



A Program of ASTM International

## Test Monitoring Center

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

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

MEMORANDUM: 16-051

DATE: November 23, 2016

TO: Eric Donovan, Chairman, L-42 Surveillance Panel

FROM: Scott Parke

Signed by Scott Parke (Handwritten signature)

SUBJECT: L-42 Rater Calibration from April 1, 2016 through September 30, 2016

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

SDP/sdp/mem16-051.sdp.doc

cc: Frank Farber

Jeff Clark

L-42 Surveillance Panel

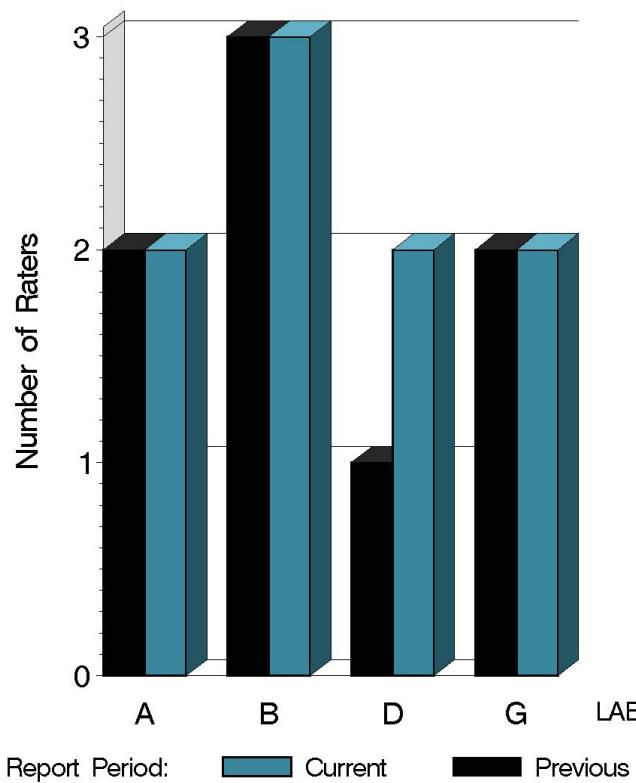
<ftp://ftp.astmtmc.cmu.edu/docs/gear/l42rc/semiannualreports/l42rc-10-2016.pdf>

Distribution: email

# L-42 Rater Calibration

	Reporting Data	Calibrated on 9-30-16
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	9	12
Rejected (Mild)	OC	1	0
Rejected (Severe)	OC	1	0
Rejected (Multiple)	OC	0	0
Rejected (Precision)	OC	0	0
Workshop data	AG	24	15
Total		35	27

# L-42 Rater Calibration

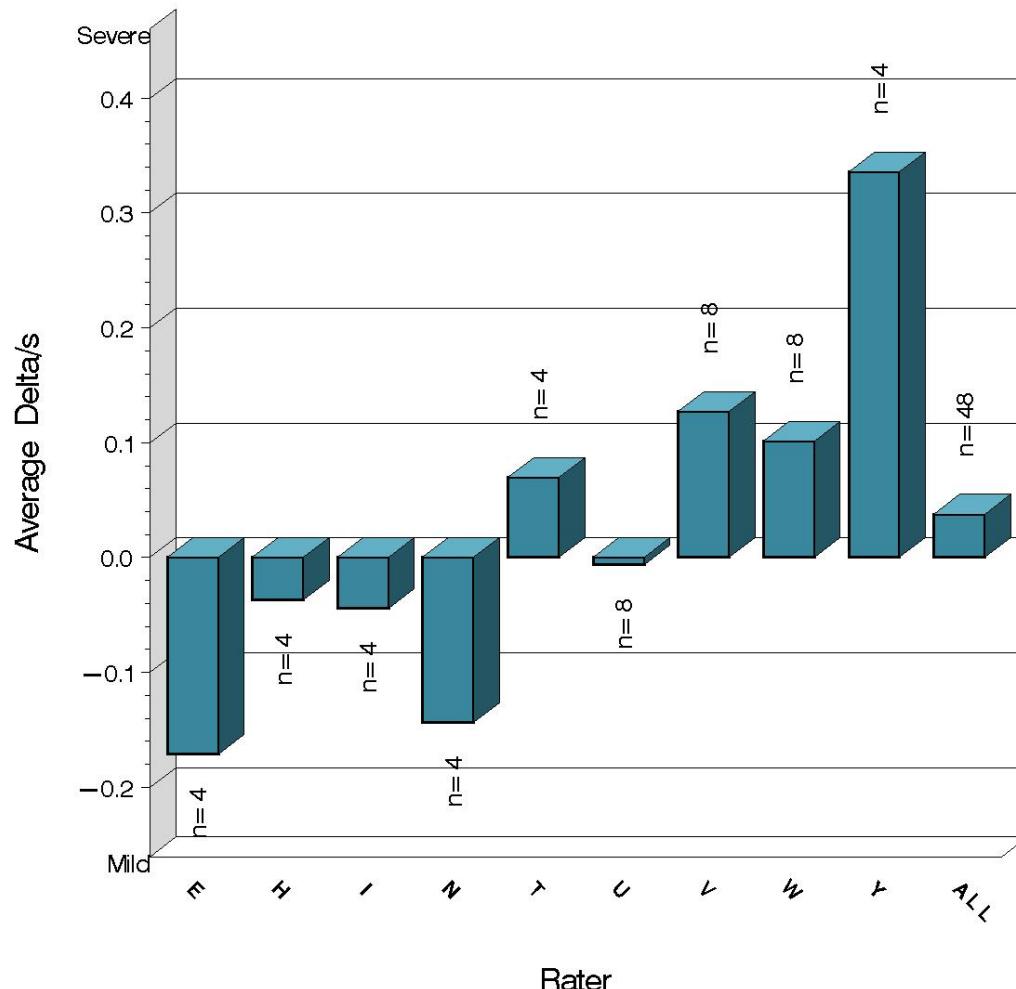
Rater	N	PSCR		RSCR	
		Avg Yi	STD*	Avg Yi	STD*
E	4	-0.171	0.560	-0.348	0.523
H	4	-0.037	0.581	0.279	0.394
I	4	-0.044	1.178	-0.153	0.971
N	4	-0.144	0.362	-0.077	0.348
T	4	0.070	0.167	-0.155	0.620
U	8	-0.006	0.645	-0.086	0.848
V	8	0.128	0.478	-0.485	0.644
W	8	0.101	1.061	-0.501	0.656
Y	4	0.336	0.518	-0.093	0.436
ALL	48	0.038	0.662	-0.224	0.648

\* 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

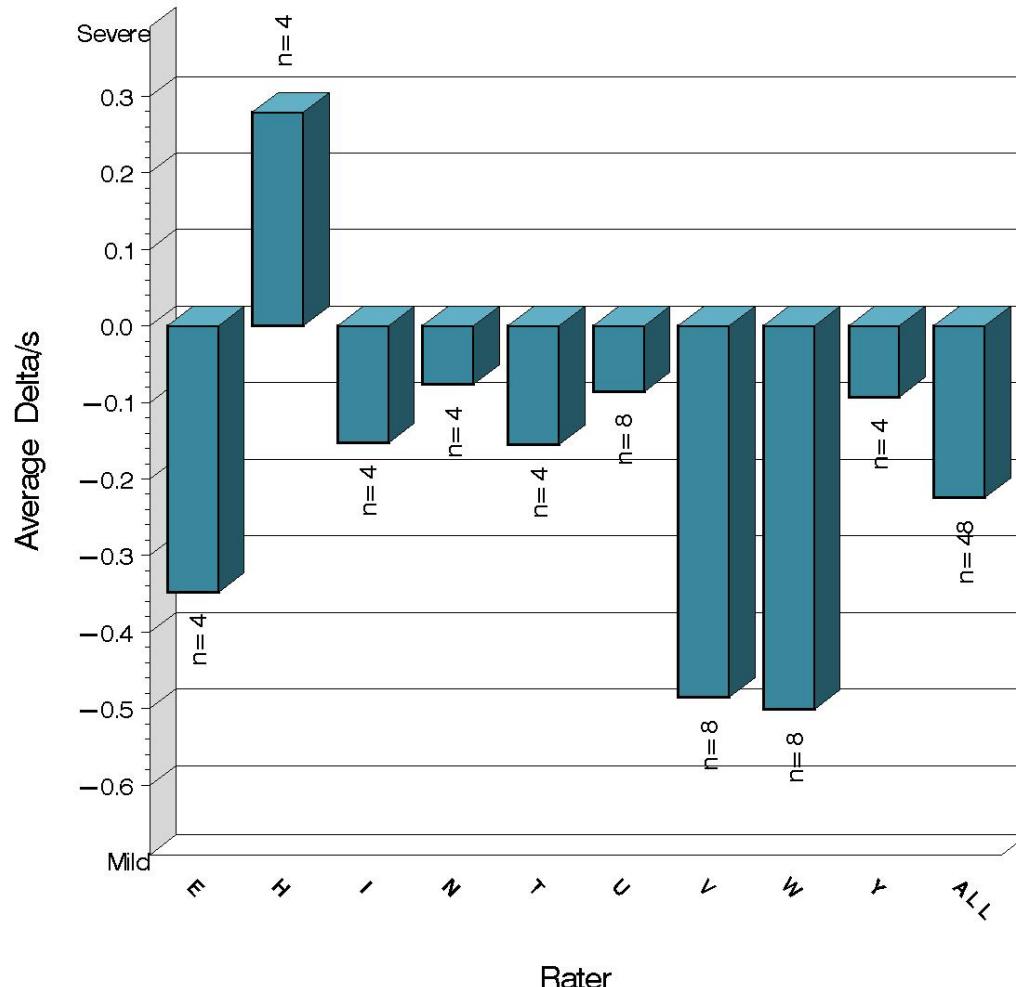


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# L-42 Rater Calibration

## RING SCORING

Severity as Measured by Delta/s

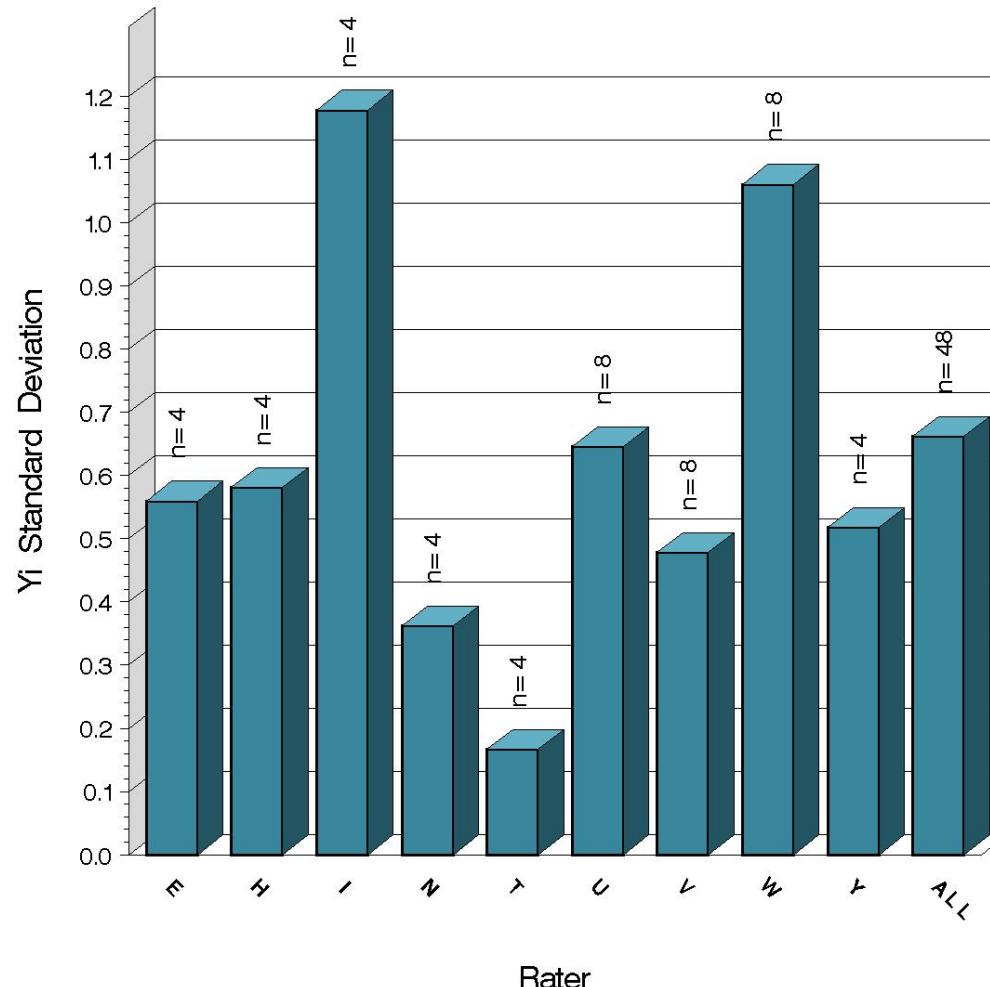


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# L-42 Rater Calibration

