

## Appendix A

# FASCAM Characteristics

**ADAMS**—Artillery delivered anti-personnel (ADAMS) mine system

U.S. Army  
U.S. Marine Corps

Round M692/M731 contains 36 trip-wire activated, blast-type mines with antihandling devices. Two self-destruct settings OR 24 hours. Mine fields usually laid in 400m X 400m blocks. Emplacement time is in 5 minutes.

**RAAM**—Remote anti-armor mine system (RAAMS) (artillery delivered)

U.S. Army  
U.S. Marine Corps

Round M718/M741 contains nine magnetic-fused, self-forging, fragmentary type mines with anti-handling devices. Two self-destruct setting OR 24 hours. Mine fields usually laid in 400m X 400m blocks. Emplacement time is in 5 minutes.

**Gator**—(AT/AP) (Delivered by fixed-wing, high performance aircraft)

U.S. Air Force  
U.S. Army  
U.S. Marine Corps

USAF dispenser (CBU-89/B)—72AT/22AP  
USN/USMC dispenser (CBU-78/B)—45AT/15AP  
Contains self-forging, fragmentary type AT mines and trip-wire-activated, blast type AP mines. One short and two long self-destruct settings. Emplacement time subject to aircraft delivering to target area.

**Characteristics.** FASCAM mine systems have similar characteristics in that they are sown on the surface of the ground. They have preset SELF-DESTRUCT times and may have an anti-disturbance actuator as well as seismic and/or magnetic triggering devices.

**Self-Destruct Times.** These are the times beyond which *no* mines will remain active. The individual mine self-destruct times actually occur *before* the times detailed in Table A-1. There is very little probability of a live mine existing past its stated self-destruct time. Ninety-nine percent of all FASCAM mines will self-destruct in an interval between .89 to .91 of the stated self-destruct time.

**Table A-1. Self-Destruct Times.**

	4 Hours	48 Hours	5 Days	15 Days
ADAM/RAAM (M731/M741)	X			
ADAM/RAAM (M692/M714)		X		
GEMSS (M74/M75)			X	X
MOPMS (M76/M77)	X			
Gator/Volcano (M89/M90)		X	X	X

**SAFE SEPARATION Arming Time.** Immediately after receiving an arming signal, the mine batteries activate. Upon reaching their designated SAFE SEPARATION (arming) time, they arm themselves. The first step in arming is to perform a self-test. All mines that fail the self-test SELF-DESTRUCT IMMEDIATELY! SAFE SEPARATION (arming) times for U.S. Armed Forces FASCAM type mines are listed in Table A-2.

**FASCAM Employment Information.** Occasionally, FASCAM systems will not perform as advertised. This is the case with most complex, microchip operated technology. The following information will assist in understanding these functional anomalies.

Sometimes the mines detonate for no apparent reason. Between arming and reaching 80 percent of their self-destruct times, 15 mines per 1,000 will self-destruct.

Sometimes the mines are duds. This is the most frequent failure and occurs to 52 mines per 1,000. Mines remaining after their programmed self-

destruct time should not be considered duds but considered dangerous unexploded ordnance and dealt with appropriately.

All munitions must pass a bullet impact test which involves firing a .50 caliber projectile into the mine from each of three axes. If the ordnance explodes, it fails the test. All U.S. FASCAM mines pass this test.

The modular packed mine system (MOPMS) system begins arming when directed. It completes arming at 90 seconds. The mines will discharge from their dispensing case 50 seconds after arming has been directed. They do not come out armed. They do not come out immediately upon receiving the signal to initiate arming. The delay is due to the time required for the 333 mines to receive coded identification and activation.

**FASCAM Release Authority.** FASCAM release authority is maintained at the lieutenant general-level and released to subordinate commanders only with good reason (exception is 4 hour self-destruct time which is usually given to colonel-level commanders).

**Table A-2. Arming Times.**

<b>FASCAM System</b>	<b>SAFE SEPARATION (Arming) Time</b>
GEMSS	45 seconds
MOPMS	90 seconds
RAAM (Improved)	45 seconds
RAAM	2 minutes
ADAM	2 minutes
Gator	2 minutes