	4	-0.212	0.253	-0.274	0.503
T	4	-0.576	0.477	-0.839	0.621
U	4	-0.395	0.848	-0.383	0.566
V	4	0.070	0.256	0.164	0.180
W	12	0.723	1.748	0.378	1.021
Z	4	0.791	2.025	0.555	0.832
ALL	56	0.035	1.129	-0.184	0.915

* Due to the small number of ratings per part, the standard deviation of the Yi values is given in place of a pooled standard deviation.

L-42 Rater Calibration

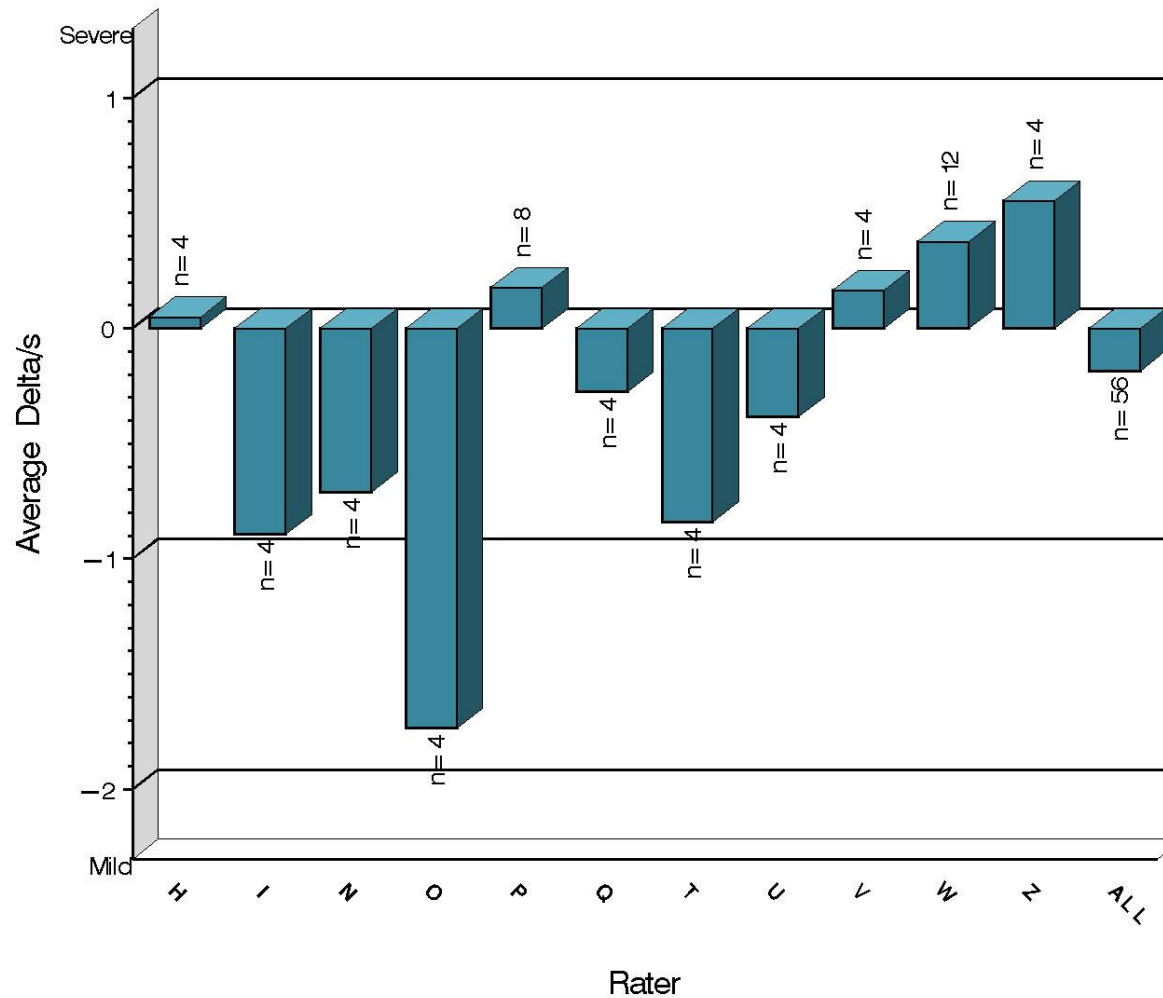
PINION SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