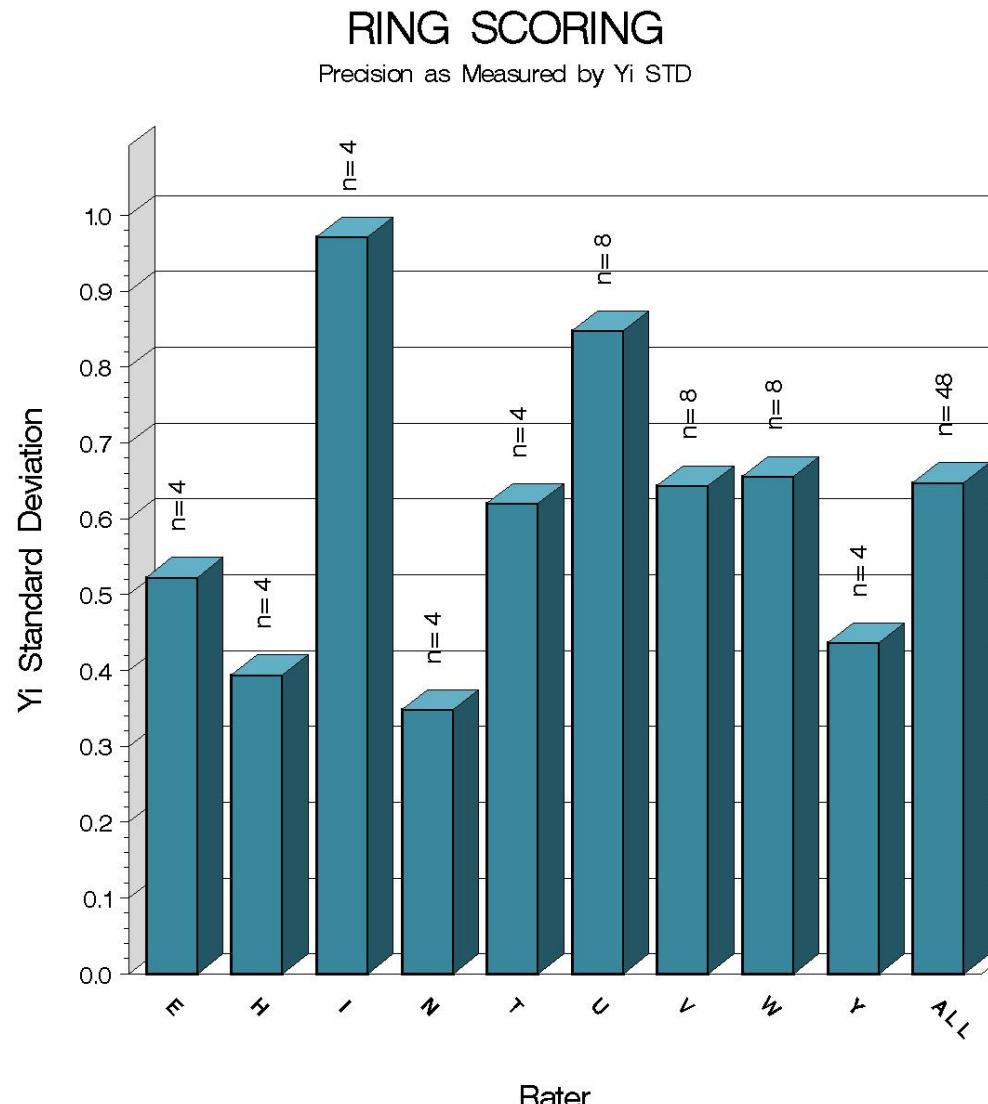
## PINION SCORING

Precision as Measured by  $\bar{Y}_I$  STD



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# L-42 Rater Calibration



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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.

