



Test Monitoring Center

@ Carnegie Mellon University
6555 Penn Avenue, Pittsburgh, PA 15206, USA

<http://astmtmc.cmu.edu>
412-365-1000

MEMORANDUM: 18-045
DATE: November 19, 2018
TO: Eric Donovan, Chairman, L-42 Surveillance Panel
FROM: Dylan Beck *Dylan Beck*
SUBJECT: L-42 Rater Calibration from April 1, 2018 through September 30, 2018

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

DJB/djb/mem18-045.djb.doc

cc: Frank Farber
Jeff Clark
Scott Parke

L-42 Surveillance Panel

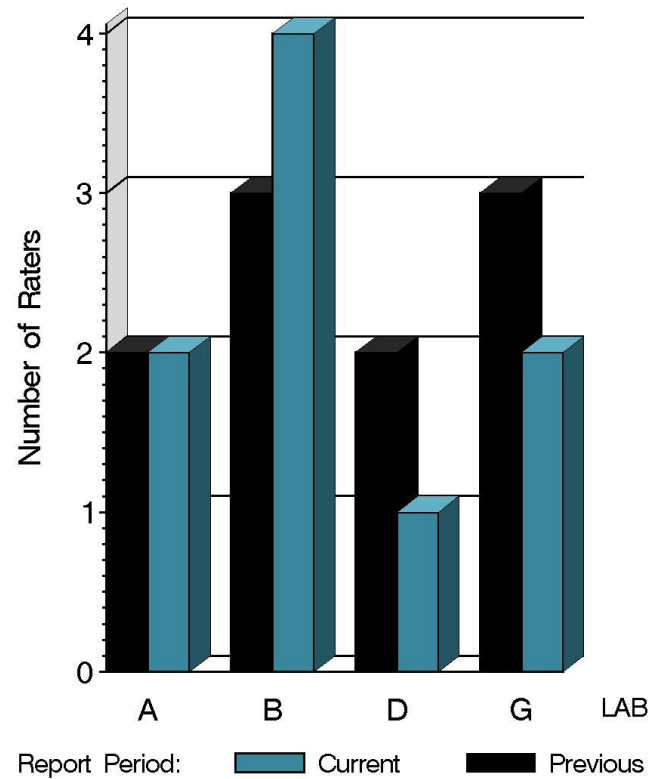
<http://www.astmtmc.cmu.edu/ftp/docs/gear/l42rc/semiannualreports/l42rc-10-2018.pdf>

Distribution: email

L-42 Rater Calibration

	Reporting Data	Calibrated on 9-30-18
Number of Labs	4	4
Number of Raters	9	9

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	12	11
Rejected (Mild)	OC	0	1
Rejected (Severe)	OC	0	1
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	24	15
Total		36	28

