BREAKING
THE CONVENTIONAL TARGET BARRIER

INTEGRITY • ACCURACY • SAFETY • EFFICIENCY
INTRODUCTION

American shooters and hunters dating to the 18th Century have been firing on a variety of targets for defense preparedness, hunting and competition. As technology has advanced, so have the targets we use. For decades, printed targets have been the mainstay of military, police and civilian marksmanship activities - and will remain an important part of our sport indefinitely.

The science of precise acoustic sound management and measurement, however, has taken us into the next generation of targetry - electronic scoring of projectile impacts from conceal carry distances to upwards of 1,500 yards and virtually every distance in between.

With technology developed by Kongsberg Target Systems (KTS) of Norway, CMP Targets is bringing unmatched electronic target performance to the U.S. market as KTS’ sole North American distributor.

Why Electronic Scoring?

As evidenced by the growth of technology in America today, virtual scoring is the next logical step for our sport. To encourage the participation of juniors in target shooting programs, technology and time savings are highly important in bringing youth to our ranges and making their time as productive as possible.

It is a goal of CMP Targets to make the greatest use of time spent on the range in marksmanship activities. Electronic scoring shifts the emphasis of conducting a match or practice from running the range to safely concentrating on shooting skills - sight alignment, trigger control and developing shot technique. Do we anticipate electronic scoring replacing static or pit-served targets everywhere? Certainly not. Just as the gas grill and charcoal grill co-exist in America’s backyards, so will electronic and paper target systems. It’s a matter of practical and economic consideration.

Throughput, time savings, and very importantly - increased safety - are all critical considerations for planners of new ranges or upgrades of older facilities. For those ranges or clubs that host events with multiple relays on the firing line all day, CMP Targets by KTS can greatly reduce match time using electronic scoring and keeping all personnel behind the firing line until firing is complete.

At manually-operated target ranges that convert to electronic scoring, there is no longer a need for pit changes, saving shooters the time and distance traveled, not to mention shooter fatigue on hot or rainy days and the same for their corresponding relay partners. For ranges with static, walk-down targets, there’s no longer a need to post, score and replace

Traditional pits will remain a part of the American landscape indefinitely. Some may serve as stations for unmanned electronic targets.
targets or repair wind-blown or rain-damaged targets. Once the range is made ready for the day, it is operated from the firing line, unless target face changes are required for multiple-distance events.

Safety at static target ranges is a huge advantage of CMP Targets, particularly during open sessions. Normally the entire range must go cold when a new shooter arrives. Typically the range goes into cease-fire mode while the new lane is prepped and made ready for action. With CMP Targets, a new shooter can walk in, log into the system, set up a firing point and begin shooting without disturbing the rest of the range.

**CMP Talladega - Pioneering Technology**

The Civilian Marksmanship Program built the nation’s most progressive and technologically advanced marksmanship park in one year and opened it to the public in May 2015 in Talladega, Alabama. It houses the only three-tier electronic target line in the world, using technology developed by KTS. From a common firing line, shooters can fire on targets at 200, 300 and 600 yards without moving from their firing point. Targets are raised and lowered remotely from the range’s control room and no personnel are required to go downrange except for normal maintenance.

The engineering, hardware and software developed by KTS was a pioneering effort which is opening a new world to future ranges in the U.S. and abroad. Testing and upgrading the technology in the park’s first year using real-world data provided by its first 22,000 unique visitors has yielded invaluable information - to the benefit of future ranges using CMP Targets, fueled by KTS. There is no other public facility that has undergone more experimentation and scrutiny than CMP Talladega.

**Trusting the Technology**

So what does all of this mean to today’s marksman? Depending on the user’s age and comfort with emerging technology, shooters using CMP Targets for the first time fall into one of two camps - completely comfortable and those quickly learning to become comfortable.

Breaking it down demographically, young shooters and those who quickly adapt to video gaming, wireless communication, streaming video and more during their lives, completely embrace the system without concern. Those who remember rotary dial telephones, i.e. those who have always shot on paper targets, are on a slight yet very achievable learning curve.

