

Mobile Counter Fire System (MCFS)

Purpose: The Mobile Counter Fire System (MCFS) initiative is to develop a counter sniper capability that can improve force protection in a variety of tactical settings. MCFS will augment force protection by providing a capability to immediately detect sniper fire, identify and report the sniper’s location and return accurate fire.

Background: The Marine Corps has a need to provide the war fighter a means of detecting the location of incoming sniper fire. Technological advances in acoustic and IR sensors, computer analysis of weapon signatures, and integration of robotics are available to produce sniper detection, location and shoot back prototypes for experimentation. The long-term goal is to migrate technologies (especially the sensor package) to a program of record.



Description: The current MCFS prototype consists of a High Mobility Multi-purpose Wheeled Vehicle (HMMWV) mounted with a gunfire detection system capable of operating in a static position. The system has the capability to slew a ring mounted heavy machine gun to the sniper’s position and automatically track the sniper’s position. Final aiming and firing is controlled from inside the armored HMMWV by the operator. Experimentation will consist of limited technical assessments of an advanced prototype in live fire scenarios.

Plans: MCWL is researching methods to integrate IR sensors into the sniper detection suite. Both IR muzzle flash and 3-Dimensional bullet tracking systems will be examined. Additionally, a self-contained sniper sensor suite, capable of detecting hostile fire and communicating with the MCFS, will be developed.

Deliverable Product(s): Prototype for operational assessment and requirements documentation.

Milestones:

