

Motorized Smoke Obscurant System - MMWP³I



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The M56A1 Coyote is a motorized system mounted on an M1113 Expanded Capacity High Mobility Multi-purpose Wheeled Vehicle (HMMWV). Equipped with a Turbo-Charged 190 HP engine, the M56A1 has a gross vehicle weight of 10,500 lbs. This enables the maneuver element to fully load the M56 and still pull a trailer.

OPERATIONAL CAPABILITIES

The M56A1 Smoke Generator consists of three types of obscurant systems that can be operated either simultaneously, or independently. The M56A1 provides 90 minutes of Visual, 30 minutes of Infrared (IR), and 30 minutes of Millimeter Wave (MMW) obscuration without re-supply. A crew of two is required to operate the M56A1. Dissemination can be either stationary or mobile, and one platoon (six vehicles) can provide a large area of coverage.

When combined, the Visual, IR, and MMW screens can deny enemy Reconnaissance, Intelligence Surveillance and Target Acquisition (RISTA) devices critical information regarding troop strength, position, movement, and prevent weapon system kills on our combat units.



Eight Canisters
4 In Each Bay - 30 lbs. Each

MMW MODULE

Designed to be modular for ease of integration onto an existing M56 Smoke Generator with only minor modifications, the MMW Module provides 30 minutes of operation in either a stationary or mobile mode. A vehicle load out consists of 8 disposable canisters, each filled with 30 lbs. of pre-cut Carbon Fiber (CF). By incorporating a dual bank design, a continuous mode is achievable for stationary missions by alternately reloading the two banks with four new canisters every 15 minutes. A concept study to add the MMW Module to an M58 "WOLF" is currently in process.

MMW FEATURES

Real-time system monitoring maximizes mission success by providing anti-CF jam sense and recovery, auto abort of problem canisters and auto-recovery from most system failures. An overhead storage box was incorporated into the Vehicle Cab to support Basic Load and BII storage to facilitate a successful obscurant mission. The relocation of the AT4 and SAW from the Weapons Storage Box to a Weapons Rack mounted in the rear of the Cab provides secure, convenient access for the crew.

MMW CONTROL PANEL

MMW Control is integrated into the existing M56 Control Panel, conveniently located in the M56A1 Cab between the driver and operator. This enables easy access by either, while providing safety for the two man crew operating the system. Control of the MMW System is via a single On/Off switch located on this panel. Mission status is constantly available on the 3-digit LED display.

MMW MAINTENANCE PANEL

A Maintenance Panel on the MMW Module's Electronics Bay provides an alternate method of control and status. Its primary purpose is to facilitate preventive maintenance checkout. The Built-In-Test (BIT) feature ensures system integrity prior to performing a mission. Maintenance support software assists the maintainer during problem isolation and recovery.

MMW MATERIAL - CARBON FIBER

- Excellent defeat characteristics throughout the 9-96 GHz frequency range.
- Excellent dissemination quality with minimal agglomeration or bird nesting.
- Environmentally friendly - benign material, sized to maximize effectiveness, while imposing minimal health and toxicological concerns.
- Material cost is economically acceptable.
- Minimized weight/quantity necessary to support the MMW Mission Requirements.



Control Panel



Maintenance Panel

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