

1. Intent

This program has been developed to reduce the risk of physical injury or property damage in areas where aerial work platforms are in operation. It also brings the University into compliance with federal, state, and local regulations.

It is the policy of the University at Albany to take all necessary measures to prevent injuries to employees and students while using aerial work platforms. Departments using aerial work platforms must insure that supervisors and operators comply with this safety program. All University employees and students must successfully complete a training program and receive certification prior to the operation of any aerial work platform.

This program has been developed in accordance with the following Standards:

- OSHA Standard 29 CFR 1910.67, 1910.68 (Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms)
- OSHA Standard 29 CFR 1926.453 (Aerial Lifts)
- ANSI/SIA A92.6-2006 (Self-Propelled Elevated Work Platforms)

2. Scope

This program applies to the operation of all aerial work platforms operated by University at Albany employees and students. Please see *Appendix C – “Examples Of Aerial Work Platforms At University At Albany”* for specific examples.

3. Definitions

Aerial work platform: Any vehicle-mounted, self-propelled, or manually-propelled devices which consists of, at a minimum, a work platform with controls, an extending structure, and a chassis, supported from ground level by a structure, used for the purpose of positioning personnel, their tools, and necessary materials to elevated work locations.

Anchorage: A secure point of attachment to be used with personal fall protection equipment.

Articulating boom: An aerial device with two or more hinged boom sections.

Insulated platform: A platform designed and tested to meet the specific electrical insulation ratings consistent with the manufacturer’s identification plate.

Outriggers: Devices that increase the stability of the aerial work platform and that are capable of lifting and leveling the aerial/scissor lift platform.

Platform: Any personnel carrying device, such as a bucket, basket, cage, stand, or tub that is a component of a mobile elevated work platform.

Pre-use inspection: A thorough equipment and area inspection conducted prior to each shift and before putting a mobile elevated work platform into service.

Qualified mechanic: One who has received training, instruction, or a certificate from the manufacturer's representative to conduct aerial work platform mechanical inspections.

Qualified trainer: One who has knowledge, training, and experience with aerial work platforms proficient enough to train others on the safe use and operation of these devices. Qualified trainers may include the manufacturer or manufacturer's representative.

Rated work load: The designated capacity of the aerial platform as specified by the manufacturer.

Scissor lift: An electric or gas-powered platform mounted on folding arms and used to provide elevated work areas or to raise or lower unit loads.

Stabilizers: Devices that increase the stability of the aerial work platform but are not capable of lifting or leveling the aerial/scissor lift platform.

4. Responsibilities

4.1 Environmental Health and Safety (EH&S)

The EH&S Department has the following responsibilities:

- Periodically review and update the Aerial Work Platform Safety Program as necessary.
- Periodically evaluate the work site usage of aerial work platforms.
- Coordinate/administer training.

4.2 Supervisors

Supervisors have the following responsibilities:

- Review and ensure understanding of this program and its applicability to your department.
- Ensure employees, including any students, comply with all provisions of this program, including completing the appropriate checklists.
- Ensure employees, including students, receive training appropriate to their assigned tasks and maintain documentation.

- Ensure employees, including students, are provided with and use appropriate personal protective equipment (PPE).
- Take prompt action when unsafe conditions or acts are observed.
- Investigate aerial and scissor lift usage injuries and damage and inform EH&S.
- Ensure all required maintenance is performed on the lift.

4.3 Aerial Work Platform Operators

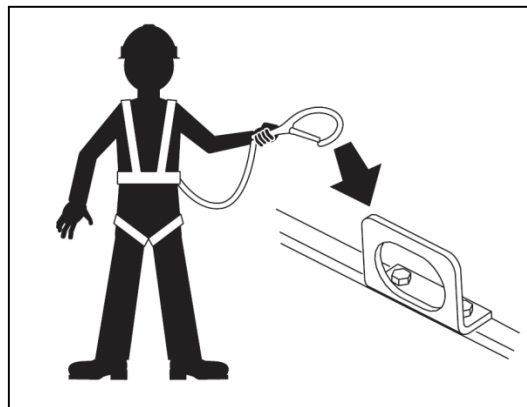
Aerial work platform operators have the following responsibilities:

- Adhere to owner’s manual and all provisions in this program.
- Attend and adhere to all required training.
- Immediately report any unsafe acts or conditions to supervisor.
- Complete pre-start and worksite inspections using the appropriate checklist, and consult with supervisor and/or EH&S regarding any unusual hazards.

