



Test Monitoring Center

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

MEMORANDUM: 20-024
DATE: May 13, 2020
TO: Matthew Sangpeal, Chairman, L-42 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-42 Rater Calibration from October 1, 2019 through March 31, 2020

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

DJB/djb/mem20-024.djb.doc

cc: Frank Farber
Jeff Clark

L-42 Surveillance Panel

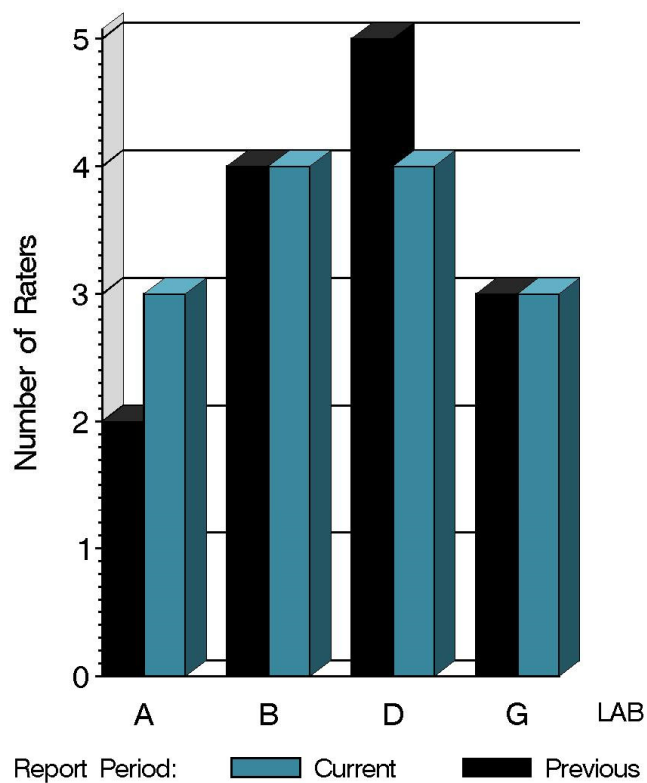
<http://www.astmtmc.cmu.edu/ftp/docs/gear/l42rc/semiannualreports/l42rc-04-2020.pdf>

Distribution: email

L-42 Rater Calibration

	Reporting Data	Calibrated on 3-31-20
Number of Labs	4	4
Number of Raters	14	14

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	18	17
Rejected (Mild)	OC	0	0
Rejected (Severe)	OC	2	1
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	9	10
Total		29	28

