Purpose
Mobile Elevated Work Platforms (MEWP) are mechanical devices used to provide temporary access for people or equipment to inaccessible areas, usually at height. Use of these devices can be extremely dangerous and must be treated with caution. This program was developed to meet the requirements outlined in OSHA Title 29 CFR 1910 Subpart F (Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms) and the applicable sections of the ANSI/SIA A92 Standards for Safe Use and Training for Mobile Elevated Work Platforms.

Scope
This program applies to all Bowdoin Faculty, Staff and Students who are required to or request to operate a MEWP, those who oversee persons operating a MEWP and contractor use of MEWP on college property. The MEWPs include those that are owned by the college and those rented for use on college property.

Bowdoin College campus Mobile Elevated Work Platforms consist of Type 1A, 1B and 3A equipment. See Appendix A for pictures and campus locations.

Roles and Responsibilities
1. MEWP Safety Program Manager
   The Associate Director of Environmental, Health and Safety will periodically review and update the MEWP program and provide or coordinate training as needed.

2. Supervisors
   Implement the MEWP program with operators and ensure contractors follow MEWP requirements.

3. Operators
   Comply with the safety procedures prescribed in the MEWP program.

Safe Use Plan
1. Workplace Risk Assessments
   Prior to use of a MEWP the Workplace Risk Assessment (Risk Assessment) form in Appendix B must be completed by the Operator, reviewed by the MEWP Safety Program Manager and placed on file. The Operator must determine if there is a Risk Assessment on file for the job task prior to start of work. A copy of all completed risk assessments can be found in the orange clipboard located with each piece of equipment.

   If there is a Risk Assessment on file if must be reviewed to ensure that the information is still accurate. If the Risk Assessment is not on file or additional hazards are identified the review process the Risk Assessment must be updated or completed prior to commencement of work.

   A Risk Assessment is used to evaluate the work task and ensure safety at all points of the process by evaluating and documenting the following:
   a. Definition of the work to be done
   b. Selecting a MEWP suitable for the work
   c. Evaluating the risks
      1. MEWP related:
         i. Load rating
         ii. Working height
      2. Job Specific:
i. Site hazards- Drop-offs, holes, or unstable surfaces such as loose dirt

ii. Overhead obstructions or inadequate ceiling heights including electrical power lines and communication cables or other obstructions.

iii. Required distance from electrical power lines will be maintained, per voltage/distance chart in equipment handbook. All electrical equipment to be used on the lift will be grounded or secured to prevent contact with the metal platform. All operators will remain at least 10 feet distance from any power lines.

iv. If possible, do not position aerial work platforms between overhead hazards

v. Slopes, ditches, bumps or un-level ground conditions

vi. Debris, equipment or other floor obstructions

vii. High wind and other severe weather conditions, such as ice Outdoor Procedures for additional information on weather related events.

viii. The presence or possible future presence of others in close proximity to the work

ix. Set up work zone warnings, such as cones and signs, when necessary to warn others.

The intended worksite hazard zone shall be marked off with red or yellow colored tape that state “DANGER” wrapped around safety cones that will, together, block the zone.

x. All other potential hazardous locations or atmospheres that could inhibit safe operation before setting up the lift

d. Identify control measures to address each risk

2. Pre-Start and Workplace Inspection

Prior to each job task, authorized employees must first conduct a pre-start inspection in accordance with the checklist in Appendix C to verify that the equipment and all its components are in safe operating condition. Follow the manufacturer’s recommendations for a Function Test as outlined in the operator’s manual as well as inspecting the following:

a. Electrical power

b. Hydraulic operation

c. Safety devices. Inspection for physical condition should include: Broken, missing, damaged or loose parts including mechanical fasteners, bearings and locking pins; Tires with cuts, punctures, bulges, excessive wear, or low pressure; Cracked welds or seams; hydraulic fluid leaks; Low battery power or inadequate battery or charger; Damaged or loose outriggers or stabilizers; and unresponsive controls.

d. Missing or unreadable placards, warnings, or operational, instructional and control markings, which may display load capacities and safety features of the equipment.

e. Under no conditions will any manufacturer's safety device be removed, modified, overridden, or disabled.