5. Aerial Work Platform Procedures

5.1 Fall Protection

- University at Albany requires that all employees and students using any type of aerial work platform utilize a personal fall restraint system consisting of a full body harness and a restraint lanyard (provided that there is an approved anchor point to connect it to). The lanyard must be short enough to prevent the person from falling or being ejected from the basket.



Full Body Harness



Restraint Lanyard

- If there is a concern with using a harness and lanyard for a specific task, or if a job involves entering/exiting an elevated aerial work platform, call EH&S to do a hazard assessment before the work begins.

5.2 General Safe Work Practices

- Operators shall not wear any loose clothing or any accessory that can catch in moving parts.
- Before machine is started, the operator must walk completely around the machine to ensure everyone and everything is clear of the machine.
- Articulating boom and extendable boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
- Modifications and additions that may affect the capacity or safe operation of an aerial/scissor lift are strictly prohibited without the manufacturer's written approval. Capacity, operation, and maintenance instruction markings will be changed as necessary, if the manufacturer approves a modification.
- The insulated portion (if applicable) of an aerial/scissor lift shall not be altered in any manner that might reduce its insulating value.
- Any signs, plates, or decals which are missing or illegible must be replaced.
- If the aerial/scissor lift becomes disabled, an "out of service" tag or equivalent shall be attached to the controls inside the platform in a conspicuous location. Aerial/scissor lift devices with noted, reported deficiencies shall not be operated until repairs are made and equipment is authorized for use.
- Operators must report all accidents, regardless of fault and severity, to their Supervisor.

5.2 Safe work practices before operation

- Prior to the operation of any aerial work platform, the "*Pre-Start Inspection and Function Test Checklist*" found in *Appendix A* must be completed, as well as the "*Workplace Inspection Checklist*" in *Appendix B*. This applies at the beginning of every work period, and whenever a new equipment operator takes control of the aerial work platform. Any safety defects (such as hydraulic fluid leaks, defective brakes, steering, lights, or horn) must be reported for immediate repair. The lift must also be locked and tagged, and taken out of service.
- Consideration shall be given to wind conditions.
 - As a general rule, aerial work platforms shall not be operated in winds of 28 mph or higher. However, this wind speed limit may be lower depending on the specific model of equipment. Follow the manufacturer's instruction regarding operation in windy conditions.

- At 20 mph wind speeds or anticipated gusts, lifts will be lowered to a maximum height of 20 feet, unless otherwise stated by the manufacturer.
- At 28 mph wind speeds or anticipated gusts, lifts will be grounded, unless otherwise stated by the manufacturer.
- The National Weather Service provides current weather conditions, including wind speed, on the Albany forecast office website: <http://www.weather.gov/aly/>



- If at any time, the operator feels unsafe in a lift, they may make decision to ground the lift.
- Guardrails must be installed and access gates or openings must be closed before raising the platform.
- Boom and platform load limits specified by the manufacturer shall not be exceeded.
- Before moving an aerial work platform for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position (if equipped).
- Consideration shall be given to the protection of bystanders via barricading, having another employee keep bystanders at a safe distance or by other means.
- Aerial work platforms shall not be operated from trucks, scaffolds, or similar equipment.