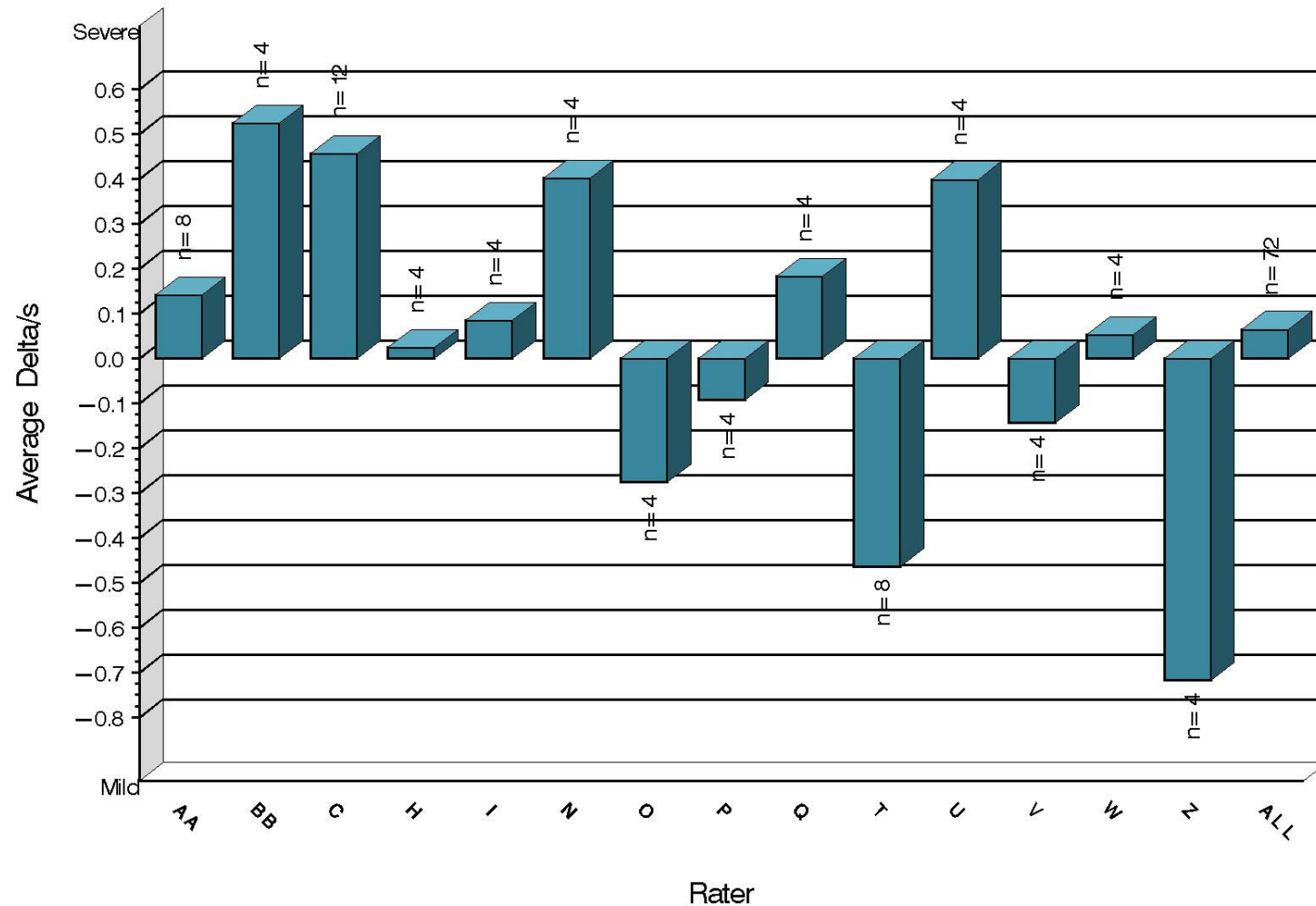
L-42 Rater Calibration

Rater	N	PSCR		RSCR	
		Avg Yi	STD*	Avg Yi	STD*
AA	8	0.141	0.691	0.142	1.021
BB	4	0.524	0.591	0.091	0.592
C	12	0.456	1.033	-0.428	0.860
H	4	0.024	0.135	-0.067	0.240
I	4	0.084	0.629	-0.450	0.923
N	4	0.401	0.384	-0.014	0.654
O	4	-0.276	1.169	0.300	1.347
P	4	-0.092	0.158	0.125	0.380
Q	4	0.182	0.375	-0.091	0.517
T	8	-0.464	0.582	-0.662	0.949
U	4	0.398	0.612	-0.552	0.383
V	4	-0.144	0.237	-0.448	0.859
W	4	0.053	1.179	-0.222	1.379
Z	4	-0.718	1.073	-0.098	1.024
ALL	72	0.064	0.777	-0.208	0.850

* 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

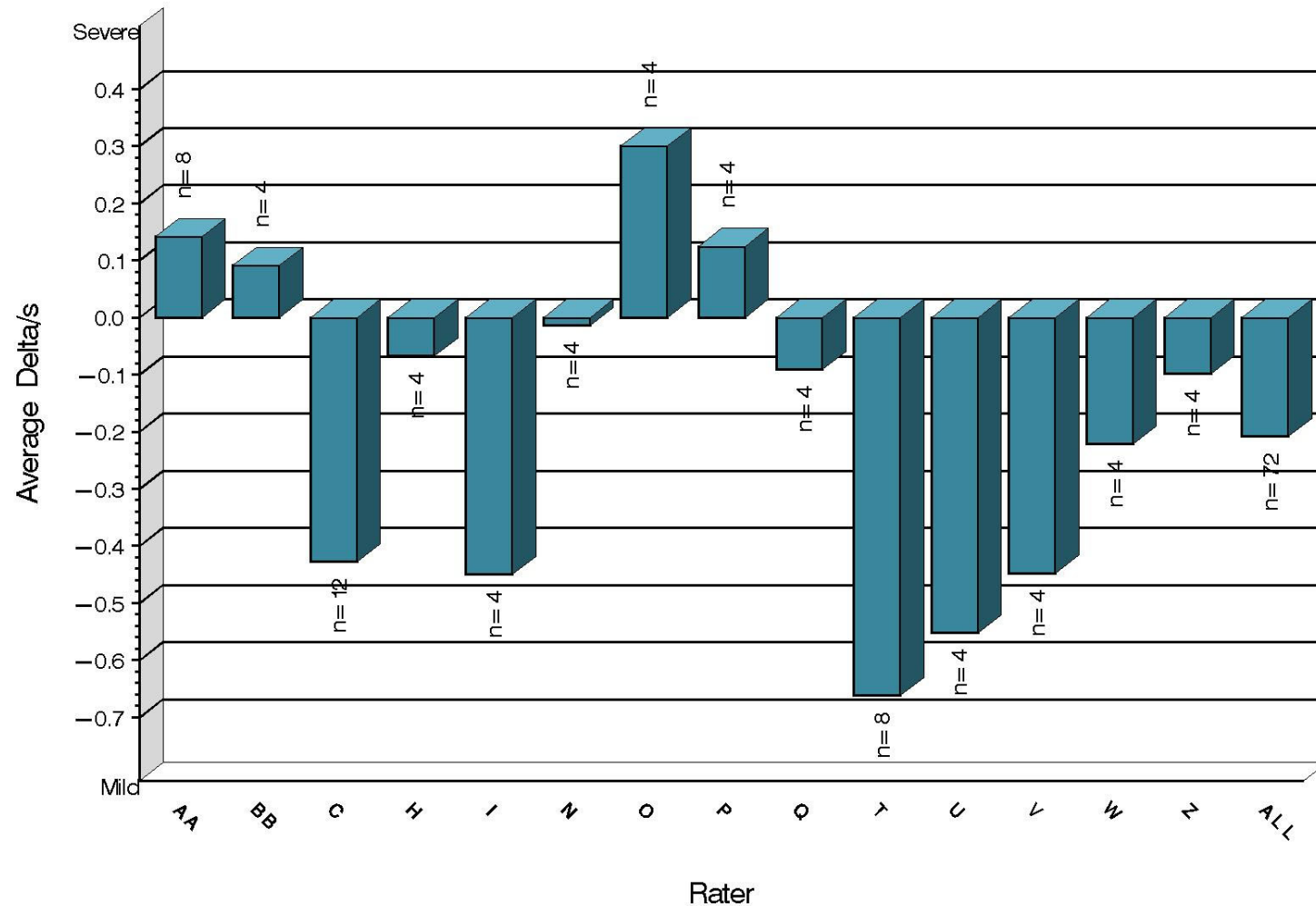
PINION SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

