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Test Monitoring Center

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

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

MEMORANDUM: 18-044

DATE: November 16, 2018

TO: Rob Slocum, Chairman, L-37 Surveillance Panel

FROM: Dylan Beck

SUBJECT: L-37 Rater Calibration from April 1, 2018 through September 30, 2018

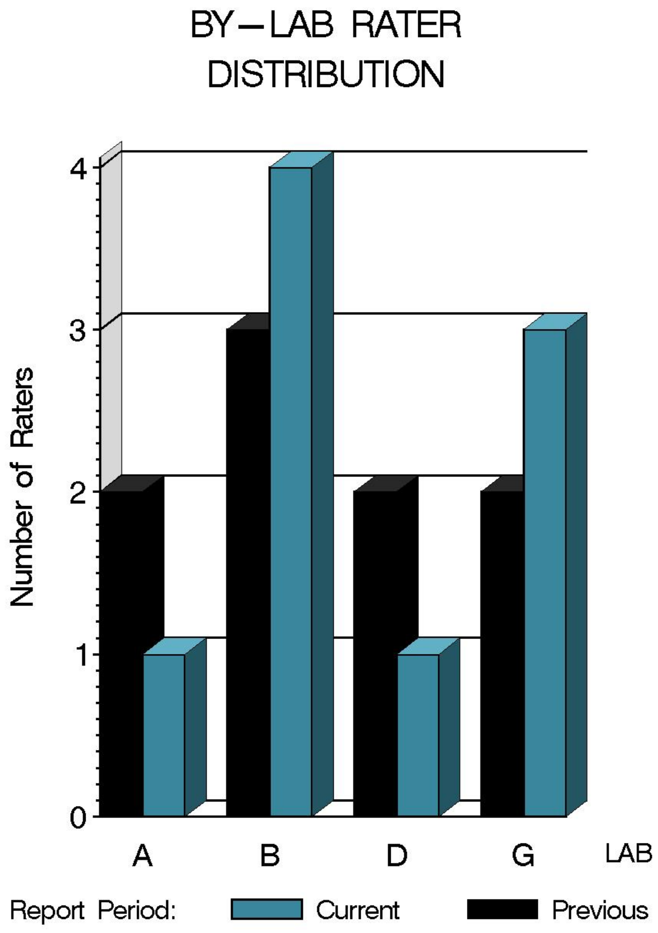
Attached is a summary of L-37 rater calibration activity this period.

DJB/djb/mem18-044.djb.doc
cc: Frank Farber
Jeff Clark
Scott Parke
L-37 Surveillance Panel
http://www.astmtmc.cmu.edu/ftp/docs/gear/l37rc/semiannualreports/l37rc-10-2018.pdf

Distribution: email

L-37 Rater Calibration

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



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L-37 Rater Calibration

Test Distribution by Validity

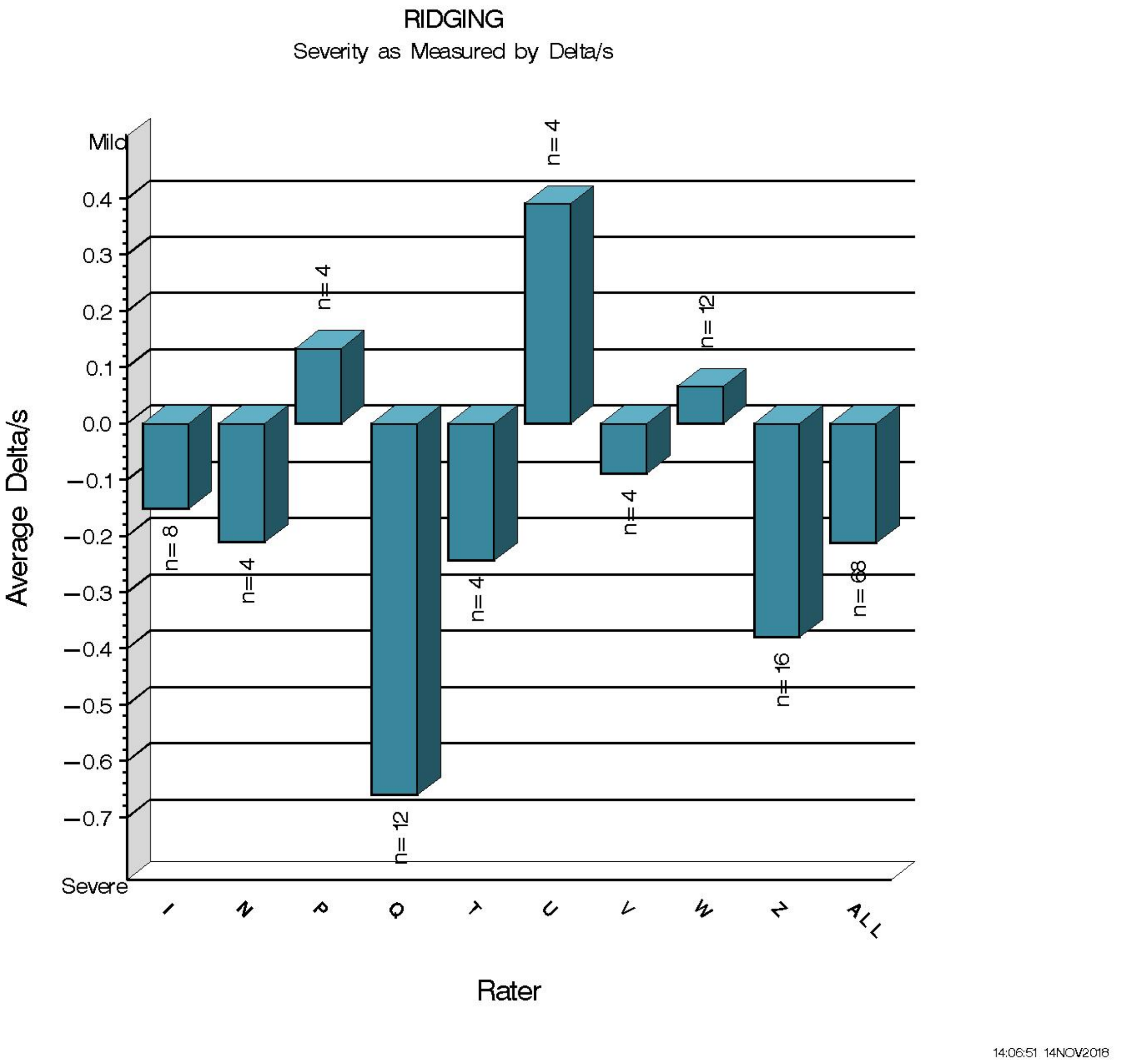
		Totals	
		Last Period	This Period
Accepted for calibration	AC	10	11
Rejected (Mild)	OC	1	3
Rejected (Severe)	OC	3	3
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	24	15
Total		38	32

L-37 Rater Calibration

		RIDG		RIPP		SPIT		WEAR	
Rater	**N**	**Avg Yi**	**STD***	**Avg Yi**	**STD***	**Avg Yi**	**STD***	**Avg Yi**	**STD***
I	8	-0.152	0.800	0.135	0.679	-0.136	0.312	-0.274	1.439
N	4	-0.211	0.836	-0.326	0.644	-0.159	0.137	-0.189	0.463
P	4	0.133	0.481	0.385	0.534	0.104	0.491	0.595	0.715
Q	12	-0.660	1.368	-0.172	0.674	0.048	0.295	-0.284	0.621
T	4	-0.244	1.051	-0.090	0.736	0.208	0.245	-0.090	0.517
U	4	0.391	0.557	0.573	1.129	0.176	0.332	-0.384	1.141
V	4	-0.089	0.689	-0.197	0.482	0.004	0.259	-0.076	0.587
W	12	0.066	0.842	0.363	1.045	-0.062	0.410	0.401	1.459
Z	16	-0.380	1.757	-0.343	1.098	0.128	0.412	0.221	1.154
ALL	68	-0.213	1.181	-0.011	0.890	0.031	0.354	0.032	1.068

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

L-37 Rater Calibration



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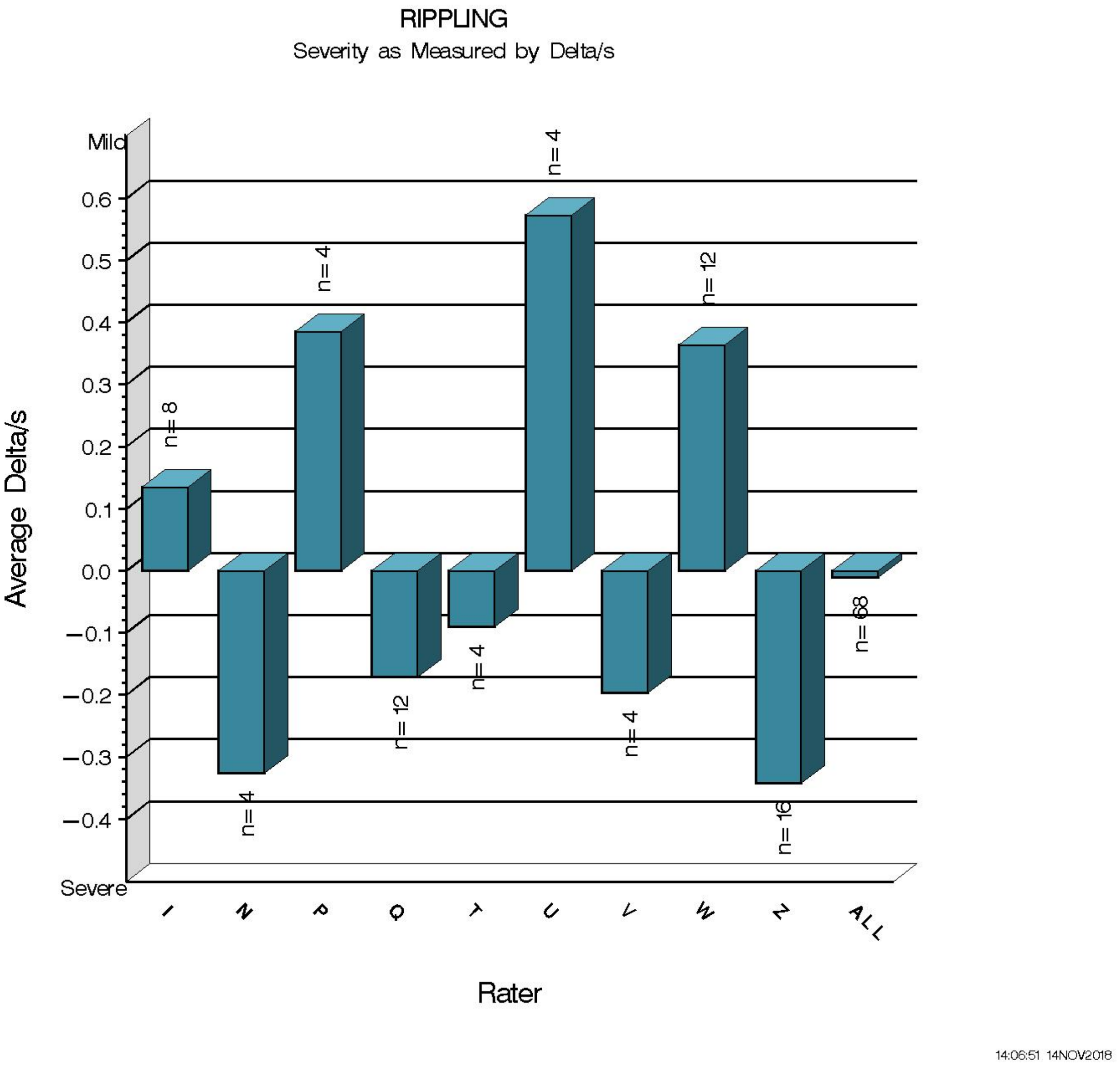

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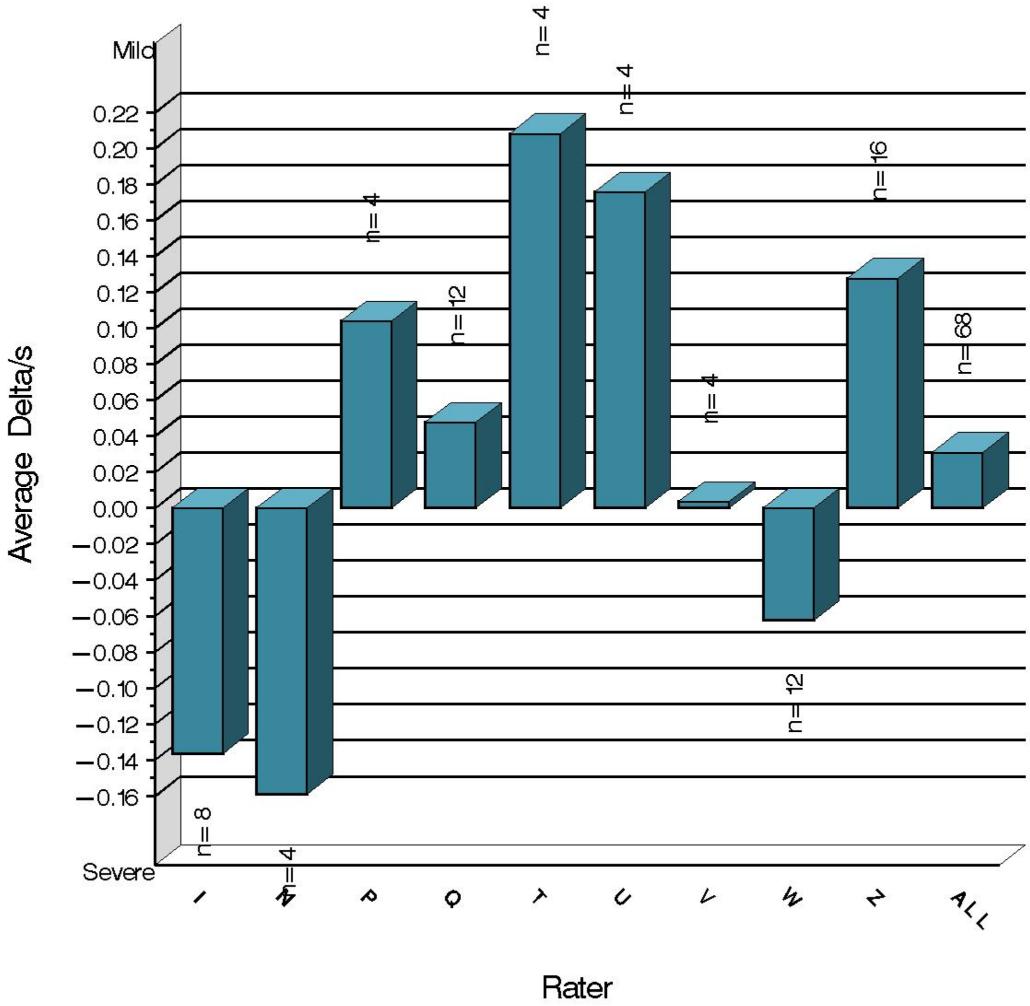
L-37 Rater Calibration

SPITTING

Severity as Measured by Delta/s



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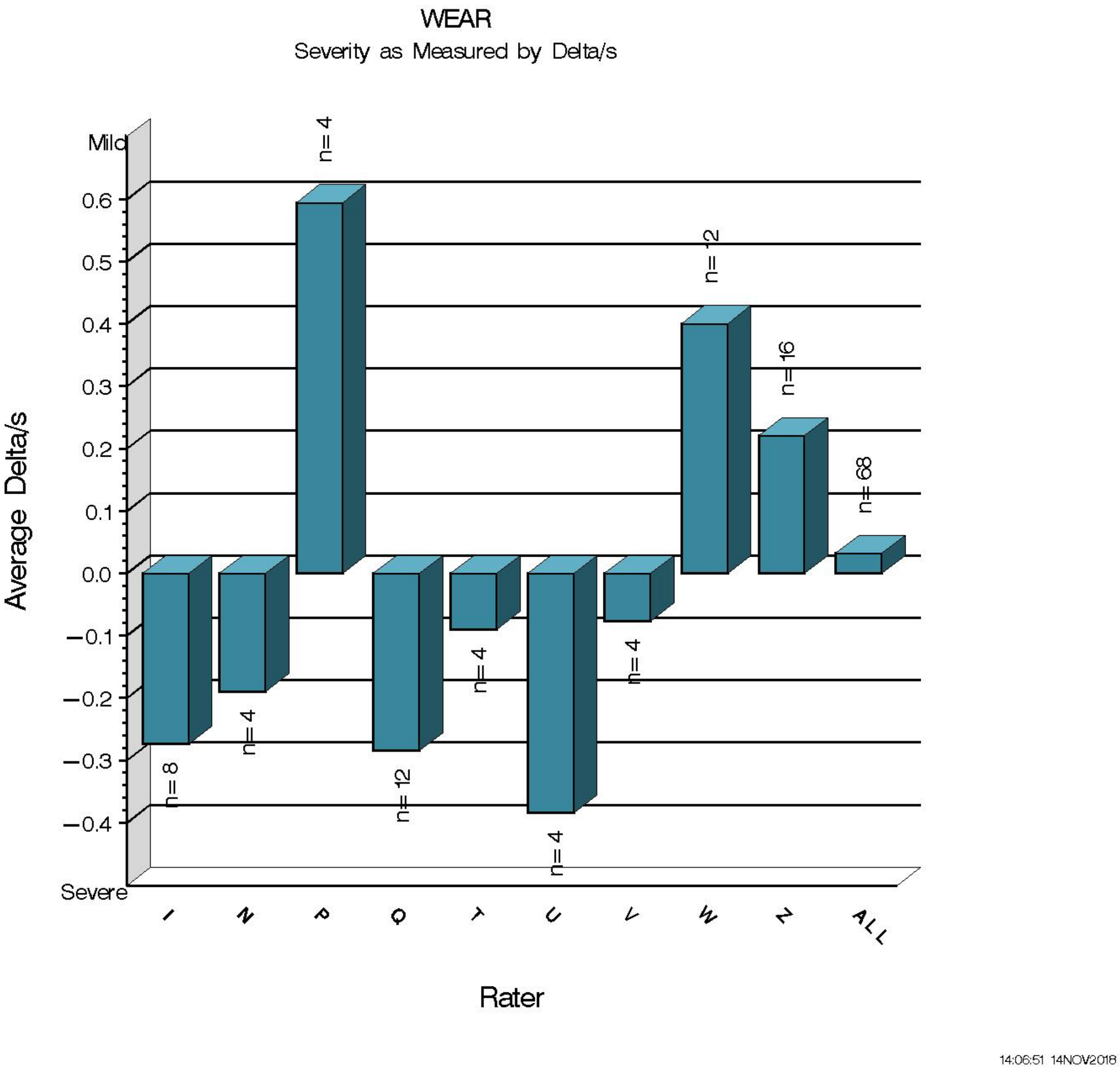
L-37 Rater Calibration