Completed inspection documentation must be submitted to the MEWP Safety Program Manager for filing within 24 hours of the work. Blank inspection forms are located in the orange clipboard located with every piece of equipment.

3. Rescue Plan- Prior to each job task, operators must ensure that there is a rescue plan in place.

Bowdoin does not have any self-rescue systems or self-rescue equipment installed on any of the MEWP on campus. The primary rescue plan for Assisted Rescue is outlined below.

**Emergency Rescue Plan (no falls out of basket)**

<table>
<thead>
<tr>
<th>Emergency Situation</th>
<th>Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure of upper level control functions while elevates</td>
<td>Where normal upper control function fails, the operator will use the auxiliary controls from the platform to lower the boom safely to the ground.</td>
</tr>
<tr>
<td>Failure of the operator to be able to operate the MEWP</td>
<td>Where the operator is incapable of lowering the raised platform using the upper controls:</td>
</tr>
<tr>
<td>functions while elevated due to:</td>
<td></td>
</tr>
</tbody>
</table>
A. Operator Incapacitated

B. Upper auxiliary functions fail to operate.

A. If operator is incapacitated, the base observer familiar with the use of ground controls will assess for possible causes: rushing, electrocution, unconsciousness or a state of alarm. Only lower if you know that it will not endanger the operator further. Call for emergency services.

B. The base observer will lower platform safely using normal ground controls after assessing the situation, areas condition and locations for any hazards.

Failure of normal ground controls

When normal ground controls fail, the base observer will lower platform safely using ground auxiliary controls.

Failure of all normal and auxiliary lowering functions

When all normal and auxiliary functions have failed a services technician should be contacted:

WD Matthews

Security should also be called to start coordinating rescue efforts with Brunswick Fire Department.

The Brunswick Fire Department will be contacted for emergency response if the Emergency Rescue Plan measures for Assisted Rescue outlined above cannot be implemented or if there is a need for a technical rescue due to a fall out of the type 1B MEWP or a need to execute a basket platform/basket rescue.

Safe Operating Procedures

General - The following general procedures apply to the use of any MEWP and ensure safe operation.

1. Know the rated work load-capacity limits and maximum allowed vertical or horizontal reach limits, and do not exceed them. The combined weight of the worker(s), tools and materials into account when calculating the load.

2. The lift will never be used alone, shall never be manned by more than three persons (while adhering to load limits).

3. A trained employee will be designated to supervise each use of the lift as a ground spotter, and will have the authority to call a shutdown if conditions become unsafe.

4. Keep all personnel not associated with the use of the lift at least 10 feet away from the base of the platform; under no circumstances should any persons be allowed to stand under the platform when raised.

5. The lift should be fully lowered and stationary before mounting; never attempt to mount or dismount a moving platform. Never use hand or foot controls as a hold when mounting or dismounting.

6. Secure all rails, chains, or gates before raising the platform.

7. The lift must be operated from the platform controls while in use; only in an emergency may the base control station be used to raise or lower the platform.

8. Keep the platform surface clean and clear of debris while in use to prevent slipping or tripping. Never use makeshift items to increase your height above the platform surface.

9. Never step onto or attach equipment to the platform railings, or climb outside of the guardrail area.

10. If the lift is to be left unattended, the platform will be lowered, the power turned off, the parking brake engaged, and appropriate steps taken to prevent unauthorized use.

11. Do not override hydraulic, mechanical or electrical safety devices.
Outdoor Use- The following procedures apply to outdoor use of a MEWP

1. A trained employee will be designated to supervise each use of the lift as a ground spotter, and will have the authority to call a shutdown if conditions become unsafe.