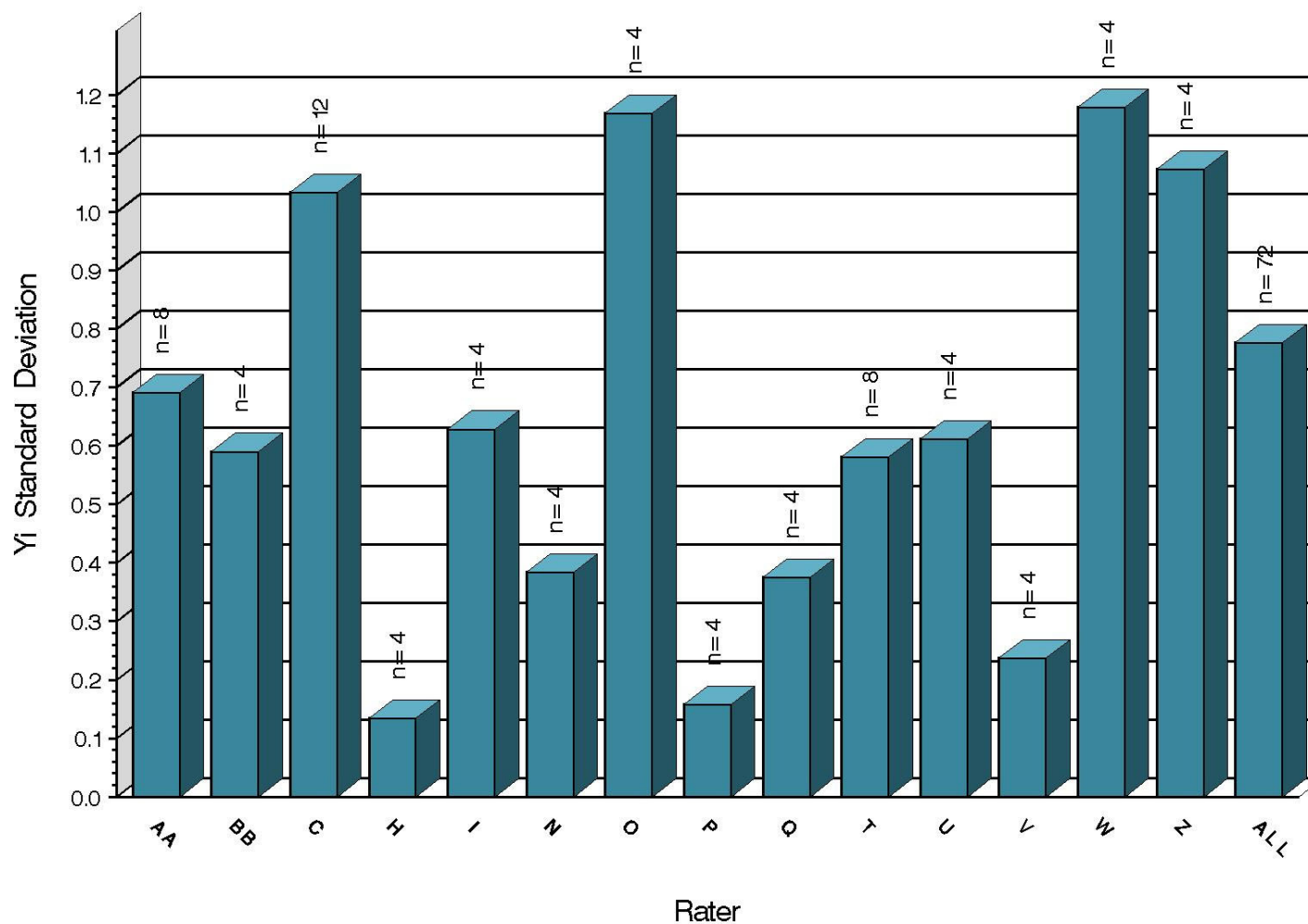
RING SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