When hundreds of the world’s outdoor media gathered at the 2016 SHOT Show® Industry Day at the Range™ at the Boulder Rifle & Pistol Club, virtually none of those who fired pistols on the GLOCK® range questioned the performance of the CMP/KTS target system. They fired pistols of various calibers, expecting and receiving instant, accurate feedback from the target system, without question throughout the day - with total acceptance.
The Science of Acoustics Applied to Targetry

For more than two decades military, police and civilian organizations in more than 30 nations have entrusted KTS targetry to conduct sport, training and championship events. These systems provide highly-accurate real-time shooting results to marksmen on the firing line and to spectators at the shooting venue and those viewing from around the globe via the Internet.

CMP/KTS outdoor electronic targets use a four-sensor measurement system that captures, records and interprets shooter data as bullets pass through the target face and a thermally stable sound chamber. In the hypothetical illustrations at left and below, the final shot strikes the 7 ring in the 10 o’clock position left of the aiming black. Sensors in the target corners detect the arrival of the bullet’s sonic signature and record important information, including shot value, time stamp, X/Y coordinate and sound chamber temperature and more.

The monitor is the brain of the target system, populated with shooter identification and definitions such as target type, firing distance, projectile size, match information, and more. When a shot is fired and strikes the target face, the impact is recorded and begins building a database of the match or practice session. The information gathered by the monitor provides the shooter with essential knowledge that may be retained in a permanent record. Upon the bullet’s arrival, the shooter immediately knows the shot location on the target and its value. It also tells the shooter how far and what angle from the center of the bullseye the shot fell and begins calculating a shot group measurement - critical information the shooter may add to his or her data book. As shots accumulate, a boxed “cross” symbol appears in the center of the shot group.

If equipped, the range can display each shooter’s live results on a laptop, tablet, PC monitor or widescreen display and/or transmit it via the Internet to anyone logged into the event.
CMP Talladega - a Laboratory for Electronic Targets

The best example of electronic targetry in the U.S. is the CMP Talladega Marksmanship Park in northeast Alabama. The park utilizes CMP/KTS Targets on its two highpower rifle ranges and on its bullseye pistol target range.

The John C. Garand 200-300-600 yard rifle range (Range1) operates 162 electronic targets, spread over three target lines, all reporting to 54 monitors on a common firing line. The targets and monitors are managed in a control room at center line.

Talladega’s smallbore range (Range 2) consists of 35 rifle lanes with two banks of targets, one at 50 meters and the other at 100 yards. As with Range 1, the facility controls and manages all targets and shooter information gathered from the range for transmittal to the shooter.

Finally, CMP Talladega’s bullseye pistol range (Range 3) supports 35 lanes of electronic targets with shooting distances of 25 and 50 yards, set up for slow, rapid and timed fire.

A first anywhere ... three banks of 54 electronic targets communicating simultaneously with the firing line and center line at CMP Talladega.

CMP Targets Product Line at a Glance

While there is no “one size fits all” product for every range application, the same monitor-controlled target solution is common throughout the CMP Targets/KTS system. Whether your needs are for indoor or outdoor targetry, there is a component combination for each.

On the pages that follow you will find product descriptions for the components you’ll need to outfit your facility, whether it’s a single lane or a bank of 20 targets targets or more. You may select hard-wired or wireless communication systems, powered by standard electric service, generator or battery power. Here are some typical applications:

<table>
<thead>
<tr>
<th>Target Purpose</th>
<th>Caliber/MM</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Rifle/Optical Score</td>
<td>.177 - .22</td>
<td>10 yds/m</td>
</tr>
<tr>
<td>Air Rifle/Air Pistol</td>
<td>.177 - .22</td>
<td>10 yds/m</td>
</tr>
<tr>
<td>Rimfire/Centerfire Pistol</td>
<td>.22 - .45</td>
<td>50 yds/m</td>
</tr>
<tr>
<td>Bullseye Pistol</td>
<td>.22, 9mm, .45</td>
<td>25-50 yds/m</td>
</tr>
<tr>
<td>Short Range Rifle</td>
<td>.22*, .223, .30</td>
<td>100-300 yds/m</td>
</tr>
<tr>
<td>Mid to Long Range Rifle</td>
<td>.223 - .30</td>
<td>400 yds/m+</td>
</tr>
</tbody>
</table>

