

# Vancouver Airport Authority

## Airfield Maintenance Training and Onboarding Program

*12 Lessons Learned*

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AFM Training  
Supervisor



SWIFT 2024



# Oh my, who's trained on what?



## Lesson #1:

A training program needs to be resourced



# Training program needs to be resourced



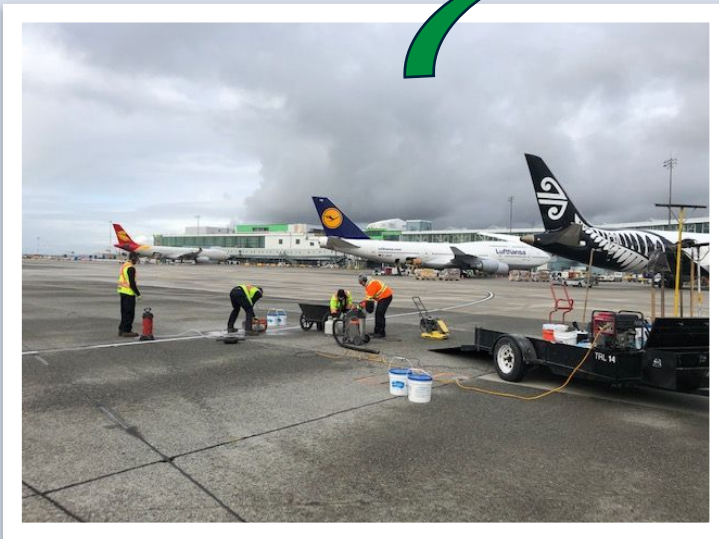
## Lesson #2:

# Training needs to be documented

*or it never really happened...*



# Training needs to be documented



**Practical Walk-Through and training session record**

This form is to document training delivery to and by AFM. This includes:

- Hands-on demonstration of equipment, procedures and vehicles
- Classroom training sessions
- Echelon training nights
- Internal and external training delivery

The form:

- Is completed by the learner/trainee (after someone provides them with training)
- Can be used for both introductory and periodic refresher training
- Can be submitted multiple times if a person is provided training on separate occasions and by different people

What is demonstrated during training should follow the Training Checklist and what is outlined in the training module.

Learner; you cannot take yourself through a PWT. Training/instruction must be provided by someone else.

Practical Walk-Through and training session record

ID	Start time	Completion time	Email	Name	Date of practical use	Name of learner	Name of trainer/sup	Which equipment/ps
1	5/8/24 15:42:20	5/8/24 15:43:16	daniel_cavett@virica	Daniel Cavett	5/8/2024	Daniel Cavett	Brian Grouser	Turntable
2	8/20/24 15:42:44	8/20/24 15:43:13	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
3	8/20/24 15:43:08	8/20/24 15:43:08	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
4	8/20/24 15:43:34	8/20/24 15:44:28	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
5	8/20/24 15:43:31	8/20/24 15:45:08	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
6	8/20/24 15:43:50	8/20/24 15:43:50	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
7	8/20/24 15:45:07	8/20/24 15:46:40	daniel_cavett@virica	Daniel Cavett	8/20/2024	Daniel Cavett	Brian Grouser	Turntable
8	8/20/24 15:45:11	8/20/24 15:45:20	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
9	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
10	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
11	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
12	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
13	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
14	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
15	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
16	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
17	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
18	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
19	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
20	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable
21	8/20/24 15:45:32	8/20/24 15:45:32	alexander.pospopov@virica	Alexander Pospopov	8/20/2024	Alexander Pospopov	Brian Grouser	Turntable