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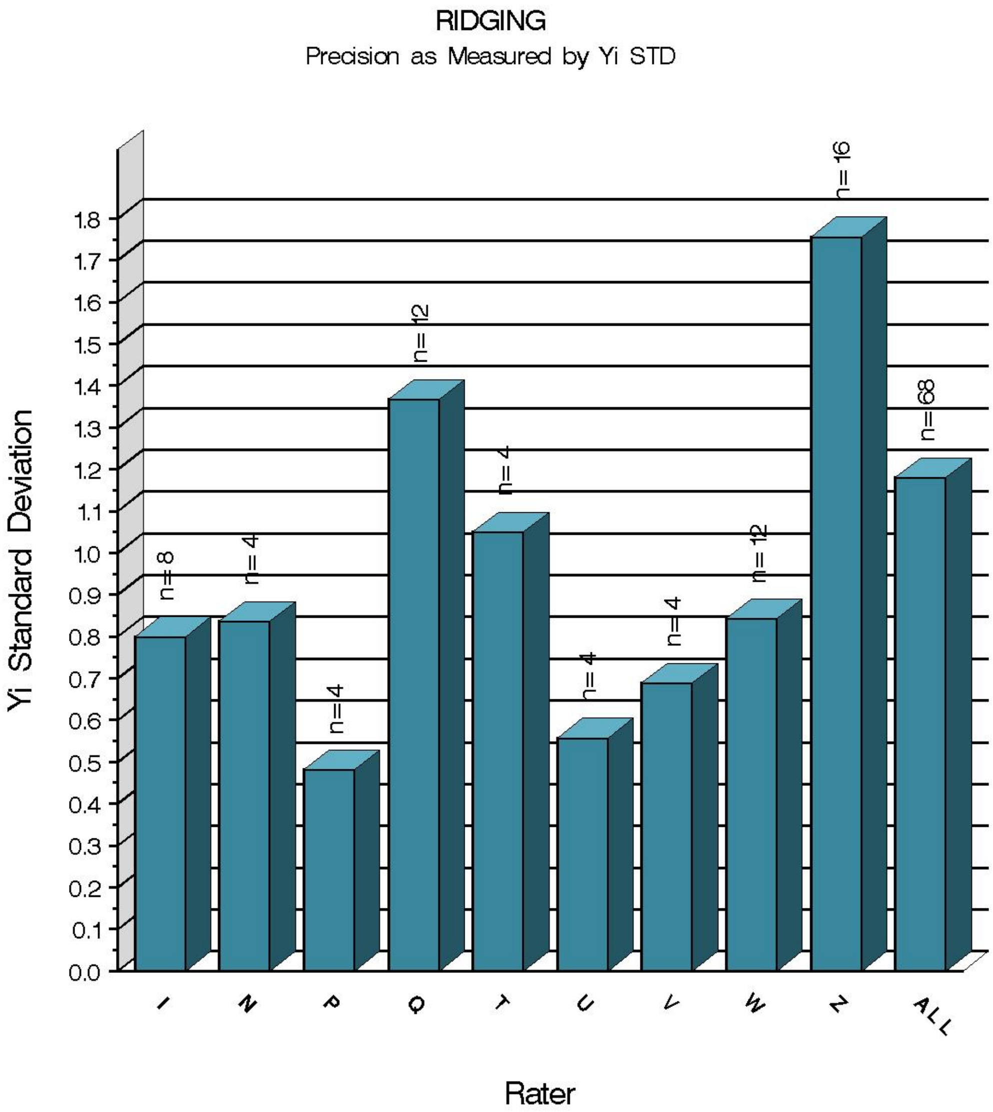

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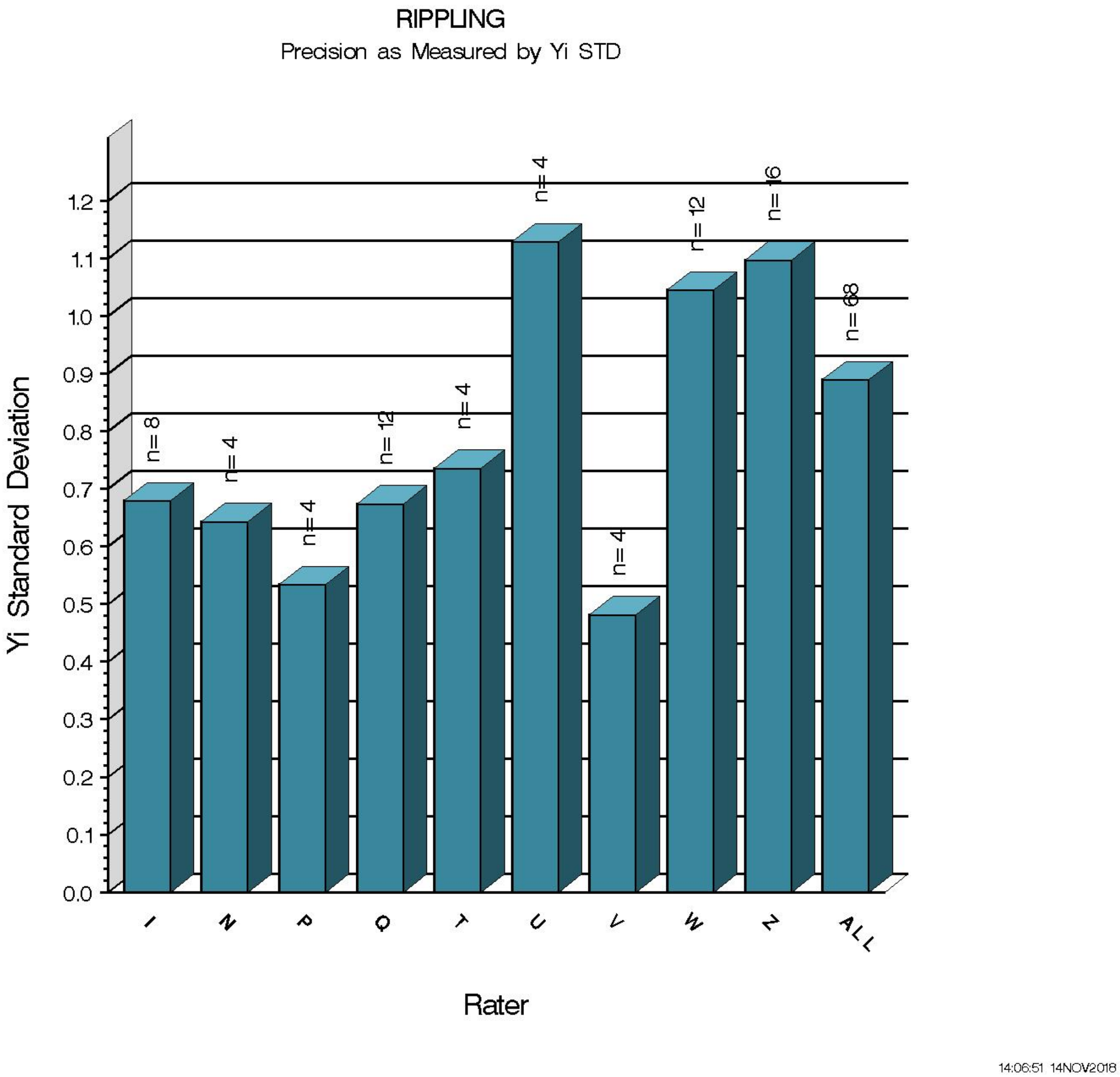

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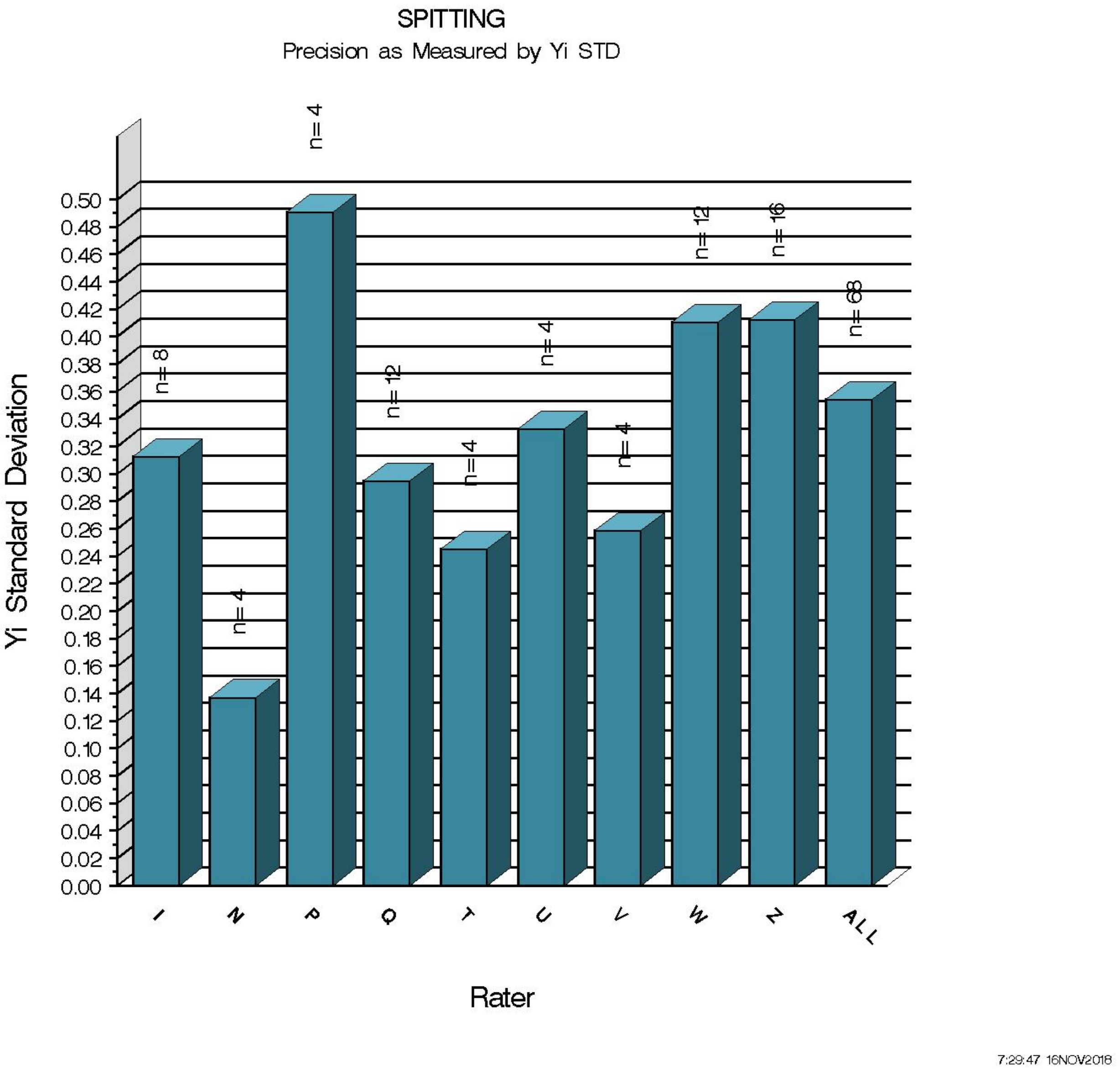