Firing Line Setup

<table>
<thead>
<tr>
<th>Hard-Wired</th>
<th>Capacity</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Firing Line</td>
<td>10+ Positions/Target Line</td>
<td>Up to 2,000 yds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wireless</th>
<th>Capacity</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable Firing Line</td>
<td>10+ Positions/Target Line</td>
<td>Up to 2,000 yds</td>
</tr>
</tbody>
</table>

*Velocity of .22 caliber round works very well on KTS targets up to 100 yards but dissipates at greater distances and is not recommended for long-range targetry.
Firing Line Monitors - The Brain of the System

Whether you’re choosing a system to support a handful of shooters or a firing line of 50, the KTS/CMP Targets system is driven by a very powerful, feature-laden firing line monitor, which is available in light-duty and rugged-duty configurations.

Your choice boils down to the environments in which you plan to use your system - indoor/under cover or exposed to the elements and rough handling.

The internals are the same in terms of processing power, information gathering ability and communication of results. They “talk” to the target line in exactly the same way.

Both monitors feature anti-reflective glass, reducing glare in bright conditions. Each has a smart card reader for access control and software updates - smart cards are essentially the key to the system.

The monitor stand enables the shooter to position and adjust the monitor to an optimal viewing angle in prone, sitting or offhand shooting. Logical menus make operation easy. In addition to presentation of each shot placement, the cumulative impact, X/Y coordinate and group scattering can all be presented.

The user may zoom in for a closer look at the scoring black and when finished, print results using a standard printer & cable.

Monitor Model NSM - Light-Duty

Benefits:

• Lightweight portability for youth and senior shooters
• Built with LCD technology and LED backlight
• Appropriate for indoor or covered firing lines
• May be used with pistol, highpower rifle or air rifle target systems

Monitor Model NMM-2 - Rugged-Duty

Benefits:

• Rugged, outdoor, weatherproof stainless steel chassis
• Laminated, anti-reflective coated glass screen able to withstand impact of cartridges from automatic rifles
• Solid mil-spec contacts and durable “mashable” control buttons
• Stainless steel stand, easy to move and adjust monitor to optimize viewing position
Targets - Portable (Wireless) and Hard-Wired

Prior to choosing a targetry system for your range, give strong consideration as to how your range will be utilized, who will be using it and how many shooters will be firing at any given time.

Electronically-scored targets are super-convenient, considerably more safe than walk-down and pit-pulled targets, plus they save huge amounts of time both on the firing line and on the scoring end. If you plan to serve dozens of shooters or more on a regular basis, a dedicated set of fixed targets, hard-wired to your firing line will allow your users to focus and devote considerably more time on developing marksmanship skills and/or conducting marksmanship competitions.

Conversely, if your operation serves a handful of users who wish to fire at one or more distances with or without time constraints, a portable wireless solution may be a better fit. Competitions are easy to set up on either system.

Portable Target Communication - Plug ‘n Play

Our remote wireless target system combo comes stored in a pair of rugged Peli™ hard cases, each containing a rechargeable power supply and a wireless transmitter. At the firing line the transmitter connects to a KTS monitor, and the second transmitter connects to the target line circuit. Once set up, the monitor(s) and target(s) “talk” to each other, communicating operating status, shot information including shot placement and value, a running tally of shots fired and much more.

A single portable setup will provide power and communications to up to four monitors and targets. The monitors and targets are connected to each other in a simple daisy-chain arrangement with secure connectors.
Hard-Wired Target Communication

Like the wireless firing line to target line communication system, a hard-wired setup provides the same information using a more robust, semi-permanent installation. Data gathered on the target line is transmitted via fiberoptic cabling or copper wire to the firing line monitor and also to a laptop or dedicated control room computer.

Hard-wire systems are a benefit to larger range applications, allowing the system to be powered up relatively quickly.

For range operations using hard-wired installation, monitors plug into cabling on the firing line. Targets may be affixed to wood frames and mounted on static or automated lifters. Power and communication cabling runs underground from the firing line to the target line where it enters behind a knee wall which shields electronics from stray impacts.

While every range layout is different, the common denominator of all ranges is safety. One of the key benefits of electronic targets is the advantage of minimizing time downrange. Unless a shooter is a member of range operations staff, the need for a shooter to travel downrange is eliminated.

