

ANSI/SIA A92.3 - 2006

AMERICAN NATIONAL STANDARD

for

**Manually Propelled
Elevating Aerial Platforms**



**American National Standards Institute
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New York, New York 10036**

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**ANSI/SIA
A92.3-2006**

Revision of
ANSI A92.3-1990

**AMERICAN NATIONAL STANDARD
MANUALLY-PROPELLED
ELEVATING AERIAL PLATFORMS**

Secretariat
Scaffold Industry Association, Inc.

Approved February 9, 2006
American National Standards Institute, Inc.

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Foreword This Foreword is not part of American National Standard for Manually Propelled Elevating Aerial Platforms, ANSI/SIA A92.3-2006.

This standard is one of a series on aerial platforms developed under the committee procedures of the American National Standards Institute. The A92 standards committee was organized by the Institute in 1948. The Scaffold Industry Association, Inc. serves as Secretariat.

The primary objective of this standard is to prevent accident associated with the use of Manually propelled elevating aerial platforms by establishing requirements for design, manufacture, maintenance, performance, use and training.

This revision to ANSI/SIA A92.3 separately addresses each entity to clearly define responsibilities. Care was taken to provide consistency between this and other A92 standards. Definitions have been expanded to clarify interpretation.

Interpretations and Suggestions for Improvement

All inquiries requesting interpretation of the Committee's approved American National Standards must be in writing and directed to the Secretariat. The A92 Committee shall approve the interpretation before submission to the inquirer. No one but the A92 Committee is authorized to provide any interpretation of this standard.

The A92 Committee solicits comments on and criticism of the requirements of the standards. The standards will be revised from time to time where necessary or desirable, as demonstrated by the experience gained from the application of the standards. Proposals for improvement of this standard will be welcome. Proposals should be as specific as possible: citing the paragraph number(s), the proposed wording, and a detailed rationale for the proposal including any pertinent documentation.

All requests for interpretation and all suggestions for improvement shall be forwarded in writing to the ASC A92 Committee, c/o Secretariat ~ Scaffold Industry Association, Post Office Box 20574, Phoenix, AZ, 85036-0574.

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee Aerial Platforms, A92. The ASC A92 committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time the ASC A92 committee approved this standard, the Aerial Platforms Committee had the following members.

David Merrifield - Chairman
Merrifield Safety Consulting PPC

Lincoln F. Schoenberger – Vice-Chair
OEM Controls, Inc.

<i>Organization Represented</i>	<i>Name of Representative</i>
Association of Equipment Manufacturers – MADDC.....	Roger Woodling
Altec Hi Line.....	Gary Werkhoven
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American Rental Association.....	Richard Stollery
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Carolina Power & Light Company.....	John W. Cook, Jr. Ronald Upchurch
Champion Elevators.....	Eric Schmidt
Chuck Foster c/o Edison Electric Institute.....	Gene Tootle Janet Fox
Diversified Inspections / ITL.....	Leland S. Bisbee
Donald Reichert & Associates.....	Joe Vanderlugt
Eckstine & Associates.....	Donald Reichert, P.E.
Equipment Safety Consultants, Inc.....	Dennis Eckstine
Florida Power & Light Company.....	Charles "Mark" Recard Robert H. Sterba
Fraco Products.....	Mike Paulson Francois Villeneuve
Genie Industries.....	Tim Riley Rick Curtin
George Robson Construction Ltd.....	Ronald W. Barnhart
Global Rental Company.....	C. Denton Elliott
Hayden Enterprises.....	Joshua Chard
Hydro-Mobile, Inc.....	H.B. Bud Hayden, Jr.
IEEE.....	Vincent DeQuoy
Intercontinental Equipment Company, LLC.....	Lewis M. Whisonant
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JLG Industries, Inc.....	Gregory E. Janda
Lift-A-Loft Corporation.....	Stephen Forgas Todd Miorin
MAT-3, Inc.....	William P. Fulton William Barefoot
New York State Department of Transportation.....	John J. Mlaker Thomas Biddle
Ontario Hydro.....	Francis L. Bonesteel
PCD, LLC.....	Ernest A. Jones
Phenix Technologies.....	Paul Young
Pike Electric, Inc.....	Mark A. Miller
Pinguley-Haulotte.....	Zach Blackmon
Progress Energy Florida.....	Salah Beji
Rental Service Corporation.....	F.J. Wooldridge Ben Fort
Reynolds Engineering Services, Inc.....	John Laurin
Safety Dynamicon, Inc.	Stephen Reynolds, P.E. Ernest Merz
Scaffold Industry Association.....	Sean Grieve
Skyjack, Inc.....	David Merrifield
Snorkel International.....	Brad Boehler
Southern Company.....	Richard L. Hoffelmeyer
Sunbelt Rentals.....	Douglas Bailey Richard Harper
Terex Aerials.....	Byron Adkins
Terex-Telelect.....	Norman C. Hargreaves Elroy D. Severson

The Von Corporation.....	Fred H. von Herrmann
Time Manufacturing Company.....	Ken Krause
	Scott Smith
United Airlines.....	Arun Hattangady
UpRight International Mfg., Ltd.	David White
	Barris Evulich
USDOL/OSHA.....	Garvin Branch
Waco Boom Company.....	Bob Simon
	Louis Haak

Subcommittee A92.3 Manually Propelled Elevating Aerial Platforms, which developed this standard, had the following members:

Rick Curtin, Genie Industries – Chairman	James Kerr, Cotterman Company
Byron G. Adkins, Sunbelt Rentals	Les Knoll, Packer Engineering Inc.
Salah Beji, Pinguley-Haulotte	Evaldas Latvys, Evaldas Latvys Consulting Engr.
Brad Boehler, Skyjack, Inc.	Todd Miorin, JLG Industries Inc.
Rick Curtin, Genie Industries	Donald Reichert, Donald Reichert & Associates
Barris Evulich, Evulich & Associates	Richard Stollery, GAR Equipment
Steve Forgas, JLG Industries	James R. Tomaseski, IBEW
Lyle D. Grider, P.E., Consulting Services	
Herb Johnson, Missouri AFL/CIO	
Garvin Branch, USDOL/OSHA	
Kent H. Jorgensen, IATSE Motion Picture	

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American National Standard for Manually Propelled Elevating Aerial Platforms

1. Scope, Purpose, and Application

1.1 Scope

1.1.1 Equipment Covered. This standard applies to manually propelled, integral chassis aerial platforms having a platform that cannot be positioned completely beyond the base and are used to position personnel, along with their necessary tools and materials, at work locations. Platforms are adjustable by manual or powered means and shall not be occupied when moved horizontally. (See Figure 1 for examples.)

1.1.2 Effective Dates. The standard will become effective August 28, 2006 as follows:

(1) Design, manufacture, and remanufacture requirements. The design and manufacturing requirements of this standard will apply to all aerial platforms manufactured on or after the effective date. Aerial platforms remanufactured on or after the effective date of this standard shall comply with the requirements of this standard.

(2) Rebuild/recondition requirements. Rebuilt/reconditioned aerial platforms shall comply with the standard in effect as of the date of their original manufacture.

(3) Responsibilities for dealers, owner's users, operators, lessors, lessees, and brokers. All provisions detailed for dealers, owners, users, operators, lessors, lessees, and brokers apply to both new and existing units delivered by sale, lease, rental or any form of beneficial use on or after the effective date.

1.1.3 Equipment Not Covered. This standard does not apply to the equipment listed below:

(1) Ladder and ladder stands such as those covered in American National Standards for Ladder and Ladder Stands, ANSI A14 Series

(2) Scaffolding such as those covered in American National Standard for Construction and Demolition Operations Scaffolding Safety Requirements, ANSI A10.8-1988

(3) Vehicle-mounted elevating and rotating

aerial platforms such as those covered in American National Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices, ANSI/SIA A92.2-2001

(4) Self-propelled elevating aerial platforms such as those covered in American National Standard for Boom-Supported Elevating Work Platforms, ANSI A92.5-2006

(5) Self-propelled elevating aerial platforms such as those covered in American National Standard for Self-Propelled Elevating Work Platforms, ANSI/SIA A92.6-1999

(6) Safety requirements for airline ground support vehicle-mounted vertical lift devices, American National Standard for Airline Ground Support Vehicle-Mounted Vertical Lift Devices; ANSI/SIA A92.7-1990 (reaffirmed 1998)

(7) Vehicle-Mounted Bridge Inspection and Maintenance Devices, ANSI/SIA A92.8-1993 (reaffirmed 1998)

(8) Mast Climbing Work Platforms, ANSI/SIA A92.9-1993 (reaffirmed 1998)

(9) Suspended powered platforms for exterior building maintenance, ANSI A120.1-1992

(10) Vertically adjustable equipment used primarily to raise and lower materials and equipment from one elevation to another such as American National Standards in the A17 B30 and B56 series

(11) Fire-fighting equipment such as that covered in American National Standard for Automotive Fire Apparatus, ANSI/NFPA 1901-1991

(12) Construction and demolition operation digger derricks such as those covered in American National Standard for Construction and Demolition — Safety Requirements, Definitions and Specifications, ANSI A10.31-1995

1.2 Purpose. This standard applies to manually propelled elevating aerial platforms to achieve the following objectives:

- (1) Prevention of personal injuries and accidents
- (2) Establishment of criteria for design, manufacture, remanufacture, rebuild/recondition, testing, performance, inspection, training, maintenance and operation
- (3) Establishment and understanding by designers, manufacturers, dealers, owners, operators, users, lessors, lessees, and brokers of their respective responsibilities

1.3 Application. The rapid development of a wide variety of elevating aerial platform designs necessitates the establishment of standards for their design, manufacture, maintenance, inspection, testing, training, performance, and use.

Elevating aerial platforms are generally intended for use over level surfaces. Normally, they are not insulated for use near electrically energized circuits nor are they intended to be used in hazardous locations. Any manually propelled aerial platform intended for use around electrically energized circuits shall meet the electrical requirements of ANSI A92.2-2001.

The operation of any aerial platform is subject to certain hazards that can be protected against only by the exercise of intelligence, care, and common sense and not by mechanical means. It is essential to have competent, careful personnel trained in the intended use, safe operation, maintenance and service of this type of equipment.