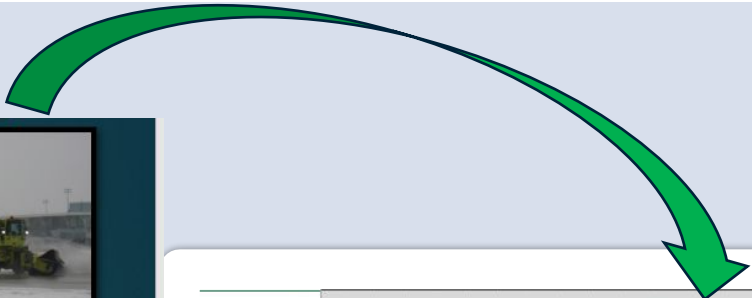


# Lesson #3:

## Establish the curriculum



# Establish the curriculum



Staff member	Power, leaf blower, line sweeper, wheelbarrow, roller, (Q 2202)	Concrete saw - walk behind	Cut-off saw	Jackhammer	Power tamper	Pop-up trench	AMS wash bay (see Q 1477)	Archaeology / Chance Find Management	Mobile Operations (AOB) protocols (Q 1477)	Escorting procedures (Q 1477)	Fall protection (Q 1477)	Fence repair and sign age (Q 1477)	Field efficiency repair (Q 1477)	File distributor use (Q 1477)	First Aid (Q 1477)	Floor response plan (Q 1477)	FOP control program (Q 1477)	Field travel procedures (Q 1477)	Gross cutting theory (Q 1477)	Growth distributor training (see Q 1477)	Gym orientation (Q 1477)	Hand signals (Q 1477)	Heat (Q 1477) and safety (Q 1477)	ILS - HWY access procedures (Q 1477)	Injury reporting procedures (Q 1477)	Lighting and closure barrier (Q 1477)	Lock blocks and highway barrier (Q 1477)	Low Visibility Operations (Q 1477)	Mobile Elevated Work Platform (Q 1477)	Pavement repair, cracks (see Q 1477)	Pavement repair, cracks (see Q 1477)	Pavement repair, cracks (see Q 1477)	Pavement repair, cracks (see Q 1477)	Pre-312 forms, vehicle status	Pump station					
Aleksandr Mezetsov	Q1477	Q1477	Q1477	Q1477	Q1477																																			
Alex Wong	Q1477	Q1477	Q1477	Q1477	Q1477																																			
Alexander Potapov																																								
Anatoly Bruzylowski	Q1477	Q1477	Q1477	Q1477	Q1477																																			
Anthony Williamson	Q1477	Q1477	Q1477	Q1477	Q1477																																			
Austin Almas	Q1477																																							
Brad Lowinsbrough																																								
Brandon Loung	Q1477	Q1477	Q1477	Q1477	Q1477																																			
Brian Grasser																																								
Cherie Hunnisett																																								
Chris Magee																																								
Christian Nichole	Q1477																																							
Cody John McVie																																								

