

Location Of Miss And Hit (LOMAH)

As the long-standing industry leader in indoor and outdoor shooting ranges, InVeris Training Solutions designs, equips and installs range systems around the globe.

The Location of Miss and Hit (LOMAH) system adds shot scoring to improve training. LOMAH is available as a retrofit capable kit or LOMAH capable InVeris target systems. This means easy and quick installation with little downtime and lower cost of installation.

The system measures the precise time of a bullet's supersonic shock wave passing over the microphone sensor array. Attached below the height of the lifter and encased with ballistic protection, the microphone array is positioned so the system is not damaged by bullets.

InVeris' LOMAH system registers the passing of the bullet, computing the bullet's location (X, Y coordinate) and presents a graphical image of shot location on the target, appearing on the shooter's Firing Point Computer (FPC). This provides the shooter and instructor with immediate feedback of the shot location via the FPC on the firing line. The bullet's measured location provides the shooter the information needed to accurately display shot grouping and zeroing of weapons more effectively, resulting in improved marksmanship skills. Single shots and bursts are recorded as well. The system can be used for a wide variety of ammunition, from .22 to .50 caliber.

InVeris' LOMAH system provides an impressive array of features, including:

- Quick and easy installation on new or existing ranges
- Ethernet or Wi-Fi communication for quick, robust communication without latency in receiving results
- Individual replacement of sensor modules for less expensive and faster maintenance of the system
- Sensor modules configured to perform in a wide variety of topologies
- Results in a lower overall cost of system due to:
 - Electronics easily incorporated into InVeris' lifters
 - Availability in a stand-alone unit, deployable to any target lifter



LOMAH Lane Shot Initiator (LSI)

InVeris' LSI provides the following benefits to the end user:

 Can be quickly added to the LOMAH system for ranges with multiple shooting positions that want to differentiate between shooters

LOMAH Firing Point Computer (FPC)

InVeris' FPC is a multi-function tool, providing:

- Integration into the LOMAH system for individual shooter real time feedback at the firing position
- Control of InVeris target lifter, as applicable
- Adjustable brightness of display



- 4X zoom of target view
- Replay of the last shot fired
- Sequential numbered shots
- Report a crossfire if used with a LSI
- Scoring information for hits on target
- Group size and diameter
- Integrated sun shield
- Comfortable carry handle for easy transport

LOMAH Stand-Alone Electronics

InVeris Training Solutions' LOMAH detects the location of supersonic round hits and misses passing through an acoustic detection window on and around a designated target, without the round having to make contact with the target.

LOMAH may also be referred to as:

- Automatic Marking System (AMS)
- Projectile Location System (PLS)

TRCS Product Specifications	
Specification	Value
Caliber	Typical .22 to .50 caliber (NATO 5.56 to 12.7mm)
Projectile Velocity	At least 450 m/sec (1,476 ft/sec) at the target
Detection Zone	Adjustable, typical detection window is 3 X 2.5 m (10 X 8 ft)
Detection Rate	1200 round per minute maximum
Accuracy, Perpendicular	Average radial tolerance <5mm at the target center within a circle of radius of 150mm in wind conditions <1.5 m/s
Power Supply and Electronics	Options Available: • Fully integrated into the Stationary Infantry Target (SIT) • Separate enclosure powered by +12 V • Separate enclosure powered by POE
Standard Communications	Ethernet 100 BaseT
Operating Temperature	-25C to 70°C (-13° F to 158° F)
Storage Temperature	-40°C to 70°C (-40° F to 158° F)
Enclosure Rating	IP67
Software	Works with InVeris RangeMaster [™] software for shot display