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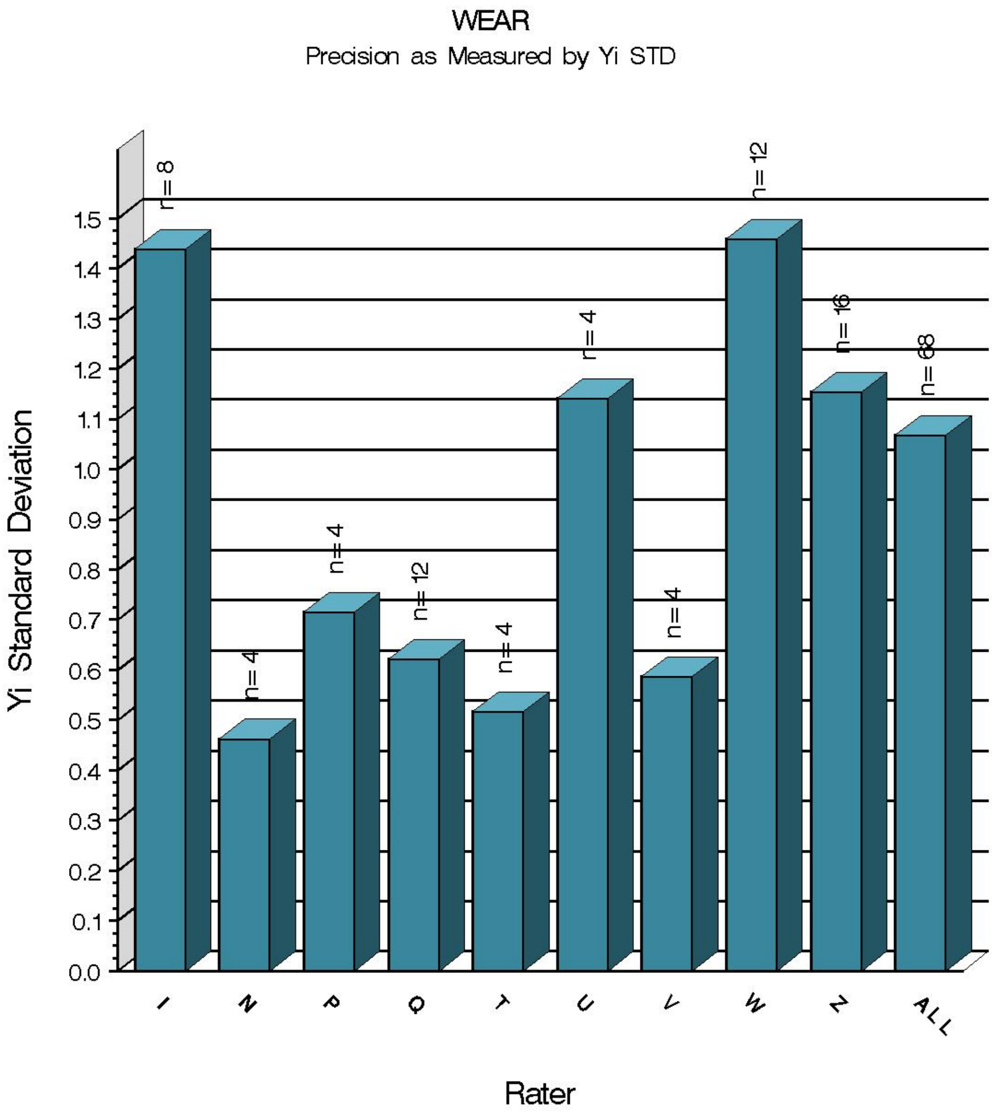

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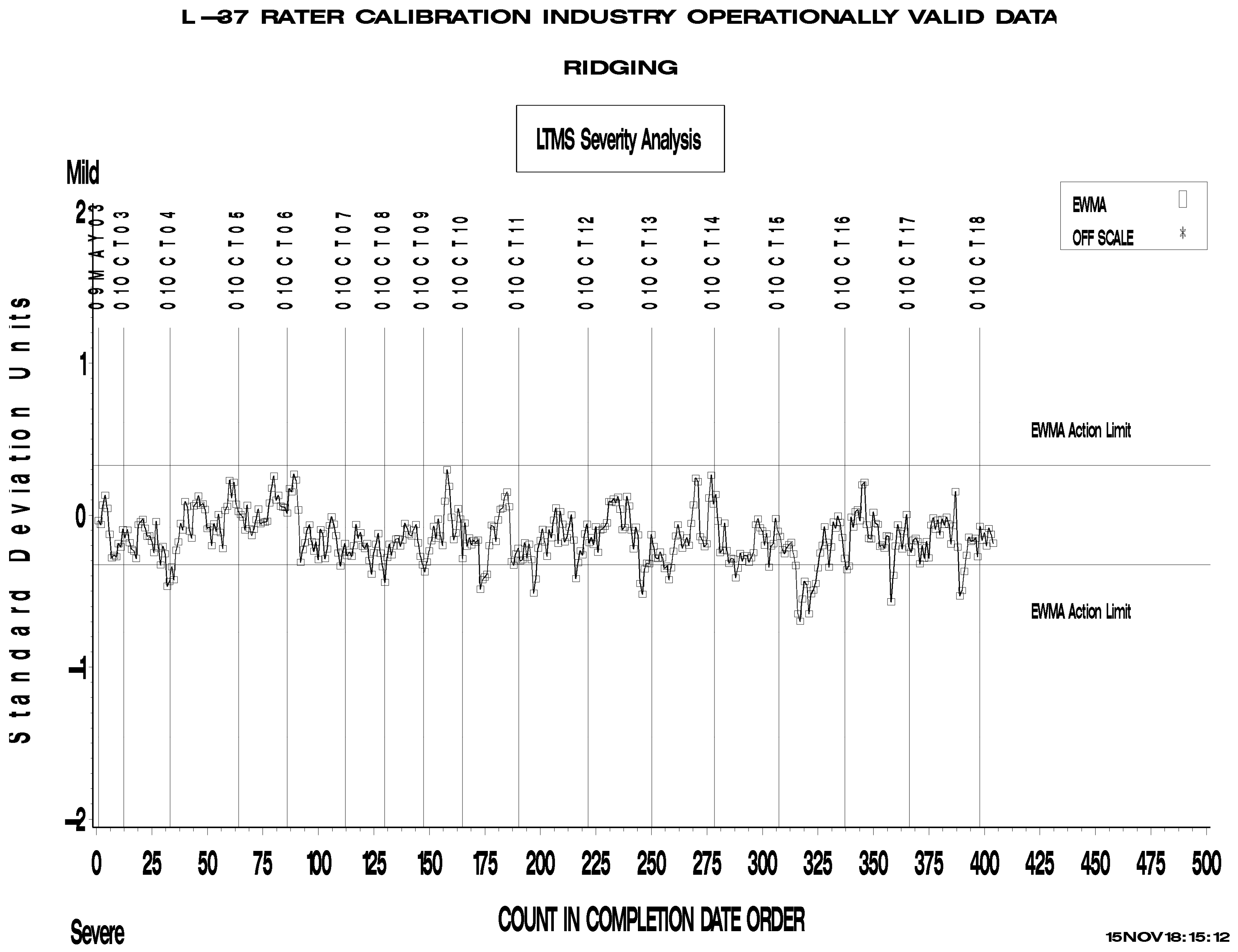
L-37 Rater Calibration

SUMMARY OF SEVERITY & PRECISION

Severity
WEAR exceeded the action limit this period but has since returned to within limits. All other parameters remained within limits throughout the period.
Precision
Industry precision for all parameters remained within limits throughout the period.

Industry rater control charts follow.

L-37 Rater Calibration



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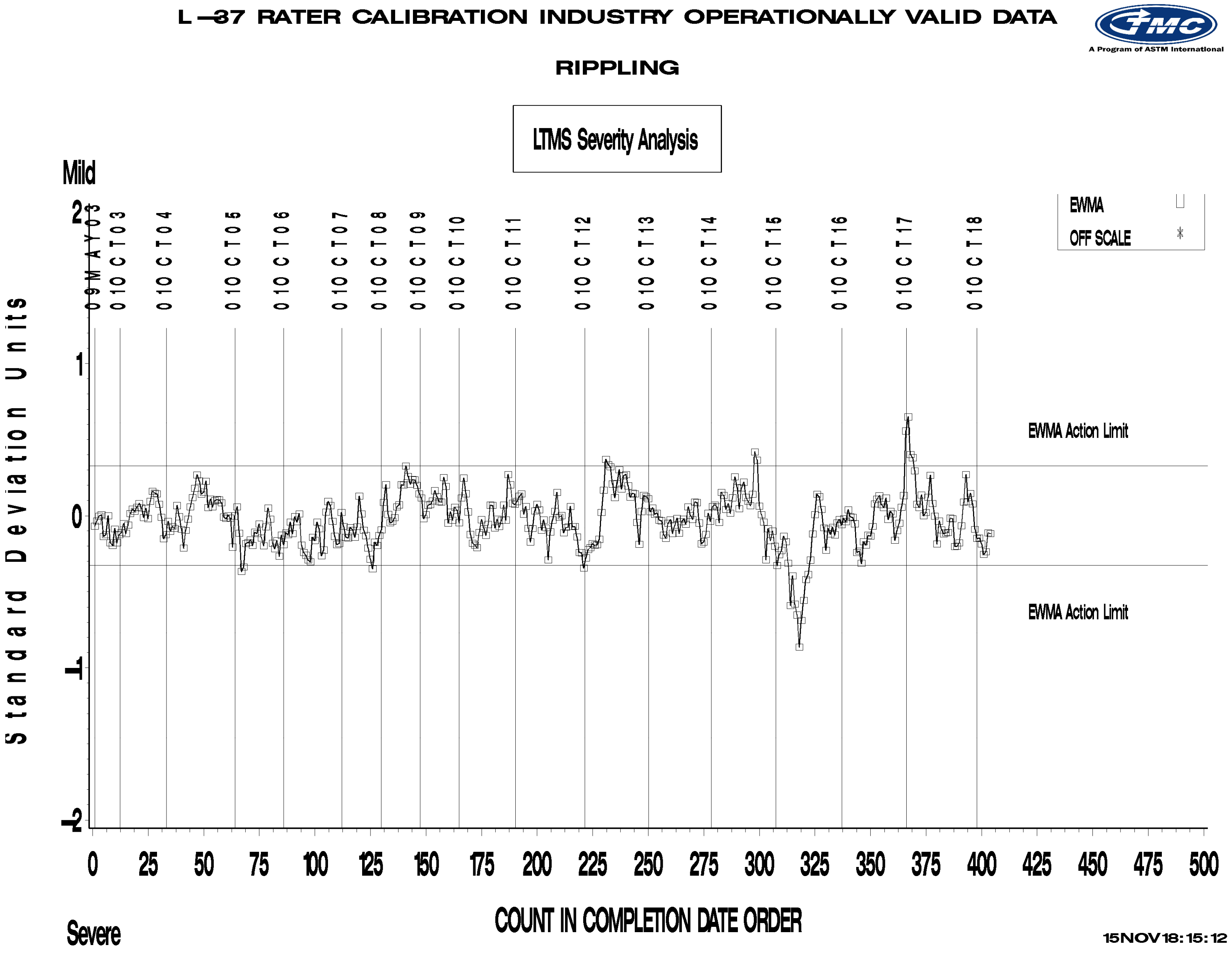