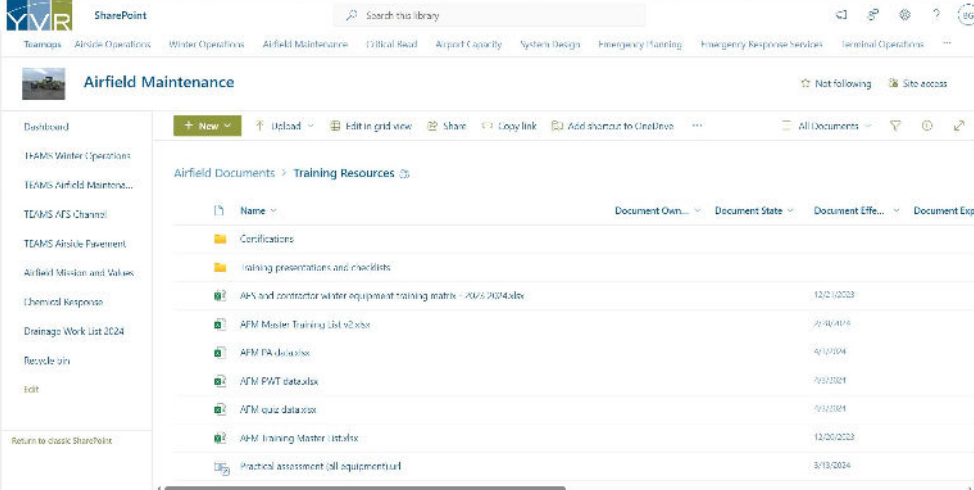




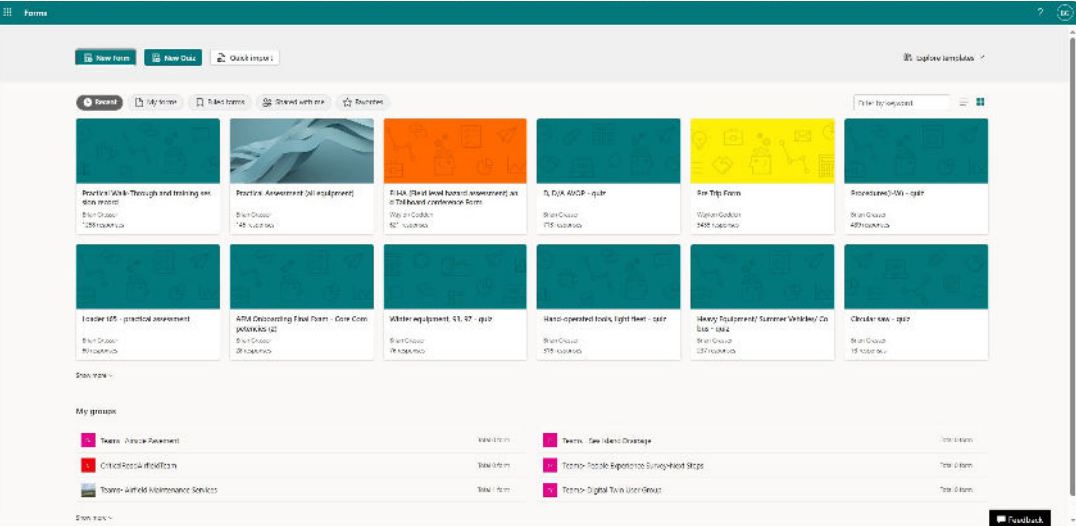
# Lesson #4

Figure out a way to track everything

- LMS
- SharePoint
- Dashboard
- MS Forms



The screenshot shows a SharePoint site titled 'Airfield Maintenance'. The left-hand navigation pane includes links to 'Dashboard', 'HAMS Winter Operations', 'TEAMS Airfield Maintenance...', 'TEAMS AFS Channel', 'TEAMS Airside Pavement', 'Airfield Mission and Values', 'Chemical Response', 'Drainage Work List 2024', 'Recycle bin', and 'Edit'. The main content area is titled 'Airfield Documents > Training Resources'. It displays a table of documents with columns for Name, Document Owner, Document State, Document Effective Date, and Document Expiry Date. The table lists several documents related to training, including 'AFS and contractor winter equipment training matrix', 'AFM Master Training List v2.xlsx', 'AFM PA database', 'AFM PWT database', 'AFM quiz database', 'AFM Training Master List.xlsx', and 'Practical assessment (all equipment)'. A 'New' dropdown menu is visible at the top of the document list.



The screenshot shows a Microsoft Forms dashboard. At the top, there are buttons for 'New Form', 'New Quiz', and 'Quick survey'. Below this, there are several form cards arranged in a grid. Each card has a title, a description, and a 'Start' button. The cards include: 'Practice Walk-Through and training on...', 'Practice Assessment (all equipment)', 'E-ISA (Final level based assessment) as...', 'E-ISA ABCP - quiz', 'Site Trip Form', 'Revised O-501 - quiz', 'Locate IFS - practical assessment', 'AFM Decoupling Final Exam - Core Com...', 'Winter equipment 01.07.2024', 'Heavy equipment tools, light heavy - quiz', 'Heavy Equipment / Summer Vehicles / Co...', and 'Checklist new - quiz'. Below the grid, there is a 'My groups' section with a list of groups and their associated forms, including 'Teams - Airside Assessment', 'Teams - Site Safety Overview', 'Critical Road Modification', 'Teams - Portable Equipment Survey/Hot Staps', and 'Teams - Airfield Maintenance Services', 'Teams - Digital Twin User Group'.



# I know *what* I want to train them on...

Next...

- Curriculum outlined
- ***Now for the most time-consuming part...***



# Lesson #5

## Build content

- Training modules/presentations
- Quizzes
- Videos
- Checklists
- Assessments
- Quick guides

YVR Awareness level training  
Sweeper 124, 125, 128

YVR Awareness level training  
Truck 106  
Oshkosh P-series

AIRFIELD  
YVR Awareness level training  
Pavement Repair  
Cold patch asphalt / concrete  
Aquaphall  
SikaSet 45/conduit repair

YVR Awareness level training  
Anti-icing and de-icing chemicals and application

AIRFIELD MAINTENANCE

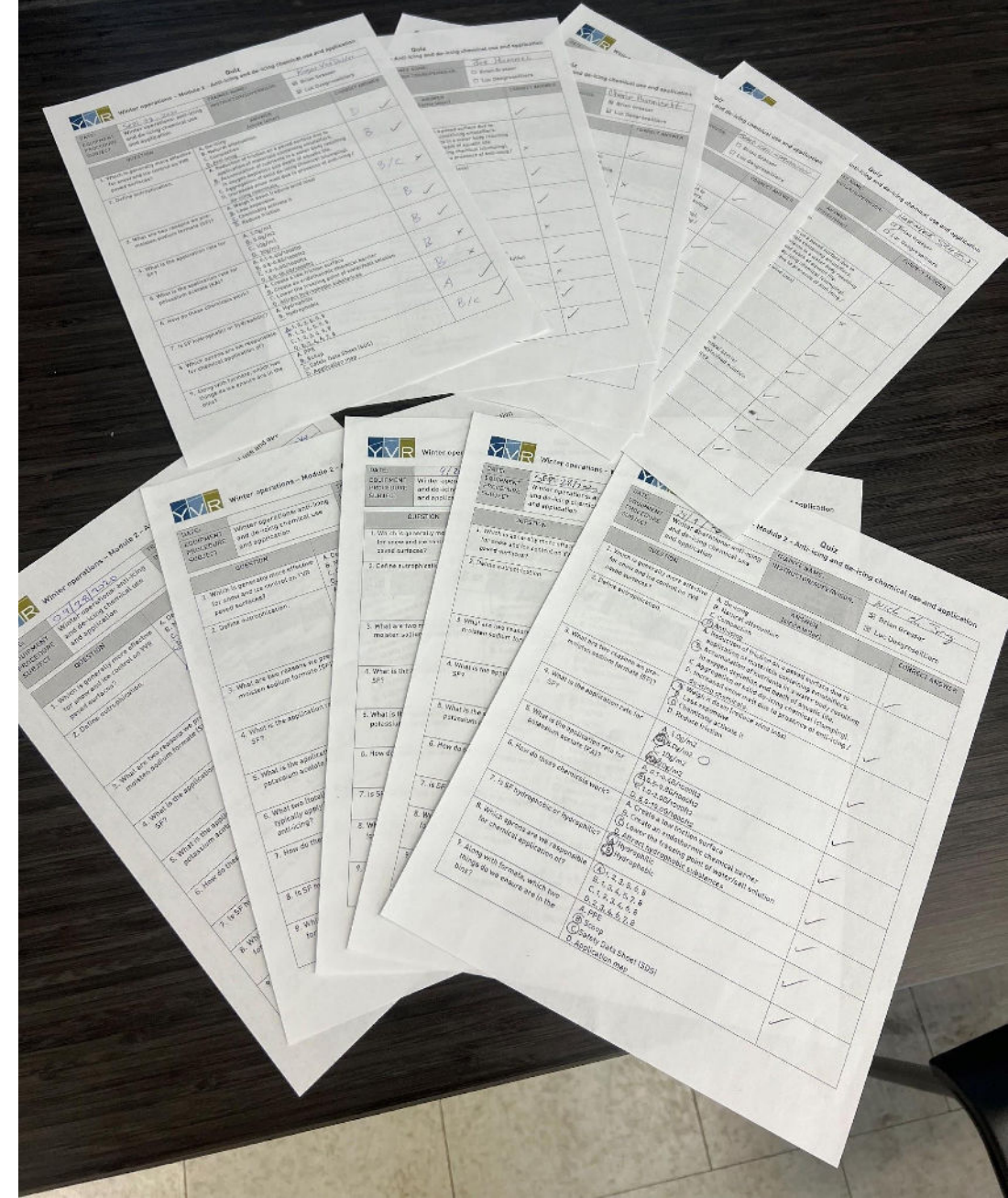


# Training material development

- Count on 50 hours prep for every 1 hour of training delivered



- So we know training has to be documented.
- Quizzes to confirm they've learned the theory.
- Leads to the next lesson learned...



# Lesson #6:

## Go electronic!

- Avoid paper at all costs!



## Loader 165 - Quiz (14 Points)

1

What is the safe way to enter/exit the vehicle? \* (1 Point)

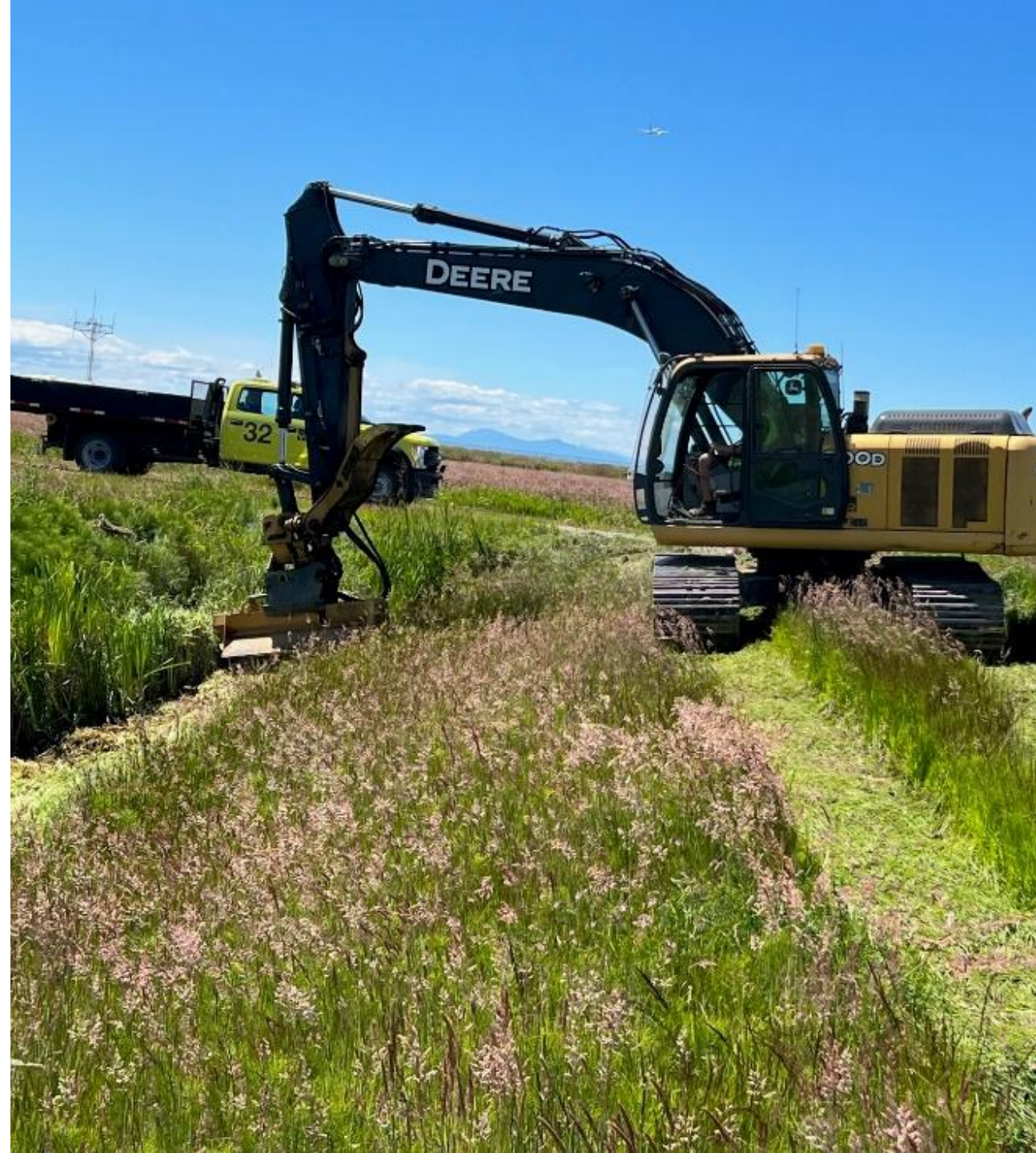
- Facing in. Two points of contact.
- Facing out. Three points of contact.
- Facing out. Two points of contact.
- Facing in. Three points of contact. ✓

2

Before connecting/disconnecting 4-in-1 bucket, why do we repeatedly move the joysticks and cycle through the control buttons? \* (1 Point)

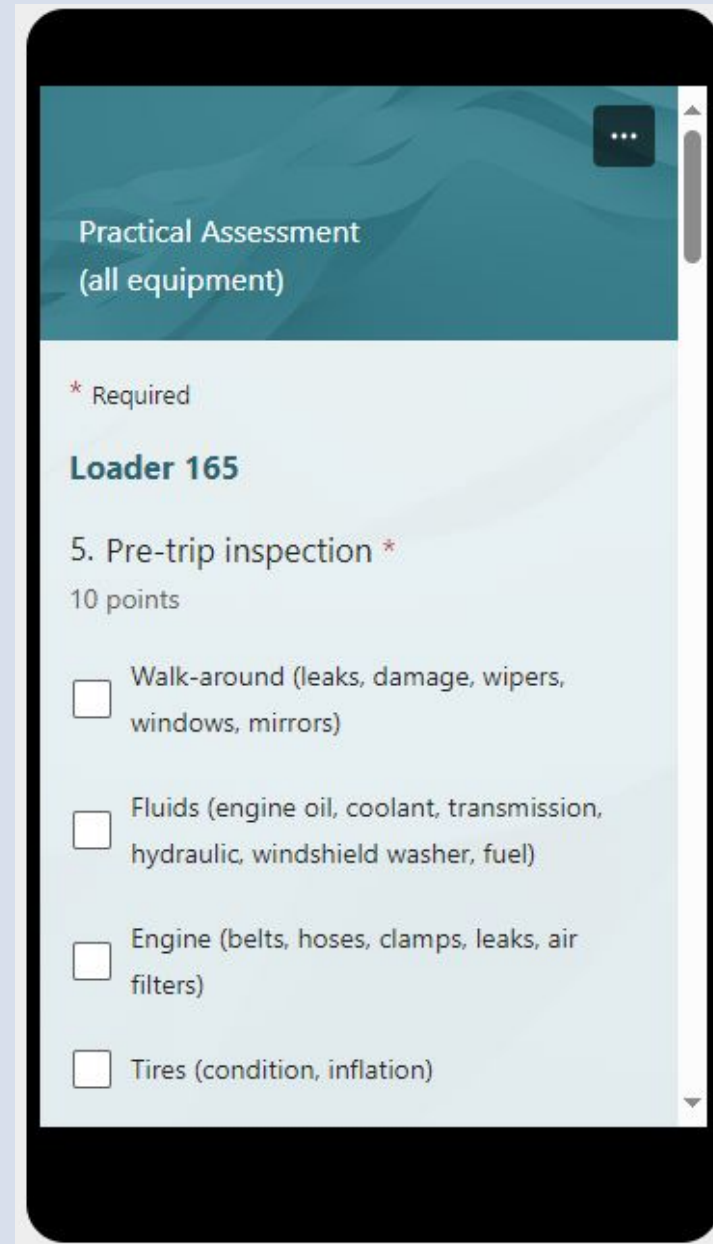
- To ensure the attachment is properly connected.
- To warm up the engine.
- To relieve pressure in the hydraulic lines. ✓
- To ensure the controls are functioning.

They've passed a quiz, but can they *actually operate* this vehicle?



# Lesson #7:

Use practical assessments to confirm competence in what you've trained them on





# What to do with new hires?

## Onboarding

- 4-6 weeks
- Benefits:
  - Up to speed quickly
  - Standardized, basics covered
  - Groups optimally 4-5 (max. 7)



## Lesson #8

Onboarding can be valuable, but there must be a metric of training success



# Onboarding final exam and assessment

- Lock blocks and barriers
- Pavement repair theory
- Pavement repair tools
- Pre-trip inspections and vehicle status white board
- Pump stations
- Radio use
- Rigging
- Spill response
- Staff 32
- Staff 89
- Sweeper bin
- Tailboard conferences, SMS, FLHA
- Tire safety
- Trailers, hitches and tie-downs



# Metrics of onboarding success

## Final exam and practical assessment

- Exam: 170 questions, 45 minutes
- Practical assessment: 4-6 hours
- Ensures they know what you covered
- Can actually do the work
- Useful data for management (probationary and performance review)



# I'm doing this full-time now...



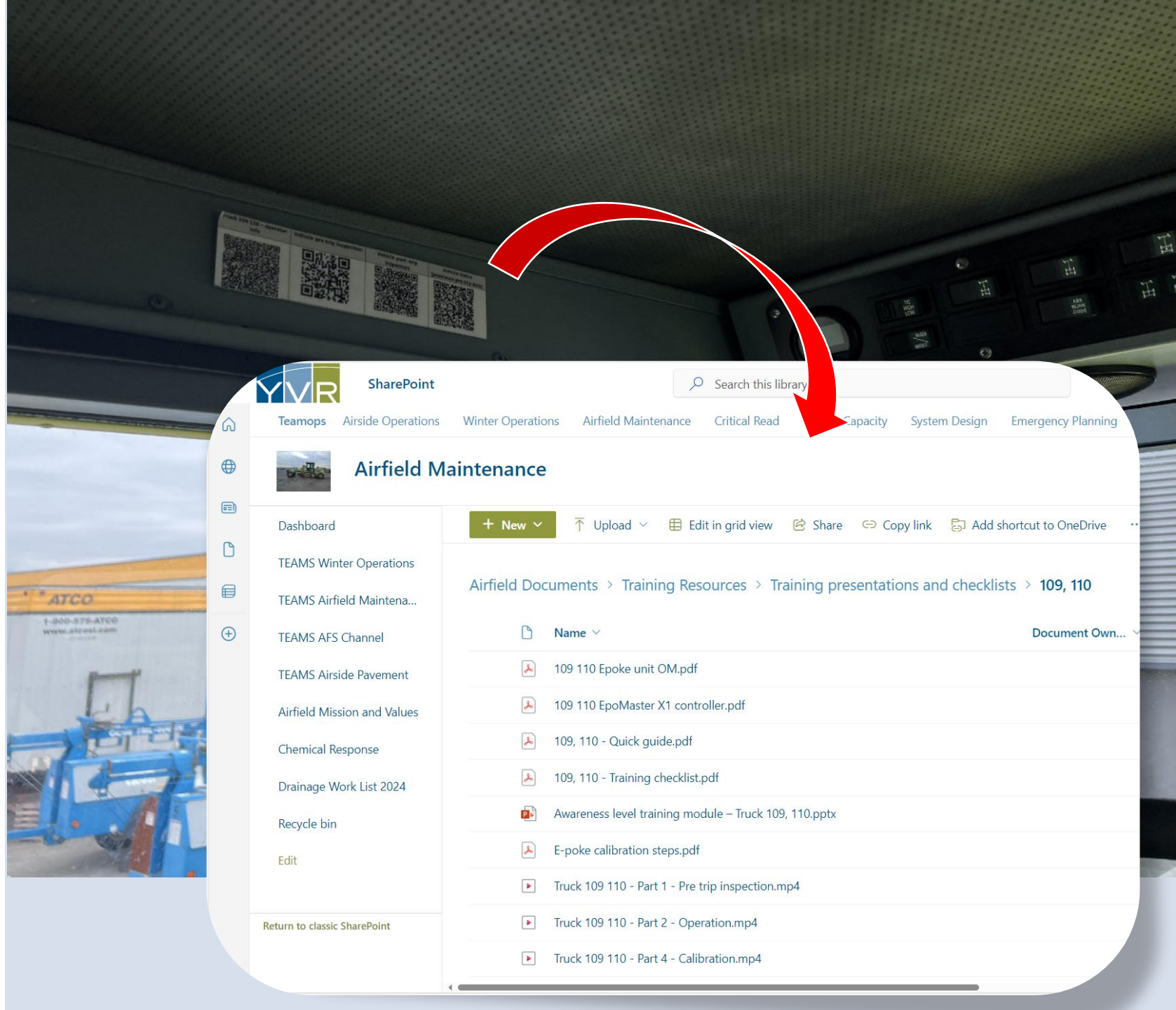
## Lesson #9

Leverage technology wherever possible



# Leverage technology

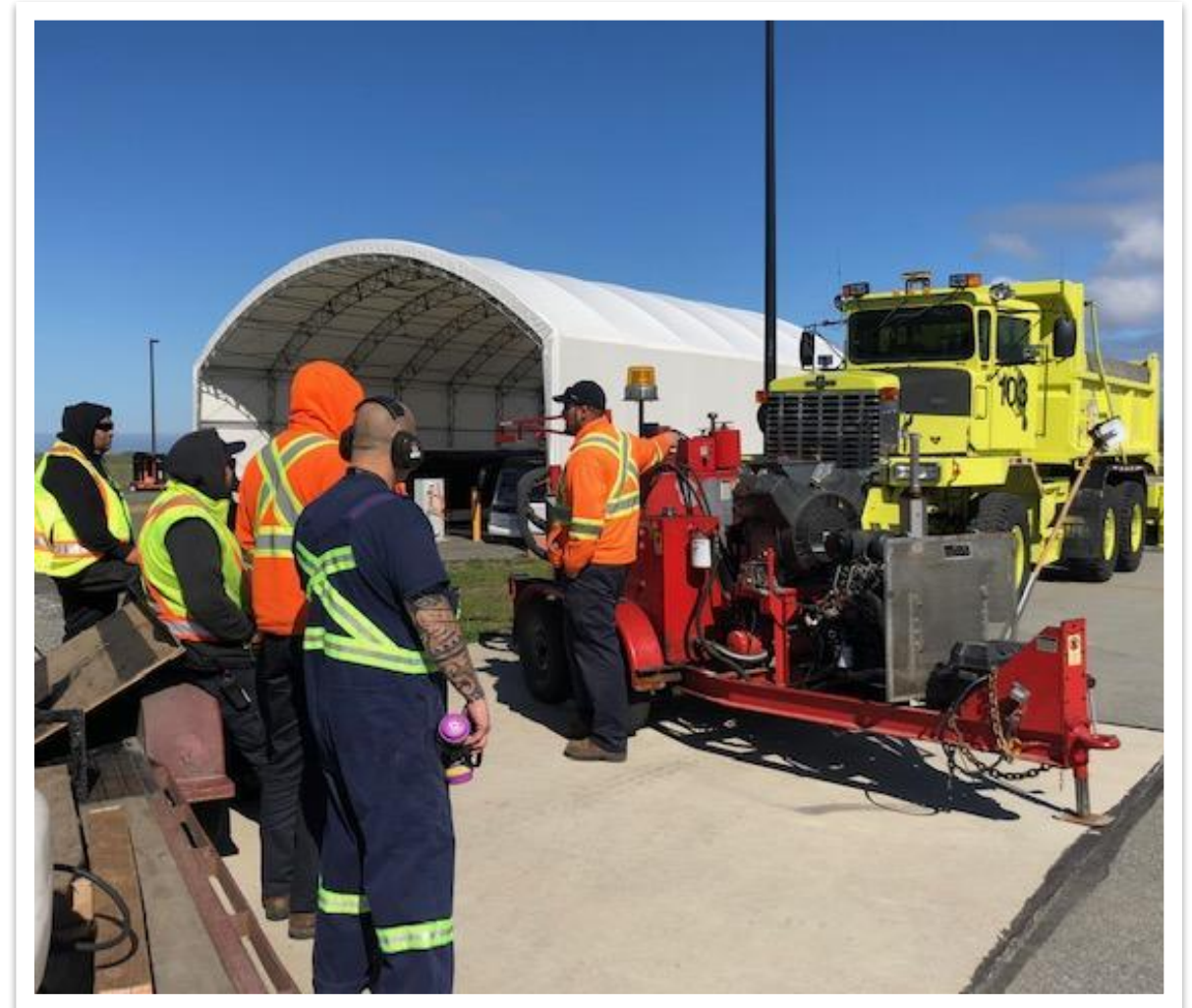
- “On-demand learning”
- Micro learning
- 2-5 minute videos
- Increases searchability



# How to schedule training delivery?

## Coordinating training

- Takes time (especially external trainers)
- Entire curriculum spread out





# Lesson #10

Develop a training calendar