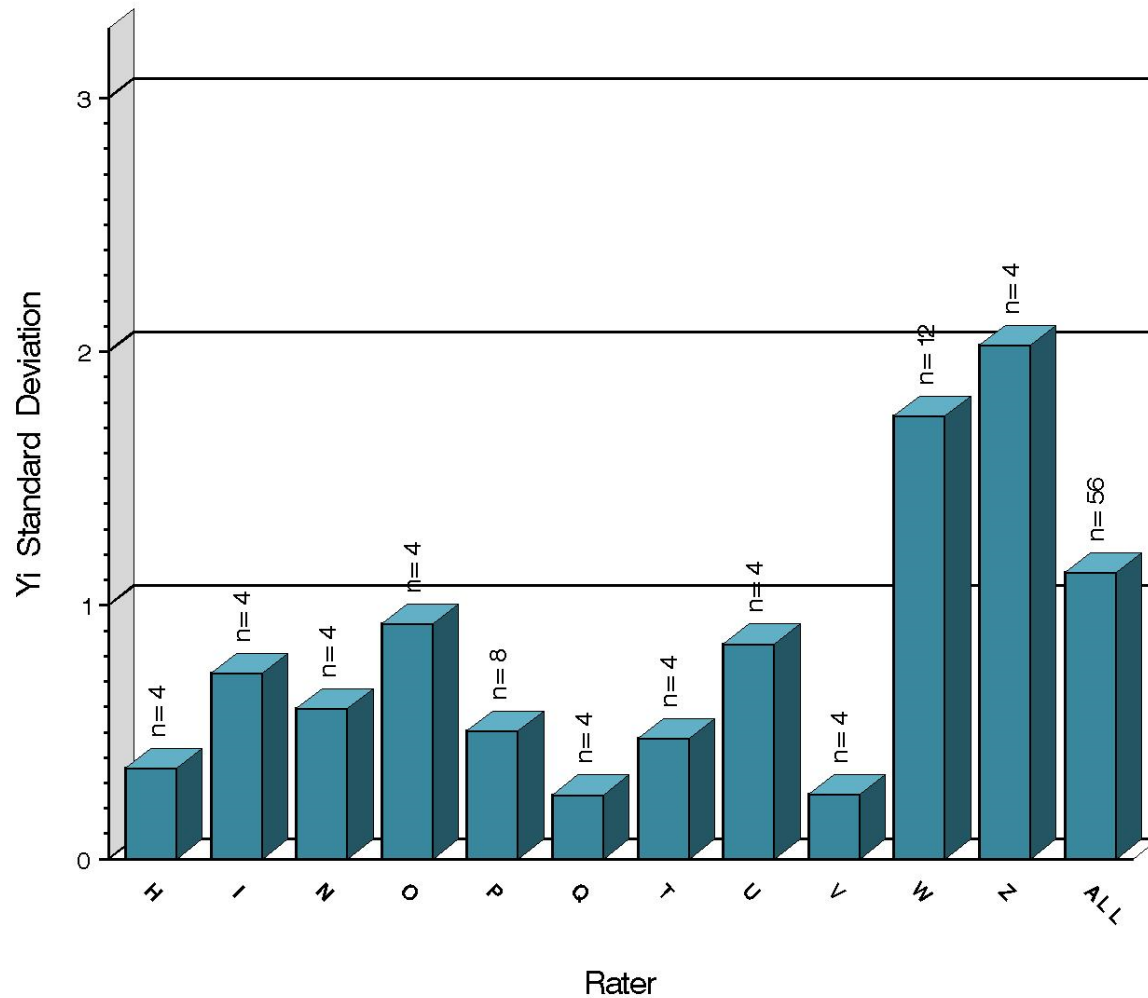
RING SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