Safety and time savings makes both wireless and hard-wired electronic target systems a huge plus, particularly during competitions when time spent on the range is critical.
Target Selection

Target Model H3A
Short Range Target

This target is the workhorse of short range highpower rifle targets, ideally suited for distances of 100 to 300 yards.

The target frame is constructed of solid wood, with impact sensors mounted in all four corners for maximum accuracy. A pair of sensors measure the ambient air temperature to help compensate for changes in outdoor temperature.

All other critical electronic components are mounted on the bottom rail of the target frame where they should be protected from impacts with a knee wall, sandbags or other suitable berm.

Components may be inspected from the front or the rear. This target contains a long, adjustable band of self-healing impact rubber that is designed to be advanced periodically to keep a relatively uniform seal surrounding the sound chamber.

Recommended Use:
Supersonic ammunition - 100 - 200 - 300 Yards

Technical Information

Dimensions
Target Face
Approximately 51” Square

Overall Height
Approximately 71” High

Weight
Approximately 66 Pounds

Temperature Range
-22° to 140°F

Conversion from Millimeters to Inches
1300 mm = 51.18” = 51-3/16”
500 mm = 19.69” = 19-11/16”
Target Selection

Target Model H3H
Long Range Target

This long distance highpower rifle target is the largest available for distances of 600 yards and beyond.

The target frame is constructed of 1-1/16” plywood, with sonic sensors mounted in all four corners for maximum accuracy and stability. Like our other highpower targets, the H3H contains a pair of temperature sensors to monitor heat variation within the centrally-located acoustic chamber. Dramatic temperature swings created by direct sun and cloud cycles can effect acoustics. An insulated sound chamber provides an even heating and cooling cycle that is managed by the system.

All other critical electronic components are mounted on a secure area of the target frame where they are protected from impacts.

Recommended Use:
Long-range shooting
600 yards - meters and beyond

Technical Information

Dimensions
Target Face
Approximately
72” Square

Overall Height
Approximately
112.5” High

Weight
Approximately
143 Pounds

Temperature Range
-22º to 140ºF

Vertical Impact Band - 1/16” x 39”
**Target Selection**

**Target Model H3D**  
Pistol and Smallbore Rifle

This pistol and smallbore rifle target is designed for use at all distances between 10 and 50 yards/meters.

The target frame is made of solid plywood with four sensors mounted in the corners of the frame for maximum accuracy and stability. A vertical impact band with automatic feeding will seal the acoustic sound chamber.

For shooting at 25 and 50 yards or meters, the frame is protected by a 6mm (1/4") steel plate. The steel plate is hinged for easy change of aiming frame and shooting distance.

The target is available with impact-resistant red and green LED lights for rapid fire pistol shooting. The lights are controlled in accordance to the shooting program and are operated by either control room software or the shooter.

**Recommended Use:**  
50 Yard/Meter Rifle  
10-25-50 Yard/Meter Pistol  
.22 Cal. LR & Pistol Calibers

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**Technical Information**

**Dimensions**  
Target Face  
Width: 25"  
Height: 32.5"

**Overall Height**  
Approximately 38.25"

**Weight**  
Approximately 46 Pounds

**Temperature Range**  
14° to 140°F
Target Selection

Target Model H1M

Designed for airgun and .22 Long Rifle firearms with a detection area of 8.66 inches square, this target is ideal for shooting distances of 15 meters or yards for pistol and 50 meters or yards for rifle.

LED illumination of the target face is an option, particularly useful for indoor applications. The H1M has integrated target electronics and is compatible with other KTS equipment, including PC-Target software for home use.

Ideal for rimfire sporter and smallbore shooting, the H1M may be equipped with a lift system, making it convenient for three-position practice and competition. The system is easy to use and simple to maintain. The target face opens easily to exchange templates, paper or rubber rolling strips or bands without tools.

Supplementary equipment includes LED lighting kit, target lift, bullet catcher and trap and ricochet protection for .22 caliber projectiles.

**Recommended Use:** .22 Long Rifle & Airgun

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**Technical Information**

**Dimensions**
- Cabinet: 515 mm/approx. 18.3" high
- 295 mm/approx. 13" wide
- 75-150 mm/approx. 3-6" deep

- Scoring area: 220 mm/approx. 8.6" square

**Cabinet Weight**
- Without rolls/ricochet protection: 4.8 kg/approx. 10.5 lbs.

**Temperature Range**
- 5 to 122 degrees
Target Selection

Kongsberg OpticScore
Airgun & .22 Caliber Long Rifle

Introduced to the Olympic Games in 1966, airgun is a sport enjoyed by both men and women, providing users an opportunity to improve marksmanship skills across other firearm platforms and opportunities to compete globally.

