



VR & MEWP (aerial) simulators – the sky's the limit

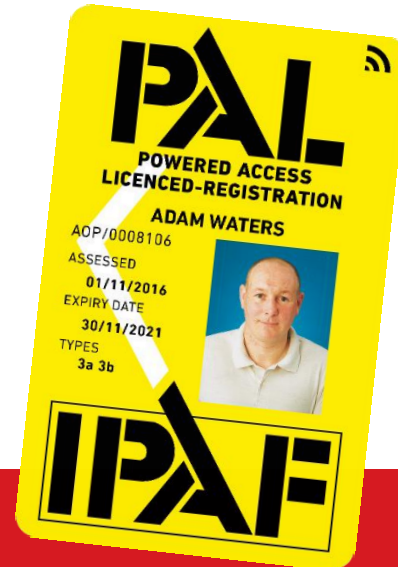
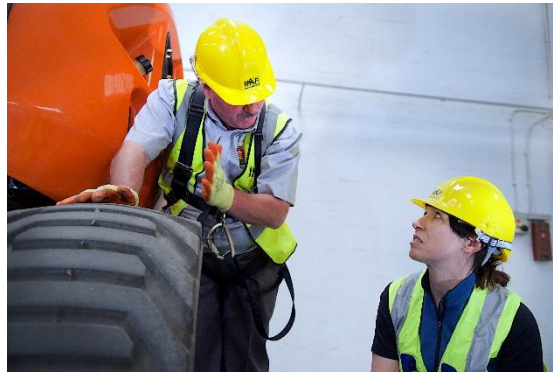
The potential and limitations of virtual reality
and simulators in MEWP operator training

Tim Whiteman, CEO & MD
International Powered Access Federation (IPAF)



IPAF – the global powered access body

- IPAF is a not-for-profit organization representing the full spectrum of **Mobile Elevating Work Platform (MEWP) & Mast-Climbing Work Platform (MCWP)** operations, from **manufacturers and distributors** through **rental and supply companies** to **end users, managers and contractors** worldwide.
- IPAF accredits and approves **training courses for operators and managers**, in more than a **dozen languages in around 70 countries**. IPAF's Powered Access License (PAL) Card is the industry's most widely recognized qualification, with almost **800,000** in circulation worldwide.



The safest way to work at height

- The number one cause of deaths in the workplace is **falls from height**. The majority of these are caused by **someone untrained** being asked to conduct **temporary work at height**, using improper or **inadequate method to reach** the height required to complete the intended work.
- The **safest way** to conduct temporary work at height is to use **powered access**. Users should be **correctly trained, adequately familiarized** on the equipment being used, the operations should be **properly planned and supervised** using the **correct type of MEWP** for the job with the proper **risk assessments and rescue planning** carried out in advance.



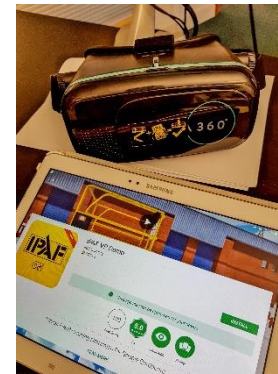
IPAF's New Generation learning tools

- One of the founding principles of IPAF was to promote the **safe and effective use** of powered access equipment worldwide, and to this end has developed over the 35 years it has been in existence a comprehensive suite of **technical guidance, safety campaigns and training**.
- IPAF's **PAL Card operator training** makes use of so-called **New Generation** learning tools. Since 2016, IPAF has offered an **eLearning module** allowing candidates to complete the theory element of the **one-day operator course online** at a time and place of their choosing. Register to take the IPAF PAL Card eLearning module **FREE** at www.ipaf.org/elearning-offer



From New Generation to Next Generation

- Technology has not stood still: **IPAF's virtual reality app** (search IPAF VR in iTunes or Android stores) takes users through a demo of a pre-use MEWP inspection, and increasingly powerful **VR apps & simulators** designed to enhance operator training and safety instruction proliferate.
- The technology progressed so rapidly that at the beginning of 2018 IPAF launched a worldwide **consultation** aimed at gathering information and **feedback from the industry** at large.
- IPAF has taken a **sophisticated MEWP simulator** to high-profile industry events around the globe, from Miami to Malaysia and will shortly announce its **findings and recommendations**.



Where next for VR and MEWP simulators?

- No-one quite knows where this exciting technology is going. Since early last year, when the first MEWP simulators appeared, providing an engaging sign-post of the potential on offer, the equipment being developed and made commercially available is increasingly sophisticated
- Whatever somebody's preconceptions, they can not fail to be impressed having tried one of these highly detailed and authentic simulators for themselves.
- This is increasing engagement with powered access training, while people across our industry are finding new and ingenious ways to use this technology to enhance awareness and safety.



Some ups and downs of the technology

- There are many **high-risk situations you can rehearse** or experience you wouldn't dream of simulating using real life equipment at height.
- You can **observe how an operator reacts** in the safety of a simulated environment, even recording the reactions to be able to **review with a manager or a training instructor**.
- Constant immersion in a VR environment could lead to a user or trainee developing a sense of false sense of invincibility and dampening an operator's instincts to real-life dangers.



Comparing the pros and cons

- Engaging technology with almost limitless capabilities
- Rapid pace of development
- Able to place trainees in risk scenarios not possible in the real world
- Potential to synch up with other technology, such as BIM plans
- May in future reduce the need to move a human to height (robotics, drones and augmented reality).
- Technology is still developing and being refined and evaluated.
- Industry must work hard to keep up and stay ahead of the curve.
- The most sophisticated machines are relatively expensive to buy.
- Immersion may lead to users' false sense of invulnerability.
- Not envisaged to replace practical operator training and evaluation.

Thank you...



- Thanks for joining, and please do stick around for the webinar question and answer session.
- IPAF's VR Consultation is open to all at www.ipaf.org/VRconsultation, and closes on September 30 2018.
- Join our IPAF innovate event in Houston. For info and to reserve a place see www.ipaf.org/innovate
- Try IPAF's eLearning **free** at www.ipaf.org/elearning-offer
- Visit www.ipaf.org/contact to find your nearest office or representative.

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Join us!

Join us for an exciting new event where you can collaborate with industry colleagues from manufacturers, rental companies, contractors, service companies – managers, supervisors, manufacturers, salespersons, drivers, mechanics, operators – in a program of problem-solving workshops.

Each attendee will register their topics of choice and will actively participate and interact with other attendees in sharing ideas and promoting positive changes in the industry. Attendees will be assigned to one of 10 workshops each facilitated by an IPAF North American Regional Council member - although you can specify your preferred workshop during registration.