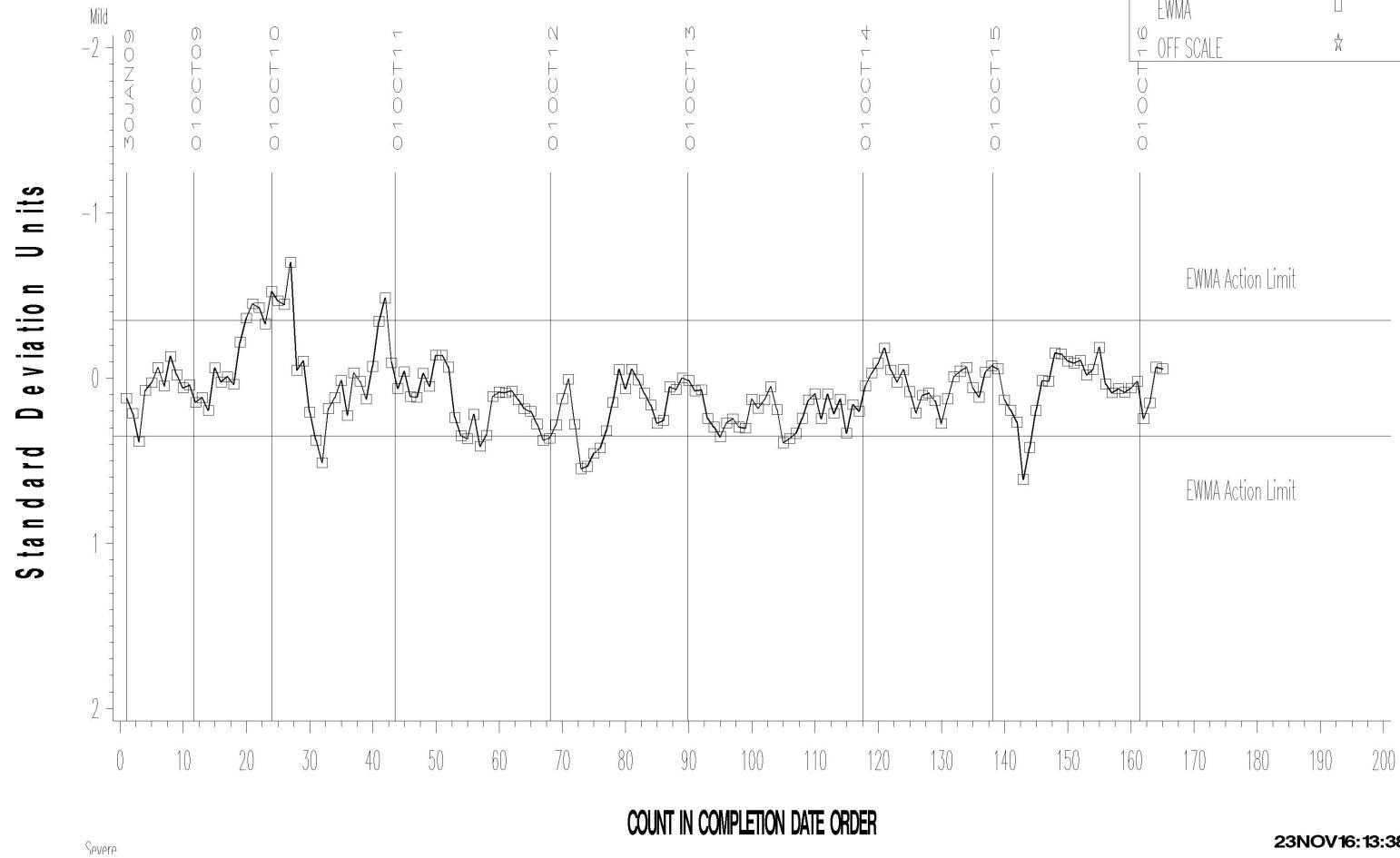
# L-42 Rater Calibration

## L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

### PINION SCORING

LTMS Severity Analysis

EWMA  