The KTS-OpticScore target uses optical detection for extreme accuracy with no parallax error, thanks to its shallow depth impact area. Adjustable LED lighting in the target box brightly and evenly illuminates the target face, allowing shooters a true and sharp aiming surface.

Optical scoring eliminates a significant amount of consumable waste found in other systems, saving the range time and money. The KTS-OpticScore system features an integrated projectile trap and is compatible with KTS’ line of scoring monitors and PC-Target software for range and home use.

The target system incorporates an integrated lifter system, providing smooth, quiet performance for use in prone, kneeling and standing.

Recommended Use:
10 to 15 yards/meters Air Rifle, Air Pistol & .22LR

Technical Information

Dimensions
Cabinet
465 mm/approx. 18.3” high
330 mm/approx. 13” wide
140 mm/approx. 5.5” deep

Scoring area
170 mm/approx. 6.7” square

Cabinet Weight
With armor
7.6 kg/approx. 16.75 lbs.
KTS-CMP Target Enhancement Products & Services

In addition to target systems, a complete line of accessories, parts, upgrades and range planning tips are available. See facing page for contact information.

- Monitors, cables & connectors
- LED lights, lenses, target protection gear
- Lifter systems, angle iron, fittings, hardware
- Armor plate, fasteners, target templates & diagrams
- Sensors, circuit boards wiring, schematics
- Replacement faces, alternate sizes and shapes
- Rubber scrolls, acoustic chamber components
- Range development & planning ideas
For more information about CMP Targets, featuring technology developed by Kongsberg Target Systems of Norway, contact:

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256-452-5081
The CMP-KTS Connection

How did the CMP get into the role of electronic target provider? To answer that we need to review the creation of the organization and its reason for being an important entity in today’s sport shooting community.

The Civilian Marksmanship Program was created originally as an office of the U.S. Army in 1903 (Office of the Department of Civilian Marksmanship or DCM), not long after poor marksmanship performance during the three-month long Spanish-American War in 1898.

First established as the National Board for the Promotion of Rifle Practice, the organization assisted the Army in marksmanship training activities and was charged with conducting annual competitions in 1903, known as the National Matches, first held at Creedmoor, NY, and relocated to Camp Perry near Port Clinton, Ohio, in 1907.

The Board’s National Trophy Rifle Matches and National Trophy Pistol Matches were paired with the NRA’s National Pistol and Rifle Championships and became known as the “World Series of the Shooting Sports.”

In 1918, the Army and DCM offered its first Small Arms Firing School, a program still conducted at the National Matches and the CMP’s travel games across the nation. In 1996, with a draw-down in U.S. military strength, the DCM was retired, but visionary members of the National Board kept the mission alive. It reinvented itself as a non-profit organization called the Corporation for the Promotion of Firearms Safety and Rifle Practice, commonly called the CMP.

The organization continued to administer the National Matches and sold surplus Army rifles to fund its programming. Rifle sales supported the development of clinics, training missions and eventually sales operations and airgun marksmanship centers in Anniston, Alabama and at Camp Perry.

With a refocused mission to emphasize training of America’s youth and expanding competitions nationwide, the CMP expanded its marksmanship programs to include air rifle, air pistol, highpower rifle and pistol competitions.

In 2015, the CMP took its boldest step, creating the 500-acre CMP Talladega Marksmanship Park in Alabama. After research and testing of electronic target systems offered by leading providers around the world, the CMP selected Kongsberg Target Systems of Norway to install 250 lanes of targets on three separate ranges.

KTS and CMP combined efforts to build the first three-tier, single firing line combination. Electronically-scored target lines at 200, 300 and 600 yards all feed to a common firing line of 54 points and a single control center. Similar adjacent ranges include 50 meter, 100-yard rifle targets and another featuring electronic bullseye pistol targets.

The cooperative effort led to a partnership between KTS and CMP to provide distribution of KTS target systems in North America beginning in 2016.