2 Referenced and Related American National Standards

2.1 Referenced American National Standards. This standard is intended to be used in conjunction with the following American National Standards. When these referenced standards are superseded by a revision approved by the American National Standards Institute, the revision shall apply:

- ANSI A92.2-2001 Vehicle-Mounted Elevating and Rotating Aerial Devices
- ANSI Z535.1-2002, Safety Color Code
- ANSI Z535.3-2002, Criteria for Safety Symbols

ANSI Z535.4-2002, Product Safety Signs and Labels

ANSI/AWS D1.1-98, Structural Welding Code — Steel

ANSI/AWS D1.2-97, Structural Welding Code — Aluminum

ANSI/NFPA 58-1995, Storage and Handling of Liquefied Petroleum Gases

ANSI/NFPA 70-2005, National Electrical Code

ANSI/NFPA 505-1996, Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance, and Operation

2.2 Other Referenced Standards and Regulations. This standard is also intended to be used in conjunction with the following:

SAE J821-1985 for Electrical Systems For Construction, Agricultural, and Off-Road Machines

Code of Federal Regulations: (CFR) 1910.333

2.3 Related American National Standards. The standards listed here are for information only and are not essential for the completion of the requirements of this standard. When these related standards are superseded by a revision approved by the American National Standards Institute, the revision shall apply:

- ANSI/SIA A92.2-2001, Vehicle-Mounted Elevating and Rotating Aerial Devices
- ANSI A92.5-2006, Boom-Supported Elevating Work Platforms
- ANSI/SIA A92.6-1999, Self-Propelled Elevating Work Platforms
- ANSI/SIA A92.7-1998, Airline Ground Support Vehicle-Mounted Vertical Lift Devices
- ANSI/SIA A92.8-1993 (reaffirmed 1998), Vehicle-Mounted Bridge Inspection and

Maintenance Devices

ANSI/SIA A92.9-1993 (reaffirmed 1998),
Mast Climbing Work Platforms

ANSI A10.4-1990, Personnel Hoists and
Employee Elevators for Construction and
Demolition Operations Safety Requirements

ANSI A10.8-2001, Construction and
Demolition Operations Scaffolding Safety
Requirements

ANSI A120.1-1996, Suspended Powered
Platforms for Exterior Building Maintenance

ANSI A10.31-1995, Construction and
Demolition Digger Derricks Safety
Requirements, Definitions and Specifications

ANSI/NFPA 1901-1991, Automotive Fire
Apparatus

2.4 Referenced Scaffold Industry

Association Publication(s). This standard is
intended to be used in conjunction with the
following SIA publication:

ANSI/SIA A92.3-2006 Manual of
Responsibilities for Dealers, Owners, Users,
Operators, Lessors, Lessees, and Brokers of
Manually Propelled Elevating Aerial
Platforms.

2.5 Related Scaffold Industry Association

Publication(s). The publications listed here
are for information only and are not essential
for the completion of the requirements of this
standard.

ANSI/SIA A92.2-2001 Manual of
Responsibilities for Dealers, Owners, Users,
Operators, Lessors, and Lessees, of Vehicle-
Mounted Elevating and Rotating Aerial
Devices.

ANSI/SIA A92.5-2006 Manual of
Responsibilities for Dealers, Owners, Users,
Operators, Lessors, and Lessees, of Boom-
Supported Elevating Work Platforms.

ANSI/SIA A92.6-1999 Manual of
Responsibilities for Dealers, Owners, Users,
Operators, Lessors, Lessees, and Brokers of

Self-Propelled Elevating Work Platforms.

ANSI/SIA A92.9-1993 Manual of
Responsibilities for Dealers, Owners, Users,
Operators, Lessors, Lessees, and Brokers of
Mast Climbing Work Platforms.

3. Definitions

Aerial platform. A manually propelled
device that has an adjustable position
platform, supported from ground level by a
structure.

Anchorage(s). A secure point of attachment
to be used with personal fall protection
equipment.

Authorized personnel (authorized person).
Personnel approved or assigned to perform a
specific type of duty or duties at a specific
location or locations at a work site.

Base. The relevant contact points of the
aerial platform that form the stability fulcrum
(e.g., wheels, casters, outriggers, stabilizers).

Broker. An independent business entity or
person that arranges a lease or transfer of
ownership of an aerial platform, but does not
own the aerial platform. If the entity or
person is an employee of the buyer, seller,
lessor or lessee of the aerial platform, he
shall not be considered a broker.

Chassis. The integral part of the aerial
platform that provides mobility and support
for the elevating assembly.

Configuration. All positions in which an
aerial platform or any part thereof can be
placed within its intended operating limits.

Critical component(s). Load supporting
elements, which support or stabilize the
platform or aerial platform.

Dealer. A person or entity who buys from a
manufacturer or distributor and who
generally sells rents and services aerial
platforms.

Delivery. Transfer of care, control, and

custody of the aerial platform from one person or entity to another person or entity.

Directional controls. Controls that initiate functions that affects movement of the platform or the aerial platform.

Ductile materials. Materials having a minimum elongation of 10% in 2 inches (50.8mm).

Elevating assembly. The mechanisms used to position the platform relative to the aerial platform chassis.

Familiarization. Providing information regarding the control functions and safety devices for the aerial platform(s) to a qualified person or operator.

Guardrail system. A vertical barrier primarily intended to protect against personnel falling to lower levels.

Hazardous location. Any location that contains, or has the potential to contain, an explosive or flammable atmosphere as defined in ANSI/NFPA 505.

Instability. A condition in which the sum of the moments that tend to overturn the aerial platform exceeds the sum of the moments tending to resist overturning.

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

Interlock. A control or mechanism that, under specified conditions, automatically allows or prevents the operation of another control or mechanism.

Lessee. A person(s) or entity to whom an aerial platform is provided by lease, rental, loan, or other arrangement. A lessee may also be a dealer, owner, user or operator.

Lessor. A person or entity, who leases, rents, loans, or otherwise provides an aerial platform to another party for the beneficial use of that party (the user). A lessor may also be a dealer, owner, lessee, user, or operator.

Maintenance. The act of upkeep such as inspection, lubrication, refueling, cleaning, adjustment, and scheduled part(s) replacement.

Manual of Responsibilities. A document containing the definitions (Section 3) and the requirements mandated in this Standard for the following entities: Dealers (Section 5); Owners (Section 6); Users (Section 7); Operators (Section 8); Lessors (Section 9); Lessees (Section 10); and Brokers (Section 11).

Manufacturer. A person or entity who makes, builds, or produces an aerial platform.

Modification, modified. To make a change(s) to an aerial platform that affects the operation, stability, safety factors, rated load, or safety of the aerial platform in any way.

Most adverse stability condition(s). The permitted configurations of the aerial platform most likely to cause instability while maintaining stability. Factors to be considered shall include:

- (1) Up to and including maximum platform height
- (2) All positions and configurations of the platform(s)
- (3) All wheel and axle positions
- (4) Forward and backward configurations of the elevating assembly
- (5) All other moveable features which affect the stability of the aerial platform

Non-ductile materials. Materials having an elongation of less than 10% in 2 inches (50.8mm).

Operation. Performance of functions of an aerial platform within the scope of its specifications and in accordance with the manufacturer's instructions, the user's work rules, and applicable governmental regulations.

Operator. A qualified person who controls the movement of an aerial platform.

Outriggers. Devices that increase the

stability of the aerial platform and that are capable of lifting and leveling the aerial platform.

Owner. A person or entity who has possession of an aerial platform by virtue of proof of purchase.

Platform. The portion of an aerial platform intended to be occupied by personnel with their necessary tools and materials.

Platform height. The vertical distance measured from the floor of the platform to the surface upon which the machine is being supported.

Powered functions. Those which control motion of the platform or the aerial platform and are caused by electromechanical, hydraulic, or pneumatic forces.

Qualified person. One who, by possession of a recognized degree, certificate, or professional standing, or by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

Rated horizontal force. The maximum permissible horizontal force which can be applied at the upper periphery of the aerial platform as specified by the manufacturer.

Rated work load. The designed carrying capacity of the aerial platform as specified by the manufacturer.

Rebuild/recondition. The act of disassembly, repair or adjustment of an aerial platform or component, utilizing replacement parts and components, in accomplishing work beyond the scope of maintenance (as described and used in the standard) in order to restore, to the extent possible, the aerial platform or component to the original manufactured specifications.

Remanufacture. The modification of an aerial platform, either by its original manufacturer or another qualified entity, so that the aerial platform will comply with the

ANSI standard in effect on the date the modification is completed.

Repair. The act of restoring to good condition that which has been broken, damaged or worn due to use, abuse or other reasons.

Shall. The word “shall” is to be understood as mandatory.

Should. The word “should” indicates that the rule is a recommendation, the advisability of which depends on the facts in each situation.

Stability/Stable. A condition in which the sum of the moments that tend to overturn the aerial platform is less than the sum of the moments tending to resist overturning.

Stabilizers. Devices that increase the stability of the aerial platform but are not capable of lifting or leveling the aerial platform.

Tilt-back feature. A device used to lower the height of an aerial platform for transport under fixed objects.

Training. Instruction to enable the trainee to become a qualified person regarding the task to be performed, including knowledge regarding potential hazards.

Unintended movement. Motion of the aerial platform or platform without activation of any control.

User. A person(s) or entity who has care, control and custody of the aerial platform. This person or entity may also be the employer of the operator, a dealer, owner, lessor, lessee, or operator.

4. Responsibilities of Manufacturers

4.1 Basic Principles. Sound engineering principles consistent with all data available regarding the parameters of intended use and expected environment shall be applied in the design, testing, and manufacture of aerial platforms, with due consideration for the

knowledge that the unit will be carrying personnel.

4.2 Structural Safety Factors

4.2.1 Ductile Elements. All loading supporting elements of the aerial platform shall have a structural safety factor of not less than 2 to 1 based on:

(1) The minimum yield strength of the materials used

(2) The column strength of the structure

4.2.2 Nonductile Elements. Elements of the aerial platform that are made of nonductile materials shall have a structural safety factor of not less than 5 to 1 based on the minimum ultimate strength of the materials used.