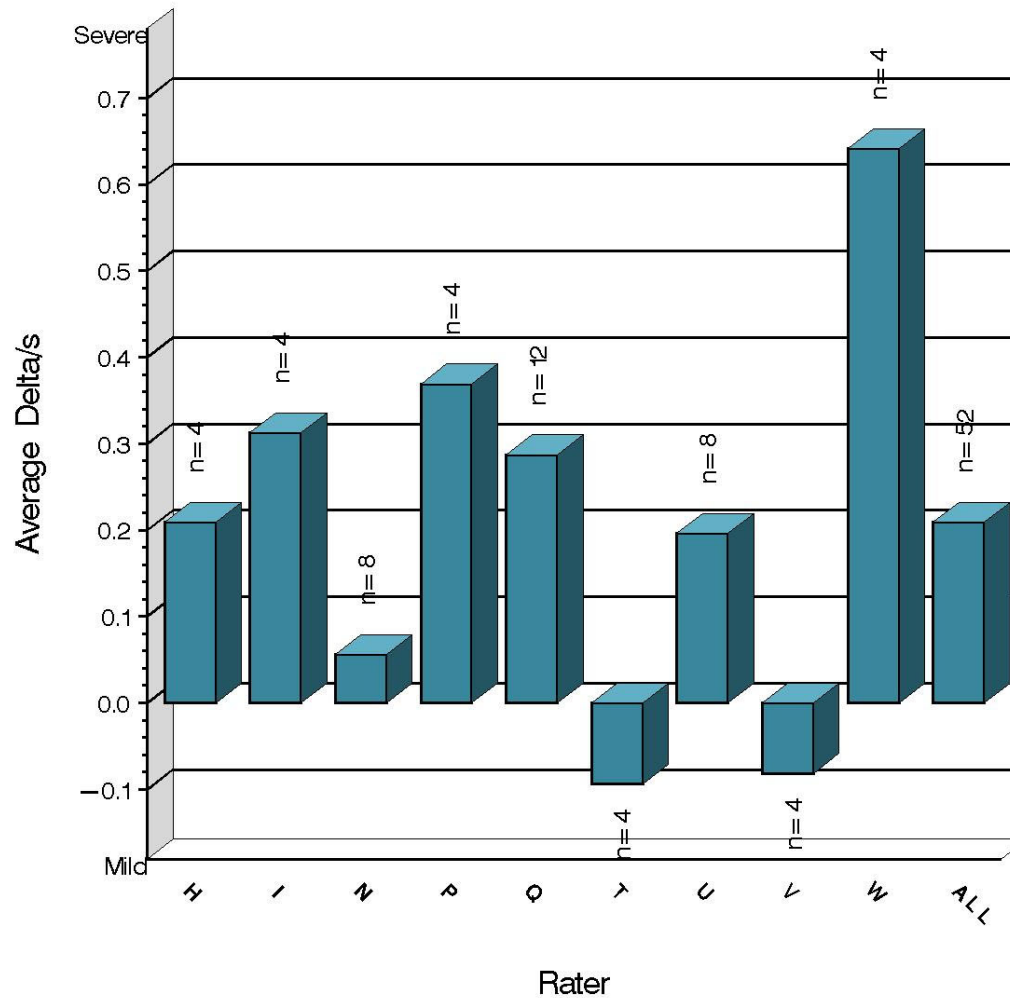
L-42 Rater Calibration

Rater	N	PSCR		RSCR	
		Avg Yi	STD*	Avg Yi	STD*
H	4	0.209	0.526	-0.154	0.427
I	4	0.312	0.432	-0.641	0.678
N	8	0.056	0.354	-0.195	0.389
P	4	0.369	0.503	0.521	0.553
Q	12	0.287	0.767	0.194	1.147
T	4	-0.094	0.392	-0.196	0.825
U	8	0.196	1.038	-0.711	1.241
V	4	-0.081	0.234	-0.020	0.352
W	4	0.641	0.611	0.090	0.864
ALL	52	0.209	0.636	-0.125	0.895

* 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

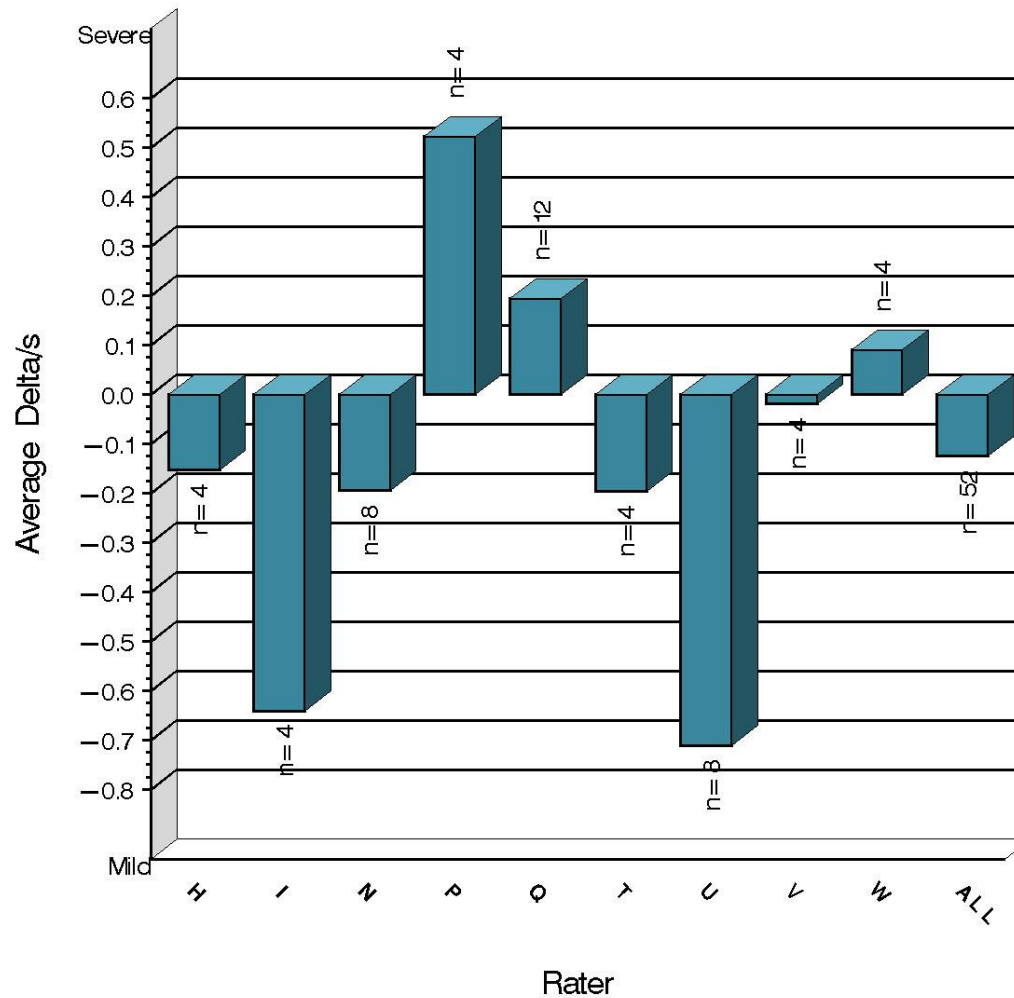
PINION SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