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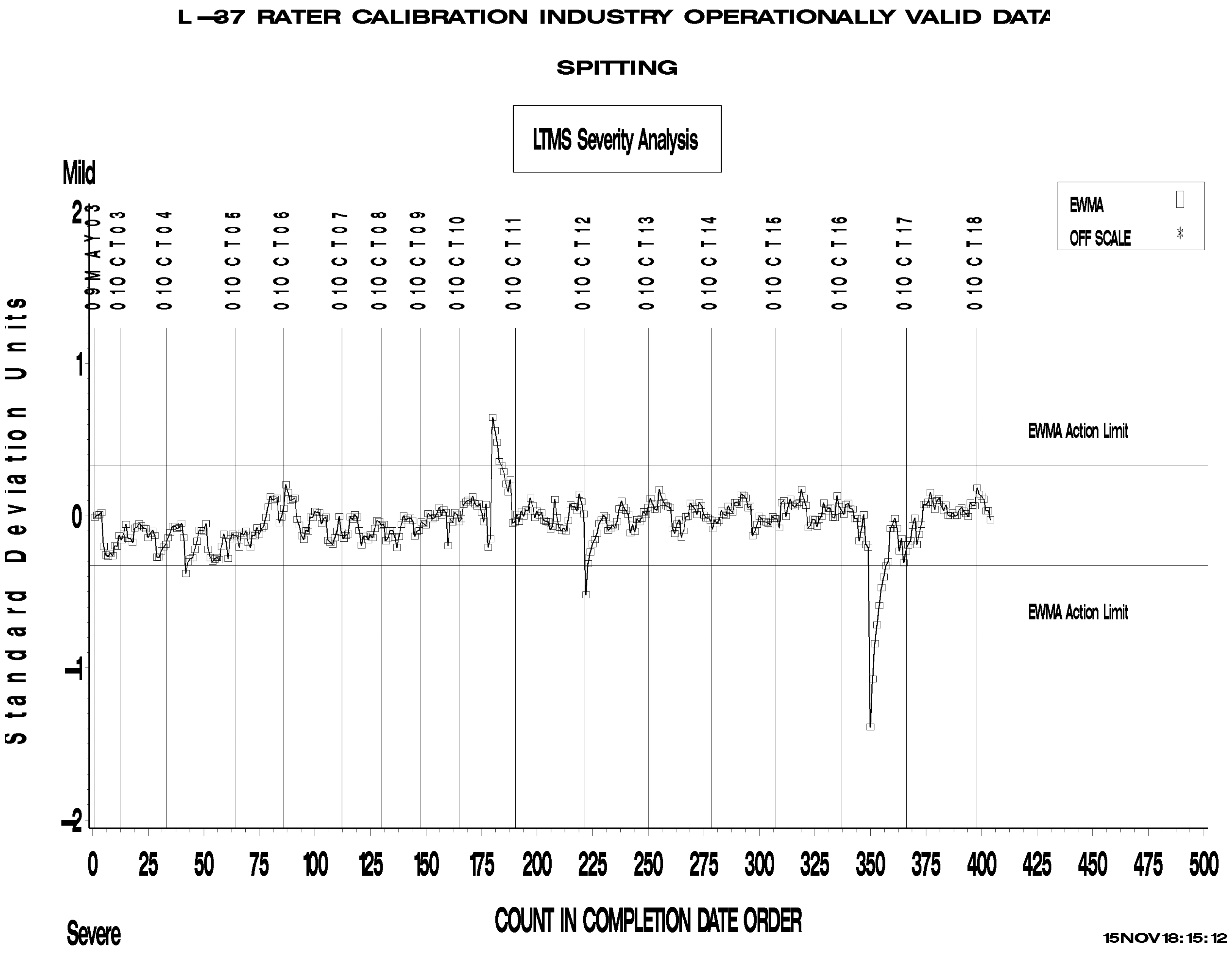

L —37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

SPITTING

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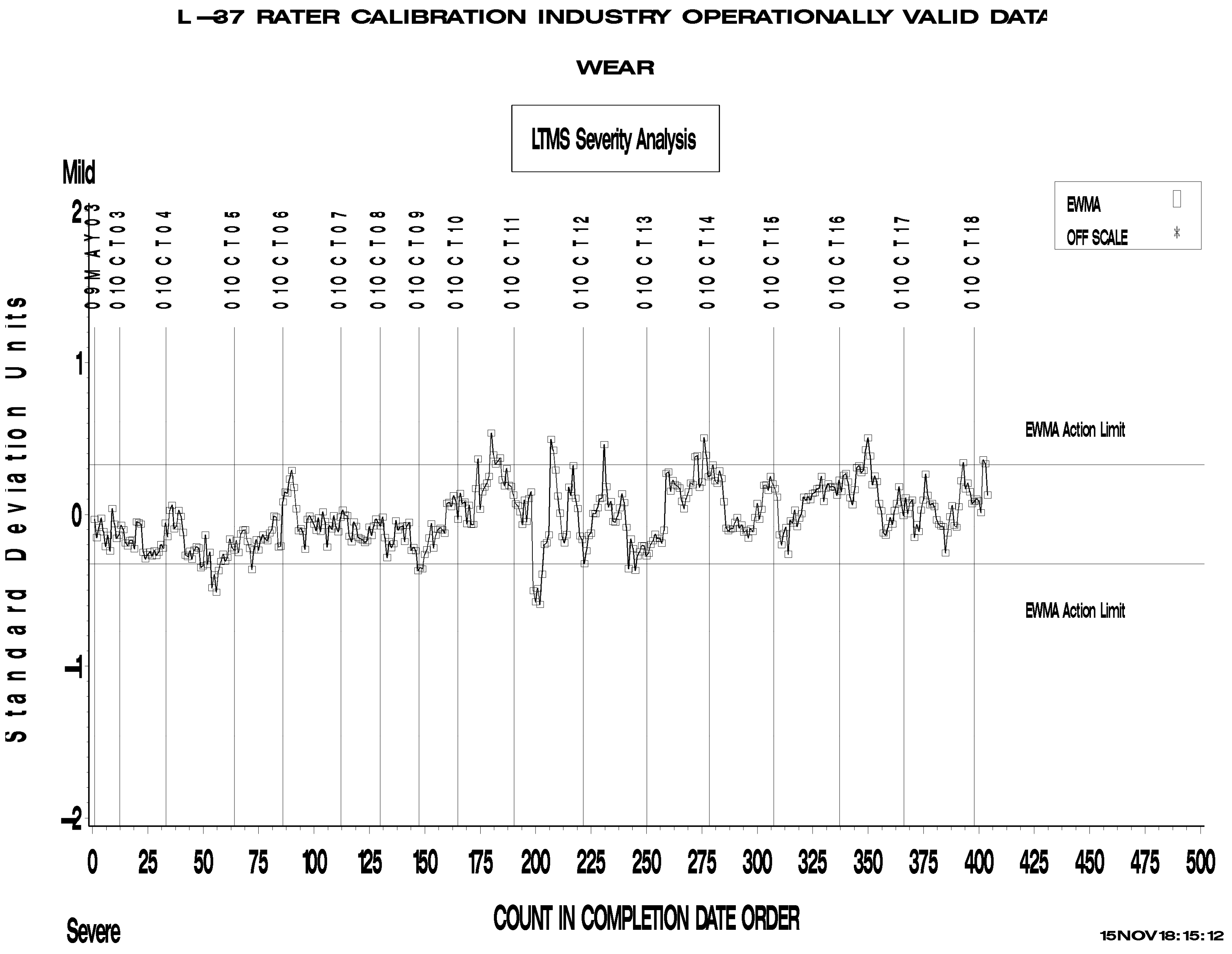