4.2.3 Structural Safety Factor. The design stress used in determining the structural safety factor shall be the maximum stresses developed within the element with the machine operating at its rated work load, used in the type of service for which it was designed, and operated in accordance with manufacturer's operation instructions. The design stress shall include the effects of stress concentration and dynamic loading as shown in the following formula:

$$\text{Structural Safety Factor} = \frac{a}{(a_1 + a_2)f_1f_2}$$

where

a = minimum yield strength for materials described in 4.2.1 or ultimate strength for materials described in 4.2.2

a_1 = stress due to the weight of structure

a_2 = stress due to the rated work load

f_1 = stress concentration factor

f_2 = dynamic loading factor

The column load shall include the effects of dynamic loading as shown in the following formula:

$$\text{Structural Safety Factor} = \frac{b}{(b_1 + b_2)f_2}$$

Where:

b = column critical bucking load

b_1 = column load due to the weight of the structure.

b_2 = column load due to the rated work load.

f_2 = the dynamic loading factor.

The value of f_1 and f_2 may be determined by experimental stress analysis on a prototype unit. Otherwise, the values of f_1 and f_2 shall be not less than 1.10 and 1.25, respectively.

4.3 Wire Rope or Chain. Where the platform is supporting its rated work load by a system of wire ropes or chains, or both, the safety factor of the wire rope or chain system shall not be less than 8 to 1 based on ultimate strength.

4.4 Bursting Safety Factors. All critical components and hoses of hydraulic and pneumatic systems shall have a minimum bursting strength of four times the operating pressure for which the system is designed. Noncritical components shall have a minimum bursting strength of two times the operating pressure for which the system is designed.

4.5 Welding Standards. All welding, including pressure applications such as hydraulic cylinders, shall conform to ANSI/AWS D1.1-98 and ANSI/AWS D1.2-97, or ANSI/AWS-D14.3-94, except welder qualifications may be in accordance with one of the following:

AWS B2.1: 1998 Specification for Welding Procedure and Performance Qualification

ANSI/ASME: 1998 Boiler and Pressure Vessel Code, Section IX, Welding & Bracing Qualifications

EN 287-1: 1992 Approval of Welders-Fusion Welding-Part 1, Steels

EN 287-2: 1992 Approval of Welders-Fusion Welding-Part II, Aluminum and Aluminum Alloys

EN 288: 1992 Specifications and Approval of Welding Procedures for Metallic Materials

4.6 Electrical Wiring and Equipment. Electrical wiring and equipment shall comply as applicable to the requirements of ANSI/NFPA 70-2005.

4.7 Rated Work Load. The rated work load

of an aerial platform shall be not less than 300 pounds (136Kg). Either single or multiple ratings may be used.

4.7.1 Multiple Ratings. When multiple ratings are used, the following conditions shall be complied with:

(1) When the rated work load is different for alternative configurations of the aerial platform the manufacturer shall clearly describe these configurations, and the rated work load of each configuration, in the manual and on the platform. Examples of alternative configurations are, but shall not be limited to the following:

- (a) Outriggers or stabilizers extended to firm footing versus not extended
- (b) Elevating assembly retracted
- (c) Elevating assembly extended
- (d) Extendable axles extended versus retracted

(2) When the rated work load of the varying configuration depends on the location of the platform in relation to the base, the manufacturer shall display the appropriate rated work load of that configuration to the operator at the control station(s).

4.8 Stability Testing. A sample unit of each model in each of its intended configurations shall pass the following tests:

4.8.1 Horizontal Load Test. The aerial platform shall withstand a minimum horizontal test force of 50 lb. (222N) per rated number of occupants or 15% of the rated workload, whichever is greater. The test force shall be applied to a point on the upper periphery (top rail) of the aerial platform in the direction most likely to cause instability. A test load equal to the rated work load shall be placed such that its center of gravity is in the vertical plane which intersects the platform floor:

(1) 12 in. (.30m) inboard from the guardrail or

(2) On the platform centerline
Whichever is less.

4.8.2 Vertical Load Test. The aerial platform shall sustain, on a level surface, a static test load equal to 1.5 (150%) times its rated work load. The test load shall be placed with its center of gravity 12 inches (.30 m) inboard from the guard rail or on the platform center line, whichever is less.

4.8.3 Stability on Slope. Unless designed for such use by the manufacturer, no aerial platform shall be used on a slope. Any aerial platform designed by the manufacturer to be operated on a slope shall also be capable of passing the stability tests outlined in 4.8.1 and 4.8.2 while on such a slope.

4.8.4 Stability Procedures. Procedures for maintaining stability shall be clearly outlined in the operating instructions.

4.9 Interlock Requirements. Aerial platforms requiring outriggers and/or stabilizers to meet the requirements of this standard shall be provided with interlocks that disable lift functions if all outriggers and/or stabilizers are not in the position and making ground contact which provides the required stability. Hydraulically or pneumatically actuated outriggers or stabilizers or both shall be interlocked to prevent retraction while the platform is elevated.

4.10 Level Indicator. A level indicating device visible at ground level shall be provided.

4.11 Controls.

4.11.1 Controls for Manually Elevated Platform

(1) Direction and function shall be clearly marked.

(2) Platform elevating and lowering mechanisms shall be self-holding.

(3) Platform elevating and lowering mechanisms shall be readily accessible from the ground. Controls at the platform are optional.

4.11.2 Controls for Power Elevated Platforms

4.11.2.1 Upper Controls. Upper controls shall be provided at the platform and shall:

(1) Be clearly marked as to direction and function

(2) Be of the type that automatically returns to the off or neutral position when released if used to control any movement of the aerial platform

(3) Be protected against activation other than that initiated by the operator

(4) Be readily accessible to the operator

(5) Include a separate control which shall be continuously activated by the operator in order for upper directional controls to be operational, which can be released by the operator independently from the directional controls, and which renders upper directional controls inoperative when released

4.11.2.2 Emergency Lowering. Any aerial platform equipped with a powered elevating assembly shall have a clearly marked emergency lowering means readily accessible from ground level.

4.11.2.3 Emergency Stop Device. The aerial platform shall be provided with emergency stop devices that shall:

- (1) Deactivate all powered functions
- (2) Be readily identifiable
- (3) Be located at the upper controls
- (4) Be located and readily accessible at ground level

4.11.2.4 Control System Protection. The controls system shall be designed so that a single malfunction in the control system will not result in unintended movement of the platform.

4.11.2.5 Security. A security means shall be provided to protect against unauthorized use of the aerial platform.

4.12 Platforms

4.12.1 Width, Length, and Surface.

Platform width and length shall be at least 18 inches (.46 m). The platform floor shall have a slip resistant surface.

4.12.2 Guardrail System. The platform shall include a guardrail system around its periphery. If the guardrail system is removable or can be lowered, the means used to secure it in the normal operating position shall be readily accessible for inspection and maintenance.

4.12.2.1 Flexible Materials. Flexible materials such as cables, chains, and ropes shall not be used in the guardrail system.

4.12.2.2 Top rail . The guardrail system shall include a top rail around its upper periphery. The height of the top rail above the platform shall be 42 inches \pm 3 inches (1.07m \pm 0.08m). Equivalent structure may be used in place of top rails, but shall meet the strength requirements described in 4.9.2.4.

4.12.2.3 Midrail. The guardrail system shall include a midrail approximately

midway between the top rail and the platform surface. Equivalent structure may be used in place of midrails, but shall meet the strength requirements described in 4.12.2.4.

4.12.2.4 Structural Integrity. Each top rail, midrail, or equivalent vertical barrier shall withstand a concentrated load of 300 pounds (1334 N), applied at any point in any direction without reaching ultimate strength.

4.12.3 Toe boards. The platform shall include toe boards on all sides. The minimum toe board height shall be 4 inches (10.2cm). Toe boards may be omitted at the access opening(s).

4.12.4 Access. The aerial platform shall include means for personnel to use in entering onto or exiting from the platform when in the lowered position. When the distance between the access level and the floor of the platform in its access position exceeds 20 in. (0.5m), the aerial platform shall be equipped with an access ladder. The access system shall permit and, by proper placement of components, promote achievement of three point contact while ascending or descending the access system. The steps or rungs shall be divided equally over the distance between the first step or rung and the floor of the platform and shall not be more than 12 in. (0.30m) apart the height of the first step above the ground shall be a maximum of 20 in. (0.5m). Each step or rung shall be at least 12.5in. (0.32m) wide, at least 1.0in. (25mm) deep, and shall be slip resistant. The front steps or rungs shall be at least 6 in. (0.15m) horizontally away from the supporting structure or any other component of the aerial platform. The access ladder shall be symmetrical with the access opening.

4.12.5 Anchorage(s) for Personal Fall Protection. Aerial platforms designed to allow use with the guardrail system or sections of the guardrail system removed shall have anchorage(s) for personal fall protection conforming to the following requirements:

(1) The location of the anchorage(s) shall be identified and the number of anchorage's shall equal or exceed the number of rated occupants.

(2) More than one occupant may attach to a single anchorage if the anchorage is rated for more than one person.

(3) When provided, each anchorage shall be capable of withstanding a static force of 3600 lb. (16000 N) for each person allowed by the manufacturer without reaching ultimate strength. The strength requirement shall only apply to the anchorage(s) and their attachment to the aerial platform.

(4) The anchorage(s) shall be positioned to minimize lanyard slack.

4.13 Brakes Lateral Motion. Aerial platforms shall be provided with a means of preventing unintended lateral motion while in use, such as locking screws, floor locks, wheel locking mechanisms, and the like.

4.14 Power System

4.14.1 Fuel and Exhaust. Fuel lines of internal combustion-engine-powered aerial platforms shall be supported to minimize chafing and positioned to minimize exposure to engine and exhaust heat. Liquid fuel lines shall be hard lines except where isolation from vibration requires a flexible connection. LP-gas engine fuel systems shall comply with ANSI/NFPA 58-1998. The exhaust system shall be provided with a muffler that is positioned to minimize exposure of the operators and personnel located in proximity to the aerial platform.

4.14.2 Batteries Protection and Inspection. Battery(ies) shall be secured, guarded, and ventilated so as to prevent damage and build-up of hydrogen gas. Battery(ies) shall be readily accessible for inspection, service, and replacement.

4.15 System Protection

4.15.1 Electromechanical System. Where the elevation of the platform is accomplished by an electromechanical assembly, the system shall be designed to prevent motion of the platform not initiated by the operator in the event of a power supply failure.

