



Target Practicing Array

The Target Practicing Array is a **passive acoustic system** which locates the Point of Origin and the Point of Impact of Rockets, Artillery and Mortars (RAM) fired. The technology used is the **worldwide unique and extremely small Acoustic Multi-Mission Sensor (AMMS) technology**, developed by Microflown AVISA. Typical applications are for training, testing of ammunition and security at shooting ranges.

A system consists of a **command post and a number of (typically 10) AMMS Sensor Posts**. The quantity depends on the size and shape of the shooting area. Connected via a dedicated communication link (wired or wireless) the sensors communicate their information to the command post. Range Control can monitor the situation and decide over the conduct of the exercise.

The Target Practicing Array uses AMMSs equipped with a Geo-boom, **providing automatic position and orientation information**. The Geo-boom can be used when a system is taken to a different training area for a short period and the same high level of accuracy is required as on the standard shooting range. The system comes with its own power source (i.e. a battery, possible fed by a solar panel). Remote access to and configuration of the system is possible via the established network.

When a sensor post locates an acoustic event (the shot or the impact), it sends automatically a time stamped report of the direction to the Command Post.

The reports from multiple sensor posts are then centrally analysed and the calculated **Point of Origin (POO) and Point of Impact (POI) are presented at the AMMS Command and Control computer on an actual map in real time**. The map itself can be a military map but also a satellite photo, different formats can be used.

The AMMS has **low Size, Weight and Power (SWaP)** characteristics. Due to its **small footprint**, the system is **fast and easy to deploy**. Various types of batteries can be offered for powering the system. Correct placement of the sensor posts can dynamically influence the sensitivity of the sensors. This can be of a great use in an environment with a lot of background noise. The Target Practicing system is **reliable and easy to use**.

Key Features

- Broad banded passive system with extremely small footprint
- Precise localisation of POO and POI of Rockets, Artillery and Mortars
- Overview of all shooting events on the range to facilitate live fire training
- Automatic generation of firing table data in real time
- Operates under adverse weather conditions (e.g. rain, fog, snow)

Technical Specifications

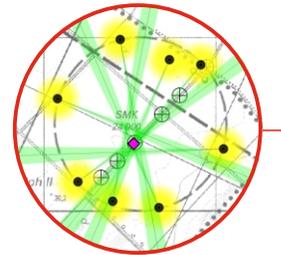
Acoustic Multi-Mission Sensor with a Geo-boom

	AMMS	Geo-boom
Dimensions/ Baseline	10.0 x Ø 26.5cm	60cm wide
Weight	1.75kg	1kg
Assembly	Stainless Steel & Foam	
Powering	12V	
Power consumption	<2W	
AMMS Internal memory	Up to 32GB micro-SD	



Typical System Performance

Localisation accuracy	Range - CEP85 ≤ 10 meters Direction - CEP85 ≤ 1.5°
Detection capability	Rocket, Artillery, Mortar (incl. Unexploded Ordnance)



AMMS C2 Software | Command & Control

Ruggedised laptop	Panasonic Toughbook
Remote sensor configuration	Incl. power on / off
Monitored sensor status	Incl. battery level



Communication

Frequency band	868 MHz / 900 MHz
Range	10 km - line of sight
Custom communication solutions such as wired or satellite communication on demand	



Rugged Battery Solutions

	Standard Battery	mil 2590 Battery
Operational time	2 days	5 days
Battery type	Sealed Lead Acid / AGM	Lithium-ion
Voltage	12 V	14.4 V
Capacity	7.2 Ah	14.4 Ah
Weight	3.43 kg	2.49 kg
Ruggedised box dimensions	21.6 x 18.0 x 10.2 cm	



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