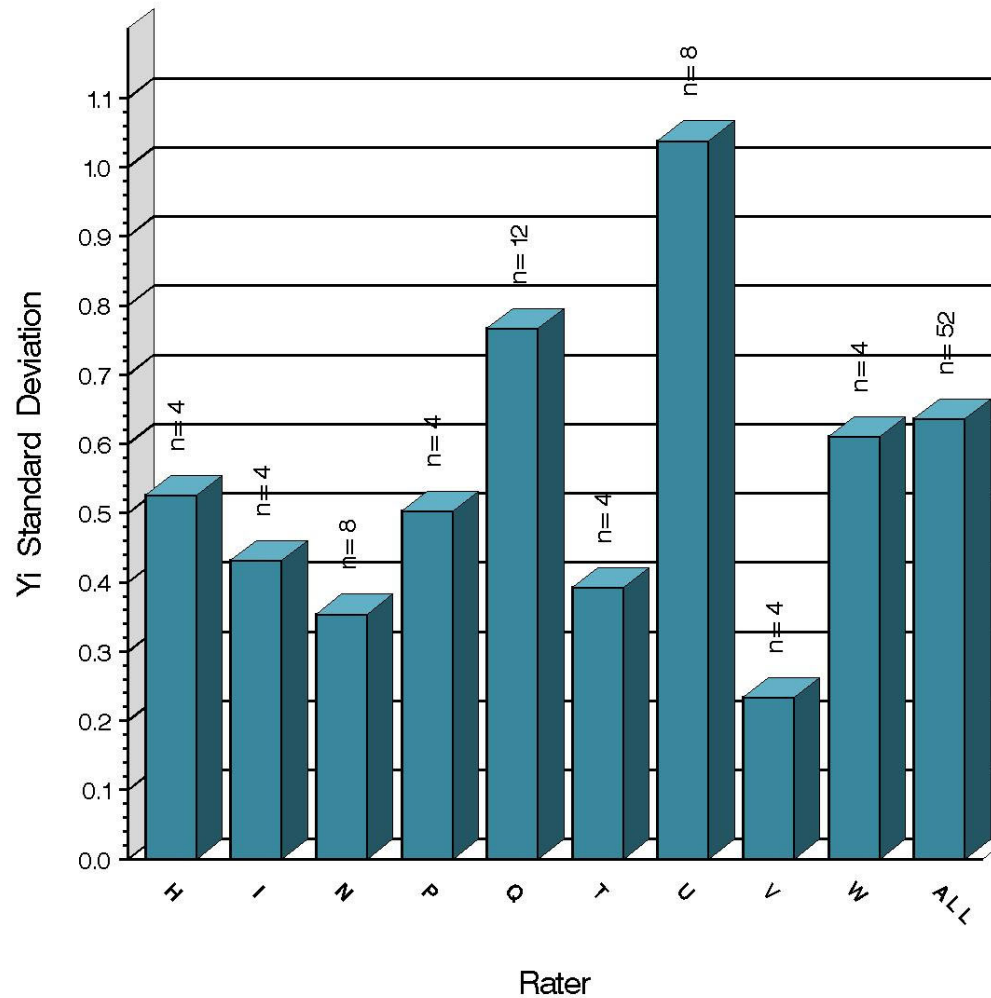
RING SCORING
Severity as Measured by Delta/s