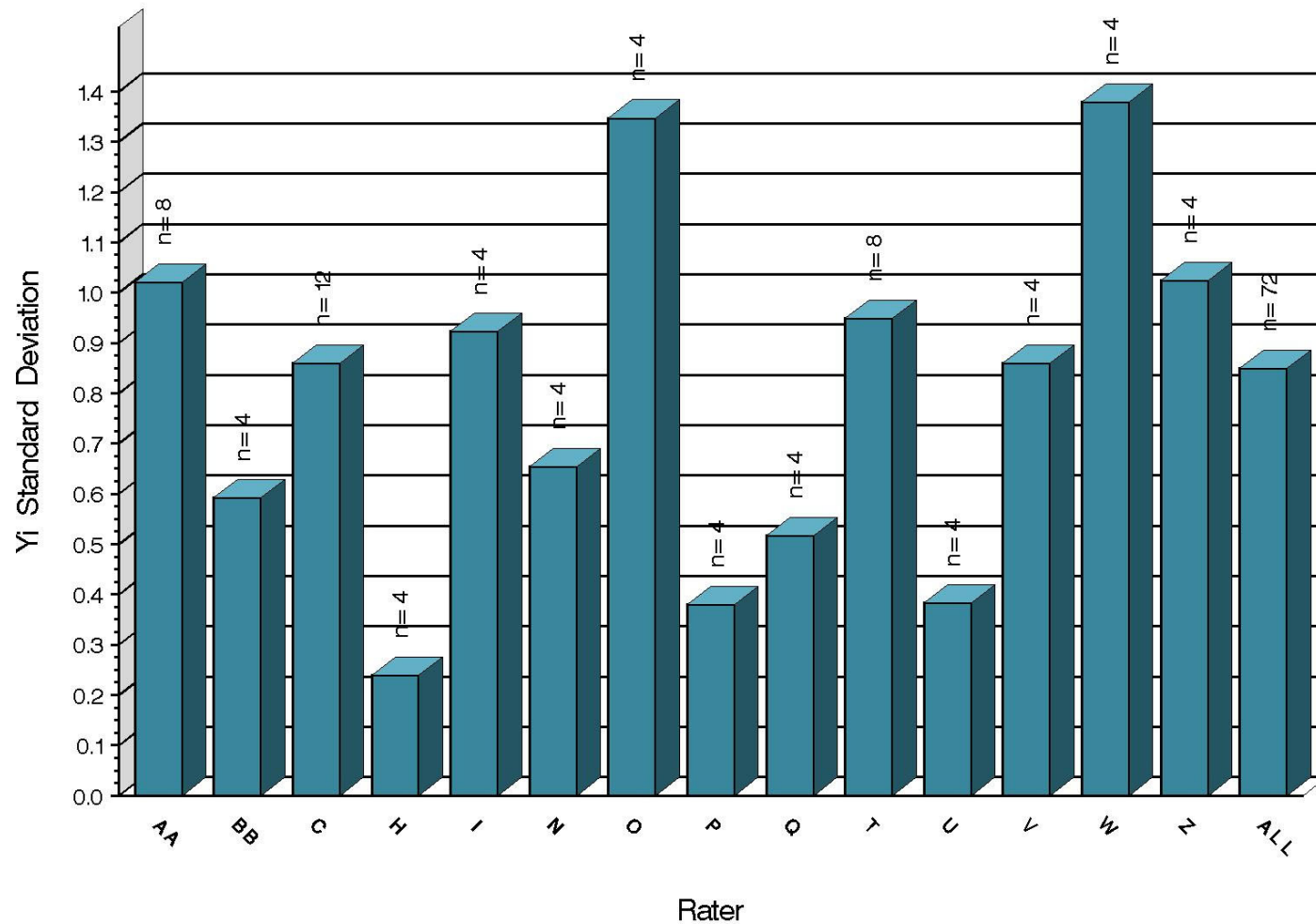
PINION SCORING
Precision as Measured by Yi STD