2. A hand-portable velocity meter (Kept in the Facilities Electric Shop) will be used as necessary to gauge wind conditions, with the understanding that most lifts are rated to 25 mph for safe operation. Do not operate an aerial work platform in high winds above those recommended by the manufacturer. An initial wind reading will be taken on the ground by the supervisor; if the reading is below 15 mph then the use of the lift can proceed. A second reading must be taken at either the working elevation or half the allowed height, whichever is higher:
   - If the wind speeds exceed 15 mph, the lift will be lowered to half its allowed height;
   - If the wind speeds exceed 25 mph, the lift will be lowered completely and dismounted.

3. If weather conditions become threatening (thunder/lightning), the lift will be lowered completely and dismounted.

4. Once a shutdown is called, it will be maintained for at least 30 minutes and not lifted until the causal condition is no longer present.

5. If at any time an occupant of the platform has safety concerns about the lift’s operation, the supervisor will be notified and the lift lowered immediately.

IN THE EVENT OF ANY EMERGENCY, SECURITY WILL BE CONTACTED AT X3500

Fall Protection

Fall Protection measures must be taken anytime the required job task needs to be performed above 4 feet, as outlined in the Bowdoin College Fall Protection Program.

Operators are not required to be tied-off with a safety harness when using the scissor lift (3A) or vertical mast lift (1A). Fall protection requirements are met through the use of properly installed guard rails and secured entry for operation.

When operating either a self-propelled or trailer mounted boom (1) operators and occupants are required to wear a Personal Fall Protection Equipment (PFPE) System which includes a full body harness and self-retracting lanyard (SRL). Please note that a fixed length fall arrest lanyard is not permitted for use as part of the PFPE for these MEWPs. This is due to the “catapult effect” type of hazard that can occur when the boom is moving or there is an uneven floor surface the platform is operating upon, throwing an operator from the platform. With the use of an SRL the risk of falling out of the basket is greatly reduced. The following steps must be taken prior to operation.

- **You must clip your lanyard to the approved anchor point only.** These are usually steel angles welded into the rail system or rings in the floor. You must NOT wrap your lanyard around the rails and tie back to your own lanyard, or tie off to the rail directly.

- **You must keep your feet on the floor of the lift at all times.** It doesn’t matter which lift you’re using or what fall protection you have, employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

- **You must never tie-off to an adjacent structure or any anchor point outside of your lift.** If you are in the lift, you may tie-off to the lift only.

- When a PFPE including a body harnesses and lanyard are required they must be inspected and maintained under the Fall Protection Program.
Training

Employees with specific jobs tasks which require them to use MEWPs must receive training before the operation of any MEWP. Prior to supervising, operating or manning a MEWP, designated employees (including student employees) must be provided equipment-specific training by a certified operator (either in-house or as supplied by the vendor), demonstrate proficiency in the operation of the equipment, application of aerial safety & fall protection standards, and review the manufacturer’s operating manual.

Initial training must include general classroom instruction and hands on familiarization on specific equipment. Employees must also receive familiarization training for any new equipment prior to use including any rental equipment.

The training requirements for each group are outline below:

1. Supervisor Training: All personnel who directly supervise MEWP operators must be trained in the following areas:
   a. How to select the correct MEWP for the work the be performed
   b. The rules, regulations and standards for safe MEWP operation
   c. Potential hazards related to the use of a MEWP
   d. How to protect against those hazards
   e. Where to locate the operating manual on the MEWP

   Supervisors who do not have direct oversight of MEWP operations must at minimum review the MEWP safety program and attest that they are familiar with the program requirements and how they apply to their staff. This can be confirmed through an email to EHS.