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L-42 Rater Calibration

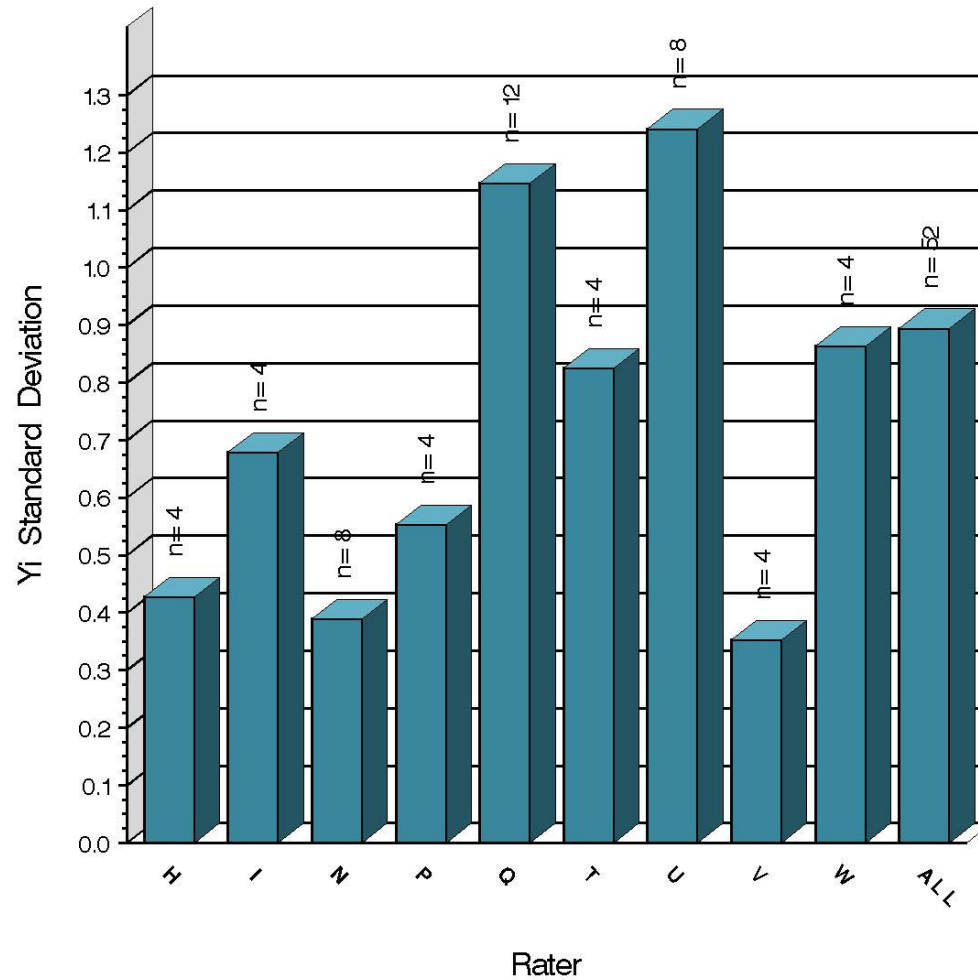
PINION SCORING
Precision as Measured by Yi STD



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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

Both PSCR and RSCR remained within limits over this report period.