OFF SCALE

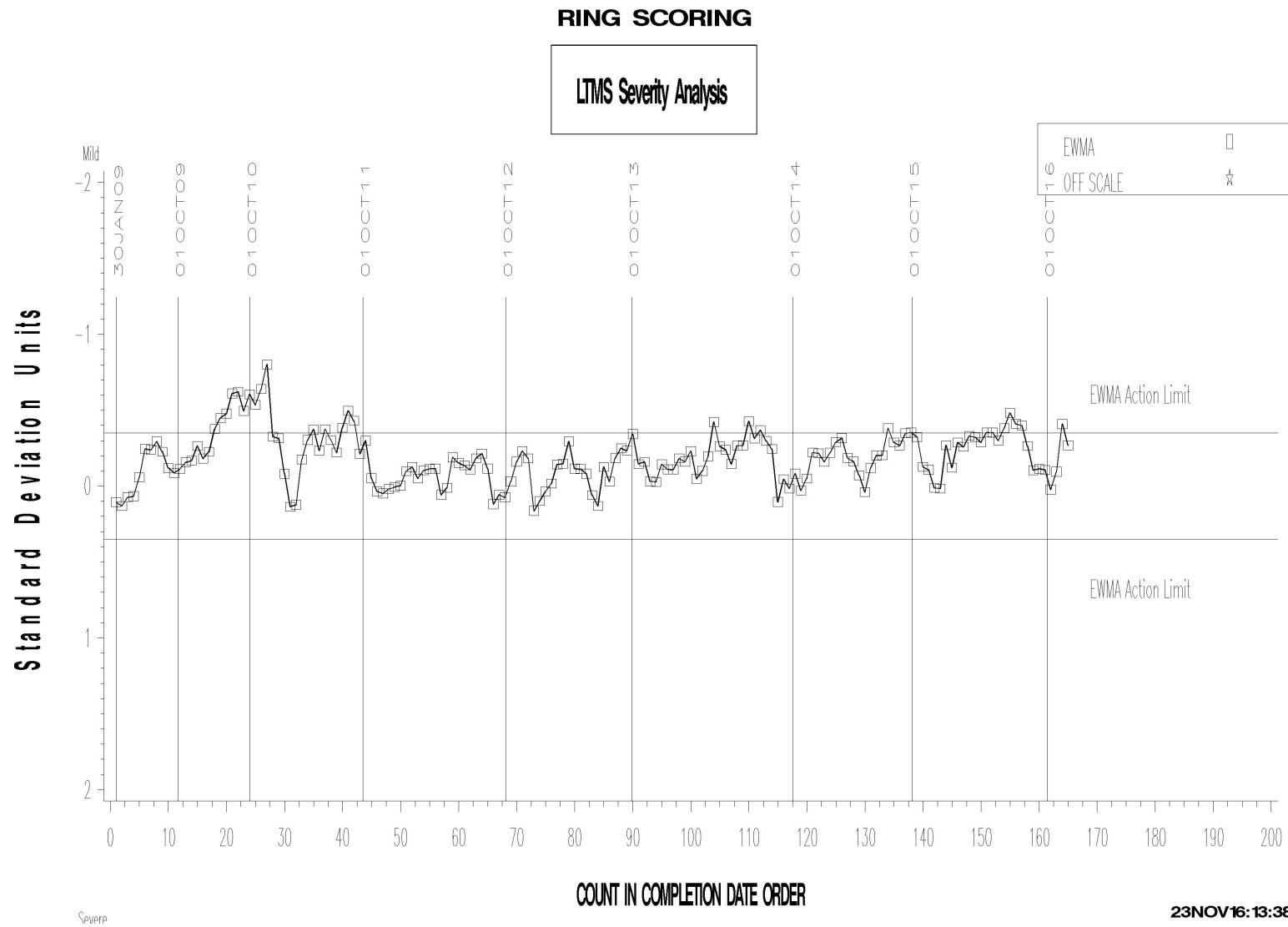


Severity

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# L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