# Training calendar

- Month-by-month
- Everyone knows the plan



January		
Theory	Practical assessment (PA)	Monthly refresher (PWT)
<a href="#">AMS wash bay</a>	-	Chain saw
<a href="#">Escorting procedures</a>	-	Cut off saw
Spill response*	-	Walk-behind saw
<a href="#">Staff 32</a>	-	
<a href="#">Staff 89</a>	-	

February		
Theory	Practical assessment (PA)	Monthly refresher (PWT)
Rigging and hoisting*	-	Cobus
<a href="#">Fence repair and signage</a>	-	Trailer 5 connection to 103
<a href="#">Trailers, hitches and tie-downs</a>	-	Ratchet straps, chain tensioners
<a href="#">Sweeper 97</a>	<a href="#">Sweeper 97</a>	
<a href="#">Sweeper 124 125 128</a>	<a href="#">Sweeper 124 125 128</a>	

March		
Theory	Practical assessment (PA)	Monthly refresher (PWT)
<a href="#">Field deficiencies</a>	-	Chain saw
<a href="#">Grass cut equipment – hand operated</a>	-	Cut off saw
<a href="#">Grass cutting theory</a>	-	Walk-behind saw
<a href="#">ILS, runway access/maintenance</a>	-	Attach/detach 4-in-1 165
<a href="#">Loader 165</a>	<a href="#">Loader 165</a>	



April		
Theory	Practical assessment (PA)	Monthly refresher (PWT)
<a href="#">Trucks 111 112 – summer package</a>	<a href="#">Truck 111 112 – summer package</a>	Cobus
<a href="#">Mowers 161, 162</a>		
<a href="#">Tractors 152, 154</a>		

# Challenge of a growing department

- Went from 8 AOS, 1 LH and 2 AFS
- To 38 AOS, 6 LH and 7 AFS
- I didn't have the time to train everyone anymore!