4.15.2 Hydraulic or Pneumatic System. Where the elevation of the platform is accomplished by a hydraulic or pneumatic cylinder assembly, the system shall be so equipped as to prevent free descent in the event of failure of a hydraulic or pneumatic line. This requirement does not apply to protected metallic tubing or fittings installed between a cylinder and the holding device.

4.15.3 Tension Hoist System. Where the

elevation of the platform is accomplished by a single hoist element in tension, such as a wire rope or chain, the system shall be protected by a safety device that will prevent free descent of the platform.

4.15.4 Platform Beyond Base. Where the platform is horizontally extendable beyond the base of the aerial platform, the system shall be so equipped as to prevent descent in the event of failure of a hydraulic or pneumatic line, wire rope, or chain.

4.15.5 Outrigger and Stabilizers. Hydraulically or pneumatically actuated outriggers or stabilizers or both shall not retract in the event of a failure of a hydraulic or pneumatic line.

4.16 Personal Protection. Personnel on the platform shall be protected against the hazards of moving parts of the aerial platform.

4.17 Quality Control. The manufacturer shall establish and follow a written quality control procedure to ensure compliance with this standard.

4.18 Proof Test. Each production aerial platform on level ground shall sustain a load test that will include the movement of the platform with a platform load of 1.5 (150%) times the rated work load imposed through the range of motion that confirms the integrity of the aerial platform. The aerial platform shall remain stable during this test. A visual inspection shall be made to confirm that this test has not produced an adverse effect on any component.

4.19 Instructions and Markings. The following information shall be displayed on all aerial platforms in a clearly visible accessible area and in a durable manner:

(1) Warnings, cautions, or restrictions for safe operation and maintenance in accordance with:

ANSI Z535.1-2002, Safety Color Code

ANSI Z535.3-2002, Criteria For Safety Symbols

ANSI Z535.4-2002, Product Safety Signs and Labels

(2) The make, model, serial number, and manufacturer's name and address

(3) The rated work load, rated horizontal

force, and rated number of occupants shall be displayed at each access to the platform and at the operator control station.

- (4) The maximum platform height
- (5) The total weight of the aerial platform
- (6) The nominal voltage ratings of the batteries or rated voltage of AC line
- (7) A notice to understand and comply with operating /maintenance manual and the Manual of Responsibilities before using the equipment
- (8) A notice of the inspections required by Section 6, 7, and 8 of this standard
- (9) A configuration statement. If an aerial platform has alternative configurations, then the manufacturer shall clearly describe these alternatives, including the rated capacity in each configuration. If the rated work load of an aerial platform is the same in all configurations, these additional descriptions are not necessary.
- (10) A statement of whether or not the aerial platform is electrically insulated. If the aerial platform is insulated, the level of protection and applicable test standard shall be stated, in accordance with ANSI/SIA A92.2-2001.
- (11) A statement of compliance with Section 4 of this standard
- (12) Warnings against replacing without manufacturer's consent components critical to machine stability such as batteries, ballasted tires, outriggers or stabilizers. The minimum weights, lengths or other critical specifications of such components shall be specified.
- (13) A statement that only properly trained and authorized personnel shall be permitted to operate the aerial platform.
- (14) Wheel/outrigger loads. Total weight of the aerial platform and wheel loading for the worst loading condition exerted by the wheels and outriggers as applicable.
- (15) When an anchorage(s) is provided, the location of each anchorage point shall be clearly marked.
- (16) Warnings and instructions intended to prevent electric shock and inform the operator of the minimum approach distance (MAD) requirements found in the Code of Federal Regulations (CFR) 1910.333(c).

4.20 Operating and Maintenance

Manuals. With each aerial platform, the manufacturer/ remanufacture shall provide an appropriate manual(s) containing the following information:

- (1) Descriptions, specifications, and ratings of the aerial platform, including the data specified in 4.19
- (2) The maximum hydraulic/pneumatic system pressure, the maximum voltage of the electrical systems, or both, which are part of the aerial platform
- (3) Instructions regarding operation, safety rules, operating maintenance, and intended use
- (4) Information required to perform the responsibilities set forth in 5, 6, 7, 8, 9, 10, and 11 of this standard
- (6) Attachment point(s) information for moving and securing the aerial platform during transport

4.21 Weather-Resistant Storage.

Manufacturers shall provide a weather-resistant storage location on the aerial platform for the manual(s) as described in 4.20.

4.22 Repair and Parts Manual. The manufacturer/remanufacture shall make available appropriate manual(s) listing repair and parts information.

4.23 Training Information and Materials. The manufacturer shall develop and offer training materials that will aid Dealers, Owners and Users in meeting their responsibilities as outlined in this standard.

4.24 Manufacturer as Dealer. Whenever a manufacturer sells, rents, or leases an aerial platform directly to an owner or user, the manufacturer shall assume the responsibilities of the dealer as outlined in Section 5 of this standard.

5. Responsibilities of Dealers

5.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, applications, and operation consistent with all data available regarding the parameters of intended use and expected environment shall

be applied in the training of operators, in maintenance, application, and operation of the aerial platform with due consideration of the knowledge that the unit will be carrying personnel.

5.2 Manuals

5.2.1 Machine Manual(s). Dealers shall keep and maintain a copy(ies) of the:

- (1) Operating manual
- (2) Maintenance manual
- (3) Parts manual
- (4) Repair manual

The operating manual and maintenance manual shall be provided upon each rental lease or sale delivery and shall be stored in the weather-resistant storage location on the aerial platform. Manual(s) are considered an integral part of the aerial platform and are vital to communicate necessary safety information to owners, users and operators. In addition, repair and parts manuals should be provided with each sale delivery.

5.2.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

5.3 Predelivery Preparation. Aerial platforms shall be inspected, serviced, and adjusted to manufacturer's requirements prior to each delivery by sale, lease, or rental.

5.4 Maintenance, Inspection and Repair.

5.4.1 Maintenance. When a dealer accomplishes preventive maintenance on the aerial platform, it shall be in accordance with the manufacturer's recommendations and on the environment and severity of use.

5.4.2 Inspection. When the dealer accomplishes frequent and annual inspections, they shall be in accordance with the manufacturer's manuals and instructions.

5.4.3 Repairs. Repairs accomplished to correct malfunctions and problems shall be in accordance with the manufacturer's manuals and instructions.

5.5 Maintenance Safety Precautions.

Before adjustments and repairs are started on an aerial platform, the following precautions

shall be taken as applicable:

(1) All controls in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means

(2) Power plant stopped and starting means rendered inoperative

(3) Elevating assembly and platform lowered to the full down position, if possible, or otherwise secured by blocking or cribbing to prevent dropping

(4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components

(5) Safety props or latches installed where applicable as described by the manufacturer

(6) Precautions specified by the manufacturer

5.6 Replacement Parts. When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

5.7 Training. The dealer shall offer appropriate training to facilitate owners, users and operators to comply with requirements set forth in this standard regarding the inspection, maintenance, use, application and operation of the aerial platform.

5.8 Familiarization upon Delivery. Upon delivery by sale, lease, rental or any form of use, the dealer shall have the responsibility with the person designated by the receiving entity for accepting the aerial platform to:

(1) Identify the weather-resistant compartment for manual(s) storage

(2) Confirm that the manual(s), as specified by the manufacturer, are on the aerial platform

(3) Review control functions

(4) Review safety devices specific to the model aerial platform being delivered

(5) Review loading and unloading procedures and the use of tilt-back feature(s) when applicable

5.9 Dealer as a User. Whenever a dealer directs personnel to operate an aerial platform (loading, unloading, inspecting, sales demonstrations, or any form of use), the dealer shall assume the responsibilities of users as specified in Section 7 of this

standard. All personnel authorized to operate the aerial platform shall have been:

- (1) Trained
- (2) Familiarized with the aerial platform to be operated
- (3) Made aware of the responsibilities of operators as outlined in Section 8 of this standard

5.10 Assistance to Owners and Users. If a dealer is unable to answer an owner's or user's question relating to rated capacity, intended use, maintenance, repair, inspection, or operation of the aerial platform, the dealer shall obtain the proper information from the manufacturer and provide that information to the owner or user.

5.11 Record Retention and Dissemination.

5.11.1 Record Retention. The dealer shall retain the following records for at least 4 years:

- (1) Name and address of the purchaser of each aerial platform by serial number and the date of delivery
- (2) Records of the pre-delivery preparation performed prior to each delivery
- (3) Name of the person(s) trained
- (4) Name of the person(s) providing the training
- (5) Name of the person(s) receiving familiarization with the aerial platform upon each delivery unless the individual has been provided with familiarization on the same model, or one having characteristics consistent with the one being delivered, within the prior 90 days
- (6) Name of the person(s) providing the familiarization with the aerial platform upon each delivery
- (7) Records of frequent and annual machine inspections accomplished
- (8) Records of repairs accomplished to correct malfunctions and problems

5.11.2 Proof of Training. The dealer should provide trainees who successfully complete training a means to evidence that they are trained if such proof is requested by the trainee. The document evidencing training shall include the following information:

- (1) Name of trainee
- (2) Name of entity providing training or retraining

- (3) Name of trainer(s)
- (4) Clear identification that training covered Manually Propelled Elevating Work Platforms
- (5) Date of the training

5.11.3 Record Dissemination. Upon request, the dealer should provide the following information:

- (1) To the owner of the aerial platform, a copy of frequent or annual inspections performed
- (2) To the owner of the aerial platform, a copy of repairs accomplished
- (3) To a user, proof of training for an operator, including name of the trainer and the date of training
- (4) To a user, the name of the person(s) receiving familiarization upon delivery of the aerial platform

5.12 Modifications. Modification, alteration or remanufacture of the aerial platform shall be made only with prior written permission of the manufacturer.

5.13 Manufacturer's Safety Bulletins. The dealer shall comply with safety-related bulletins as received from the manufacturer.

5.14 Responsibilities upon Sale. When the aerial platform is sold, the dealer:

- (1) Shall, upon delivery, ensure the operating and maintenance manuals are conveyed to the owner
- (2) Shall, upon delivery, provide a copy of the current Manual of Responsibilities
- (3) Should, within 60 days of sale, provide repair and parts manuals
- (4) Shall, within 60 days of sale, notify the manufacturer or its successor (if existing) of the sale, providing the full name and address of the purchaser
- (5) Should, if the aerial platform is used, accomplish an annual machine inspection prior to delivery and provide a copy to the purchaser within 60 days of the sale
- (6) Shall, upon delivery, familiarize the person designated by the receiving entity with the aerial platform being acquired

6. Responsibilities of Owners

6.1 Basic Principles. Sound principles of

safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use and expected environment shall be applied in the performance of the responsibilities of owners with due consideration of the knowledge that the unit will be carrying personnel.

