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30mm Air Bursting Munitions for the MK44 Cannon

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30mm Air Burst Munition

SELECTED FOR QUALIFICATION BY U.S. NAVY / U.S. MARINE CORPS

- ATK command arm fuze with turns-count technology
- Setting system integrated into Mk44 cannon
- Effective against personnel and materiel targets
The following components comprise the 30mm ABM MK44 Gun System for the Marines EFV:

- MK44 with modified timing
- ABM Capable Gun Control Unit (GCU)
- Setter drive coil assembly, located within the gun assembly
- ABM Ballistic Algorithm incorporated in Fire Control software
- RS-485 Communication between FC and GCU
- Laser rangefinder
- Sensors for air temperature and pressure
- Tilt sensor on gun barrel (pitch, roll)
- Gunner display to assist and confirm target aiming
The following components comprise the 30mm ABM MK44 Gun System for the FCS ICV

- Stretched MK44 with modified timing
- ABM Capable Gun Control Unit (GCU)
- Setter drive coil assembly, located within the gun assembly
- ABM Ballistic Algorithm incorporated in Fire Control software
- Fire Control / GCU Communication:
  - Option of RS-485 or CAN Bus
- Laser rangefinder
- Sensors for air temperature and pressure
- Tilt sensor on gun barrel (pitch, roll)
- Gunner display to assist and confirm target aiming
Integrated Fuze Setter Coil with MK44 Feeder

Simple Integration of Inductive Setter Coil into MK44 feeder
Mk44 ABM Integration

• USN selected ATK inductive set ABM for Qualification Program
  – ATK will incorporate ABM kits into EFV weapons in support of Qualification Program

• ATK on contract for ABM guns for Elbit
  – Utilizes ATK inductive setter
  – Includes modified gun cycle timing with First Round Select
Air Burst Fuze

Features:

- Base fuze for improved forward fragmentation in air burst mode and superior penetration capability in PD and PD-delay modes
- SAPHEI-T warhead for high performance penetration
- Unique, cost effective Setback Generator (SBG) design
- Command Arm Safe and Arm (S&A) design – cost effective and flexible
### Normal Modes

<table>
<thead>
<tr>
<th>Modes of Operation</th>
<th>Primary Target</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Burst Mode</td>
<td>Troops in Squad, ATGM, over walls</td>
<td>Will PD if projectile encounters a hard target prior to set air burst range</td>
</tr>
<tr>
<td>Point Detonate</td>
<td>LFIE, Water Craft, Lightly Armored Vehicles, etc…</td>
<td>Fuze functions in this mode if no inductive communication received</td>
</tr>
<tr>
<td>Point Detonate with Delay</td>
<td></td>
<td>Short Delay</td>
</tr>
</tbody>
</table>

### Military Operations in Urban Terrain (MOUT)

<table>
<thead>
<tr>
<th>Modes of Operation</th>
<th>Primary Target</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Burst Mode Quick Arm</td>
<td>Confined Areas, Urban Targets</td>
<td>Will PD if projectile encounters a hard target prior to set air burst range</td>
</tr>
<tr>
<td>Point Detonate Quick Arm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point Detonate with Delay Quick Arm</td>
<td></td>
<td>Short Delay</td>
</tr>
</tbody>
</table>
ATK Air Burst Ammo Target Set

Urban, Wall, and Bunker Targets
- 8” Double Reinforced Concrete
- Terracotta
- Lightly Fortified Infantry Emplacement (LFIE)

Naval Targets
- FIAC
- Personal Watercraft
- RHIB

Personnel Targets
- ATGM Crew
- Troops in squad

Armored Vehicles & Automobiles
- Auto
- BTR
<table>
<thead>
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<th>CONTACTS</th>
<th></th>
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<tbody>
<tr>
<td>Approved for Public Release 07-S-2716 dated 17 September 2007</td>
<td>An advanced weapon and space systems company</td>
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