Precision

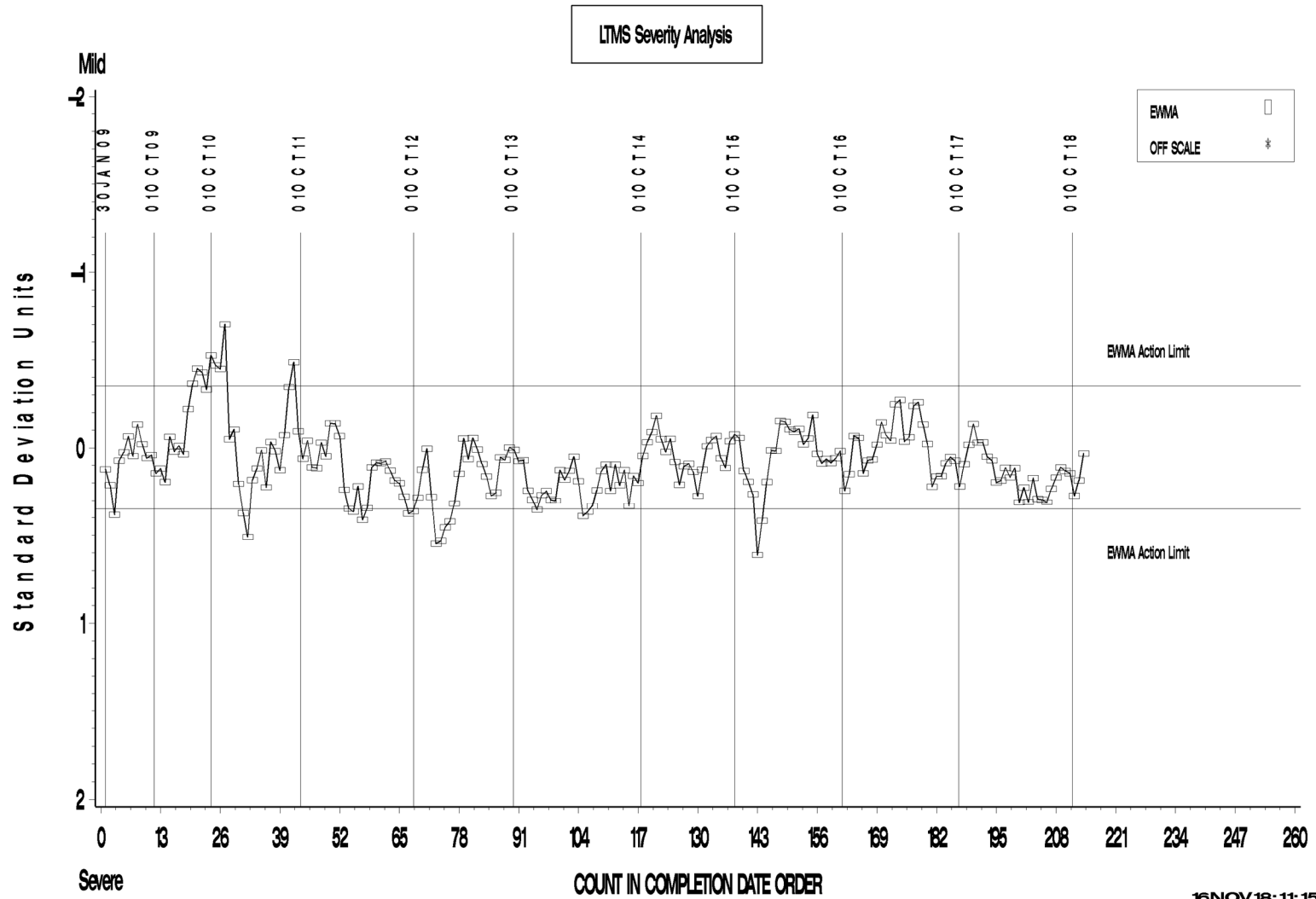
Precision for both parameters remained within acceptable limits.

Industry control charts follow.

