

Rapid Acquisition of Crew Served Weapons Accessories

Jason M. Davis
MDNS-CSW Project Manager
Naval Surface Warfare Center Crane
(NSWC Crane)

NDIA Small Arms Symposium
May 26, 2011

Miniature Day/Night Sight – CSW System



System Mission: MDNS-CSW Provides Crew-Served Weapons Operators Dramatically Improved Day and Night Aiming Capabilities Out to the Maximum Effective Range of Their Weapons, or to the Maximum Detection Range of Night Vision Goggles.

MDNS-CSW Components

PHASE I

- **Enhanced Combat Optical Sight – Heavy (ECOS-H)**
- **Visible Bright Light – Heavy (VBL-H)**
- **Crew Served Heavy Weapon Aiming Laser (CSHWAL)**
- **Rail Interface System – Heavy (RIS-H)**
- **Crew Served Flash Suppressor (CSFS)**

PHASE II

- **Clip-On Night Vision Sight – Heavy (CNVD-H)**
- **Ballistic Processor Module (BPM)**
- **Flat Panel Display (FPD)**

Background

- **Defense Acquisition Challenge (DAC) Program:**
Established by Congress to Increase Introduction of Innovative and Cost-Saving Technologies and Products into Existing DoD Acquisition Programs
- **Two DACs Awarded**
 - Fully Integrated Fire Control System
 - Improved Flash Hider
- **Full & Open Competition of Five Subsystems**
- **Jan 2010: Solicitation Released**
- **Aug/Sept 2010: Contracts Awarded**
- **Nov 2011: Initial Fieldings**

Sight, ECOS-H

SU-264/PEQ



- **Holographic Sight**
- **Sight Window 2.4x Larger than SU-231/PEQ**
- **.50cal Ballistic Reticle**
- **IR Mode**
- **Powered by 1 x CR123 Battery**

SU-265/PEQ



- **Infinite Reflex Optic with Fixed 1X Magnification**
- **Ballistic Compensation Reticle: 2 x 1 MOA Diameter Dots**
- **Illumination Adjustment: Auto Mode with Additional 15 Fixed Levels**
- **Powered by 2 x CR123 Batteries**

Light, VBL-H

SU-263/PVS



- **Dual Activation Controls:**
 - On/Off Switch on Housing & Wired Remote On/Off Switch
- **Fixed Beam**
- **IR Capable with Filter**
- **Power Sources**
 - Rechargeable, Non-Changeable, Internal Battery
 - One or Two External BA5590 Batteries
 - Vehicle Slave Capability

Laser, CSHWAL



- **Provides Long Range Day and Night Aiming and Illumination for Crew Served Weapons**
- **Separate Power Control Knobs for IR Illuminator and Aiming Lasers**
- **Designed to Be Operated Remotely**
- **Power Sources**
 - **Six CR123 Batteries**
 - **One BA5590 Battery**
 - **Vehicle Slave Capability**

Requirement ▶ Specification ▶ Capability

ILLUM BEAM
 1x
 2x
 CIRCULAR SQUARE

Power Push-in to turn on past detent
 Rheostat portion with tactile clicks
 Deliberate ACTIVATION OF VISIBLE LASER

ILLUM w/e
 Finger Adjustable

Fire Button IN CENTER OF LASER.