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L-42 Rater Calibration

RING SCORING
Precision as Measured by Yi STD



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L-42 Rater Calibration

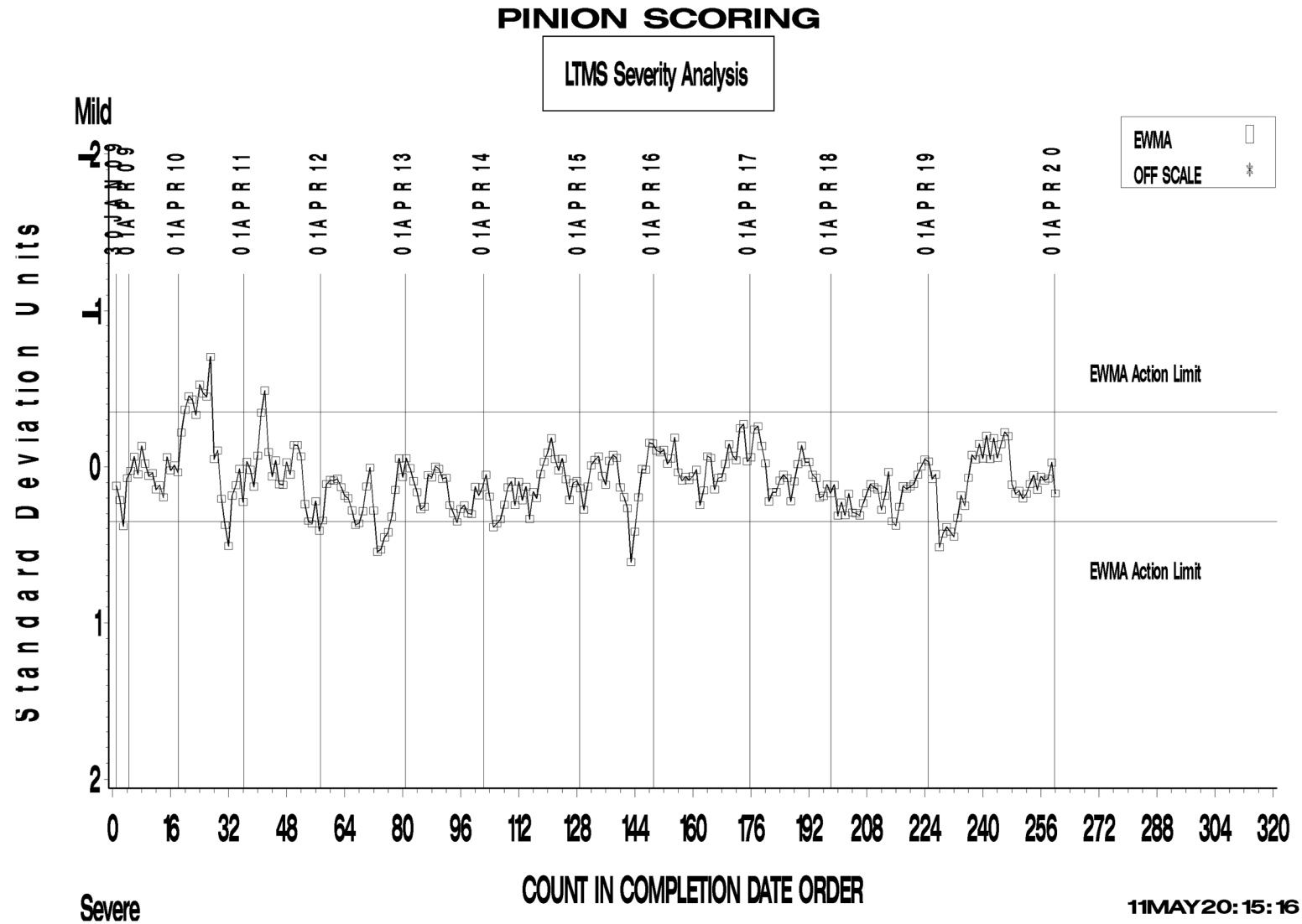
SUMMARY OF SEVERITY & PRECISION

Severity
PSCR remained within limits this period. RSCR exceeded the action limit with one test this period but finished the period within limits.
Precision
Precision for both parameters remained within acceptable limits.

Industry control charts follow.