6.2 Responsibilities Upon Purchase. Upon purchase of the aerial platform, the buyer:

- (1) Shall ensure the operating and maintenance manuals have been received
- (2) Should acquire repair and parts manuals within sixty days (60) of acquisition
- (3) Shall within sixty days (60) of acquisition of the aerial platform provide the manufacturer with the full name and address of the buyer along with the model and serial number of the aerial platform acquired
- (4) Shall, if the aerial platform is used, ensure that frequent and annual inspections are current
- (5) Shall become familiar with and conform to the responsibilities of owners as set forth in the current Manual of Responsibilities for Manually Propelled Elevating Aerial Platforms

6.3 Manuals.

6.3.1 Machine Manual(s). Owners shall provide a copy(ies) of the operating and maintenance manual(s) with each rental, lease, or sales delivery by ensuring they are properly stored in the weather-resistant compartment that is a part of the aerial platform. The manual(s) is considered an integral part of the aerial platform and is vital to communicate necessary safety information to owners, users and operators. In addition, repair and parts manual(s) should be provided upon each sale delivery.

6.3.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

6.4 Maintenance, Inspection and Repair.

6.4.1 Maintenance. The owner of an aerial platform shall arrange that the maintenance specified in this standard is

properly performed on a timely basis. The owner shall establish a preventive maintenance program in accordance with the manufacturer's recommendations and on the environment and severity of use of the aerial platform.

6.4.2 Inspection. The owner shall arrange for frequent and annual inspections to be performed in accordance with the recommendations of the manufacturer. All malfunctions and problems identified in the inspection shall be corrected before the aerial platform is returned to service.

6.4.3 Repairs. When the aerial platform is damaged or in need of repair, all malfunctions and problems identified shall be corrected before the aerial platform is returned to service.

6.5 Predelivery Preparation. Aerial platforms shall be inspected, serviced, and adjusted in accordance with the manufacturer's requirements prior to each delivery by sale, lease, or rental.

6.6 Frequent Inspection. The owner of an aerial platform shall ensure that a frequent inspection is performed in accordance with the manufacturer's instructions, on an aerial platform:

- (1) That was purchased used. This inspection shall be accomplished unless it is determined that the frequent and annual inspections are current
- (2) That has been in service for 3 months or 150 hours, whichever comes first
- (3) That has been out of service for a period longer than 3 months

The inspection shall be made by a person qualified as a mechanic on the specific type of aerial platform or one having similar design characteristics. The inspection shall be in accordance with items specified by the manufacturer for a frequent inspection and shall include, but not be limited to, the following:

- (1) All functions and their controls for speed(s), smoothness, and limits of motion
- (2) Emergency lowering means
- (3) All chain and cable mechanisms for adjustment and worn or damaged parts
- (4) All emergency and safety devices
- (5) Lubrication of all moving parts, inspection of filter element(s), hydraulic oil,

engine oil, and coolant, as specified by the manufacturer

(6) Visual inspection of structural components and other critical components, such as fasteners, pins, shafts, and locking devices

(7) Placards, warnings, and control markings

(8) Items specified by the manufacturer

(9) Correction of all malfunctions and problems identified and further inspection, if necessary

6.7 Annual Inspection. The owner of an aerial platform shall ensure that an annual inspection is performed on the aerial platform no later than 13 months from the date of the prior annual inspection. The inspection shall be made by a person qualified as a mechanic on the specific type of aerial platform or one having similar design characteristics. The inspection shall be in accordance with items specified by the manufacturer for an annual inspection. The owner shall not place the aerial platform into service until all malfunctions and problems have been corrected.

6.8 Maintenance Safety Precautions.

Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable:

(1) All controls in the “off” position and all operating features secured from inadvertent motion by brakes, blocks, or other means

(2) Power plant stopped and starting means rendered inoperative

(3) Elevating and platform lowered to the full down position, if possible, or otherwise secured by blocking or cribbing to prevent dropping

(4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components

(5) Safety props or latches installed where applicable as described by the manufacturer

(6) Precautions specified by the manufacturer

6.9 Replacement Parts. When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

6.10 Maintenance Training. The owners shall train their maintenance personnel in inspection and maintenance of the aerial platform in accordance with 6.2 through 6.11 of this standard, and with the manufacturer’s recommendations.

6.11 Training.

6.11.1 Operator Training Whenever an owner directs or authorizes an employee to operate an aerial platform (loading, unloading, inspecting or any form of use) the owner shall assume the responsibilities of the user as specified in Section 7 of this standard and ensure that the individual has been:

(1) Trained

(2) Familiarized with the aerial platform to be operated.

(3) Made aware of the responsibilities of operators as outlined in Section 8 of this standard

6.11.2 Assistance to Users. Upon request of the user, when an owner sells, leases, rents or provides an aerial platform for any form of beneficial use, the owner at that time shall offer to do training or advise the user where training may reasonably be secured.

6.12 Familiarization upon Delivery. Upon delivery by sale, lease, rental or any form of use, the owner shall have the responsibility with the person designated by the receiving entity for accepting the aerial platform to:

(1) Identify the weather-resistant compartment for manual(s) storage

(2) Confirm that the manuals, as specified by the manufacturer, are on the aerial platform

(3) Review control functions

(4) Review safety devices specific to the model aerial platform being delivered

(5) Review loading and unloading procedures and the use of tilt-back feature(s) when applicable

6.13 Operation. When an owner operates an aerial platform, the owner shall have the responsibilities of users as specified in Section 7 of this standard, and the operating personnel shall have responsibilities of operators as specified in Section 8 of this standard.

6.14 Assistance to Users and Operators. If

an owner is unable to answer a user's or operator's questions relating to rated capacity, intended use, maintenance, repair, inspection, or operation of the aerial platform, the owner shall obtain the proper information from the dealer or manufacturer and provide that information to the user or operator.

6.15 Record Retention and Dissemination.

6.15.1 Record Retention. The owner shall date and retain the following records for at least four (4) years:

- (1) Name and address of the purchaser of each aerial platform by serial number and date of delivery
- (2) Written records of the frequent and annual inspections and repairs performed. The record shall include deficiencies found, corrective action accomplished and identification of the person(s) performing the inspection and repairs
- (3) Written records of repairs accomplished on the aerial platform. The records shall include corrective action accomplished and identification of the person(s) performing the repairs
- (4) Pre-delivery preparation performed prior to each delivery
- (5) Name of the person(s) trained
- (6) Name of the person(s) providing training
- (7) Name of the person(s) receiving familiarization with the aerial platform upon each delivery unless the individual has been provided with familiarization on the same model, or one having characteristics consistent with the one being delivered, within the prior 90 days
- (8) Name of the person(s) providing familiarization

6.15.2 Proof of Training. Owners providing training should provide successful trainees a means to evidence their training if such proof is requested by the trainee. The document evidencing training shall include the following information:

- (1) Name of trainee
- (2) Name of entity providing training or retraining
- (3) Name of trainer(s)
- (4) Clear identification that training covered Manually Propelled Elevating Work Platforms

- (5) Date of the training

6.15.3 Record Dissemination. Upon request, an owner accomplishing training and/ or familiarization should provide the following:

- (1) To a user, proof of training for an operator, including name of the trainer and the date of training
- (2) To a user, the name of the person(s) receiving familiarization upon delivery of the aerial platform

6.16 Modifications. The owner shall not modify or concur in modifications or alteration to the aerial platform without the modifications being approved and certified in writing by the manufacturer.

6.17 Manufacturer's Safety Bulletins. The owner shall comply with safety-related bulletins as received from the manufacturer or dealer.

6.18 Responsibilities upon Sale. Upon sale of the aerial platform, the seller:

- (1) Shall, upon delivery, ensure the operating and maintenance manuals are conveyed to the owner
- (2) Shall, upon delivery, provide a copy of the current Manual of Responsibilities for Manually Propelled Elevating Aerial Platforms to the new owner
- (3) Should provide repair and parts manuals to the new owner
- (4) Shall, upon the request of the new owner, offer training or advice where training may reasonably be obtained.

7. Responsibilities of Users

7.1 Basic Principles. The information in this standard must be supplemented by good job management, safety control, and the application of sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use and expected environment. Since the user has direct control over the application and operation of aerial platforms, conformance with good safety practices in this area is the responsibility of the user and the operating personnel, including the

operator. Decisions on the use and operation of the aerial platform must always be made with due consideration for the fact that the aerial platform will be carrying personnel whose safety is dependent on those decisions.

7.2 Manuals.

7.2.1 Machine manuals. Users shall keep and maintain copy(ies) of the operating and maintenance manual(s) in the weather-resistant storage compartment provided by the manufacturer. The manual(s) is considered an integral part of the aerial platform and is vital to communicate necessary safety information to users and operators.

7.2.2 Manual of Responsibilities. The current Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms shall be provided and stored in the weather-resistant storage compartment.

7.3 Inspection and Maintenance. Users shall inspect and maintain the aerial platform as required to ensure proper operation. The frequency of inspection and maintenance shall be based upon the manufacturer's recommendations and be compatible with operating conditions and the severity of the operating environment. Aerial platforms that are not in proper operating condition shall be immediately removed from service until repaired. Repairs shall be made by a qualified person and the repairs shall be in conformance with the manufacturer's recommendations.

7.3.1 Frequent Inspection. Users of an aerial platform shall ensure that frequent inspections are conducted as outlined in 6.6 of this standard.

7.3.2 Annual Inspection. Users of an aerial platform shall ensure that annual inspections are conducted as outlined in 6.7 of this standard.

