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# Stay Safe at Height



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**Aerial work platforms (AWPs) are probably the safest way of doing temporary work at height. Stay safe when near to power lines/conductors.**

- Electrocutions were the single largest cause of fatalities to AWP operators in the US in 2012.
- In 2013, all seven reported cases of electrocution worldwide occurred in the US, home of 54% of the world's rental fleet.<sup>1</sup>
- The fatalities caused by electrocution involved mainly boom-type machines: mobile booms (3b) and static booms, which include truck-mounts and tracked machines (1b).

## Electrocutions happen due to:

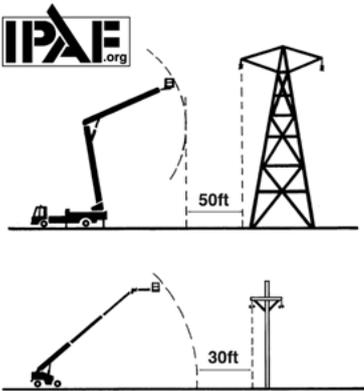
- Operator or boom of AWP inadvertently coming too close or touching overhead cables
- Lack of awareness of the proximity of overhead power lines
- Complacency or lack of awareness of the voltage running through the cables
- Moving the boom in the wrong direction when close to the overhead cables
- Operating the boom erratically and not stopping when and where expected

<sup>1</sup>Source: IPAF accident database ([www.ipaf.org/accident/](http://www.ipaf.org/accident/)), IPAF Powered Access Rental Market Reports ([www.ipaf.org/reports/](http://www.ipaf.org/reports/))

**Electrocutions can be prevented through proper planning, risk assessment and management of work at height, including thorough operator training and familiarization.**



- Where possible, the overhead cables should be de-energized and tagged before working close to them.
  - If 'de-energizing' is not an option, protect operators in the platform by 'shielding' the cables and using specialist insulated aerial devices (IAD), which are specifically designed for work near electrical hazards.
  - Consider the use of overhead cable proximity indicators when the risk of working near overhead cables is identified.
  - Do not go nearer than the minimum approach distance (MAD), which is the safest distance a person (anyone who has not had specific training in avoiding electrical hazards) is permitted to approach 'live' overhead cables.
  - IPAF recommends two specific safe distances through its training programs:
    - 50ft (15m) + fully extended boom from electrical pylon
    - 30ft (9m) + fully extended boom from cables on wooden poles
- Note: These safe distances meet and exceed those specified in ANSI standards and OSHA requirements. Should the operator need to work any closer to power lines, seek expert advice (contact the power supplier) and implement extra safety precautions to ensure that the MAD is never compromised
- When working near overhead cables:
    - The MAD should be clearly marked on the ground, allowing for maximum boom outreach.
    - Ensure extra supervision is provided and emergency plans are in place.



AWPs are designed to provide a safe means of temporary work at height – but they are only a safe option if their use is planned and managed appropriately.

Electrocution is one of the leading hazards with the use of AWPs in the US.

Make sure you, and those you are responsible for, apply the '30- and 50-foot plus fully extended boom' rule to ensure that you stay safe.

**References on this subject include:**

- US Code of Federal Regulations (CFR) 1910.333
- ANSI A92 standards
- ISO 18893 MEWP Safety Principles, Inspection, Maintenance and Operation
- IPAF Operators' Safety Guide
- Statement of Best Practices for Workplace Risk Assessment and Aerial Work Platform Equipment Selection, available at the Publications section of [www.ipaf.org](http://www.ipaf.org)