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID

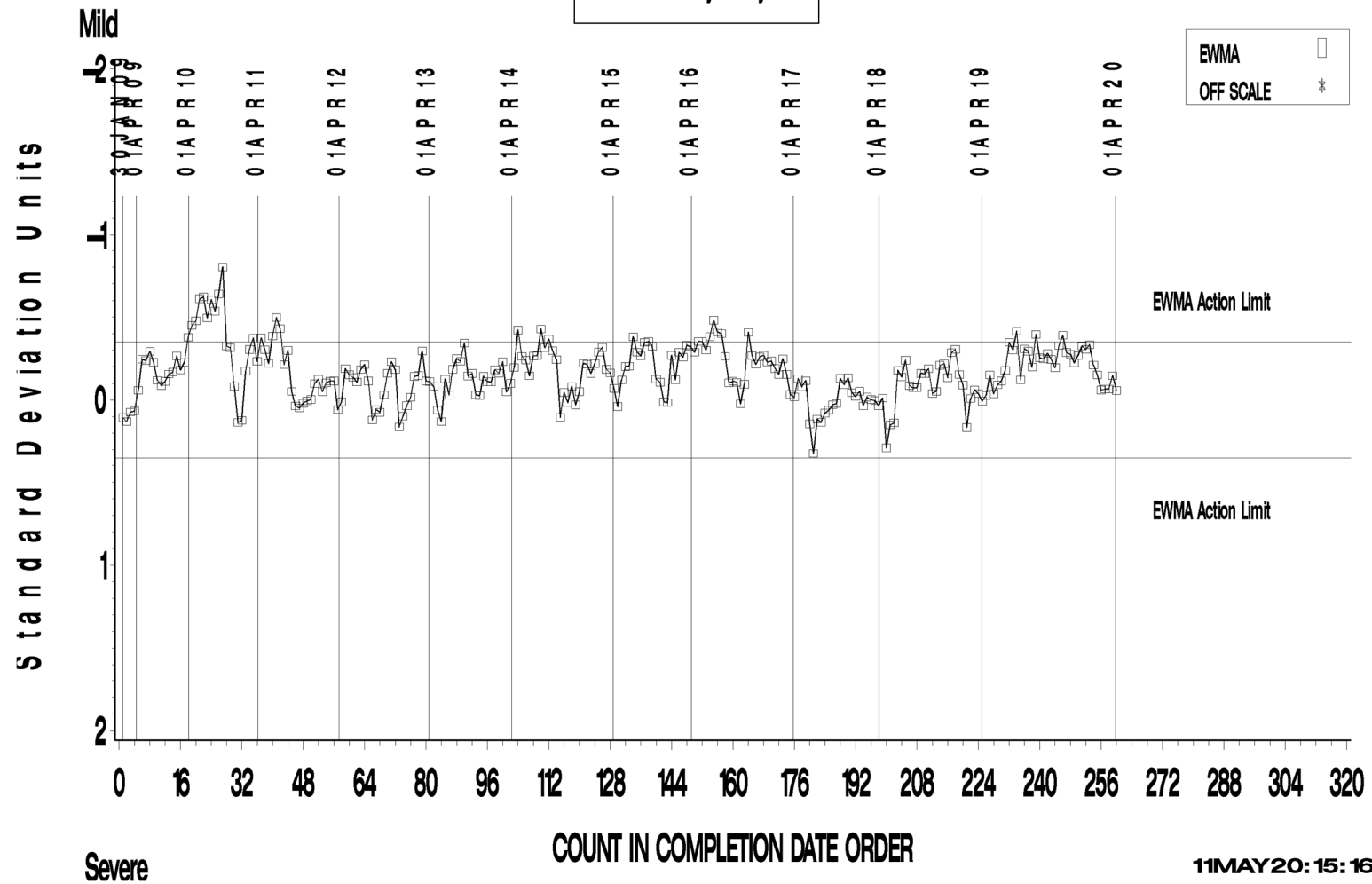


L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VAL

RING SCORING

LTMS Severity Analysis



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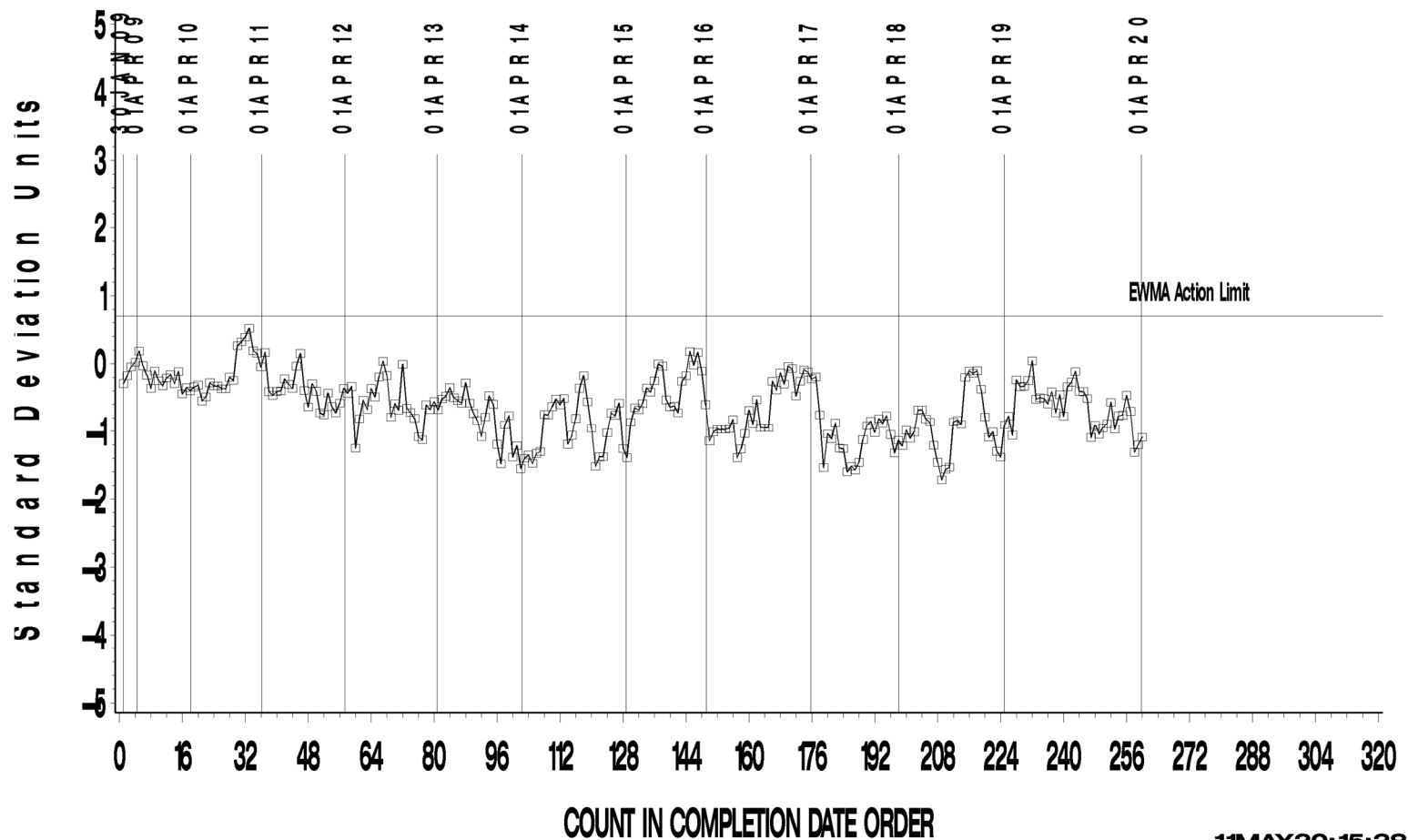
A Program of ASTM International

