

Transforming MEWP Safety with Competency- Based Training

Jim Colvin
Executive Chairman

SIMS

SERIOUS INDUSTRIAL MOTION SIMULATORS





Jim Colvin
Executive Chair of SIMS
Formerly CEO of Serious Labs
30 years as a tech IP lawyer
12 years in simulation tech
Focused on safety and risk
management

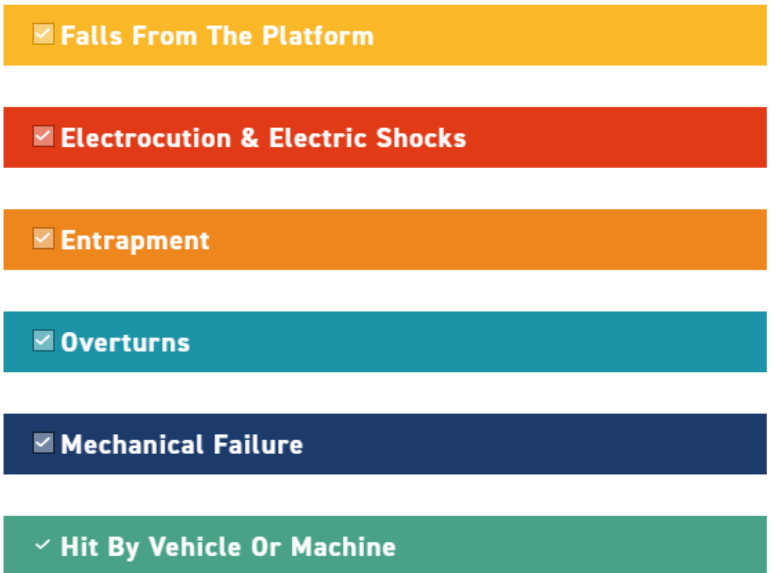
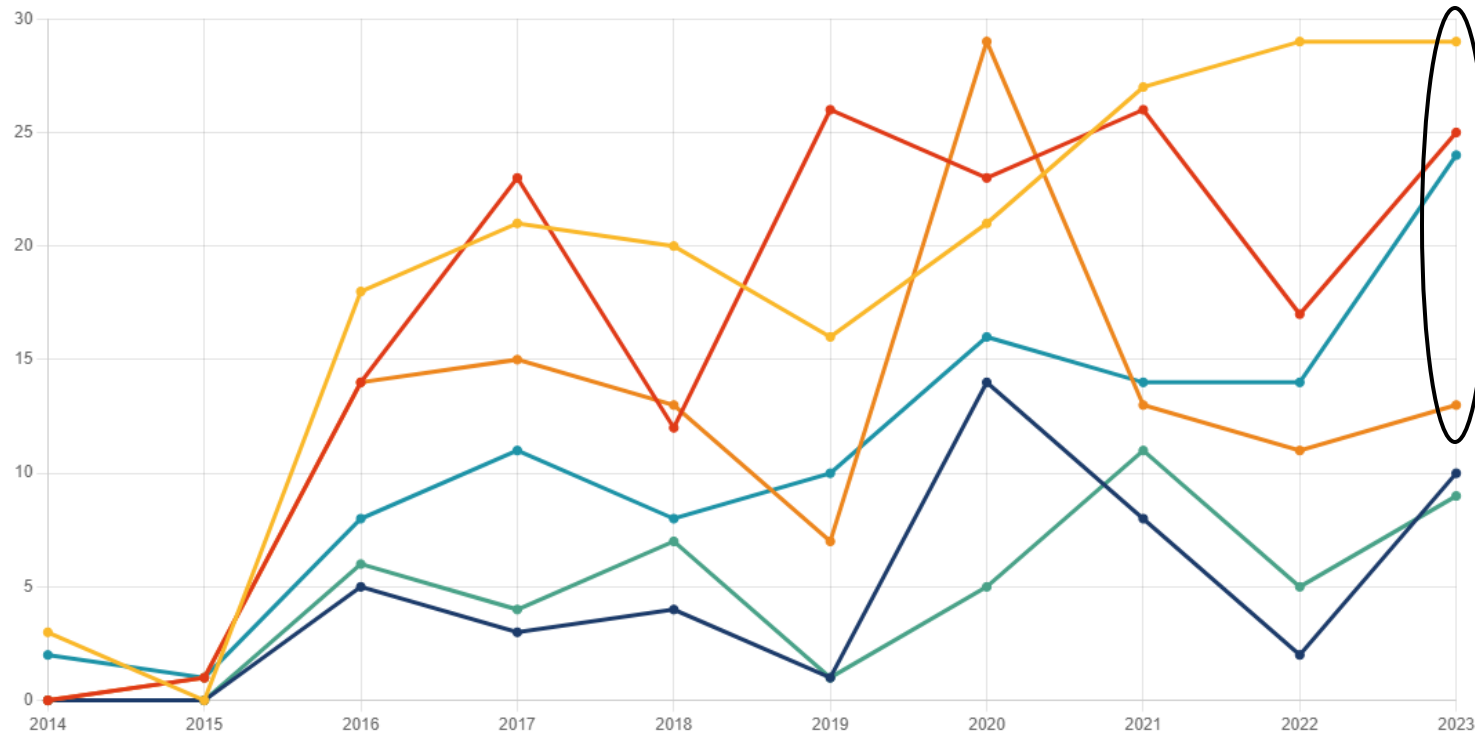
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- Formerly Serious Labs – world's leading MEWP simulator developer
- 2017 – MEWP VR Simulator wins IAPA for innovative tech
- 2019 – MEWP VR Simulator approved for PAL+ licenses
- 2024 – Acquired for growth and expansion as SIMS