L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

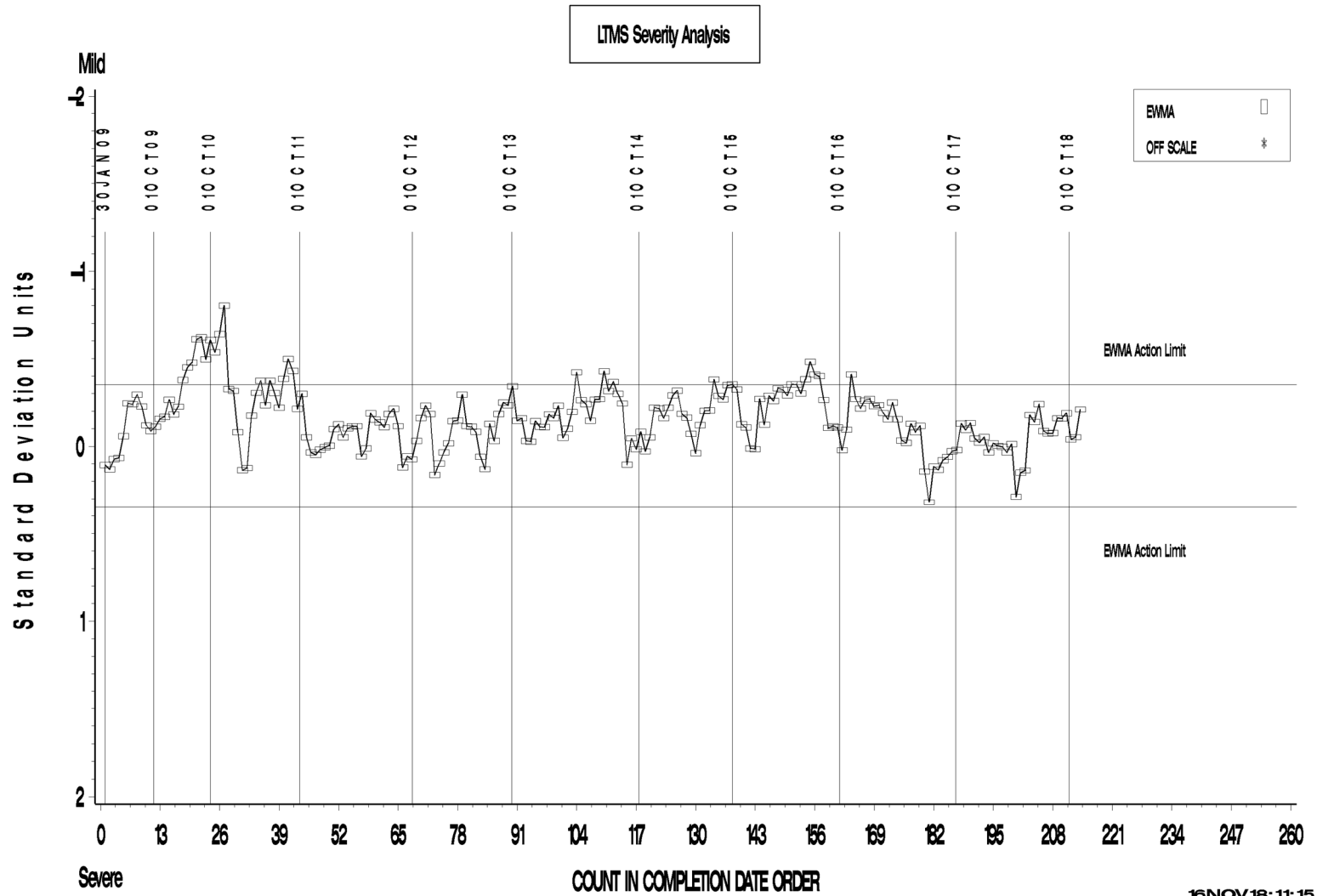


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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING



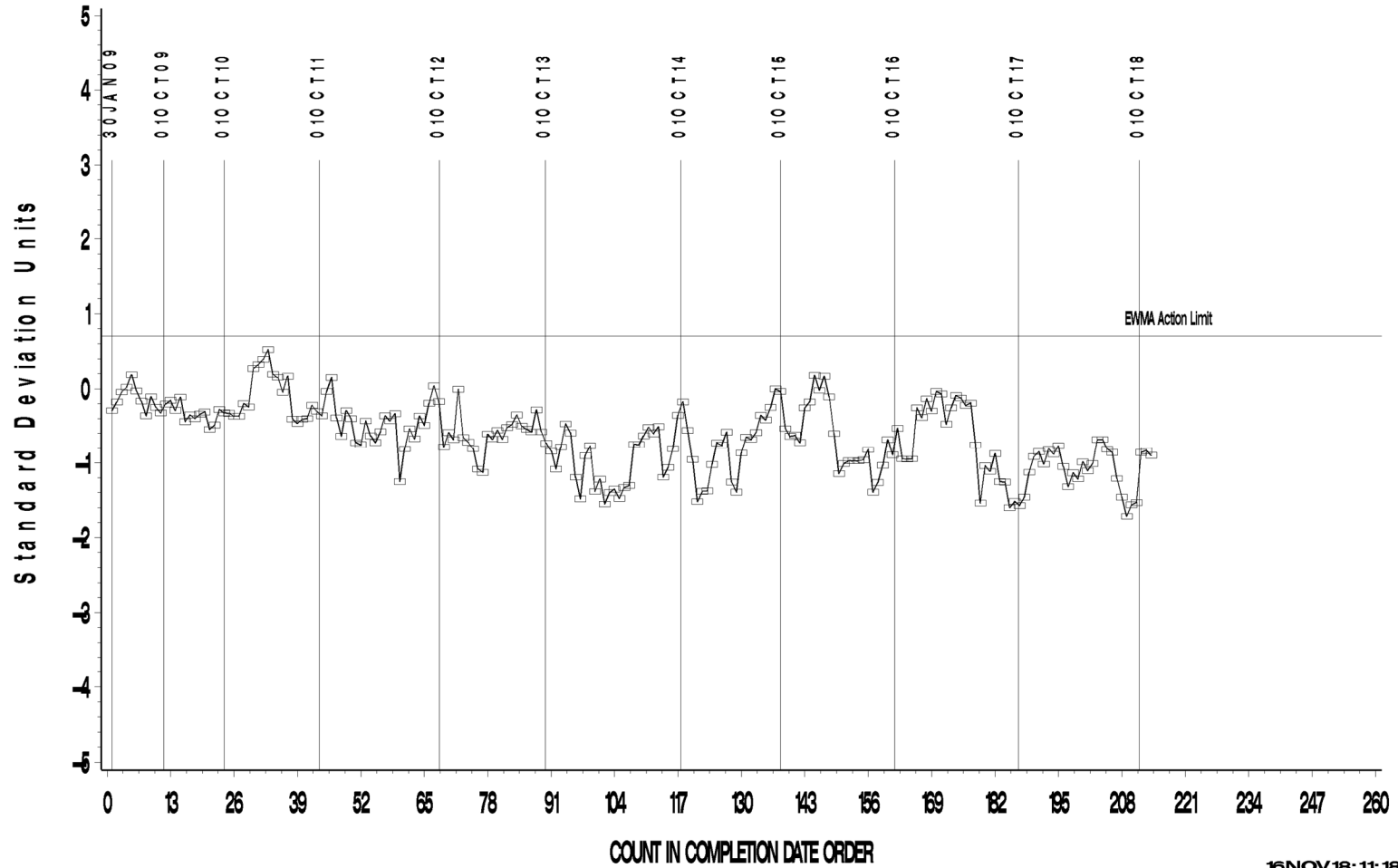
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