7.3.3 Prestart Inspection. Before use each day or at the beginning of each shift, the aerial platform shall be given a visual inspection and functional test including but not limited to the following:

- (1) Operating and emergency controls
- (2) Safety devices

- (3) Air, hydraulic and fuel system leaks
- (4) Cables and wiring harness
- (5) Loose or missing parts
- (6) Tires and wheels
- (7) Placards, warnings, and control markings
- (8) Outriggers, stabilizers, and other structures
- (9) Guardrail system
- (10) Items specified by the manufacturer

7.3.4 Maintenance Safety Precautions.

Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable:

- (1) All controls in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means
- (2) Power plant stopped and starting means rendered inoperative
- (3) Platform lowered to the full down position, if possible, or otherwise secured by blocking or cribbing to prevent dropping
- (4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components
- (5) Safety props or latches installed where applicable as described by the manufacturer
- (6) Precautions specified by the manufacturer

7.4 Replacement Parts. When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

7.5 Maintenance Training. The user shall ensure only qualified personnel inspect and maintain the aerial platform in accordance with 7.3, 7.4, and 7.6 of this standard and with the manufacturer's recommendations.

7.6 Operator Training and Retraining.

Whenever a user directs or authorizes an individual to operate an aerial platform, the user shall ensure that the person has been:

- (1) Trained before being assigned to operate the aerial platform
- (2) Familiarized with the aerial platform to be operated
- (3) Made aware of the responsibilities of operators as outlined in Section 8 of this standard
- (4) Retrained, if necessary, based on the user's observation and evaluation of the

operator

7.6.1 Trainee Records. A record of the trainee's aerial platform instruction shall be maintained by the user for at least four (4) years.

7.7 Familiarization Before Use. The user shall permit only properly trained personnel to operate an aerial platform. The user shall ensure that before use the operator is familiar with the model of the aerial platform to be operated, and specifically:

- (1) Knows where the weather-resistant compartment for manual storage is located
- (2) Knows the operating and maintenance manuals supplied by the manufacturer are stored in the weather-resistant compartment and is familiar with the operating and safety manuals
- (3) Understands all control functions, placards and warnings
- (4) Is aware of and understands all safety devices specific to the model aerial platform being used
- (5) Understands loading and unloading procedures and the use of tilt-back feature(s) when applicable

7.8 Work Place Inspection. Before the aerial platform is used and during use, the user shall check the area in which the aerial platform is to be used for possible hazards such as, but not limited to:

- (1) Drop-offs or holes
- (2) Slopes
- (3) Bumps and floor obstructions
- (4) Debris
- (5) Overhead obstructions and electrical hazards
- (6) Hazardous locations (reference ANSI/NFPA 505-1996)
- (7) Inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations
- (8) Wind and weather conditions
- (9) Presence of unauthorized persons
- (10) Other possible unsafe conditions

7.9 Determination of Hazardous Locations. It shall be the responsibility of the user to determine the hazard classification of the intended location of operation. Aerial platforms operated in

hazardous locations shall be approved in accordance with, and of the type required, by ANSI/NFPA 505-1996.

7.10 Operator Warnings and Instruction.

The user shall direct personnel operating the aerial platform to be in compliance with the provisions set forth in this standard. The user shall monitor their performance and supervise their work to ensure the use, application and operation of the aerial platform is in conformance with the provisions set forth in section 8 of this standard, warn personnel of potential hazards, provide means to protect against identified hazards, and explain the potential consequences of not following proper operating guidelines. Instructions and guidelines regarding proper operation shall include, but not necessarily be limited to the following issues and subjects:

(1) Fall protection. The guardrail system of the aerial platform provides fall protection. If occupant(s) of the platform are required to wear personal fall protection equipment, occupants shall comply with instructions provided by the aerial platform manufacturer regarding anchorage(s).

(2) Slope. The aerial platform shall not be operated in any manner on slopes exceeding those for which the aerial platform is rated by the manufacturer.

(3) Deployment of stability enhancing means. Outriggers, stabilizers, extendible axles, axle locks, or other stability enhancing means shall be deployed and locked into place as required by the manufacturer.

(4) Guardrail system. Guardrails shall be installed and positioned, and access gates or openings shall be closed per the manufacturer's instructions.

(5) Distribution of load. The load and its distribution on the platform and any platform extension(s) shall be in accordance with the manufacturer's rated capacity for that specific configuration.

(6) Maintaining overhead clearance. The operator shall be instructed to ensure that adequate clearance is maintained from overhead obstructions and energized electrical conductors and parts.

(7) Electrocution hazard. All applicable safety related work practices intended to prevent electric shock covered by the Code

of Federal Regulations (CFR) 1910.333 shall be defined and explained to the operator by a qualified person. In particular, such person shall direct the operator, commensurate with the operator's qualifications to maintain the appropriate minimum approach distance (MAD) from energized power lines and parts covered by CFR 1910.333 (c).

(8) Personal protective equipment. The user shall direct the operator to ensure all personnel on the platform wear personal protective equipment as required.

(9) Personnel footing. The user shall direct the operator to maintain firm footing on the platform while working thereon. Climbing by occupants on the midrail or top rail of the aerial platform is prohibited. The use of planks, ladders, or any other devices on the platform for achieving additional height or reach is prohibited.

(10) Precaution for moving equipment. When moving equipment or vehicles are present, special precautions shall be taken to comply with local ordinances or safety standards established for the workplace. Warnings such as, but not limited to, flags, roped off areas, flashing lights, and barricades shall be used as appropriate.

(11) Reporting problems or malfunctions. The user shall direct the operator to immediately report to a supervisor any problem(s) or malfunction(s) that become evident during operation. The user shall ensure all problems and malfunctions that affect the safeties of operations are repaired prior to continued use.

(12) Reporting potentially hazardous locations. The user shall direct the operator to immediately report to a supervisor any potentially hazardous location(s) that become evident during operation.

(13) Hazardous location operation. Operation of aerial platforms not approved and marked for operation in a hazardous location shall be prohibited.

(14) Entanglement. Care shall be taken to prevent rope, electric cords, and hoses, etc., from becoming entangled in the aerial platform.

(15) Capacity limitation. Rated capacity shall not be exceeded when loads are transferred to the platform at any level.

(16) Work area. The user shall direct the operator to ensure that the area surrounding

the aerial platform is clear of personnel and equipment before lowering the platform.

(17) Fueling. The engine (if applicable) shall be shut down while fuel tanks are being filled. Fueling shall be done in a well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.

(18) Battery charging. Batteries shall only be charged in well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.

(19) Improper platform stabilization. The aerial platform shall not be positioned against another object to steady the platform or improve stability.

(20) Misuse as a crane. The aerial platform shall not be used as a crane.

(21) Unusual operating support conditions. The aerial platform shall not be operated from a position on trucks, trailers, railway cars, floating vessels, scaffolds, or similar equipment unless the application is approved in writing by the manufacturer or a qualified person.

(22) Propelling. The user shall ensure that the operator follows the transport instructions of the manufacturer and limit speed according to conditions, including the condition of the support surface, congestion, visibility, slope, location of personnel, and other factors leading to hazards which may cause collision(s) or result in the potential injury (ies) to personnel.

(23) Securing the aerial platform. The user shall direct the operator to implement means provided to protect against use by an unauthorized person(s).

(24) Altering safety devices. Interlocks or other safety devices shall not be altered or disabled.

(25) Snagged platform. If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform using lower controls.

(26) Exiting or entering an elevated aerial platform. If permitted by the manufacturer, personnel shall only exit or enter a raised aerial platform by following the guidelines

and instructions provided by the manufacturer.

(27) Modifications. Modifications or alterations of an aerial platform or the fabrication and attaching of frameworks, or the mounting of attachments for holding tools or materials onto the platform or the guardrail system shall only be accomplished with prior written permission of the manufacturer.

(28) Assistance to the operator. If an operator encounters any suspected malfunction of the aerial platform, or any hazard or potentially unsafe condition relating to capacity, intended use or safe operation of the aerial platform, the operator shall cease operation of the aerial platform and request further information from the user.

(29) Problems or malfunctions. Any problem(s) or malfunction(s) that affect the safety of operations shall be repaired prior to the use of the aerial platform.

(30) Carrying materials (larger than the platform). The user shall ensure that only properly secured tools and materials which are evenly distributed and can be safely handled by a person(s) working from the platform, are moved.

(31) Rated horizontal force. The user shall direct the operator not to exceed the manufacturer's rated horizontal force.

(32) Bridge cranes. When an aerial platform is to operate within the area of travel of a bridge crane or similar equipment, steps shall be taken to prevent a collision with the aerial platform.

(33) Adequate support requirements. The user shall ensure the support surface is adequate for the aerial platform and the load carried.

(34) Leveling the aerial platform. Outriggers and leveling devices supplied by the manufacturer shall be utilized to level the aerial platform when provided.

(35) Protection against unauthorized use. The user shall direct the operator not to use, rent, lease, or provide the aerial platform for any form of beneficial use unless so authorized.

(36) Loading and tilt-back feature(s). The user shall direct the operator to follow the instructions of the manufacturer regarding loading, unloading and the use of tilt-back

feature(s) when applicable.

7.11 User as Operator If a user is also the operator of an aerial platform, the user shall have the responsibilities of operators specified in Section 8 of this standard as well as responsibilities of users as specified in Section 7 of this standard.

7.12 Assistance to Operator. If a user is unable to answer any operator's questions relating to rated capacity, intended use, maintenance, condition, or safety of operation of the aerial platform, the user shall obtain the proper information from the dealer, owner, or manufacturer and provide that information to the operator before use of the aerial platform in the application of concern.

7.13 Shutdown of Aerial Platform. The user shall authorize and direct the operating personnel to cease operation of the aerial platform in case of any suspected malfunctions of the aerial platform, or any hazard or potentially unsafe condition that may be encountered, and to request further information as to safe operation from the owner, dealer, or manufacturer before further operation of the aerial platform.

7.14 Record Retention and Dissemination.

7.14.1 Record Retention. The user shall retain the following records for at least 4 years:

(1) Names of the operator(s) trained and retrained

(2) Names of the operator(s) provided familiarization

(3) The owner (or the entity designated by the owner) is responsible to ensure frequent and annual inspections are conducted and written records are maintained. The records shall include the date of inspection, any deficiencies found, the corrective action recommended and identification of the person(s) performing the inspection

(4) When employees of the user accomplished repairs on the aerial platform, the user shall maintain written records. The records shall include the date of repair, a description of the work accomplished, and the identification of the person(s) performing the repair

7.14.2 Record Dissemination.

(1) When the user directs personnel to accomplish frequent or annual inspections, not later than 60 days after the inspections, the appropriate records shall be provided to the owner of the aerial platform

(2) When the user directs personnel to accomplish repairs on the aerial platform, not later than 60 days after the repairs are accomplished, the appropriate records shall be provided to the owner

7.14.3 Proof of Training. Users providing training should provide successful trainees a means to evidence their training if such proof is requested by the trainee. The document evidencing training shall include the following information:

- (1) Name of trainee
- (2) Name of entity providing training or retraining
- (3) Name of trainer(s)
- (4) Clear identification that training covered Manually Propelled Elevating Work Platforms
- (5) Date of the training

7.15 Modifications. Modification, alteration or remanufacture of the aerial platform shall be made only with prior written permission of the manufacturer.