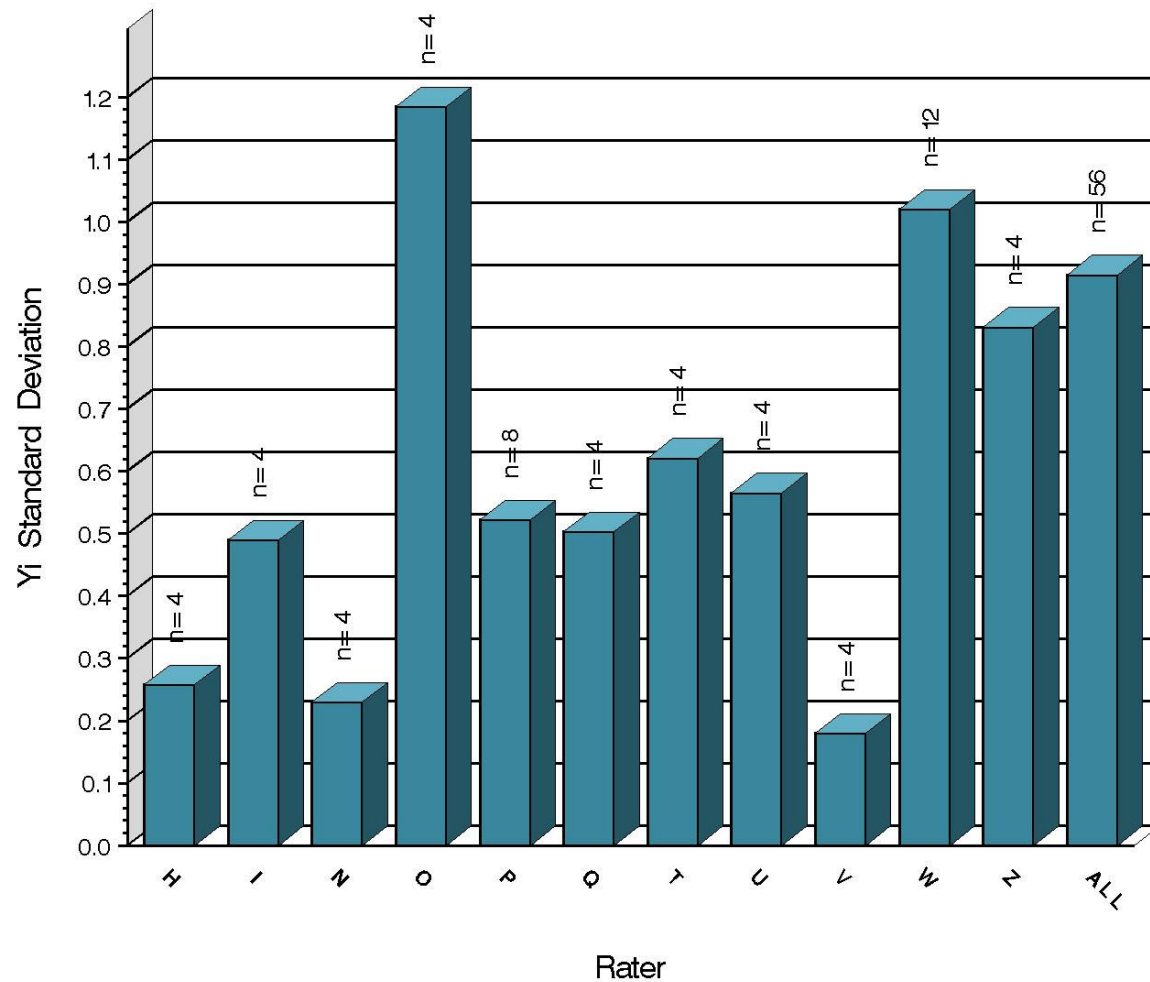
PINION SCORING
Precision as Measured by Yi STD