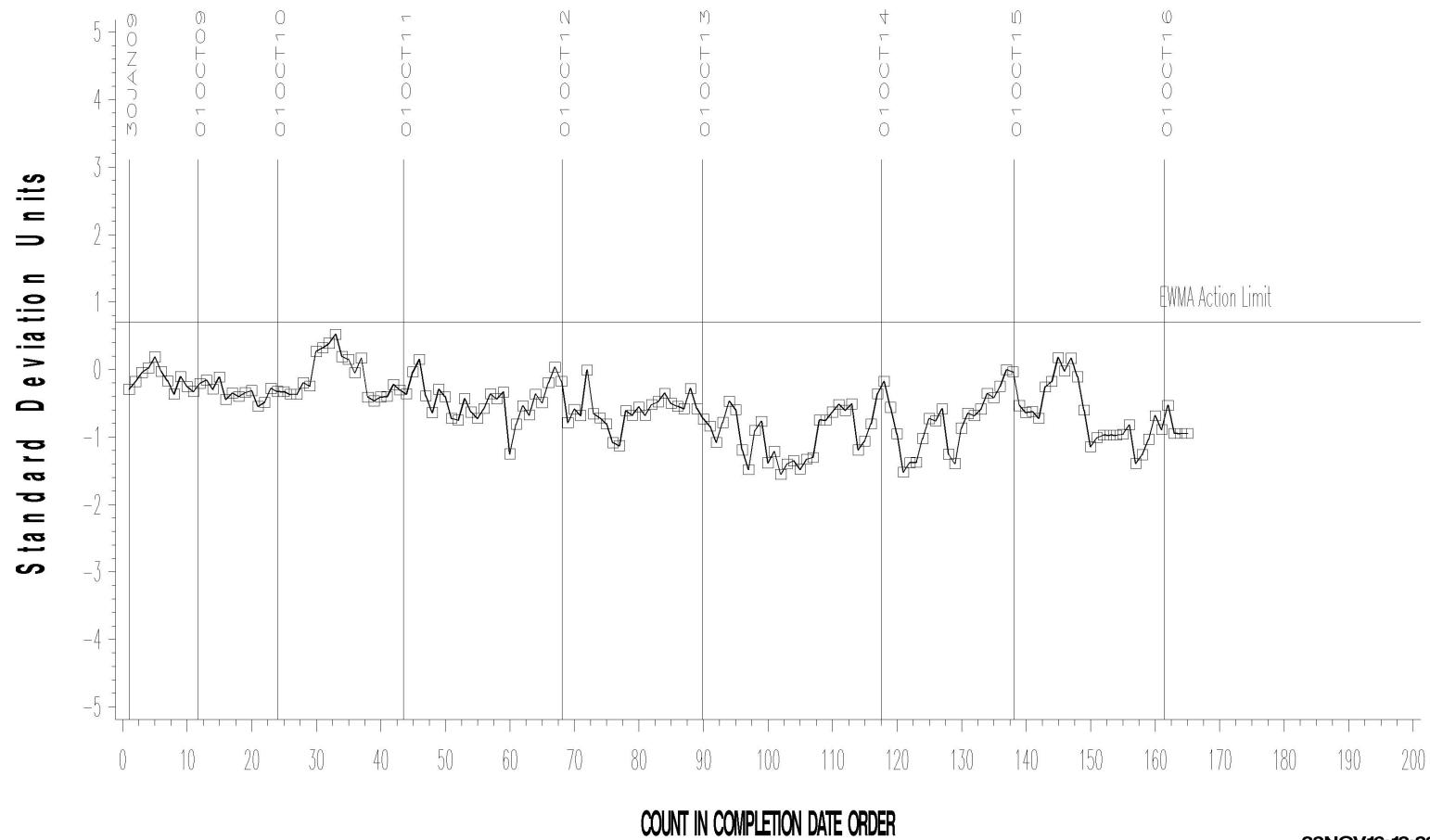


# L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

## PINION SCORING

LTMS Precision Analysis



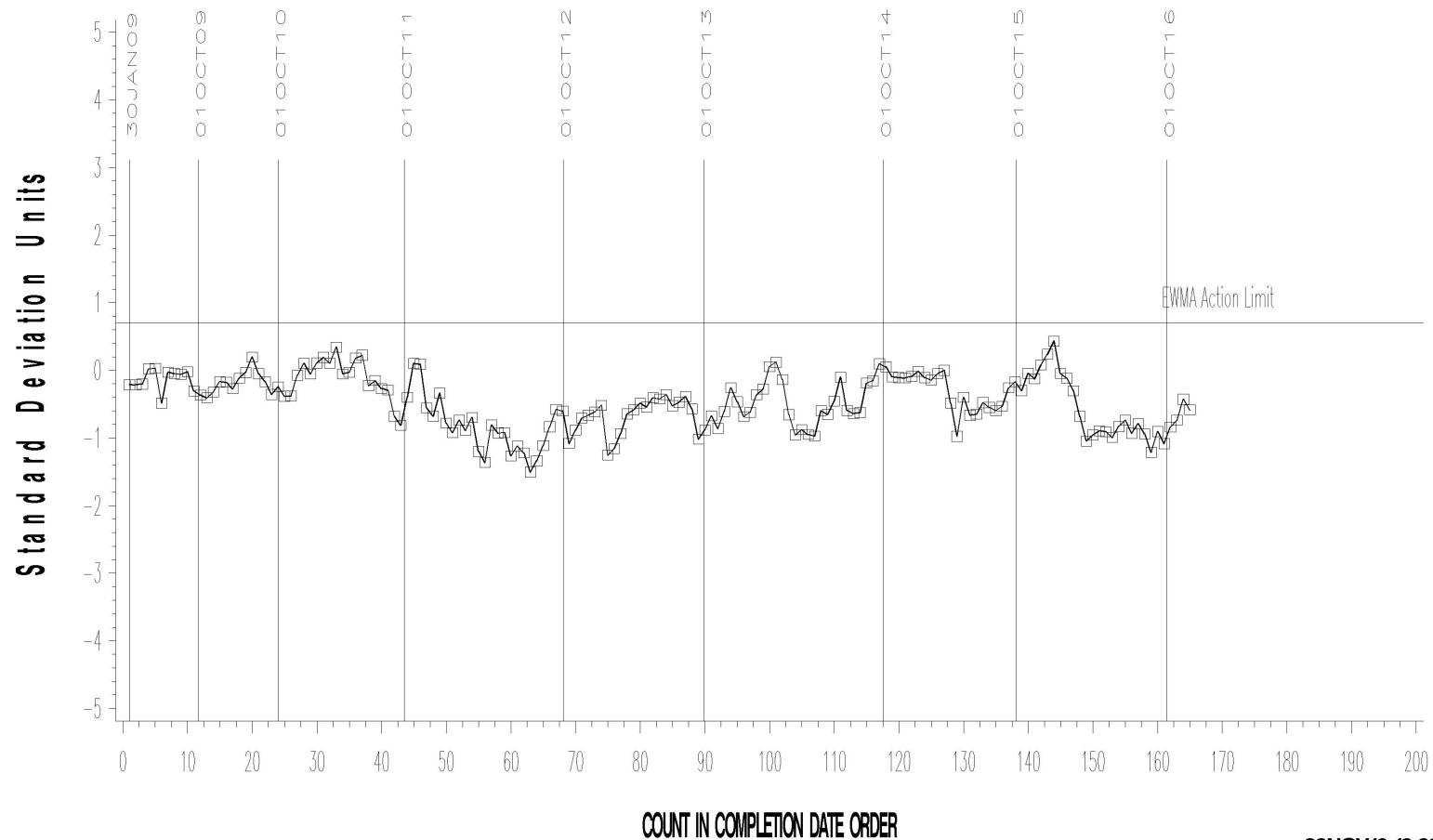
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# L