7.16 Manufacturer's Safety Bulletins. The user shall comply with safety-related bulletins as received from the manufacturer, dealer, or owner.

8. Responsibilities of Operators

8.1 Basic Principles. The information in this standard shall be supplemented by good judgment, safety control, and caution in evaluating each situation. Since the operator is in direct control of the aerial platform, conformance with good safety practices in this area is the responsibility of the operator. The operator shall make decisions on the use and operation of the aerial platform with due consideration for the fact that his or her own safety as well as the safety of other personnel on the platform is dependent on those decisions.

8.2 Manuals.

8.2.1 Machine Manuals. The operator shall ensure operating and maintenance manual(s) are stored in the weather-resistant storage compartment on the aerial platform. The manual(s) is considered an integral part of the aerial platform and is vital to communication of necessary safety information to operator. The operator shall be familiar with the manuals and reference them as required.

8.2.2 Manual of Responsibilities. The operator shall be familiar with the requirements for operators as set forth in Section 8 of the Manual of Responsibilities for Dealers, Owners, Users, Operators, Lessors, Lessees, and Brokers of manually propelled elevating work platforms. The current Manual of Responsibilities shall be kept with the aerial platform at all times and stored in the weather-resistant compartment when not in use.

8.3 Prestart Inspection. Before use each day or at the beginning of each shift, the aerial platform shall be given a visual inspection and functional test including but not limited to the following:

- (1) Operating and emergency controls
- (2) Safety devices
- (3) Air, hydraulic, and fuel system leaks
- (4) Cables and wiring harness
- (5) Loose or missing parts
- (6) Tires and wheels
- (7) Placards, warnings, and control markings
- (8) Outriggers, stabilizers, and other structures
- (9) Guardrail system
- (10) Items specified by the manufacturer

8.4 Problems or Malfunctions. Any problems or malfunctions that affect the safety of operations shall be repaired prior to the use of the aerial platform.

8.5 Training, Retraining, and Familiarization.

8.5.1 General Training. Only personnel, who have received general instructions regarding the inspection, application and operation of aerial platforms, including recognition and avoidance of hazards associated with their operation, shall operate an aerial platform. Such items covered shall

include, but not necessarily be limited to the following issues and requirements:

- (1) The purpose and use of manuals
- (2) The manual(s) is considered an integral part of the aerial platform and must be stored properly in the weather-resistant compartment when not in use
- (3) A pre-start inspection
- (4) Responsibilities associated with problems or malfunctions affecting the operation of the aerial platform
- (5) Factors affecting stability
- (6) The purpose of placards and decals
- (7) Workplace inspection
- (8) Safety rules and regulations
- (9) Authorization to operate
- (10) Operator warnings and instructions
- (11) Actual operation of the aerial platform. Under the direction of a qualified person, the trainee shall operate the aerial platform for a sufficient period of time to demonstrate proficiency in actual operation of the aerial platform

8.5.2 Retraining. The operator shall be retrained, when so directed by the user, based on the user's observation and evaluation of the operator.

8.5.3 Familiarization. When the operator is directed to operate an aerial platform he/she is not familiar with, the operator shall receive instructions regarding the following:

- (1) The location of the weather-resistant compartment (for manual storage)
- (2) The purpose and function of all controls
- (3) Safety devices and operating characteristics specific to the aerial platform
- (4) Loading, unloading and the use of tilt-back feature(s) when applicable

8.6 Before Operation.

Before operation, the operator shall:

- (1) Read and understand the manufacturer's operating instruction(s) and user's safety rules, or have them explained
- (2) Understand all labels, warnings, and instructions displayed on the aerial platform or have them explained
- (3) Ensure all occupants of the aerial platform wear appropriate personal protective equipment for the conditions, including the environment in which the aerial platform will be operated

8.7 Workplace Inspection. Before the

aerial platform is used and during use, the operator shall check the area in which the aerial platform is to be used for possible hazards such as, but not limited to:

- (1) Drop-offs or holes
- (2) Slopes
- (3) Bumps and floor obstructions
- (4) Debris
- (5) Overhead obstructions and electrical hazards
- (6) Hazardous locations (reference NFPA 505-1996)
- (7) Inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations
- (8) Wind and weather conditions
- (9) Presence of unauthorized persons
- (10) Other possible unsafe conditions

8.8 Prior to Each Elevation. Before each elevation of the platform, the operator shall ensure:

- (1) Outriggers, stabilizers, extendable axles, or other stability enhancing means are used as required by the manufacturer
- (2) Guardrails are installed and access gates or openings are closed per manufacturer's instructions
- (3) The load and its distribution on the platform and any platform extensions are in accordance with the manufacturer's rated capacity for that specific configuration
- (4) All personnel on the aerial platform have appropriate personal protective equipment for the work and environment envisioned

8.9 Understanding of Hazardous Locations. It shall be the responsibility of the operator to understand the hazard classification of the intended location of operation according to ANSI/NFPA 505-1996.

8.10 Operator Warnings and Instructions. The operator shall ensure the operation of the aerial platform is in compliance with the following:

- (1) Fall protection. The guardrail system of the aerial platform provides fall protection. If occupant(s) of the platform are required to wear personal fall protection equipment, occupant(s) shall comply with instructions provided by the aerial platform manufacturer

regarding anchorage(s).

(2) Slope. The aerial platform shall not be operated in any manner on slopes exceeding those for which the aerial platform is rated by the manufacturer.

(3) Deployment of stability enhancing means. Outriggers, stabilizers, extendible axles, axle locks, or other stability enhancing means shall be deployed and locked into place as required by the manufacturer.

(4) Guardrail system. Guardrails shall be installed and positioned, and access gates or openings shall be closed per the manufacturer's instructions.

(5) Distribution of load. The load and its distribution on the platform and any platform extension(s) shall be in accordance with the manufacturer's rated capacity for that specific configuration.

(6) Maintaining overhead clearance. The operator shall ensure that adequate clearance is maintained from overhead obstructions and energized electrical conductors and parts.

(7) Electrocution hazard. The operator shall perform only that work for which he or she is qualified, in compliance with all applicable safety related work practices intended to prevent electric shock covered by the Code of Federal Regulations (CFR) 1910.333. The operator's level of competence shall be established only by persons qualified to do so. Operators shall maintain the appropriate minimum approach distance (MAD) from energized power lines and parts covered by CFR 1910.333 (c).

(8) Personal protective equipment. The operator shall ensure all personnel on the platform wear personal protective equipment as required.

(9) Personnel footing. Personnel shall maintain firm footing on the platform while working thereon. Climbing by occupants on the midrail or top rail of the aerial platform is prohibited. The use of planks, ladders, or any other devices on the platform for achieving additional height or reach is prohibited.

(10) Precaution for moving equipment. When other moving equipment or vehicles are present, special precautions shall be taken to comply with local ordinances or safety standards established for the workplace. Warnings such as, but not limited to, flags, roped off areas, flashing lights, and barricades shall be used as appropriate.

(11) Reporting problems or malfunctions. The operator shall immediately report to a supervisor any problem(s) or malfunction(s) that become evident during operation. The operator shall ensure all problems and malfunctions that affect the safeties of operations are repaired prior to continued use.

(12) Reporting potentially hazardous locations. The operator shall immediately report to a supervisor any potentially hazardous location(s) that become evident during operation.

(13) Hazardous location operation. Operation of aerial platforms not approved and marked for operation in a hazardous location shall be prohibited.

(14) Entanglement. Care shall be taken to prevent rope, electric cords, and hoses, etc., from becoming entangled in the aerial platform.

(15) Capacity limitation. Rated capacity shall not be exceeded when loads are transferred to the platform at any level.

(16) Work area. The operator shall ensure the area surrounding the aerial platform is clear of personnel and equipment before lowering the platform.

(17) Fueling. The engine (if applicable) shall be shut down while fuel tanks are being filled. Fueling shall be done in a well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.

(18) Battery charging. Batteries shall only be charged in a well-ventilated area free of flames, sparks, or other hazards that may cause fire or explosion.

(19) Improper platform stabilization. The aerial platform shall not be positioned against another object to steady the platform or improve stability.

(20) Misuse as a crane. The aerial platform shall not be used as a crane.

(21) Unusual operating support conditions. The aerial platform shall not be operated from a position on trucks, trailers, railway cars, floating vessels, scaffolds, or similar equipment unless the application is approved in writing by the manufacturer or a qualified person.

(22) Propelling. The operator shall follow the transport instructions of the manufacturer and limit speed according to conditions,

including the condition of the support surface, congestion, visibility, slope, location of personnel, and other factors leading to hazards which may cause collision(s) or result in the potential injury(ies) to personnel.

(23) Securing the aerial platform. The operator shall implement means provided to protect against use by an unauthorized person(s).

(24) Altering safety devices. Interlocks or other safety devices shall not be altered or disabled.

(25) Snagged platform. If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform using lower controls.

(26) Exiting or entering an elevated aerial platform. If permitted by the manufacturer, personnel shall only exit or enter a raised aerial platform by following the guidelines and instructions provided by the manufacturer.

(27) Modifications. Modifications or alterations of an aerial platform or the fabrication and attaching of frameworks, or the mounting of attachments for holding tools or materials onto the platform or the guardrail system shall only be accomplished with prior written permission of the manufacturer.

(28) Assistance to the operator. If an operator encounters any suspected malfunction of the aerial platform, or any hazard or potentially unsafe condition relating to capacity, intended use or safe operation of the aerial platform, the operator shall cease operation of the aerial platform and request further information from the user.

(29) Problems or malfunctions. Any problem(s) or malfunction(s) that affect the safety of operations shall be repaired prior to the use of the aerial platform.