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L-42 Rater Calibration

RING SCORING
Precision as Measured by Y_i STD



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L-42 Rater Calibration

SUMMARY OF SEVERITY & PRECISION

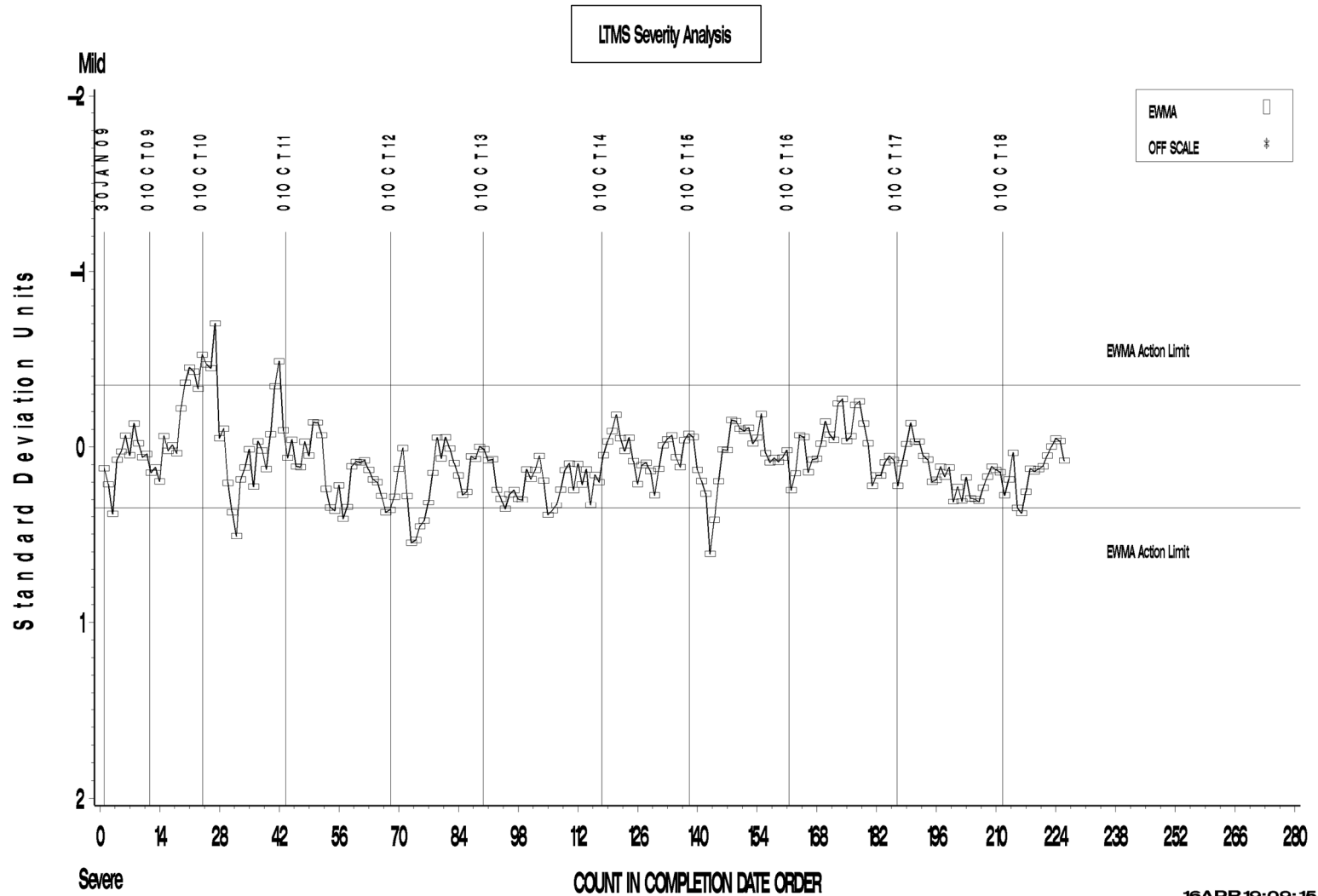
Severity
PSCR briefly exceeded the action limit this period but has since returned within limits. RSCR remained within limits for the entirety of the period.
Precision
Precision for both parameters remained within acceptable limits.