LTMS Precision Analysis



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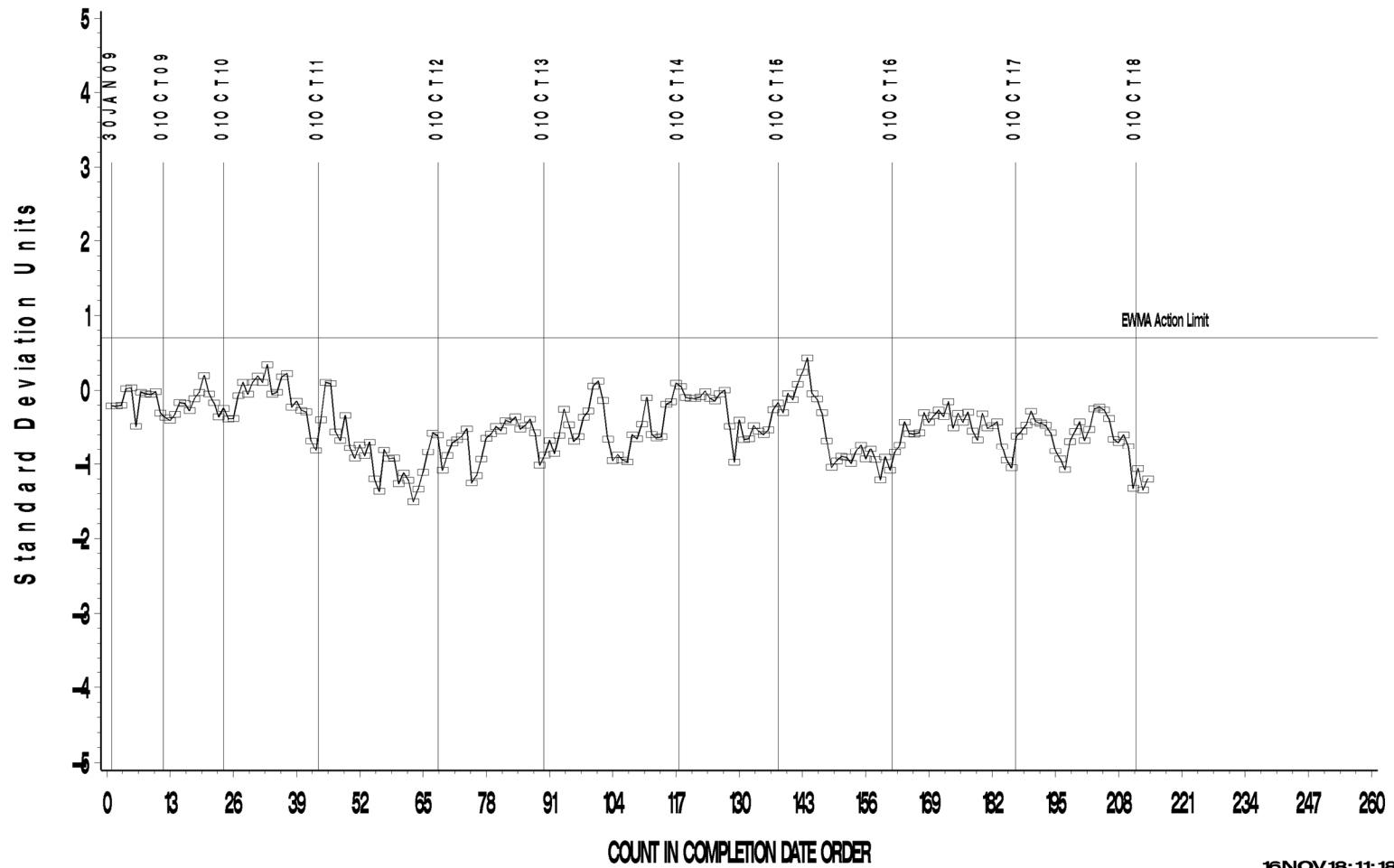
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