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID

PINION SCORING

LTMS Precision Analysis



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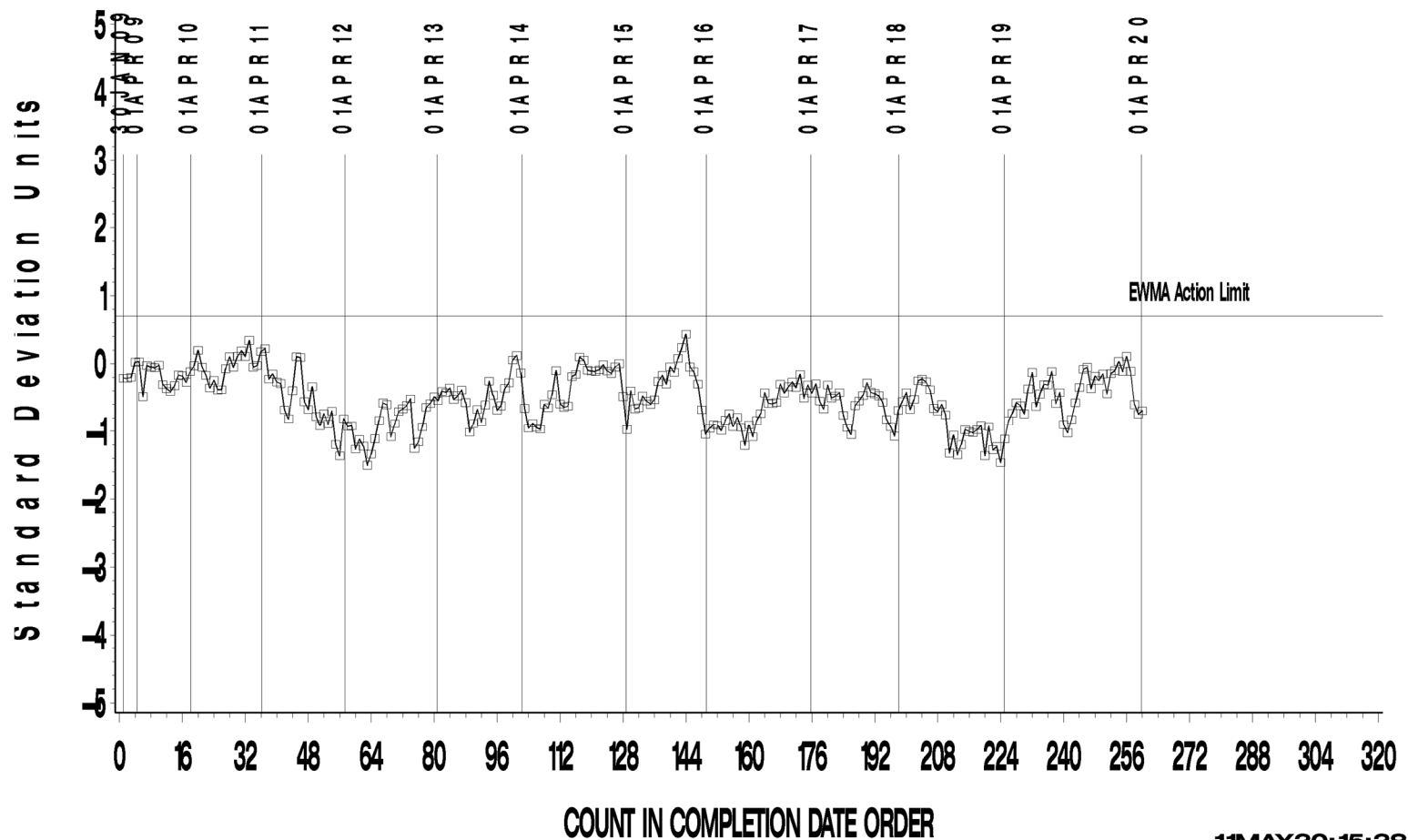
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID

RING SCORING

LTMS Precision Analysis



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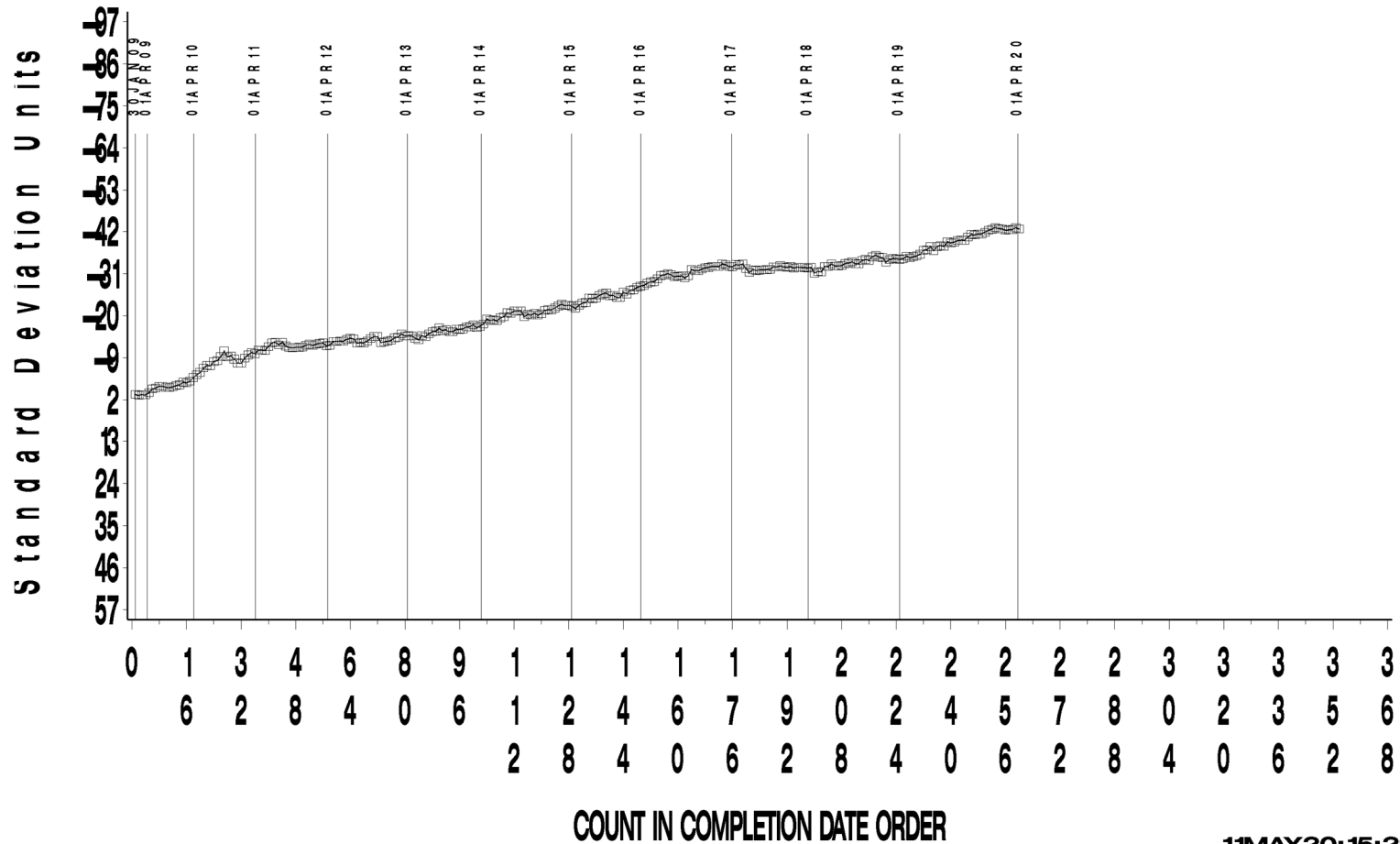
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID

RING SCORING

CUSUM Severity Analysis



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