Industry control charts follow.

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING



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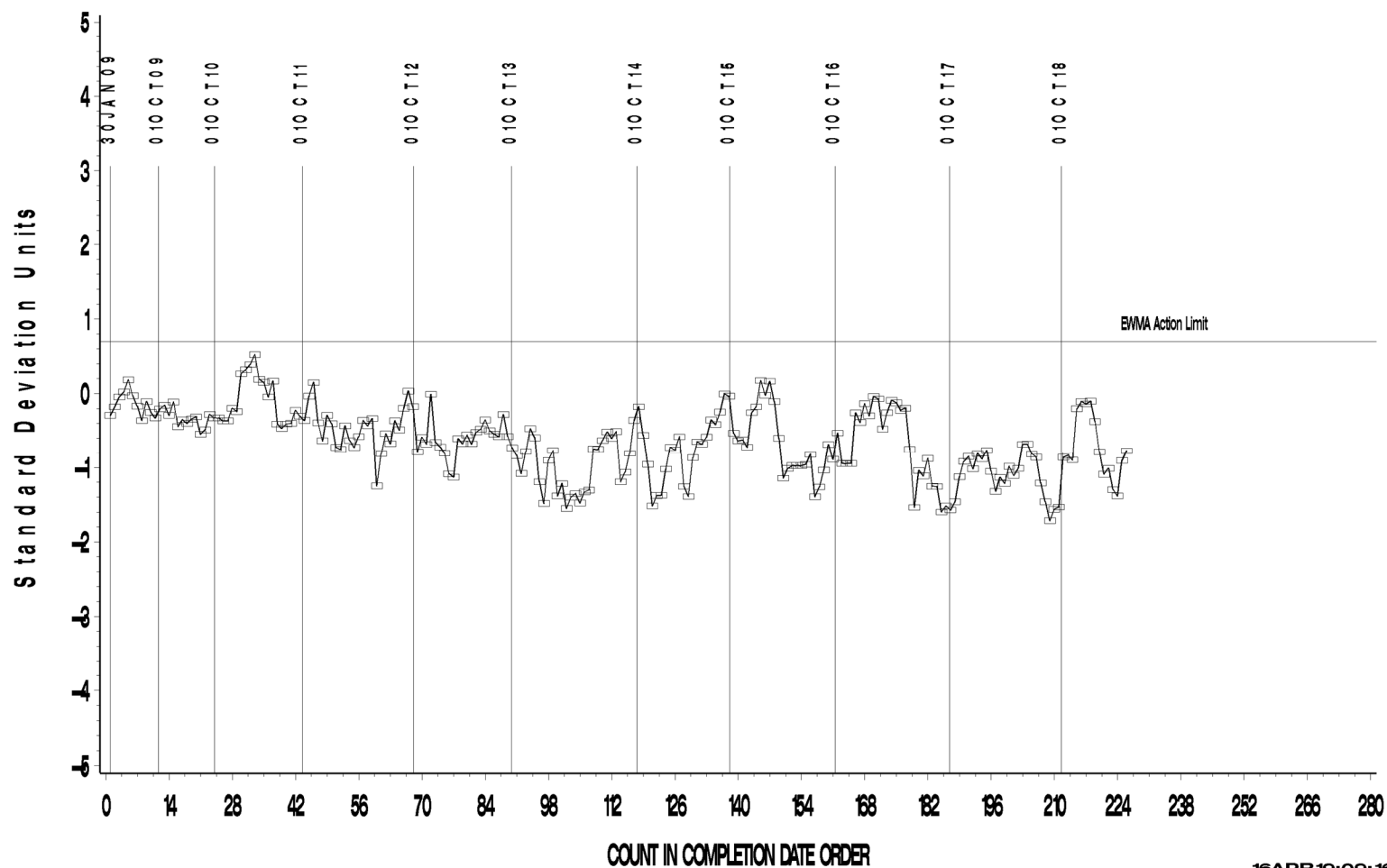
A Program of ASTM International