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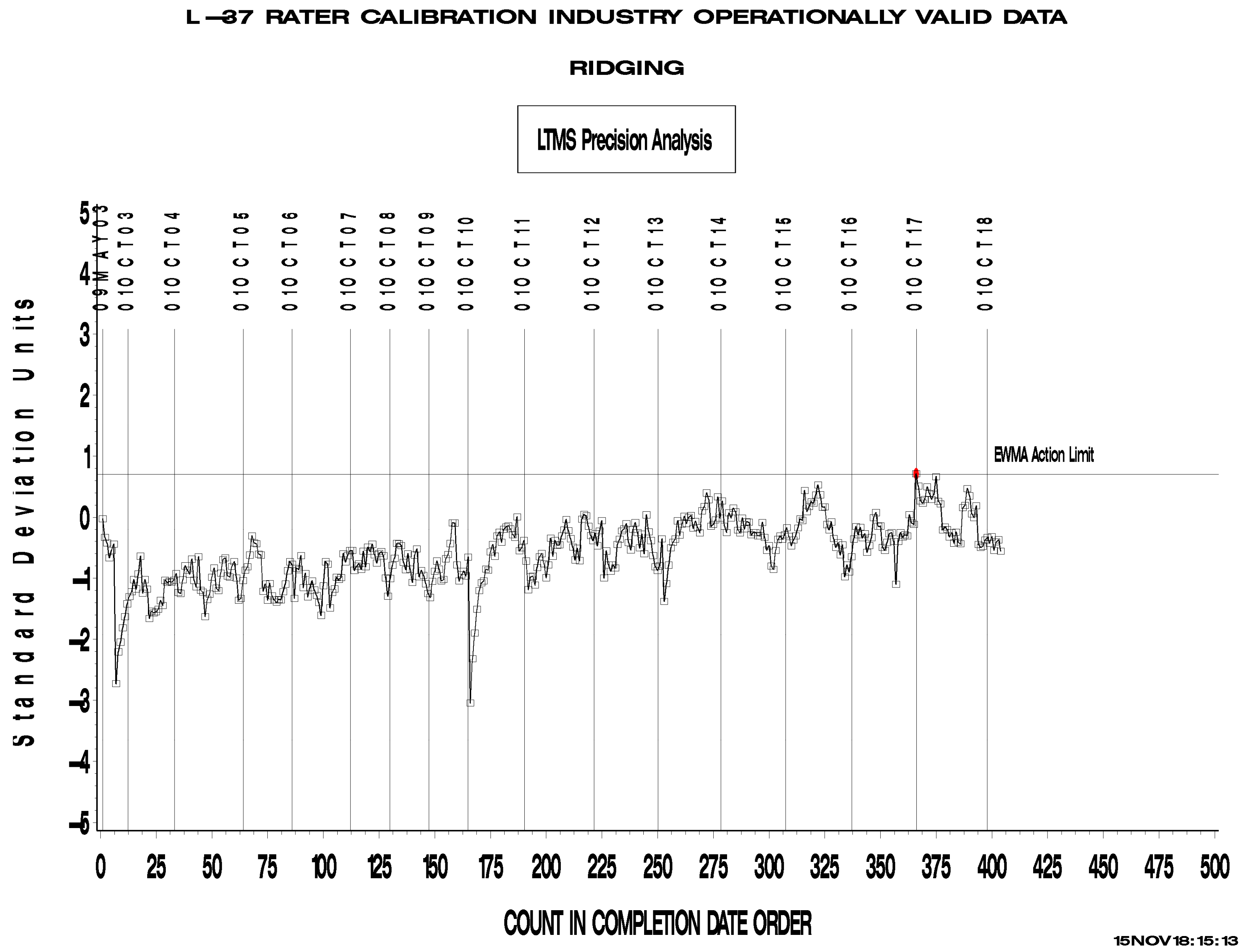

L–37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RIDGING

LTMS Precision Analysis

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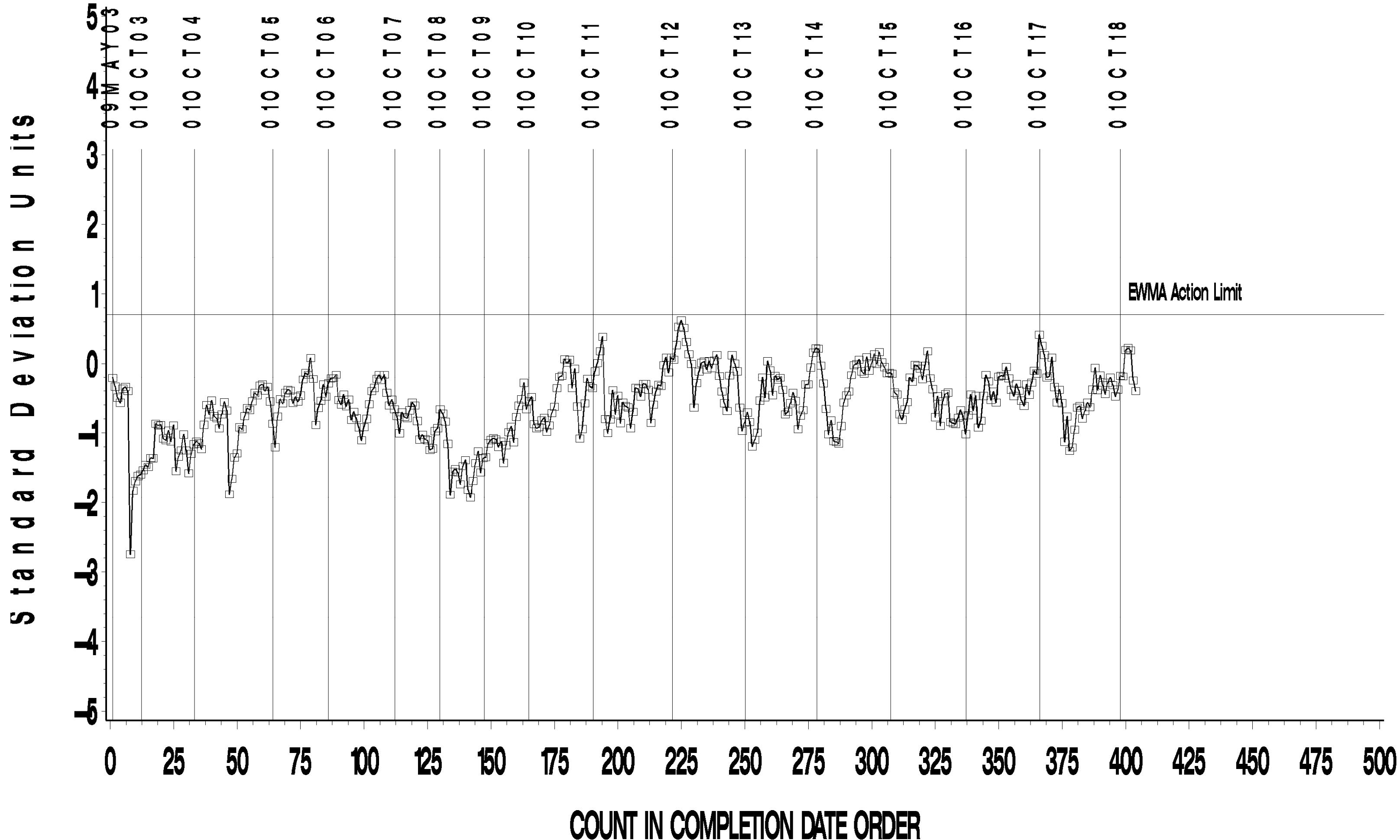
L-37 Rater Calibration

L—37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

RIPPLING

LTMS Precision Analysis



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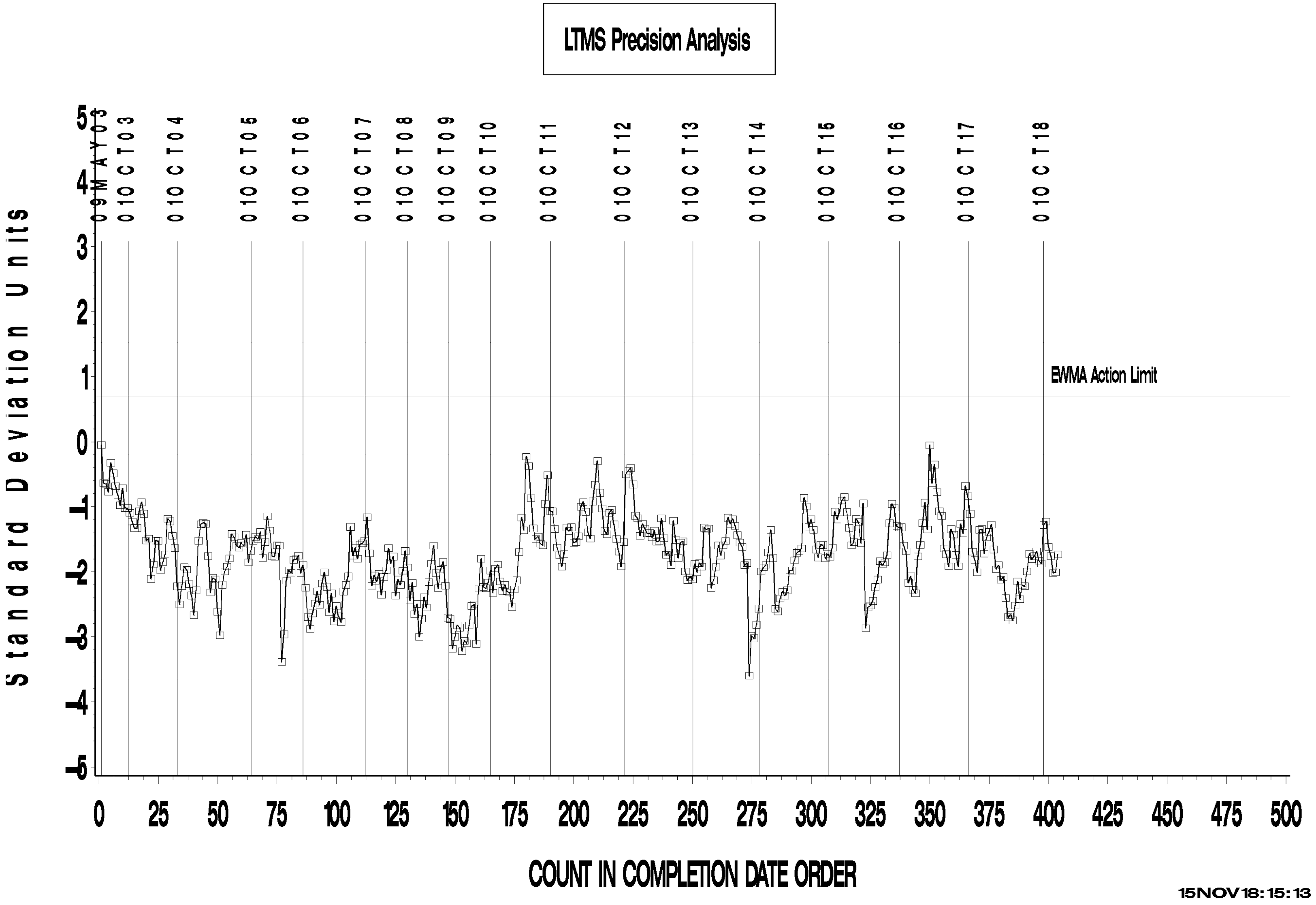
SPITTING



