BLADE WIND SERVICES

ACCESS METHODS COMPARISON CHART

Emergency Rescue Systems

Comparing Emergency Safety Systems Used In Popular Access Methods

CONVENTIONAL WIRE PLATFORM

☒ 1 Emergency Recovery System Emergency Rope Rescue

CRANE & MAN BASKET

☒ No Emergency Rescue Systems

BLADE AERIAL WORK PLATFORMS

☑ 5 Emergency Recovery Systems To Cover Any Emergency Situation

ROPE ACCESS - ABSEIL

☒ 1 Emergency Recovery System, Emergency Rope Rescue (secondary rope) If a tech suffers a medical condition they have to be resued by another tech which is time consuming

Safe Working Zone

Comparing technicians safe working zone for different access methods

BLADE AERIAL WORK PLATFORMS

☑ Can work from the safety of a fixed & stable 4m x 1m work platform

CONVENTIONAL WIRE PLATFORM

☒ Can work from a stable platform but it must have contact with the tower structure

ROPE ACCESS - ABSEIL

☒ Completely exposed no physical protection apart from PPE equipment

CRANE & MAN BASKET

☒ Can work from within a swinging basket but is not fixed and suffers from stability issues

Operating Wind Speed

Comparing truck mounted platforms to alternate access methods in high winds

CONVENTIONAL WIRE PLATFORM

8.8 - 10 M/s - 20 - 22mph
This is up to 30% less than using a blade AWP. When a wire platform is forced to abandon works due to high winds it also takes longer to return the tech's back to the ground. Also in some cases, the WTG will stay down due to platform rigging especially if lightning or prolonged inclement weather is in

CRANE & MAN BASKET

15mph Maximum.
This is 46% less than when using a blade truck mounted AWP

BLADE AERIAL WORK PLATFORMS

12.5 M/s - 28mph at full working height & load.
This is 22% higher than any other access method available.
Using a blade AWP can often mean work can continue when other access methods force the tech's to return to

ROPE ACCESS - ABSEIL

10m/s - 22mph
This is 22% less than using a blade truck mounted AWP.
Practically it is very difficult to perform any type of work using this access method when winds are in excess of 15mph. ***This is a 46% productivity reduction due to wind speed alone.***
Also in some cases, the WTG will stay down due to platform rigging especially if lightning or prolonged inclement weather is in the area

Inclement Weather

Comparing truck mounted platforms to alternate access methods following inclement weather

BLADE AERIAL WORK PLATFORMS

✅ Following inclement weather, Blade AWP's can elevate back to their working position in under 5 minutes

CONVENTIONAL WIRE PLATFORM

❌ Following inclement weather, conventional wire platforms take approx 30 minutes to elevate back in to their working position, unless the platform has to re-rig following a client request to return the WTG back online. This may take an additional 1.5 hours. If this is not required the tech's would still need to re-inspect all the cable rigging before the wire platform can be returned to service -

ROPE ACCESS - ABSEIL

❌ Following inclement weather, a rope tech can be back in their elevated work position in approx 45 minutes

CRANE & MAN BASKET

❌ Following inclement weather, a crane & man basket can elevate back in to its work position in approx 15 minutes

Productivity Vs Downtime

Truck mounted platforms productivity Vs downtime compared to alternate access methods

CONVENTIONAL WIRE PLATFORM

☒ Averagely takes three times as long to complete works in comparison to aerial work platforms (AWP's)

CRANE & MAN BASKET

☒ Averagely takes at leaset twice as long to complete works in comparison to aerial work platforms (AWP's)

BLADE AERIAL WORK PLATFORMS

☑ At least three times more productive compared to the second most productive access method

ROPE ACCESS - ABSEIL

☒ Averagely takes three times as long to complete works in comparison to aerial work platforms (AWP's)

Capability & Flexibility

Comparing truck mounted platforms capability & flexibility to alternate access methods

CONVENTIONAL WIRE PLATFORM

❌ This platform is fixed in position and offers no flexibility. Most platforms will also not be able to access the root of the rotor blade. The platform also requires the rotor blade to be rotated to access both sides including the leading and trailing edges

CRANE & MAN BASKET

❌ This access method can access all areas of a rotor blade but only after it has been rotated resulting in lost downtime. A crane man basket can also not access the underside of a nacelle - particularly important during

BLADE AERIAL WORK PLATFORMS

✅ Can access any point of a rotor blade or tower - often with LOTO only being performed once (depending on nacelle height and blade length)

ROPE ACCESS - ABSEIL

❌ This access method can access all areas of a rotor blade but only after it has been rotated resulting in lost downtime. A rope tech can also not access the underside of a nacelle - particularly important during cleaning activities

Quality Of Workmanship

Showing how Truck Mounted Platforms allow tech's to carry out work to the best of their ability

CONVENTIONAL WIRE PLATFORM

❌ Once eventually in 'position' in some situations repairs can only be completed by the technician having to stretch affecting the quality of repair. In some cases the wire platform can not access all areas of the rotor blade

CRANE & MAN BASKET

❌ To perform any type of quality repair the technicians are dependent on virtually no wind. This is often impossible due to wind parks being located in 'wind corridors'.

BLADE AERIAL WORK PLATFORMS

✅ Repairs can be performed exactly the same as when a technician is on the ground. The stability & manoeuvrability of the platform allow the tech to be perfectly positioned to complete a perfect repair / inspection

ROPE ACCESS - ABSEIL

❌ Hanging / Swinging from ropes creates technician stability issues - especially in windy conditions. This in turn can greatly affect the quality of the repair being performed. The tech also has to constantly concentrate on stabilizing himself making constant contact with the rotor blade surface

Mental & Physical Fatigue

Comparing the mental & physical demands of different access methods

CONVENTIONAL WIRE PLATFORM

This requires a lot of manual rigging. In addition to also climbing a tower, it can provide significant fatigue which then further reduces productivity and quality of workmanship

CRANE & MAN BASKET

While the manual fatigue is reduced compared to a wire platform, this access method does have both mental and physical fatigue issues. The tech's having to constantly stabilize the man basket in position whilst trying to perform a repair for example. This produces mental & physical fatigue - especially in high winds

BLADE AERIAL WORK PLATFORMS

The truck mounted work platform gives great levels of stability meaning the tech only needs to concentrate on the work being performed. No mental or physical fatigue is experienced

ROPE ACCESS - ABSEIL

This method of access produces high levels of mental & physical fatigue. Due to every part of the work being entirely manual, the tech's experience high levels of tiredness & exhaustion. This combined with the additional workload of having to complete repairs can lead to mental fatigue & ultimately safety mistakes can easily be made