



Standard Practice for Air Soft Field Operation¹

This standard is issued under the fixed designation F2940; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

INTRODUCTION

This practice sets forth procedures for operating an air soft playing field. The goal is to assist air soft field operators in running a safe business. Like any other physical activity, air soft presents a potential for injury. No procedural practice can prevent all injuries, especially when air soft players do not follow safety instructions. The ultimate responsibility for preventing injury lies with the air soft player. This practice, however, intends to promote safe air soft field operation through standardization of operating practice.

1. Scope

1.1 This practice establishes minimum safety requirements for the operation of air soft playing fields, and provides for certain materials and procedures required.

2. Referenced Documents

2.1 ASTM Standards:²

F1776 Specification for Eye Protective Devices for Paintball Sports

F2679 Specification for 6 mm Projectiles Used with Low Energy Air Guns

F2748 Specification for Low Energy Air Guns (Less Than 1 Joule)

2.2 ANSI Standards:³

ANSI Z87.1 American National Standard for Occupational and Educational Personal Eye and Face Protection Devices

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *air soft projectile*, *n*—projectile complying with Specification **F2679**, which is fired from an air soft gun.

3.1.2 *air soft gun*, *n*—device specifically designed to discharge air soft projectiles such as but not limited to those described in Specification **F2748**.

3.1.3 *accidental discharge device*, *n*—device specifically designed to be installed on an air soft gun to prevent the accidental discharge of air soft projectiles.

3.1.4 *ear, nasal cavity and oral cavity protection*, *n*—device or devices that cover the ear, nasal cavities or oral cavities and prevent direct entry of air soft projectiles into these areas.

3.1.5 *firing mode*, *n*—operating mode at which a specific weapon can fire or launch its projectiles.

3.1.5.1 *Discussion*—Common modes include pump action, semi-auto, three round burst or full auto.

3.1.6 *game area*, *n*—area in which air soft games are conducted and in which eye protection suitable for air soft game play is required to be worn.

3.1.7 *goggles*, *n*—eye protection device suitable for use in air soft games.

3.1.8 *goggles on area*, *n*—areas in which all persons are required to wear an eye protection device suitable for air soft games, such as and not limited to playing fields, game areas, chronograph areas, and target ranges.

3.1.9 *minimum engagement distance*, *n*—recommended minimum distance between the shooter and the target at which a shot may be fired.

3.1.9.1 *Discussion*—This distance is defined based on various factors in **Table 1**.

3.1.10 *player*, *n*—air soft game participant.

3.1.11 *playing fields*, *n*—

3.1.11.1 *indoor playing field*, *n*—indoor playing arena or area, where air soft games are conducted in which close range engagements are common.

3.1.11.2 *outdoor playing field*, *n*—area delineated by a boundary marker, in which air soft games are conducted.

3.1.11.3 *Discussion*—Fields may be a combination of both

¹ This test method is under the jurisdiction of ASTM Committee F08 on Sports Equipment, Playing Surfaces, and Facilities and is the direct responsibility of Subcommittee F08.27 on Airsoft.

Current edition approved July 1, 2013. Published July 2013. DOI: 10.1520/F2940-13.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

TABLE 1 Air Soft Gun Minimum Engagement Info Chart

Maximum Velocity 0.20 g BB	Maximum Velocity 0.25 g BB	Outdoor Field Minimum Engagement Distance	Indoor Field Minimum Engagement Distance	Recommended Fire Mode
300 FPS	270 FPS	5 ft	5 ft	All
350 FPS	310 FPS	10 ft	5 ft	All Outdoor, Semi-Auto Indoor
400 FPS	350 FPS	20 ft	10 ft	All Outdoor, Semi-Auto Indoor
500 FPS	450 FPS	100 ft	100 ft	Semi-Auto or Bolt Action Only
550 FPS	500 FPS	100 ft	100 ft	Bolt Action Only

indoor and outdoor conditions. The field operator shall determine the best practices for recommended minimum engagement distance based upon the specific conditions at the facility in question.

3.1.12 *safety mechanism, n*—device that, when activated, disables a part of the air soft gun, usually the trigger, to prevent unintentional firing in normal use and must be released to allow the gun to be discharged by the movement of the trigger.

3.1.12.1 *Discussion*—The device is sometimes referred to as a safety, safety button, or safety lever. An electronic on/off switch is considered to be a safety mechanism if, when the switch is placed in the off position, it renders the gun inoperable.

3.1.13 *staging area, n*—area protected against stray entry of air soft projectiles, in which air soft players organize themselves for a game.

4. Operational Procedures

4.1 *Safety Rules Posted*—Player safety rules, printed in 24-point type or larger, shall be posted conspicuously at the registration area. Every player shall be instructed to read the safety rules.

4.2 *Field Orientation and Safety Briefing*—Prior to their first game of the day, every player shall be given or shown a formal briefing on safety rules, risk of injury, game rules, field orientation, and equipment operation. During this briefing every player will be advised of what to do in case of an emergency.

4.3 *Accidental Discharge Requirements*—At all times other than while on the playing field during games, at the chronograph, or at the target range all air soft guns shall be maintained in a condition which will eliminate the chance of accidental discharge. Acceptable methods of meeting this requirement are:

4.3.1 To have a clearly identifiable accidental discharge device installed in the gun, or

4.3.2 To have the air soft gun enclosed in a case or holster that does not allow a discharged air soft projectile to escape.