ON BOARD ACTIVATION BUTTON DOUBLE-TAP

IR AIM/ILLUM
 IR AIM
 VIS AIM
 Push to ACTIVATE VISIBLE

ILLUM WINDOW
 AIM (IR & VIS) WINDOWS
 Lanyard hole

Power SWITCH Power
 FIRE
 CW 2Hz
 2Hz
 Remote

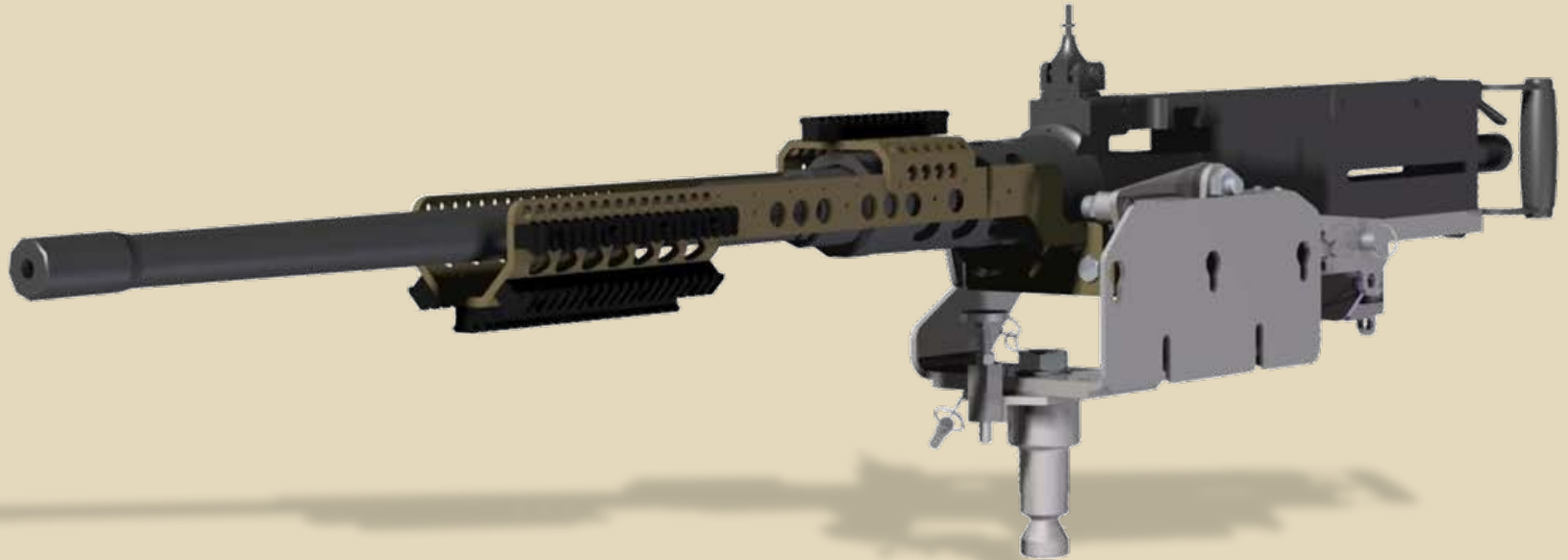
o Vehicle Power } (T)
 o BA-5590 }
 o WITH OR WITHOUT ON BOARD BATTERIES

Battery Tray
 gravity
 CR123s 'AA's
 ARM LOW BATTERY LED.
 WELL IN BACK

- WIRELESS
- CLICK 'ON' - CLICK 'OFF' "ROCKER"
- 'CLICKY' MOMENTARY
- COILED (IZLID 1000P Clone)
- 90° CONNECTOR
- WITH & WITHOUT MALE THREADS
- PLUG-IN & THREAD-IN OPTIONS
- HEAT RESISTANT??
 (SHORT OF AGAINST CHERRY RED BARREL)

10 seconds (T)
 10 seconds (O)

Rail, RIS-H

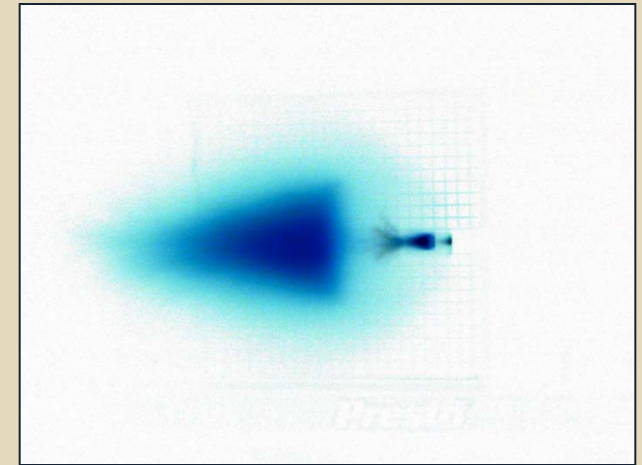


- **Government Designed (Patent Pending)**
- **Bolts to MK93 Mount**
- **Provides 6 Possible Mounting Surfaces Equidistant from Bore**
- **Designed Failure Point for Overloading**
- **Cable Management System**

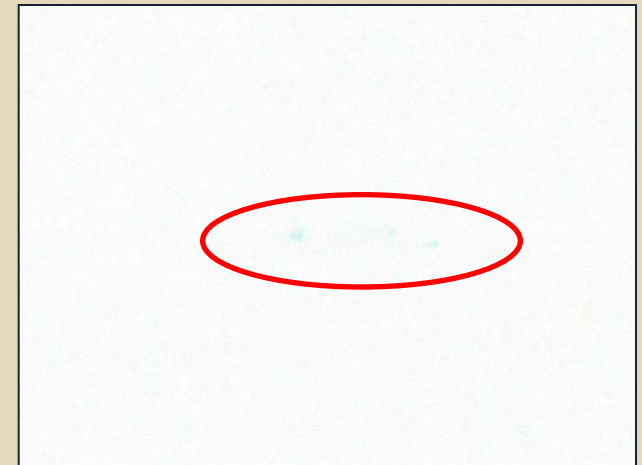
Flash Suppressor, CSFS



- **Effective Muzzle Flash Reduction of 95% or More**
- **Length, 6.1 in**
- **Weight, 2.4 lbs**



Without Flash Hider



With Flash Hider

Contact Information



Jason M. Davis
MDNS-CSW Project Manager
NSWC Crane
300 Hwy 361
Code JXNLM, B-3422
Crane, IN 47522
(812) 854-6855
jason.m.davis3@navy.mil