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

LTMS Precision Analysis



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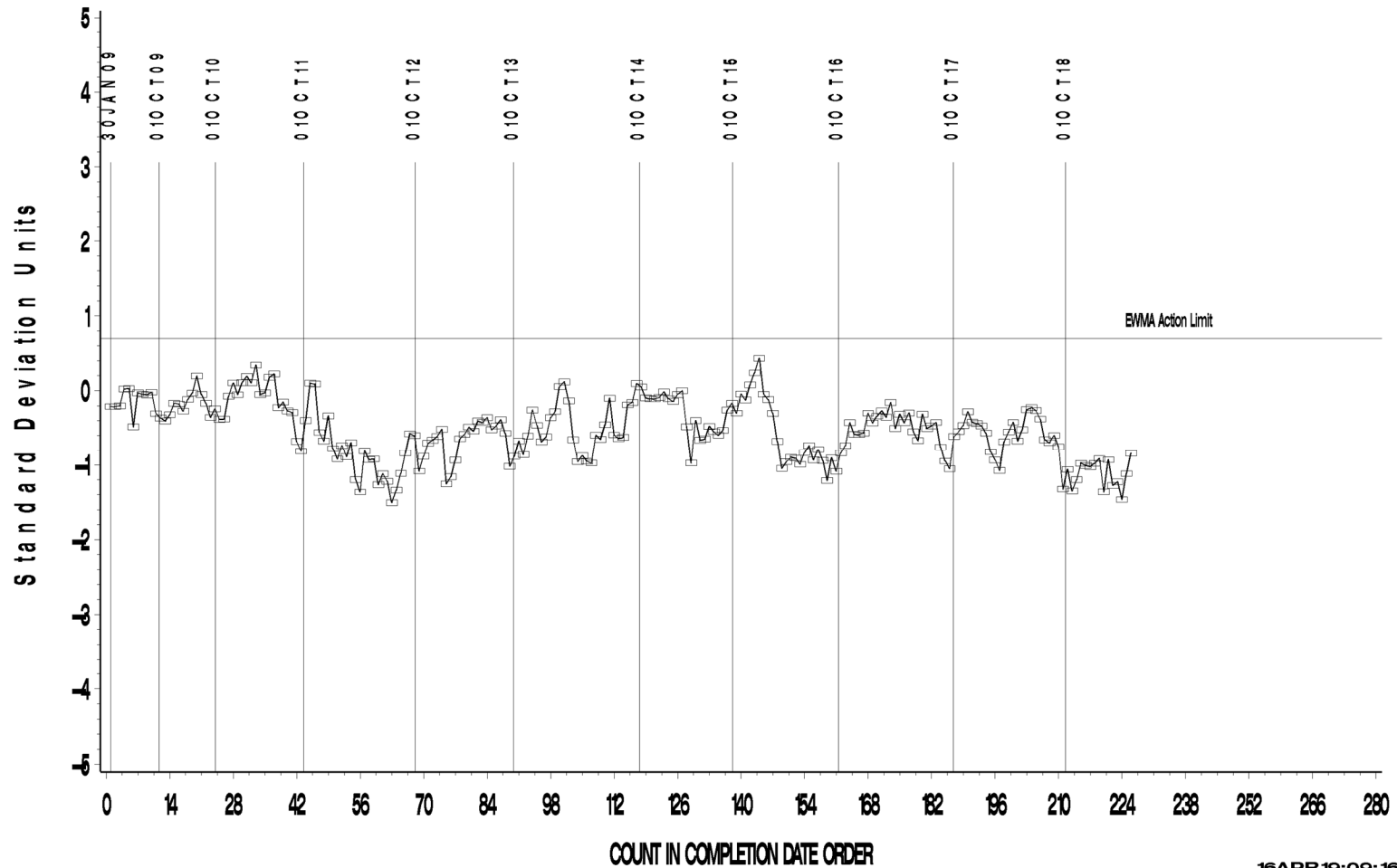
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

