RME Global Jam Program

Amazon Robotics Systems (ARS) Thresholds 2025

Summary

A comprehensive analysis of warehouse performance thresholds across three (3) generations of ARS facilities has been completed. The study focused on establishing new performance targets through data-driven methodology, revealing varying levels of compliance across different warehouse generations. The findings indicate significant opportunities for operational enhancement, with current compliance rates ranging from *35%* to *43%* across different facility generations

Key Objectives:

Provide Amazon Robotics System warehouses (ARS), new thresholds post the OEE rebuild that has significant lower jam DPMO metrics across the network

Methodology:

The new threshold determination process involved a multi-step analysis of operational data. Performance averages were calculated using a four-week (16WK – 19WK of 2025) historical dataset for each site. To ensure data accuracy, extreme outliers were identified and removed through two (2) rounds of testing. The resulting averages were then reduced by **10%** to align with the organization's annual performance goals established prior to the OEE rebuild

The GJP decision to limit historical data collection to recent weeks was deliberate. Including data from before the OEE rebuild would have skewed the targets, potentially setting them too high and close to the current standards. This would have undermined the goal of pushing for a meaningful progress in operations. By excluding pre-OEE rebuild data, this ensures that the targets align with the current technological capabilities and aren't artificially inflated by historical data that doesn't reflect the present operational reality

Results:

The analysis revealed distinct performance patterns across warehouse generations:
- Generation 9 facilities: operating under a new target of *135,* showed *42%* compliance, with *18* out of *43* sites meeting the threshold
- Generation 10 warehouses: demonstrated *35%* compliance (*6* out of *17* sites) against the new target of *291*
- Generation 11 facilities: achieved *43%* compliance (*17* out of *40* sites) with the new target of *309*

2025 NA ARS Updated Jam DPMO Goals				
ARS Goals	**ARS Network**	**ARS GEN9**	**ARS GEN10**	**ARS GEN11**
New	248	135	291	309
Old	310	192	320	377

Current Method:

– Unified DPMO calculation globally
– Precise representation of jam occurrences
– Improved ability to compare performance across different facility types
– Global OEE Faults Dashboard
    – Login: (map-bi-prod)

New NA Method:
1) NA Region: *(Jam Count / Total Sum of Counters (excluding recirculation))*1000000*
    • Data Source: OEE data from mp_events_static_status

Sites within target: A visual Overview:

In this section, the GJP present photographic evidence of the highest-performing sites, organized by generation and ranked from largest to smallest based on their *Week 19* performance metrics. This visual representation serves multiple purposes:
- It highlights the operational excellence across different warehouse generations (9,10 & 11)
- It provides a benchmark for other facilities to aspire to
- It allows for quick identification of top performers

GEN 9 & Under:

Site	Wk 19
MCO1	577
EWR9	441
LAS7	412
FTW6	406
CLE3	405
ACY1	314
BDL3	245
DCA1	234
CMH4	225
DAL3	213
DEN3	197
JFK8	192
BFI4	186
JAX2	169
PDX9	148
OAK4	147
TUS2	147
CLE2	146
MIA1	142
STL8	139
MKE1	138
OXR1	138
YYZ4	137
CLT4	135
GYR1	134
FAT1	127
LGA9	127
YHM1	120
VGT1	113
LGB7	111
BWI2	109
SMF1	109
LGB3	104
TPA1	101
CMH1	96
BHM1	94
DTW1	89
MEM4	87
EWR4	73
BDL2	71
DFW7	64
SLC1	61
GRR1	

GEN 10:

Site	Wk 19
BFL1	486.
AUS3	462.
JAN1	436.
PCW1	417.
DSM5	362.
OMA2	343.
MKE2	336.
YXU1	322.
AKC1	316.
BOI2	299.
OKC1	293.
YYC4	260.
RDU1	234.
TUL2	175.
ATL2	161.
PSP1	157.
GEG1	151.

GEN11:

Site	Wk 19
BDL4	808
LUK2	665
HOU6	625
TYS1	605
DEN4	603
RIC4	603
MLI1	587
SAT3	527
ORF3	488
AUS2	461
MTN1	439
BOS3	415
FWA6	410
TPA4	404
BTR1	399
ROC1	394
SYR1	382
MQY1	345
SAV4	336
FSD1	327
PAE2	304
IGQ1	293
SCK6	283
TLH2	279
AGS1	265
LIT1	265
SHV1	265
PVD2	263
ELP1	245
ORH3	230
SBD6	223
ORD5	201
SAN3	182
ABQ1	133
DET6	132
DET3	105
PDX8	33
DAB2	
YEG2	
YOW3	

Previous Targets:
In GEN 9 & Under: 192
In GEN 10: 320
In GEN 11: 377

New Targets:
In GEN 9 & Under: 135
In GEN 10: 291
In GEN 11: 309