What's Not Working?

Top Six Fatal Incident Trends



Source: IPAF 2024 Global Safety Report

How Do We Make it Safer?

- 
- 1. Equipment safety devices and technology**
 - 2. Better training**

“The vast majority of MEWP training that is happening around the world right now is not fit for purpose.

It is not training people to be ready for the realities of actual jobsites.”

*—Jamie Fleetwood
Director of Training, Eagle Platforms UK*

What Needs to Change?

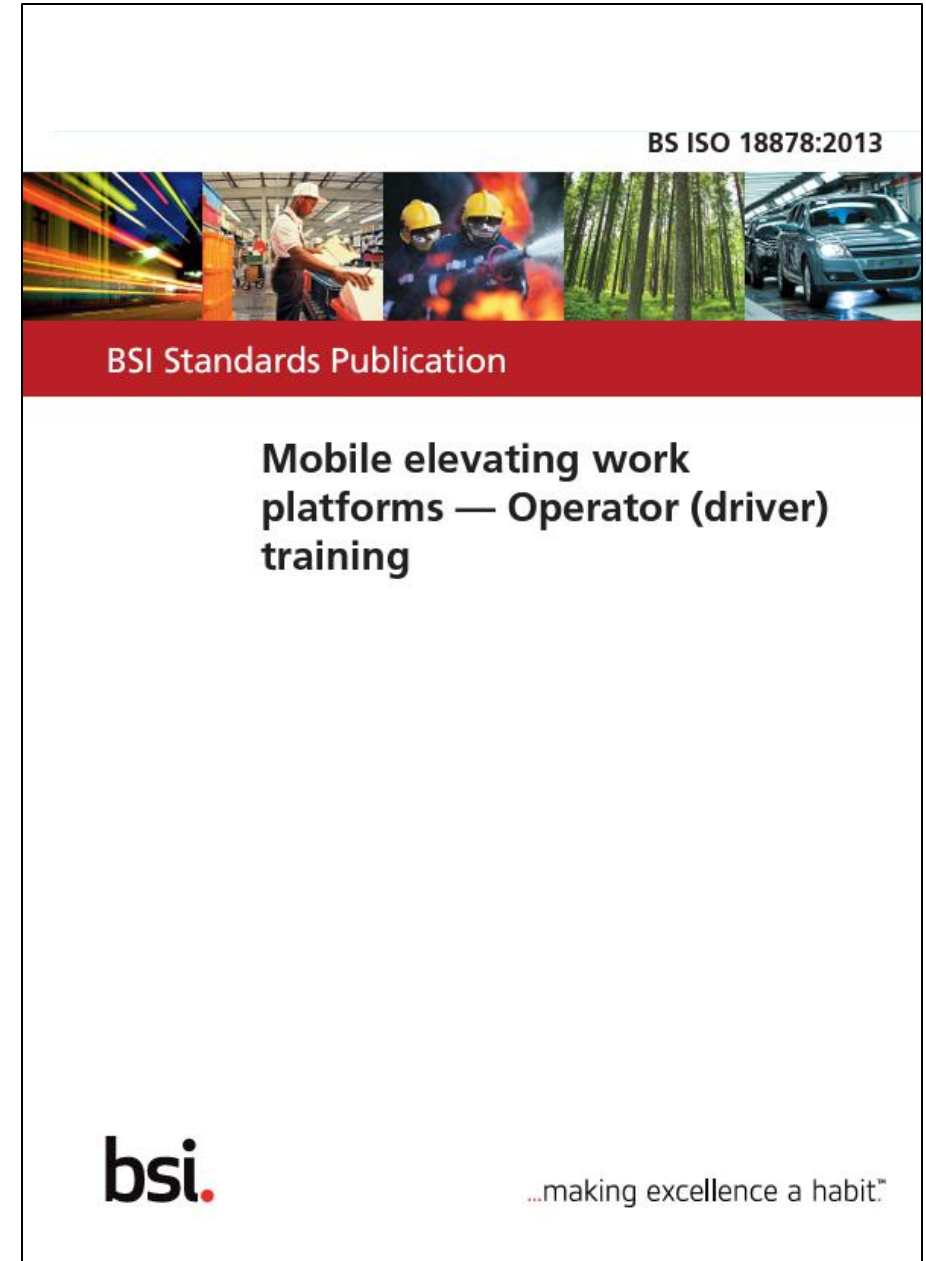
1: Train to a higher standard

2: Train for competency and ongoing improvement

Training to a Higher Standard: ISO 18878

Maneuvering in close quarters around structures

Emergency lowering procedure
– must be hands-on!



A Higher Training Standard: PAL+

More practice with larger MEWPs, especially booms

Focus on crushing and entrapment risks

More realistic to modern jobsites – often have entrapment conditions



What Makes PAL+ Difficult to Deliver?

Challenges of Conventional Delivery

Course setup takes time, varies depending on available materials/space

Operators must leave worksite and travel for PAL+, resulting in interruptions

Potential for trainer to miss operator infractions due to inexperience or inclement weather

Course dependent on weather and availability of equipment

PAL+ Delivery in Simulation with SIMS



Approved by IPAF
in 2019 following
rigorous testing

97% predictive of
operator behaviors
and test scores on
a real MEWP



Addressing PAL+ Delivery Challenges with Simulation

Challenges of Conventional Delivery	Advantages of Simulation Delivery
Course setup takes time, varies depending on available materials/space	VR course aligns exactly with PAL+ test for objective testing to IPAF standard
Operators must leave worksite and travel for PAL+, resulting in interruptions	Simulator can provide training and testing on worksite, reducing interruptions
Potential for trainer to miss operator infractions due to inexperience or inclement weather	VR sees every action and infraction for consistent, objective, and reliable test results
Course dependent on weather and availability of equipment	Always on and always ready regardless of weather or availability of space/equipment

