Simunition® is the world leader in safe and realistic, interactive, combat training solutions. The re-designed 5.56 mm FX® uses the Simunition® patented reduced-energy technology and works with a conversion bolt, increasing safety and ensuring proper weapon functioning. Along with the protective equipment and Simunition® training, they are the four essential components of the FX® Training System designed especially for military, law enforcement and approved ranges.

These new 5.56 mm FX® Cartridges have many impressive features:

- Minimal barrel fouling
- Re-designed projectile to increase deformation on impact for optimal marking even on soft targets at distance
- Reduced terminal effects (less pain penalty) through reduced velocities
- Non-toxic and non-lethal cartridges
- Detergent-based, water-soluble red and blue color marking compounds
- Visible impacts allow accurate assessment of simulated lethality
- Similar or better accuracy with reduced velocity for the marking cartridges
- Equivalent or better shelf life
- Re-designed projectile, patent pending
- Convenient for training any time, any place, indoors and outdoors
- Increased range and accuracy for the 5.56mm FX® non-marking cartridges

In addition, the Simunition® conversion bolt:

- User-installed temporary weapon conversion; no tools required
- Safe design helps preclude the chambering of lethal ammunition
- Works with the user’s service weapon without adding extra weight
- Realistic weapon functioning, capable of firing in semi-auto and fully-automatic modes

The 5.56 mm FX® Marking Cartridge is ideal for training:

- Reality-based, force-on-force interactive scenarios
- Force-on-target training; practically anywhere
- Weapon safety handling training
- Urban fighting (MOUT/FIBUA)
- Anti-terrorism
- Convoy protection tactics
- Compatible with laser-based training simulators
- Close-quarter battle (CQB)
- Shoot/No shoot decisions
- Individual/Team situations
- Mission rehearsal
- Active Shooter Training

FX® Scenario Instructor and Safety Certification Course:

- Highly qualified professional trainers
- Offered worldwide: visit our website at www.simunition.com for more information on available courses

As real as you can get™ WITH 5.56 MM FX® CARTRIDGES
### COMPONENTS

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caliber</td>
<td>5.56 mm / .223 Remington</td>
</tr>
<tr>
<td>Projectile Mass</td>
<td>Approximately 0.3 g (4.6 grains)</td>
</tr>
<tr>
<td>Projectile Material</td>
<td>Polymer front and back shell coupled by a brass ring</td>
</tr>
<tr>
<td>Cartridge Case</td>
<td>Copper alloy</td>
</tr>
<tr>
<td>Marking Compound</td>
<td>Non-toxic, detergent-based, water-soluble</td>
</tr>
<tr>
<td>Marking Colors</td>
<td>Red, Blue and Non-Marking</td>
</tr>
<tr>
<td>Primer</td>
<td>Toxfree® primer</td>
</tr>
<tr>
<td>Propellant</td>
<td>Single or double-base smokeless powder</td>
</tr>
</tbody>
</table>

### BALLISTIC DATA

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Velocity at 3.5 m (12 ft.): 21º C (70º F)</td>
<td>Approx. 155 m/s (508 fps); weapon dependent</td>
</tr>
<tr>
<td>Accuracy at 21º C (70º F)</td>
<td>15 cm (6 in.) at 15 m (50 ft.) shoulder fired</td>
</tr>
<tr>
<td>Maximum range</td>
<td>Approx. 150 m (492 ft.)</td>
</tr>
<tr>
<td>Energy at 3.5 m (12 ft.)</td>
<td>Approx. 3.6 Joules (2.7 ft.-lbs)</td>
</tr>
<tr>
<td>Ballistic Match (max)</td>
<td>Nominal -23 cm (-9 in.) at 15 m (50 ft.)</td>
</tr>
</tbody>
</table>

### TERMINAL EFFECT

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lethality</td>
<td>Non-lethal bruises, welts or scrapes (fully deformable projectile ogive)</td>
</tr>
</tbody>
</table>

### USE

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>For use with Simunition® conversion bolt only</td>
</tr>
<tr>
<td>Operational temperature range</td>
<td>-8º C (18º F) to +40º C (104º F)</td>
</tr>
<tr>
<td>Mandatory safety equipment</td>
<td>Head, eye, throat and groin protection</td>
</tr>
<tr>
<td>Firing modes</td>
<td>Single shot, burst and fully-automatic</td>
</tr>
</tbody>
</table>

### STORAGE

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended storage</td>
<td>Cool, dry environment, 25ºC (77ºF) max</td>
</tr>
<tr>
<td>Shelf life</td>
<td>Three years in original packaging</td>
</tr>
<tr>
<td>Warranty</td>
<td>One year</td>
</tr>
</tbody>
</table>

### WEAPONS

<table>
<thead>
<tr>
<th>5.56 x 45 mm FX® Marking</th>
<th>5.56 x 45 mm FX® Non-Marking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colt-style M4/M16, AR 15</td>
<td></td>
</tr>
<tr>
<td>Other weapon types to be qualified soon</td>
<td></td>
</tr>
</tbody>
</table>

**Guidelines for use:**
- Intended only for supervised training conducted in accordance with Simunition® safety training protocols by law enforcement, military and Simunition® approved range members (in selected markets)
- Use only under the direction of a qualified Simunition® training safety officer
- Use only in firearms which have been converted with a Simunition® conversion bolt
- Users must wear approved FX® protective gear (head, throat and groin protection) and full-body covering including hands
- Simunition® requires a minimum 3-foot (1 m) stand-off distance when firing clipped 5.56 mm FX® Marking Cartridges at protected personnel
- Clearly identify converted weapons with FX® blue tape on the barrel, grip and magazines
- General Dynamics assumes no responsibility for injuries, loss or damage resulting from misuse of this ammunition.

Patents Pending. Dimensions, weights and velocities are nominal.

**SIMULATION, Safety as The Standard™**