

Designation: F 1777 - 02

Standard Practice for Paintball Field Operation¹

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INTRODUCTION

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

1. Scope

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

2. Referenced Documents

- 2.1 ASTM Standards:
- F 1776 Standard Specification for Eye Protective Devices for Paintball Sports²

3. Terminology

- 3.1 Definitions of Terms Specific to This Standard:
- 3.1.1 *bulk cylinder*, *n*—a gas storage vessel used to fill gas propellant vessels on paintball markers.
- 3.1.2 *burst-mode marker*, *n*—a burst mode marker may discharge two or more times per trigger cycle or may discharge two or more times with the pull and release of the trigger.
- 3.1.3 *discharge mode*, *n*—a mode that controls the number of paintballs discharged per trigger cycle.
- 3.1.4 *ear protection*, *n*—devices that cover the ear cavities and prevent direct entry of paintballs into the ear canals.
- 3.1.5 *enhanced trigger marker*, *n*—a paintball marker that at some point discharges more than one paintball per trigger cycle. This includes markers that "store" the number of trigger pulls and discharge more than one paintball at some point.
- 3.1.6 *filling apparatus*, *n*—equipment used to properly fill gas propellant vessels on paintball markers from bulk cylinders.
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 - ² Annual Book of ASTM Standards, Vol 15.07.

- 3.1.7 fully automatic paintball marker, n—a marker that discharges when the triggering device is actuated and continues to discharge until the trigger returns to its reset or recycle position.
- 3.1.8 *game area*, *n*—an area in which paintball games are conducted and in which paintball goggles are required to be worn.
- 3.1.9 *goggles*, *n*—consist of eye protection devices that comply with Specification F 1776 and have ear and face protection integrated into the design.
- 3.1.10 *goggles on area*, *n*—areas in which all persons are required to wear paintball goggles, such as and not limited to playing fields, game areas, chronograph areas, and target ranges.
- 3.1.11 *paintball marker*, *n*—a device specifically designed to discharge paintballs. The device is sometimes referred to as a *paintball gun*.
 - 3.1.12 *player*, *n*—a paintball game participant
- 3.1.13 *playing field*, *n*—an area delineated by a boundary marker, in which paintball games are conducted.
- 3.1.14 *pump marker*, *n*—a marker that requires the operator to manually cock or engage the sear of the marker before each shot by a means of a pump, bolt, lever, cocking handle or similar device.
- 3.1.15 safety mechanism, n—a device that, when activated, disables a part of the paintball marker, usually the trigger, to prevent unintentional firing in normal use and must be released to allow the marker to be discharged by the movement of the trigger. 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 marker inoperable.



- 3.1.16 *semi-automatic marker*, *n*—a semi-automatic marker discharges one time with each trigger cycle. Markers that "store" the number of trigger pulls and discharge more than one paintball at some point to not meet this definition. Markers that operate in other discharge mode(s) do not meet this definition.
- 3.1.17 *staging area*, *n*—an area protected against stray entry of paintballs, in which paintball players organize themselves for a game.
- 3.1.18 *trigger cycle*, *n*—the movement of the trigger through discharge and returning to a resent or recycle position.

4. Operational Procedures

- 4.1 Safety Rules Posted—Player safety rules, printed in 12-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 a formal briefing on safety rules, risk of injury, game rules, field orientation, and equipment operation.
- 4.3 Barrel Plug Regulation—All players shall be required to have paintball marker barrels blocked with a device specifically designed for that purpose at all times other than while on the playing field during games, at the chronograph, or at the target range.
- 4.4 Eye, Ear, and Face Protection—All persons shall be required to wear ear protection and paintball goggles with full face protection at all times while they are in areas designated as "goggles on areas." The goggles shall be designed specifically for use in paintball games, shall not be obviously altered from the original manufactured design in a manner not prescribed by the manufacturer, and shall comply with Specification F 1776 and by January 1, 2005 shall bear the Protective Eyewear Certification Council seal.
- 4.5 Chronographing Procedures—All paintball markers shall be chronographed. All field rental paintball markers shall be chronographed daily prior to being used at the field. All other paintball markers shall be chronographed at the field prior to being used on the field. Paintball marker velocities shall be adjusted so as to not exceed 300 ft/s.
 - 4.6 Required Signs:
 - 4.6.1 The following signs shall be posted conspicuously:
- 4.6.1.1 "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 paintball marker discharge might be permitted.
- 4.6.1.2 "Barrel Plugs" signs shall be posted at the exits from the playing fields, chronograph area, target range, and anywhere else that paintball marker discharge might be permitted.
- 4.6.1.3 "Paintball 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.
- 4.7 Emergency Contingency Plan—Emergency procedures, printed in 12-point or larger type shall be posted and a first-aid kit readily available at the field.
- 4.8 Adequate Judges During Games—At least one referee shall be present on every indoor paintball playing field. At least

- two referees shall be present on every outdoor paintball playing field. There also shall be a minimum of one referee on every paintball playing field for every 15 players.
- 4.9 Fill Station—Bulk cylinders shall be secured properly to prevent falling over, during storage and during use. A scale shall be used to ensure against CO₂ overfills beyond the Department of Transportation allowed capacity. All gas filling apparatus and procedures shall meet OSHA requirements, as well as Compressed Gas Association requirements for the handling of compressed gasses.
- 4.10 Adequate Spectator Provisions and Staging Area—Areas in which spectators are permitted to observe paintball games without goggles and player staging areas shall be protected against paintball entry. These areas shall be designed in a manner or location such that stray paintballs 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 paintball penetration or by a barrier which prevents paintball penetration.
 - 4.11 Game Area:
 - 4.11.1 Game areas require the following:
- 4.11.1.1 Boundaries of all outdoor paintball 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.
- 4.11.1.3 Playing fields shall be free of barbed wire, broken glass, and other dangerous litter.
- 4.11.1.4 Floor surfaces of indoor paintball playing fields shall be maintained in a manner which provides adequate traction.
 - 4.12 Paintball Markers:
- 4.12.1 Any paintball markers used by a player shall have working safety mechanisms.
- 4.12.2 Paintball markers operating in other than semiautomatic or pump discharge modes are not to be allowed on the playing field. Paintball markers that are capable of operating in other than semi-automatic or pump discharge modes shall be allowed on the playing field so long as such markers are set to discharge in semi-automatic or pump discharge modes prior to and while being used on the field of play. The possession of any tools while on the playing field, or disassembly of the marker, that allow the discharge mode to be changed shall be prohibited. The changing, while on the field, of the discharge mode to anything other than semi-automatic or pump discharge modes shall be prohibited. The intent of this provision is to ensure that markers in use on a playing field shall be set to operate in semi-automatic or pump discharge modes, and not to prohibit the use of a marker on a playing field that may otherwise be capable of operating in other than semi-automatic or pump discharge modes.
- 4.12.3 Trigger guards shall be mandatory on all paintball markers 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 the possession of paintball marker velocity adjusting tools while on the playing field is prohibited.



5. Keywords

5.1 field operation; goggles; paintball; safety

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