LTMS Precision Analysis



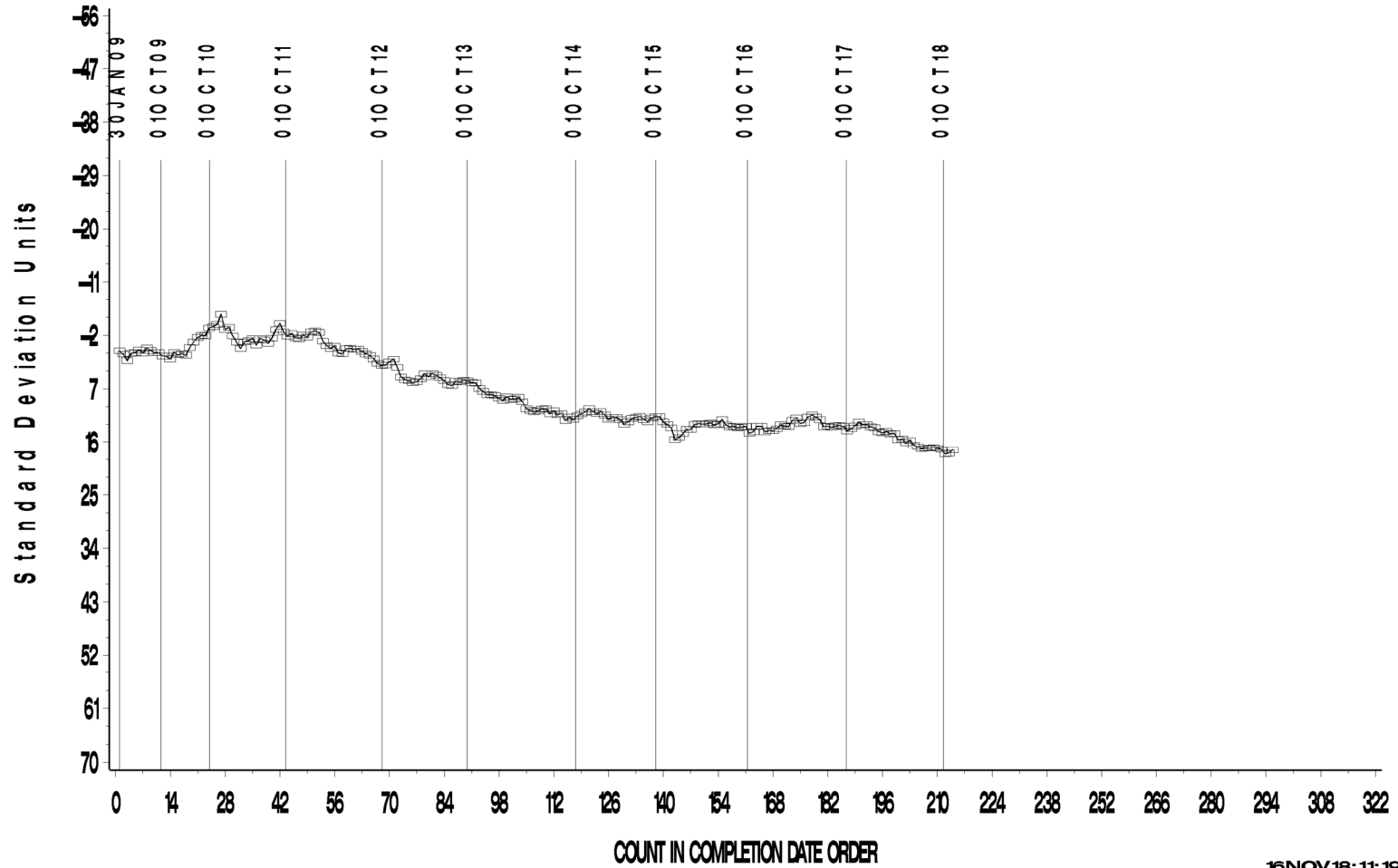
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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

PINION SCORING

CUSUM Severity Analysis



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L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RING SCORING

CUSUM Severity Analysis



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