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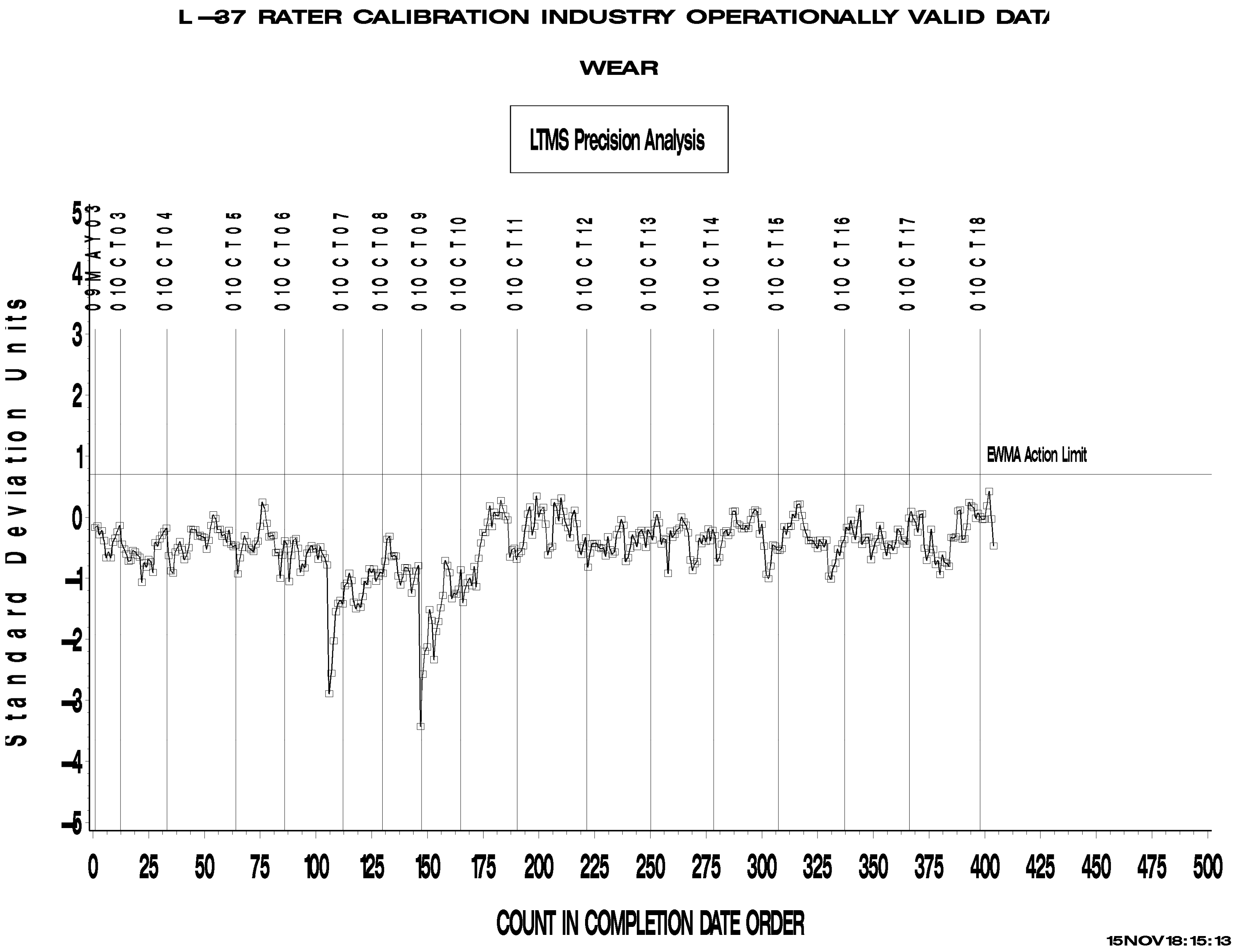

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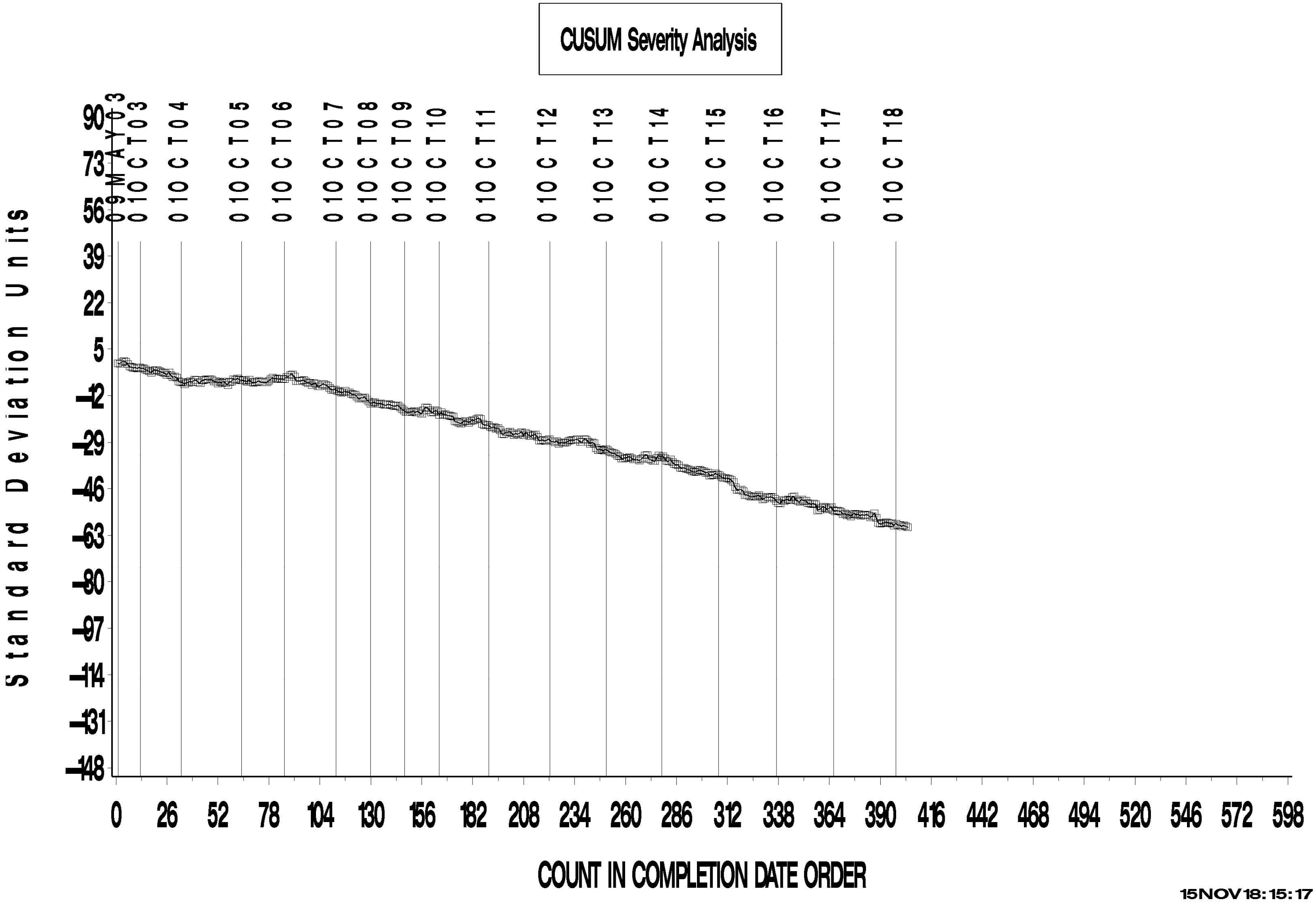
RIDGING