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

## RING SCORING

LTMS Precision Analysis



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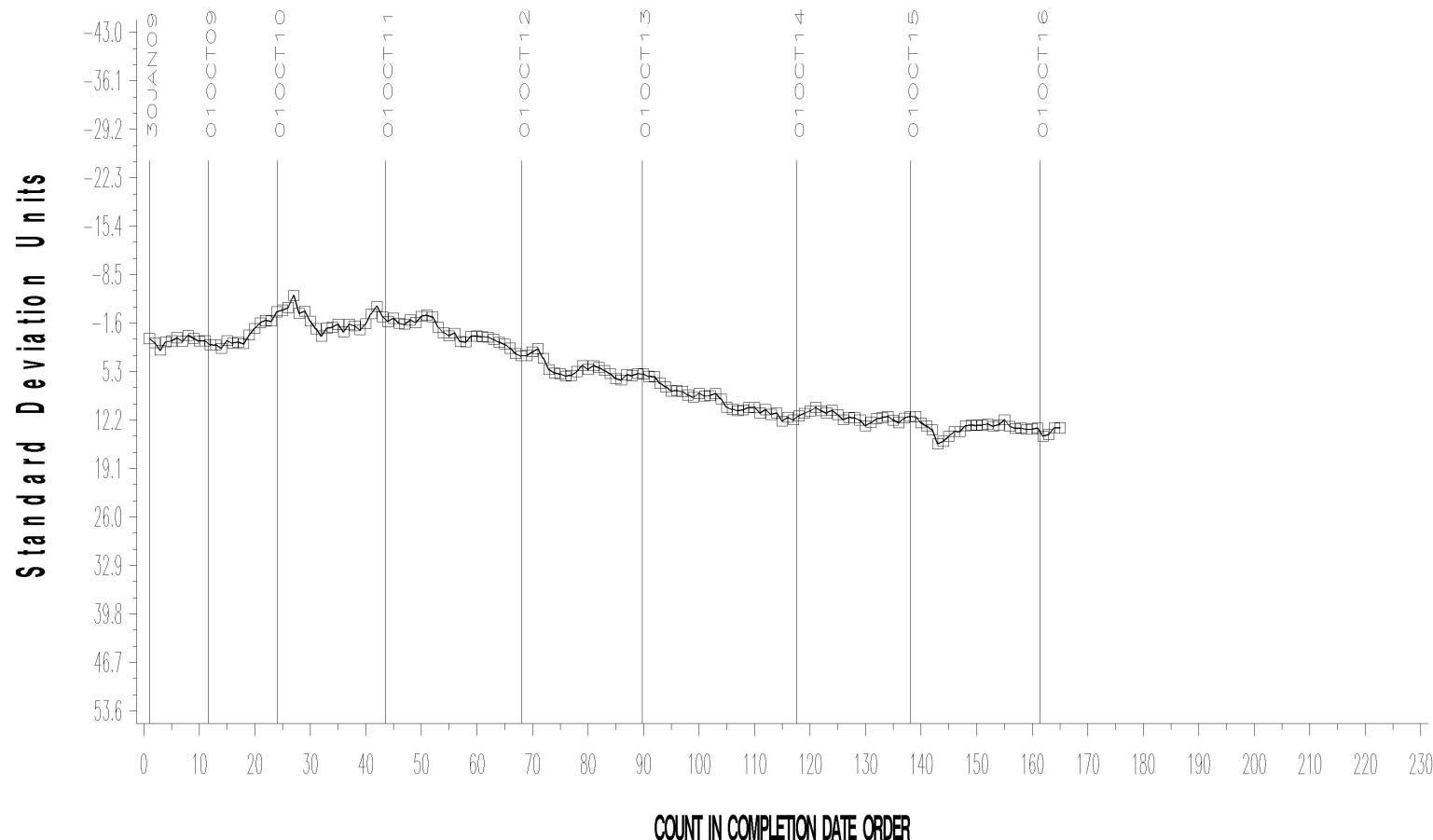
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# L-42 Rater Calibration

L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA

## PINION SCORING

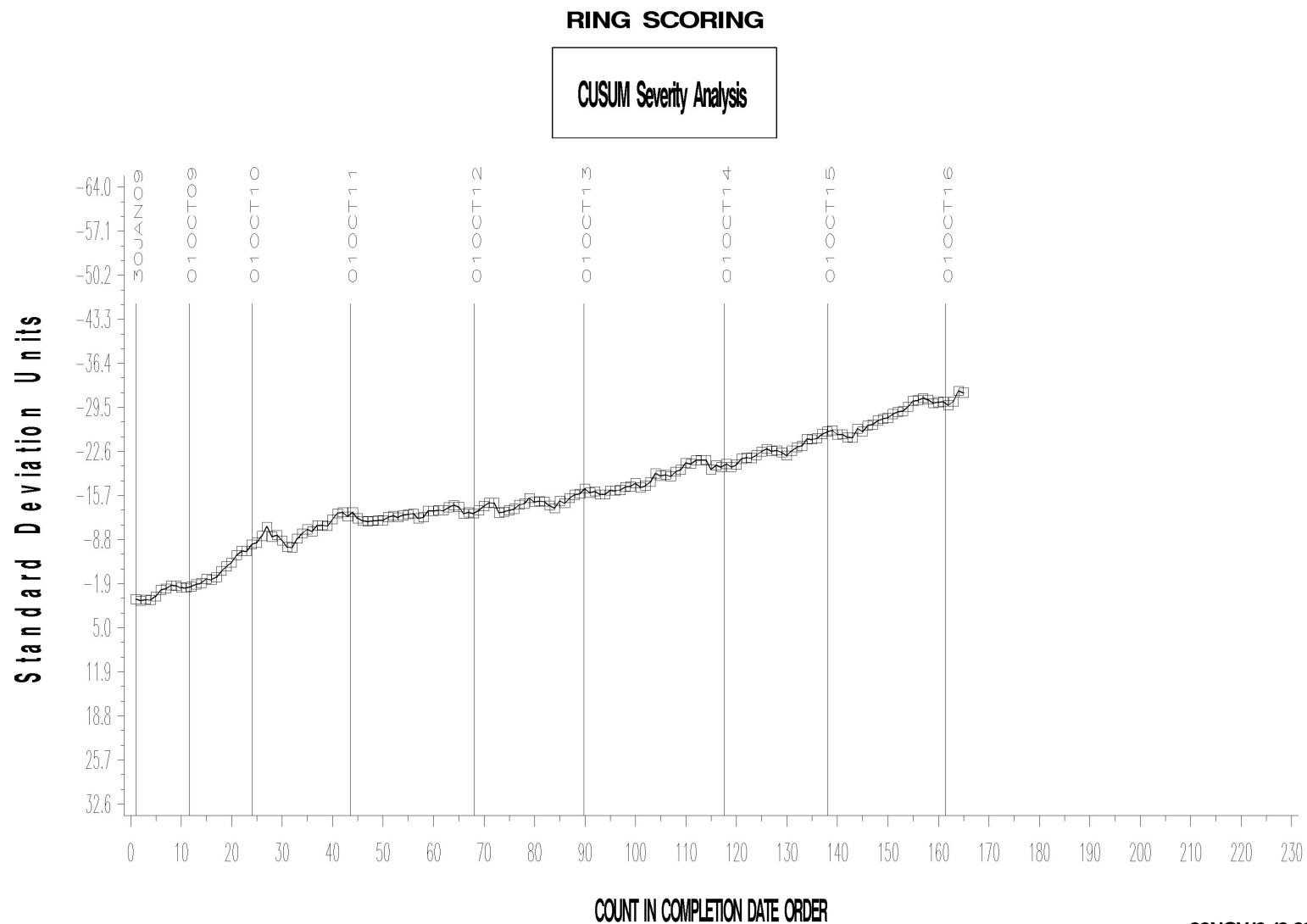
### CUSUM Severity Analysis



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## L-42 Rater Calibration

## L-42 RATER CALIBRATION INDUSTRY OPERATIONALLY VALID DATA



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