2. Operator Training must include:
   a. How to complete or review a Site Risk Assessment and develop a Rescue Plan
   b. Explanations of electrical, fall, and falling object hazards
   c. Procedures for dealing with hazards
   d. Completing Worksite inspections and pre-use safety inspections
   e. Recognizing and avoiding unsafe conditions in the work setting
   f. Instructions for correct operation of the lift (including maximum intended load and load capacity)
   g. Demonstrations of the skills and knowledge needed to operate an aerial lift before operating it on the job
   h. When and how to perform inspections
   i. Manufacturer’s requirements
   j. Training requirements for Occupants

3. Occupant Training must include:
   a. Fall protection use requirements and location of anchor points
   b. Factors that could affect stability
   c. Site- specific work procedures related to the MEWP operation
   d. Review all site risk assessments for tasks to be completed
   e. General knowledge of the intended purpose and function of MEWP controls
   f. Information on manufacturer’s warnings and instructions

Appendix D is a checklist for documenting all Occupant Training. This form can be completed on the job for any MEWP occupant. All forms must be submitted to EHS upon completion of the MEWP job task.
4. Contractor Training: Contractors on campus must be able to provide training documentation for use of MEWP.

Subsequent classroom training is provided as needed based on demonstrated competency or with any program or regulatory changes. A hands on recertification will be completed every 3 years for any equipment used. Training will be coordinated through the MEWP Safety Program Manager. All training records will be maintained through the EHS office.

Inspections

The Bowdoin MEWP are inspected quarterly by W.D. Matthews. These inspections are coordinated by Facilities Management and cover the mechanical and safety components for the equipment as well as ensuring that the operator’s manuals are kept and maintained as supplied by the manufacturer and that a copy of each is stored on the machine. Quarterly inspection records are retained on file in the Electric Shop.

Prior to use it is the operator’s responsibility to operate the MEWP within the limits of intended use as defined by the manufacturer in the operator’s manual. It is also the operator’s responsibility to visually inspect and perform function tests in accordance with the manufacturer recommendations on the mobile elevated work platform prior to use.
Appendix A
Bowdoin MEWP Specifications
### JLG T-350 Trailer Mounted Boom Lift - Located at 104 Harpswell

- Maximum Platform Height: 34 ft. 5 in.
- Platform Maximum Capacity: 500 lbs.
- Maximum Horizontal Outreach: 20 ft. 2 in.
- Type 1, Group B

### Genie GS-3246 Scissor Lift – Located at Farley

- Maximum Working Height: 38 ft.
- Maximum Platform Height: 32 ft.
- Platform Maximum Capacity: 700 lbs.
- Outside Turning Radius: 7 ft. 6 in.
- Gradeability (driving on slopes): 25%
- Type 3, Group A

### Genie GS-1930 Scissor Lift- Located at Walker Art Museum

- Maximum Working Height: 25 ft.
- Maximum Platform Height: 19 ft.
- Platform Maximum Capacity: 500 lbs.
- Outside Turning Radius: 5 ft. 1 in.
- Gradeability (driving on slopes): 25%
- Type 3, Group A

### Genie AWP-20S Vertical Mast Lift - Located at Searles Science Building

- Maximum Working Height: 26 ft. 1 in.
- Maximum Platform Height: 20 ft. 1 in.
- Platform Maximum Capacity: 350 lbs.
- Type 1, Group A
### Genie AWP-30S Vertical Mast Lift - Located at Thorne & Druckenmiller

- Maximum Working Height: 35 ft. 6 in.
- Maximum Platform Height: 29 ft. 6 in.
- Platform Maximum Capacity: 350 lbs.
- Type 1, Group A

### Genie AWP-40S Vertical Mast Lift - Located at 104 Harpswell

- Maximum Working Height: 46 ft. 4 in.
- Maximum Platform Height: 40 ft. 4 in.
- Platform Maximum Capacity: 300 lbs.
- Type 1, Group A

### JLG Manlift 25AM Vertical Mast Lift - Located at Memorial Hall

- Maximum Working Height: 31 ft.
- Maximum Platform Height: 25 ft. 2 in.
- Platform Maximum Capacity: 350 lbs.
- Type 1, Group A
Appendix B
MEWP Workplace Risk Assessment
# Mobile Elevated Work Platform

**WORKPLACE RISK ASSESSMENT AND CONTROL MEASURES**

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Potential Risk from Hazard</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>List possible hazards</td>
<td>Describe type of risk</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C
Pre-Start/Workplace Assessment Form
## Mobile Elevated Work Platform
### Pre-Start/Workplace Inspection Form

This form must be completed prior to each use of a MEWP. Completed form must be returned to Supervisor for submittal to EHS department.