(30) Carrying materials (larger than the platform). The operator shall ensure that only properly secured tools and materials which are evenly distributed and can be safely handled by a person(s) working from the

platform, are moved.

(31) Rated horizontal force. The operator shall not permit personnel on the platform to exceed the manufacturer's rated horizontal force.

(32) Bridge cranes. When an aerial platform is to operate within the area of travel of a bridge crane or similar equipment, steps shall be taken to prevent a collision with the aerial platform.

(33) Adequate support requirements. The operator shall ensure the support surface is adequate for the aerial platform and the load carried.

(34) Leveling the aerial platform. Outriggers and leveling devices supplied by the manufacturer shall be utilized to level the aerial platform when provided.

(35) Protection against unauthorized use. The operator shall not use, rent, lease, or provide the aerial platform for any form of beneficial use to another entity without the authorization of the user.

(36) Loading and tilt-back feature(s). The operator shall follow the instructions of the manufacturer regarding loading, unloading and the use of tilt-back feature(s) when applicable.

8.11 Record of Training. When provided or when obtained upon the operator's request, proof of training provided by the training entity should be retained by the operator. Records shall contain the following information:

- (1) Name of Trainee
- (2) Name of entity providing training or retraining
- (3) Name of trainer(s)
- (4) Clear identification that training covered Manually Propelled Elevating Platforms
- (5) Date of training

9. Responsibilities of Lessors

9.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use and expected environment shall be applied in the performance of responsibilities of lessors with due

consideration of the knowledge that the unit will be carrying personnel.

9.2 Lessor as a Dealer. When a lessor uses the aerial platform as a dealer, the lessor shall have the responsibilities of dealers as specified in Section 5 of this standard.

9.3 Lessor as an Owner. When a lessor uses the aerial platform as an owner, the lessor shall have the responsibilities of owners as specified in Section 6 of this standard.

9.4 Lessor as a User. When a lessor uses the aerial platform as a user, the lessor shall have the responsibilities of users as specified in Section 7 of this standard.

9.5 Lessor as an Operator. When a lessor uses the aerial platform as an operator, the lessor shall have the responsibilities of operators as specified in Section 8 of this standard.

10. Responsibilities of Lessees

10.1 Basic Principles. Sound principles of safety, training, inspection, maintenance, application, and operation consistent with all data available regarding the parameters of intended use, and the expected environment, shall be applied in the performance of responsibilities of lessees with due consideration of the knowledge that the aerial platform will be carrying personnel.

10.2 Lessee as a Dealer. When a lessee uses the aerial platform as a dealer, the lessee shall have the responsibilities of dealers as specified in Section 5 of this standard.

10.3 Lessee as an Owner. When a lessee uses the aerial platform as an owner, the lessee shall have the responsibilities of owners as specified in Section 6 of this standard.

10.4 Lessee as a User. When a lessee uses the aerial platform as a user, the lessee shall have the responsibilities of users as specified in Section 7 of this standard.

10.5 Lessee as an Operator. When a lessee uses the aerial platform as an operator, the lessee shall have the responsibilities of operators as specified in Section 8 of this standard.

11. Responsibilities of Broker.

11.1 Responsibilities upon Sale. The broker shall:

(1) Upon delivery, ensure the operating and maintenance manuals are provided to the new owner

(2) Upon delivery, provide a copy of the current Manual of Responsibilities to the new owner

(3) Maintain records of the sale for a minimum of four (4) years

11.2 Responsibilities upon Re-rent, Lease, or Any Other Form of Beneficial Use.

When compensation is received as a result of re-rent, lease or any other form of beneficial use of an aerial platform, the broker shall:

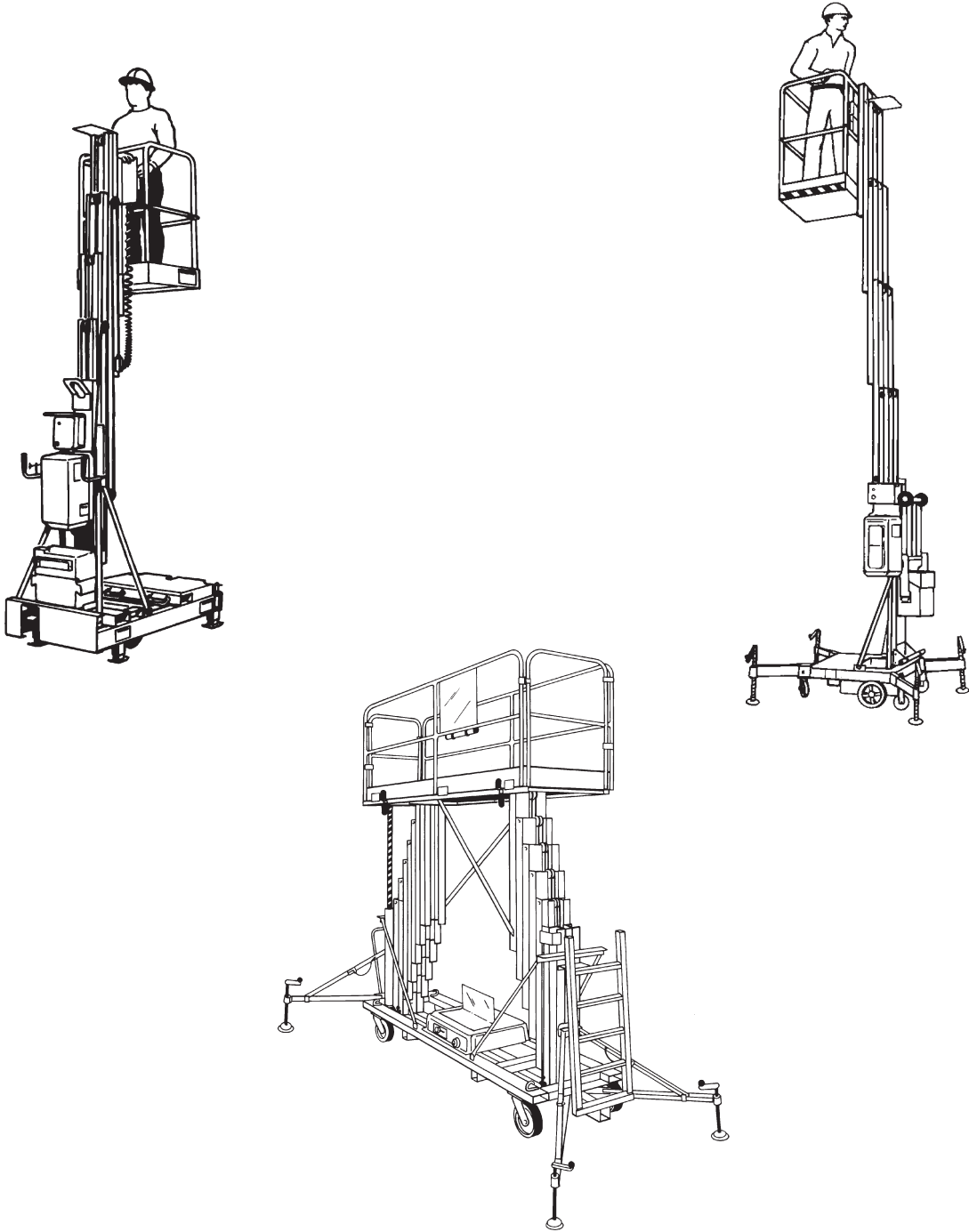
(1) Upon delivery, ensure the operating and maintenance manuals are provided to the user

(2) Upon delivery, provide a copy of the current Manual of Responsibilities

(3) Ensure operating personnel are familiarized with the aerial platform prior to use

(4) Retain records of the transaction for a minimum of four (4) years

Figure 1 - Typical Examples of Equipment Covered



ANSI/ SIA Standards Reorder Form

Standards: \$35 members/ \$45 non-members
Manuals of Responsibilities: \$4.95 members/ \$5.45 non-members

Qty	Item	Total
	A92.2 - Vehicle-Mounted Elevating and Rotating Aerial Devices	
	A92.2 Manual of Responsibilities	
	A92.3 - Manually-Propelled Elevating Work Platforms	
	A92.3 Manual of Responsibilities	
	A92.5 - Boom-Supported Elevating Work Platforms	
	A92.5 Manual of Responsibilities	
	A92.6 - Self-Propelled Elevating Work Platforms	
	A92.6 Manual of Responsibilities	
	A92.7 - Airline Ground Support Vehicle-Mounted Vertical Lift Devices	
	A92.7 Manual of Responsibilities	
	A92.8 - Vehicle-Mounted Bridge Inspection and Maintenance Devices	
	A92.8 Manual of Responsibilities	
	A92.9 - Mast-Climbing Work Platforms	
	A92.9 Manual of Responsibilities	

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____ Email _____

Payment Information: Visa Mastercard American Express

Credit Card #: _____

Expiration: _____ **CV Code:** _____

Scaffold Industry Association ~ P.O. Box 20574 ~ Phoenix, AZ 85036
Phone: 602.257.1144~Fax:602.257.1166
Email: info@scaffold.org

American National Standards for Aerial Work Platforms

- ANSI/SIA A92.2 - 2001 Vehicle-Mounted Elevating and Rotating Aerial Devices**
- ANSI/SIA A92.3 - 2006 Manually Propelled Elevating Aerial Platforms**
- ANSI/SIA A92.5 - 2006 Boom-Supported Elevating Work Platforms**
- ANSI/SIA A92.6 - 1999 Self -Propelled Elevating Work Platforms**
- ANSI/SIA A92.7 - 1990 Airline Ground Support Vehicle-Mounted Vertical Lift Devices**
- ANSI/SIA A92.8 - 1993 Vehicle-Mounted Inspection and Maintenance Devices**
- ANSI/SIA A92.9 - 1993 Mast-Climbing Work Platforms**

ANSI/SIA A92 Standards are under continual development. Contact the Scaffold Industry Association for updated information. Information is available online at www.scaffold.org.

**Scaffold Industry Association, Inc.
'The Voice of the Scaffold and Access Industry'
Post Office Box 20574
Phoenix, Arizona 85036-0574
Telephone: 602.257.1144
Fax: 602.257.1166**

**Email: info@scaffold.org / sia@scaffold.org
Web: www.scaffold.org**

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