2: Training for Competency

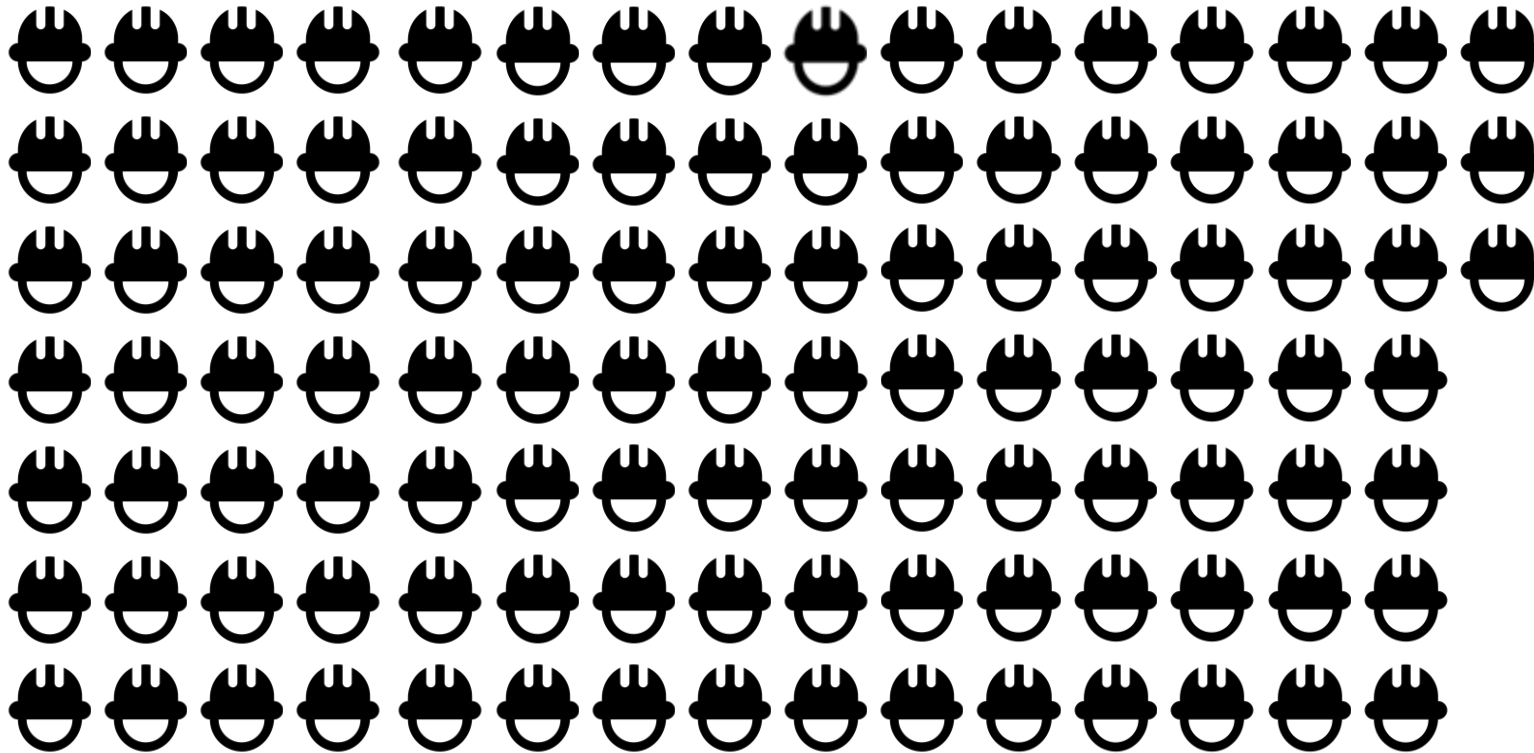
Can include certification... but also goes beyond it to continually build skills between license renewals