# Lesson #11

You can't do it alone



# You can't do it alone



Why are we  
paying you to  
do this again?



# Lesson #12

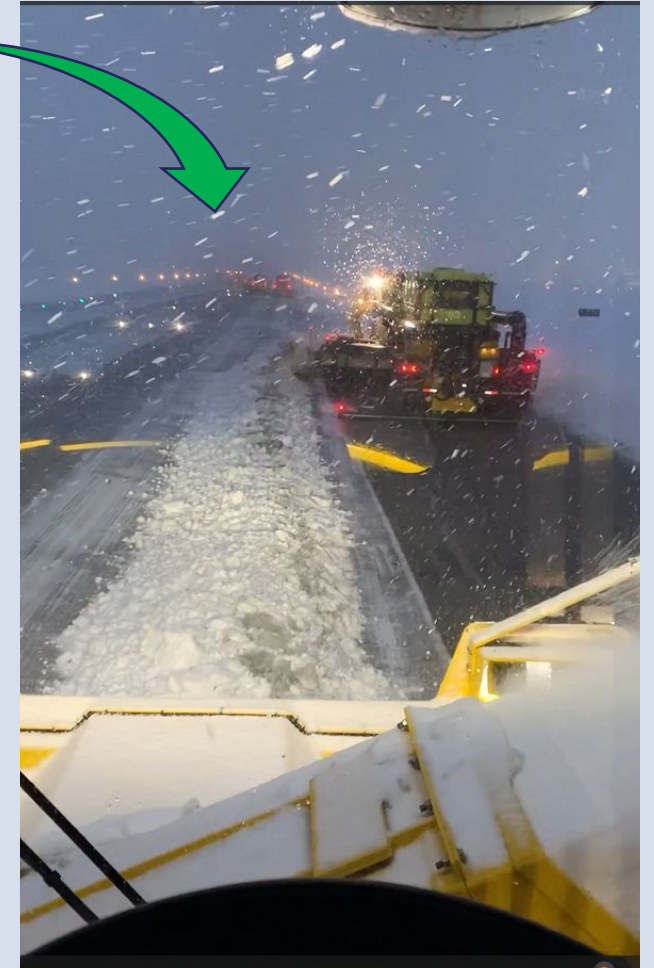
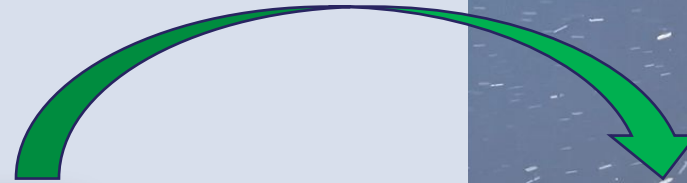
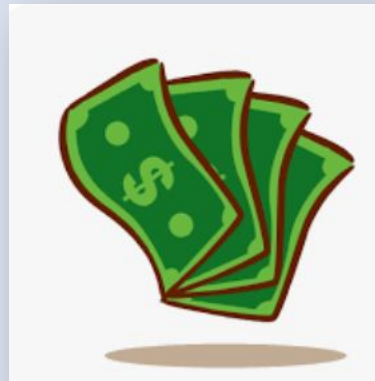
## Think of training as a business function

*Don't provide training just for the sake of providing training*



# Training as a business function

- Need to demonstrate business value
- Metrics like final exams and practical assessments
- Define the business objective first
- Then build the training objective to deliver





# Summary – 12 Lessons Learned

#	Lesson	Takeaway
1	A training program needs to be resourced	Full-time position for a department larger than 10 people
2	Training needs to be documented	If it wasn't documented, it didn't happen
3	Establish a curriculum	Make a list of all tasks/equipment needed to do the job
4	Figure out a way to track everything	LMS...the more automated the better
5	Build content	Video is valuable
6	Go electronic	Avoid paper at all costs



# Summary – 12 Lessons Learned

#	Lesson	Takeaway
7	Use practical assessments to confirm competence	Quality assurance, supervisor sign-off
8	Onboarding is useful but must ensure a metric of training success	Final exam, final competence assessment
9	Leverage technology wherever you can	QR codes, <u>mobile phones</u> , <u>Sharepoint</u> , video, AI
10	Develop a month-by-month training calendar	Spreads out curriculum, helps with planning
11	You can't do it alone	Training and assessment via other supervisors, lead hands
12	Think of training as a business function	Clear objectives, return on investment