### Mobile Work Platform Information

<table>
<thead>
<tr>
<th>MAKE</th>
<th>MODEL</th>
<th>S/N</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**LOCATION WHERE LIFT WILL BE USED:**

**TYPE OF WORK:**

**WORKPLACE RISK ASSESSMENT ON FILE:**

- Y / N
  - If yes: Review to ensure accuracy
  - If no: Stop work and complete Risk Assessment Form

### Pre-Start Inspection
(always consult operator manual)

<table>
<thead>
<tr>
<th>OK</th>
<th>NOT OK</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Operating Controls
- Emergency Controls
- Safety Devices
- Personal Protective Devices
- Pneumatic, Hydraulic and Fuel System (leaks)
- Cables
- Wiring harness
- Loose/missing parts
- Tires/Wheels
- Placards and Warnings
- Operational Manual and ANSI Manual of Responsibilities
- Outriggers/Stabilizers
- Guardrail system and locking gate
- Additional Comments:

### Workplace Inspection

<table>
<thead>
<tr>
<th>OK</th>
<th>NOT OK</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Drop-offs or holes
- Slopes
- Bumps and floor obstructions
- Debris
- Overhead obstructions and high voltage conductors
- Hazardous locations and atmospheres
- Tools and other equipment
- Inadequate surface and support to withstand all load forces imposed by the aerial lift platform

### Wind & Weather Conditions

- NOTE: Operation of a MEWP outdoors is prohibited when wind speeds reach 25 mph,
  when there is a wind warning in effect of 25 mph or more, when lighting is visible,
  or when thunder storm warnings are in effect.

### Presence of unauthorized people

### Other possible unsafe conditions

- Does this task include a rider- if so have they been trained?
- Do you have a qualified observer?
- Has emergency rescue been arranged?

### Additional Comments:

If the lift fails any part of this inspection, remove the key and report the problem to your supervisor. **DO NOT OPERATE!** If the lift has been modified, notify your supervisor immediately.

<table>
<thead>
<tr>
<th>Inspector Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
</table>
Appendix D
Occupant Training Checklist
The Operator must complete the following training for all Occupants prior to the use of a MEWP. Completed form must be returned to Supervisor for submittal to EHS department at the end of each job task.

### Mobile Work Platform Information

<table>
<thead>
<tr>
<th>MAKE</th>
<th>MODEL</th>
<th>S/N</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**LOCATION WHERE LIFT WILL BE USED:**

**TYPE OF WORK:**

### Occupant Training Requirements

- Operating Controls
- Emergency Controls
- Safety Devices
- Personal Protective Devices
- Placards and Warnings
- Operational Manual and ANSI Manual of Responsibilities
- Guardrail system and locking gate

**Wind & Weather Conditions**

- NOTE: Operation of a MEWP outdoors is prohibited when wind speeds reach 25 mph, when there is a wind warning in effect of 25 mph or more, when lightening is visible, or when thunder storm warnings are in effect.

**Review of Risk Assessment, Pre-Start up and Workplace Inspections Findings**

**Other possible unsafe conditions**

**Additional Comments:**

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<table>
<thead>
<tr>
<th>Occupant Name</th>
<th>Signature</th>
<th>Date</th>
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<table>
<thead>
<tr>
<th>Operator Name</th>
<th>Signature</th>
<th>Date</th>
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