Implement a framework of regular assessment, practice, and upskilling

Moves beyond compliance to focus on safety, readiness, and **risk reduction**



Why Competency Training Matters



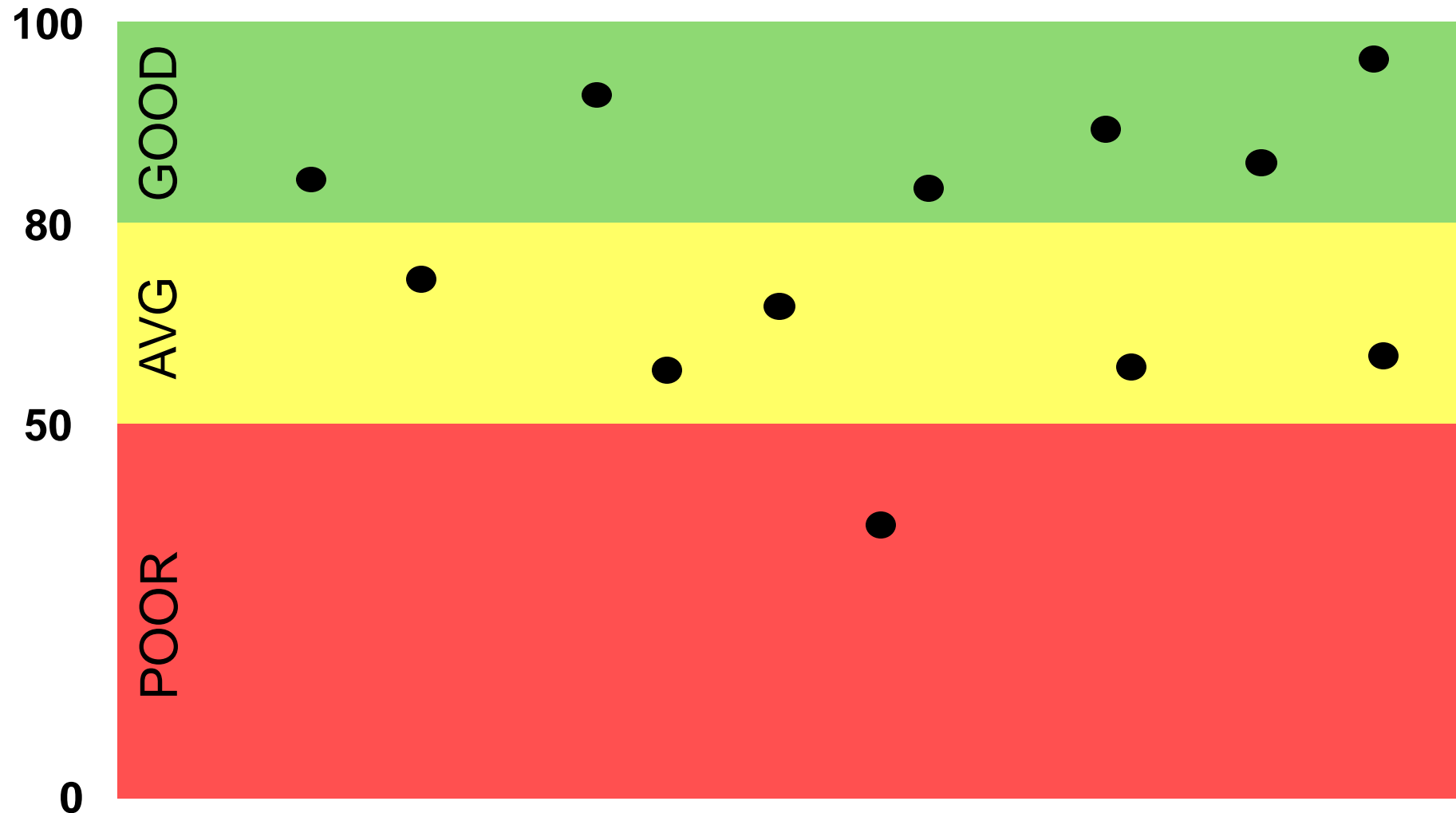
108 workers, all holding ISO-compliant MEWP licenses