LTMS Precision Analysis



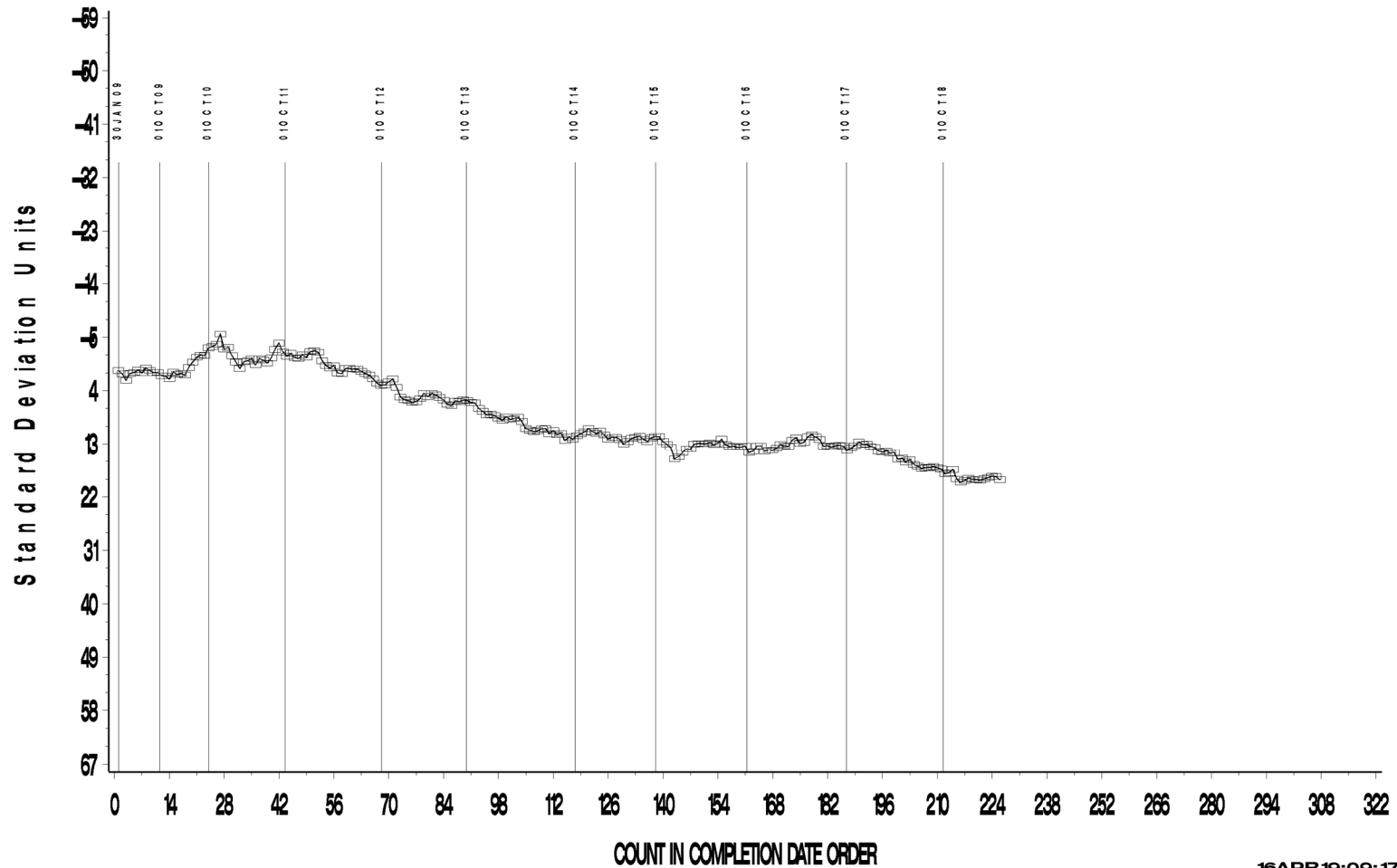
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