5.3 Safe work practices during operation

- Attention shall be given towards the direction of travel, clearances above, below, and on all sides.
- Employees shall not sit or climb on the guardrails of the lift.
- Planks, ladders, or other devices shall not be used on the work platform.
- An aerial work platform shall not be moved when the boom is elevated in a working position with employees in the basket.
- An aerial work platform shall not be placed against another object to steady the elevated platform.
- An aerial work platform shall not be used as a crane or other lifting device.
- Aerial work platforms shall not be operated on grades, side slopes, or ramps that exceed the manufacturer's recommendations.
- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface.
- Speed of aerial work platforms shall be limited according to the conditions of the ground surface, congestion, visibility, slope, and location of personnel and other factors that may cause hazards to other nearby personnel.
- Stunt driving and horseplay shall not be permitted.

- Booms and elevated platform devices shall not be positioned in an attempt to jack the wheels off the ground.
- The area surrounding the elevated platform shall be cleared of personnel and equipment prior to lowering the elevated platform.
- All equipment must be secured on the inside of the aerial work platform.
- Operators are to call for assistance, if the platform or any part of the machine becomes entangled.

5.4 Safe work practices after operation

- Safe shutdown shall be achieved by utilizing a suitable parking area, placing the platform in the stowed position, placing controls in neutral, idling engine for gradual cooling, turning off electrical power, and taking the necessary steps to prevent unauthorized use.
- Aerial work platforms shall be shut off prior to fueling. Fueling must be completed in well ventilated areas free of flames, sparks, or other hazards which may cause fires or explosions.

5.5 Maintenance

- Any aerial work platform not in safe operating condition must be removed from service. Authorized personnel must make all repairs.
- Repairs to the fuel and ignition systems of aerial work platforms that involve fire hazards must be conducted only in locations designated for such repairs.
- Aerial work platforms in need of repairs to the electrical system must have the battery disconnected before such repairs.
- Only use replacement parts that are currently recommended by the manufacturer.

6. Training requirements

All aerial work platform operators, including students, are required to successfully complete an aerial lift operating training program, along with hands-on training prior to operating an aerial lift. All operators must be retrained every three years through successful completion of the hands-on training. If operators cannot demonstrate proficiency or are involved in an accident using the lift, training must be repeated.

The operator training program includes classroom instructions, a written test and proficiency demonstration of hands-on operation. This training should be given by a qualified trainer.

Training should include:

- Explanation of electrical, fall, and falling object hazards.
- Procedures for dealing with hazards.
- Recognizing and avoiding unsafe conditions in the work setting.
- Instructions for correct operation of the lift (including maximum intended load and load capacity).
- Demonstration of the skills and knowledge needed to operate an aerial work platform before operating it on the job.
- When and how to perform inspections.
- Review of this policy and accompanying checklists

7. Inspections

The inspection process is a critical step in preventing aerial work platform accidents that are caused from faulty or worn out equipment. Aerial work platforms that are not in proper operating condition shall be removed from service until the problems have been corrected by an authorized and trained maintenance technician.

7.1 Pre-Start Inspection and Function Test

Prior to each work shift, conduct a pre-start inspection and function test using the checklist in *Appendix A* to verify that the equipment and all of its components are in safe operating condition. The manufacturer's recommendations should be followed and include a check of:

- Proper fluid levels
- Wheels and tires
- Battery and charger
- Lower level controls
- Horn, gauges, lights, and back up alarms
- Steering and brakes
- Operating and emergency controls
- Personal protective devices
- Fiberglass and other insulating components
- Placards, warnings, control markings, and operating manual(s)
- Cables and wiring harness
- Outriggers, stabilizers, and other structures
- Guardrail system

7.2 Workplace inspection

Before an aerial platform lift is used, the operator, using the “*Workplace Inspection Checklist*” in *Appendix B*, shall visually check the workplace area where the aerial platform or scissor lift is to be used, identifying potential hazards such as, but not limited to:

- Drop-offs or holes
- Inadequate ceiling heights
- Slopes, ditches, or bumps
- Debris and floor obstructions
- Overhead obstructions and high voltage conductors
- High wind and other severe weather conditions such as ice

Note: Operation of Aerial platform lifts is prohibited when wind speeds reach 28 MPH or greater, when lightening is visible, or when thunderstorm warnings are in effect.

7.3 Annual Inspection

An annual inspection shall be performed on all aerial work platforms every twelve months (no later than 13 months from the date of the prior annual inspection). The inspection shall be performed by a qualified mechanic who is authorized to perform maintenance duties on the lift. The qualified mechanic’s inspection shall include all items specified by the manufacturer for an annual inspection.

APPENDIX A

**AERIAL WORK PLATFORM
PRE-START INSPECTION AND FUNCTION TEST CHECKLIST**



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AERIAL WORK PLATFORM PRE-START INSPECTION AND FUNCTION CHECK

Prior to each work shift in which aerial work platform will be used, conduct this pre-start inspection and function check to verify that the equipment and all its components are in safe operating condition. Report all deficiencies to your supervisor. **DO NOT OPERATE A FAULTY MACHINE.**

Pre-Start Inspection – Visually check the following items.
1. Check that the Operator's Manual, ANSI Manual of Responsibilities, and AEM Safety Manual are all present in the storage container on the platform.
2. General condition: Check the entire machine for damaged or missing parts, cracks in welds, dents, excessive rust, etc.
3. Check that the signage, labels, and serial plate are legible and in place.
4. Operator restraint: Check that the guardrails are fastened and that lanyard anchorage points are present and in good condition.
5. Check hydraulic fluid level (with platform fully lowered).
6. Check for fluid leaks and breaks. Check hoses and look underneath.
7. Check that the battery/fuel level is sufficient.
8. Visually check the battery compartment for corrosion.
9. Tires and wheels: Check for wear or damage, missing/loose lug nuts, and improper pressure.

Function Test – Check the following machine functions.
<i>Ground Controls</i>
1. Check that the selector switch sets the controls to ground or platform.
2. Check that the emergency stop button stops all machine functions.
3. Check that head, tail, and working lights are operational and mounted correctly (if equipped).
4. Check that gauges are operational, not damaged, and not reporting a problem.
5. Check hydraulic controls: lift, lower, and others if present (rotate, extend, tilt, etc.).
6. Check that the descent alarm sounds while the platform is lowering.
7. Check emergency lowering (alarm should not sound).
8. Check that pothole protection bars deploy (if present).
<i>Platform Controls</i>
1. Check that the horn is operational.
2. Check that the emergency stop button stops all machine functions.
3. Check that enable switch and control lever(s) are smooth and automatically return to neutral.
4. Check hydraulic controls: lift, lower, and others if present (rotate, extend, tilt, etc.).
5. Check drive controls and steering.
6. Check backup alarm and warning lights (if equipped).
7. Check the drive speed switch.
8. Check that outriggers/stabilizers lock in and fully engage (if present).

APPENDIX B

**AERIAL WORK PLATFORM
WORKPLACE INSPECTION CHECKLIST**



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AERIAL WORK PLATFORM WORKPLACE INSPECTION

Prior to using an aerial work platform, the operators must perform a workplace inspection to determine if the workplace is suitable for safe machine operation. Report all deficiencies to your supervisor. **DO NOT OPERATE A LIFT IN AN UNSAFE LOCATION.**

Workplace Inspection – Inspect the workplace for the items listed below to ensure that it is suitable for safe machine operation
1. Drop-offs or holes, including those concealed by water, ice, mud, etc.
2. Sloped, unstable, or slippery surfaces.
3. Bumps, obstructions, and debris.
4. Overhead obstructions or high voltage conductors.
5. Hazardous locations and atmospheres.
6. Inadequate surface and support to withstand all load forces imposed by the machine.
7. Wind and weather conditions.
8. Presence of unauthorized personnel.
9. Other possible unsafe conditions.

Note: Operation of aerial work platforms is prohibited when wind speeds reach 28 MPH or greater, when lightening is visible, or when thunderstorm warnings are in effect.

APPENDIX C

**EXAMPLES OF AERIAL WORK PLATFORMS
AT UNIVERSITY AT ALBANY**



Scissor Lift



One-Person Vertical Lift



Two-Person Vertical Lift



Articulated Boom Lift



Compact Crawler Boom Lift