MEWP 3a assessment –
97% predictive simulation

1/3 of operators failed

When retested, 1/3 of those
operators failed again

Measuring Proficiency

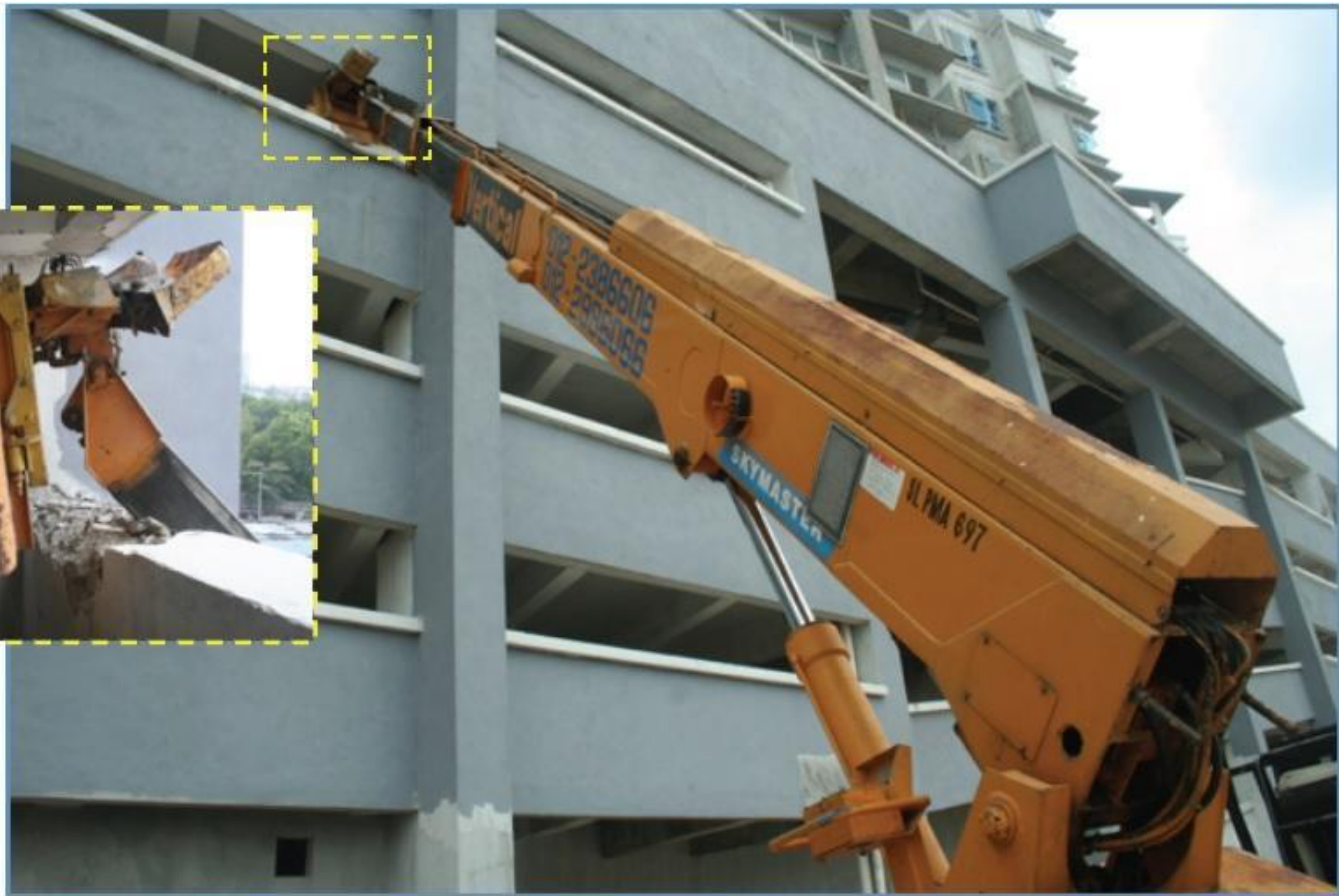


n=133; each dot represents 10 operators



Improvements seen
after 45 minutes of
simulator training

A poor operator is
14x more likely to
have an incident or
near miss compared
to a good operator



Advanced Boom Up and Down

Retry

Target Time: 7:00

Navigate to the construction area and get the basket to the indicators within.



Start Scenario

Main Menu

Exit
Simulation

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Thank You



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info@industrialsims.com