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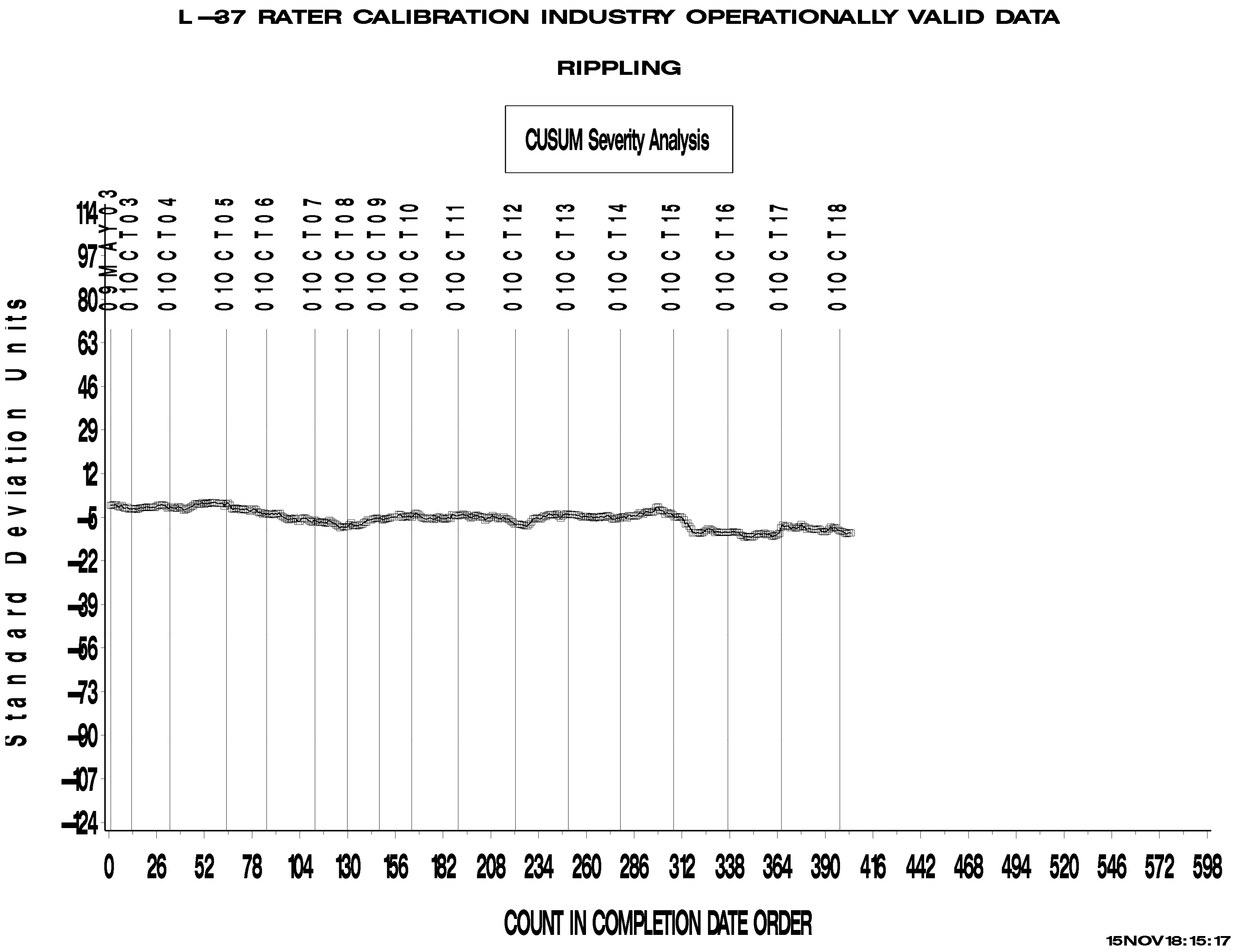
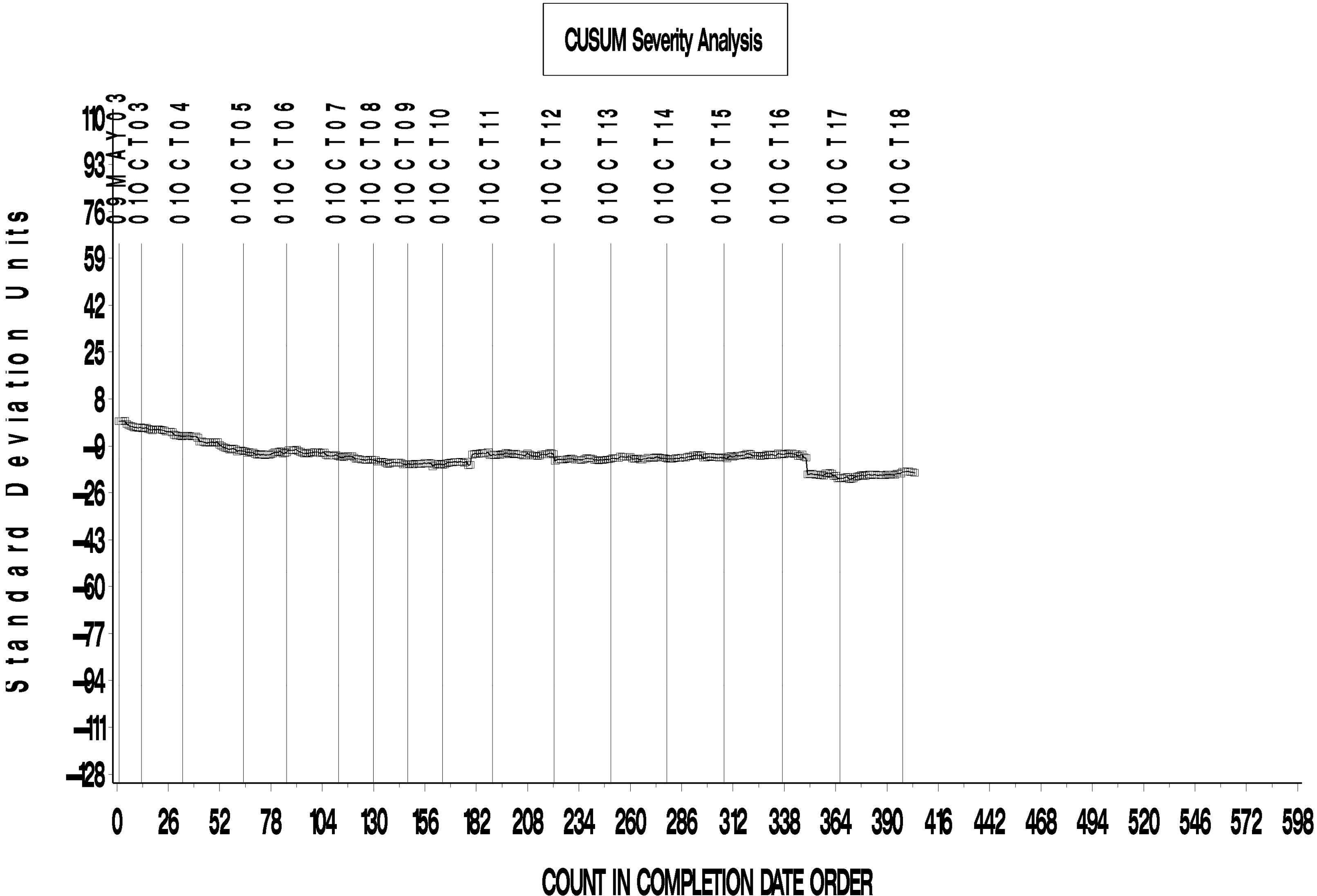


L-37 Rater Calibration

L—37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DAT

SPITTING



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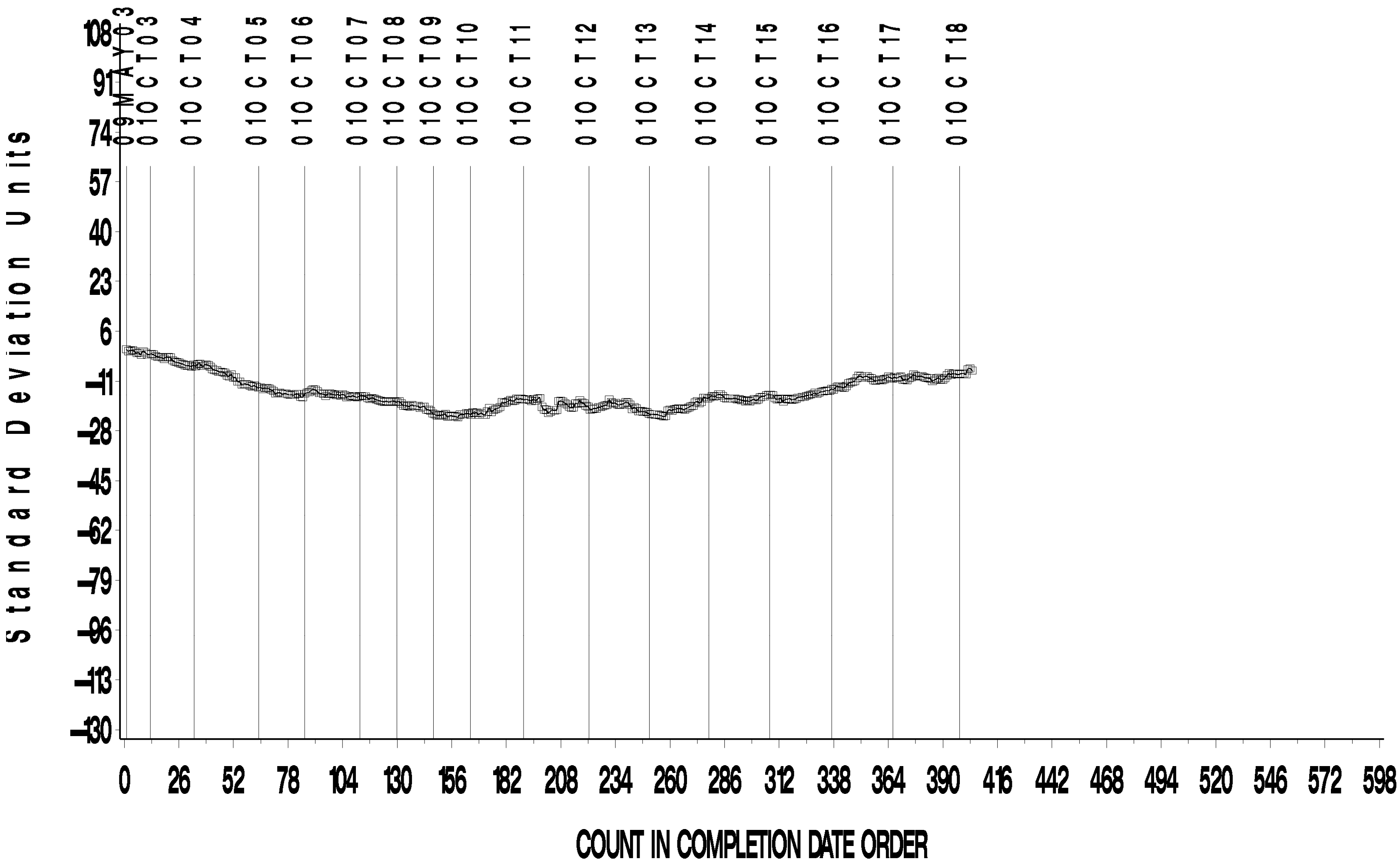
L-37 Rater Calibration

L–37 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

WEAR

CUSUM Severity Analysis



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