4.4 *Goggles*—All persons shall be required to wear an eye protective device at all times while they are in areas designated as “goggles on areas.” As no standard exists for air soft eye protective devices at this time all eye protective devices shall be subject to the approval of the game operator and meet one of the following:

4.4.1 An eye protective device which meets ANSI Z87.1 requirements and is manufactured and advertised by the manufacturer as suitable for use in air soft game activity. This

protector must have a solid lens material used in the construction rather than a screen or other similar material, or

4.4.2 Meets Specification **F1776**.

4.5 It is recommended that all game participants wear additional protective device(s) which limit the impact of air soft projectiles to ears, the nasal cavities and oral cavity.

4.6 Chronographing:

4.6.1 All air soft guns shall be chronographed.

4.6.1.1 All field rental supplied air soft guns shall be chronographed daily prior to being used at the field.

4.6.1.2 All user supplied air soft guns shall be chronographed prior to being used on the field.

4.6.2 Each air soft gun will be classified based on the chronographed velocity, bb gram weight and fire mode restrictions in **Table 1**.

4.6.3 All players will be advised of the recommended minimum engagement distance of their air soft gun based on the information in **Table 1**.

4.6.4 Players that carry multiple air soft guns will be advised of the recommended minimum engagement distance for each air soft gun.

4.6.5 Any air soft gun chronographing outside the required velocity limits or any other requirement listed in **Table 1** will not be allowed on the field.

4.7 Required Signs:

4.7.1 The following signs shall be posted conspicuously:

4.7.1.1 “Goggles On” signs shall be posted at the exits of the staging area along routes to the playing fields, and at the entrances to any other areas that an air soft gun discharge might be permitted.

4.7.1.2 “No Fire Zone” signs shall be posted at the exits from these areas: the playing fields, chronograph area, target range, and anywhere else that air soft gun discharge might be permitted.

4.7.1.3 “Air Soft Game Area, Eye Protection Required” signs shall be posted at locations where unauthorized direct access to the playing fields is likely by outsiders not familiar with the sport.

4.8 Emergency Requirements:

4.8.1 *Emergency Contingency Plan*—Emergency procedures, printed in 12-point or larger type shall be on hand and all staff members will be aware of the required actions to implement this plan.

4.8.2 *First Aid Kit*—Will be available at the facility.

4.8.3 *Emergency Information*—The contact information and location of the closest police, fire and hospital printed in

12-point or larger type shall be on-hand. In addition a method to contact these facilities will be available.

4.9 Adequate Staffing during Games—Due to physical size, layout, or number of participants and participant skill level, some fields may require a variation in the number referees present to provide a safe and manageable playing environment. The game organizer and referees should review these needs prior to each days play.

4.9.1 Recommended Referee to Player Ratio—The recommended ratio of referees to players at any air soft facility should be one referee for every 15 players.

4.9.2 Minimum Number of Referees Per Playing Field—At least one referee shall be present on every air soft playing field during active play.

4.10 Adequate Spectator Provisions and Staging Area—Areas in which spectators are permitted to observe air soft games without goggles and player staging areas shall be protected against accidental air soft projectile entry. These areas shall be designed in a manner or location such that stray air soft shots cannot enter from other areas, such as playing fields, target areas, or chronograph areas. Staging areas may be protected by a minimum of 300 ft of open space, by natural growth which prevents air soft shot penetration or by a barrier which prevents air soft shot penetration.

4.11 Game Area:

4.11.1 Game areas require the following:

4.11.1.1 Boundaries of all outdoor air soft playing fields shall be marked clearly and continuously with rope, tape, or other highly visible material.

4.11.1.2 Areas with hidden dangers such as water, cliffs, or sharp objects shall be roped off, posted, or plainly identified and will be reviewed in the player safety briefing.

4.11.1.3 Playing fields shall be free of barbed wire, broken glass, and other dangerous debris.

4.11.1.4 Floor surfaces of indoor air soft playing fields shall be maintained in a manner which provides adequate traction.

4.12 Air Soft Guns:

4.12.1 Air soft guns shall be in good working condition.

4.12.2 The game operator or referee will designate the allowable discharge modes for all air soft guns prior to the beginning of play. The game operator or referee may allow a change in the mode of fire as long as all participants are advised of this change prior to the beginning of play.

4.12.3 All air soft guns used by a player shall have working safety mechanisms.

4.12.4 Trigger guards shall be mandatory on all air soft guns used by players. The trigger guard must be of rigid construction and be rigidly affixed to the marker.

4.13 Velocity Adjusting Regulation—Players shall be informed that adjustment of velocity of air soft guns while on the playing field is prohibited. Any air soft gun which has its velocity adjusted must be chronographed prior to its initial use on the playing field.

4.14 Minimum Engagement Distance—All players will be advised of the recommended minimum engagement distance for the playing field based on their type of air soft gun and the information in **Table 1**. Multiple recommended minimum engagement distances may be in effect based on air soft gun types.

5. Keywords

5.1 air soft; eye protection; field operation; goggles; minimum engagement distance; safety

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