CUSUM Severity Analysis



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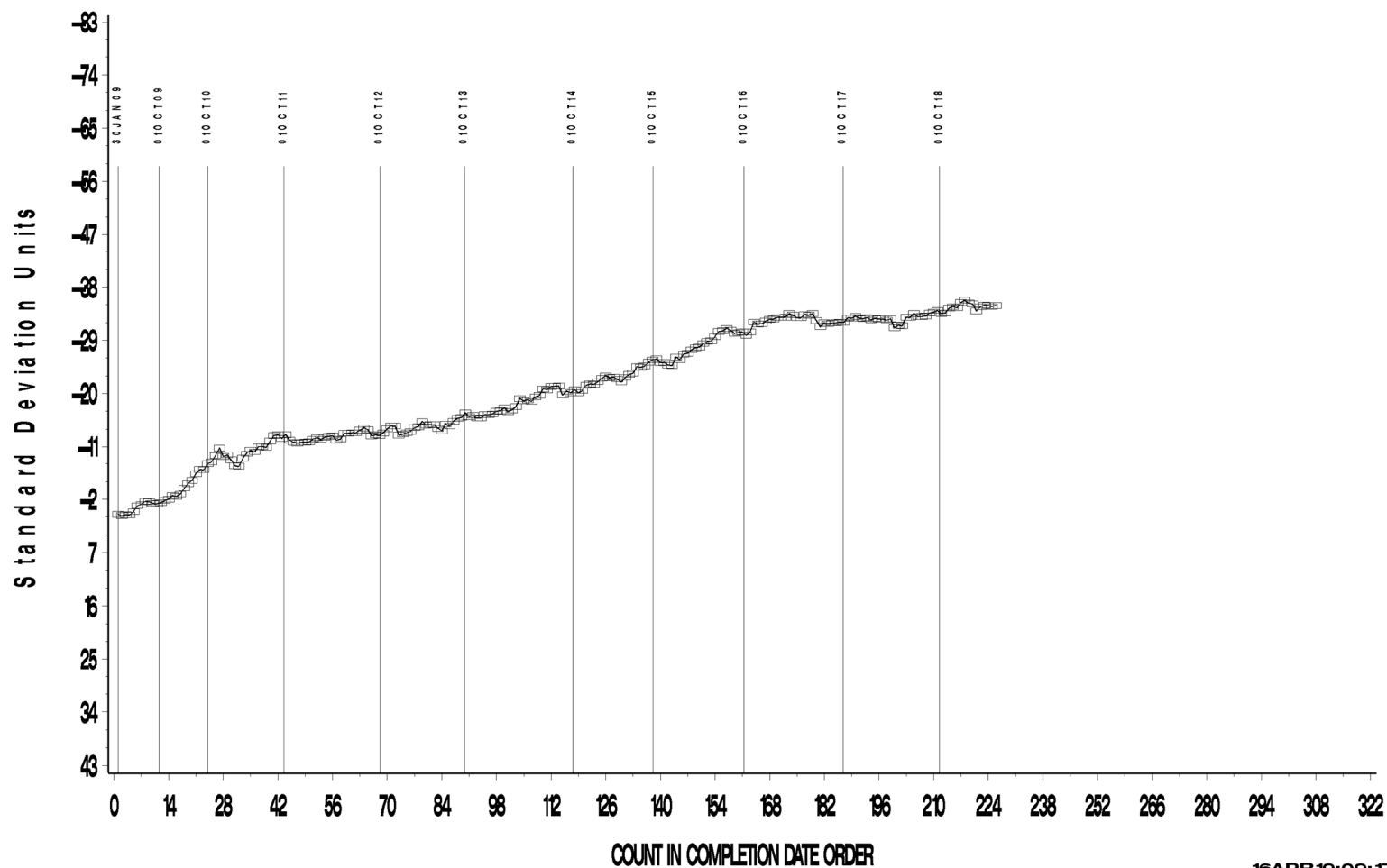
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

CUSUM Severity Analysis



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