



Started in 1978, Accuracy International included (left to right, back to front): Malcolm Cooper MBE, Dave Walls, Dave Caig and Martin Kay. Kay is proudly holding an early variant of the innovative L96A1.

# PERFECTION



You could say Accuracy International started with the creation of two handmade blackpowder revolvers. An established competitive shooter, tool maker and engineer, Dave Walls



once saw a picture of a Colt 1860 Army and 1873 Single Action Army and pondered if he could build exact replicas using the milling machines and lathes in his spare time at his place of work. Walls, along with his work and Scottish shooting colleague Dave Caig, spent time making drawings by scaling from pictures of these pistols in books and magazines. They attended the viewing at a local gun auction and found a few examples of Colt pistols displayed under glass. Walls was forbidden by the owner to handle them, so they carefully memorized what they could and amended their drawings accordingly. They continued to research until pictures were found of the inner workings necessary to create the small parts.

With the pair of revolvers eventually built and finished in a carefully formulated bone charcoal blue, the two Daves (as they were known at that time) took them to a firearms auction for an opinion on the workmanship. They were exact in detail, so far as Walls knew.

An expert on Colt revolvers spent a considerable amount of time analyzing each.

"They're fine specimens," he told Walls. "Just about as fine a pair Colts as I have ever seen. But there is a problem with this one, you see, a notch on the left side that's missing on the right." Curious, Walls asked the man what the notch was for. "A number of these Colts could accept an optional shoulder stock, but without a notch on both sides of the frame a stock can't attach."

## THE INCREDIBLE STORY OF HOW ACCURACY INTERNATIONAL CAME TO BE.

BY Eric R. Poole

The two Daves chuckled and finally admitted that they had made them in their workshop. The reason the attachment point for the shoulder stock was on one side and not the other was because they didn't know what that notch was for. In fact, the cosmetic features

had been determined from what they saw in photos they had kept for reference. The photo of the other side of the gun was actually a different pistol that did not have this stock option.

"If you built these pistols from a photograph," the stranger said, "you should be in the business of making guns."

## A BUSINESS PROPOSITION

Walls had been working along with his friend and fellow rifle club member Dave Caig. Shoot-





In Portsmouth, England, five rifles on the wall at Accuracy International are displayed as benchmarks for AI's rifle development history spanning 30 years.

ing competitively since 16, Dave Walls had represented England and Dave Caig represented Scotland at various international tournaments. Together, they repaired and tuned their club's rifles and pistols to better them for competition. Caig's and Walls' success in sport grew into a business they named C&W Products, and the work was done from the shed in Dave Walls' Worthing, Sussex, home. It was here that C&W designed its very first target rifle.

After a local shooting event, Caig and Walls met the up-and-coming Malcolm Cooper before he would become World Champion and twice Olympic gold medalist. Cooper, the owner of a small gun shop named Accuracy International

Shooting Sports, became interested in what Caig and Walls were doing in the way of repairs and tuning rifles. Eventually, the two Colt replicas they had made came into the discussion. Cooper wanted to see the pistols, and when he did, he was impressed. He commented that they had the potential to design their own rifle. Caig and Walls replied, "But we have already done that."

Malcolm Cooper had been well known in the English shooting community and asked to compete with one of Caig's and Walls' rifles. Cooper won silver at the '78 World Championships in

Seoul, Korea, and had made a name for himself. The ensuing partnership between Caig, Cooper and Walls led to the formation of what would become Accuracy International in 1978.

Caig and Walls had only built their third prototype by 1981, but it was a rifle carrying features that would foreshadow AI's legacy, including the signature thumbhole stock. The rifles we know today had begun to take shape. Serial number 003 still utilized a heavily modified round short action with 7.62-caliber barrel. Affixed to the muzzle was an experimental device utilizing spiraling ports for flash reduction and to compensate for the twist in the shoulder during recoil. The wood stock

was formed by hand and included an adjustable recoil pad, an adjustable cheekrest, sling attachment points and an integral accessory rail under the forearm. Competitive smallbore and air-rifle shooters still use this type of rail to attach handstops and palm rests. Caig and Walls continued to perform work on other match rifles to make ends meet, including the ones used by Malcolm Cooper.

### THE GREEN MEANIE

The first sales of the Precision Marksman were to the UK Special Boat Service (SBS). Shown to the SBS in 1984, AI delivered eight rifles to the SBS in Dorset, UK, in 1985, which was immediately followed that year by an order for 32 rifles for use by the Special Air Service (SAS). These early customers provided the initial feedback used to refine the PM for the military sniper.

The Precision Marksman name was abbreviated PM, which was also used as a prefix to the serial number on early models. The most significant aspect of the first sniper rifle was that it was designed to be a sniper rifle from the start. It wasn't a customized hunting rifle like all other sniper rifles up to that point. Lessons learned from target shooting were incorporated into the PM, but input from snipers made the difference. It had to be rugged, reliable and easy to maintain.

Soon after, improved PM rifles were also sold to Oman and departments



Dave Walls (left) stands with Dave Caig holding an early prototype of the Caig Walls (CW) 7.62 Special, a precursor to purpose-built sniper rifles from AI. (Circa 1981)

of the UK police. Then came the opportunity of a lifetime. Cooper had met privately with members of the British military and learned of a pending requirement to replace the aging Lee-Enfield L42A1 that had been in service since 1970. With Cooper's international fame tied to accurate riflery, the Ministry of Defence (MoD) invited Cooper to submit a military variant of the AI 7.62 target rifle to its competitive tender.

Cooper approached Caig and Walls to see if it could be done. Unsure at first, Caig and Walls decided to set out and meet the challenge. The now-famous L96A1 was first designed as a sketch using pencil and paper drawn by hand on a drawing board. They lacked the

computer-aided drawing (CAD) technology other rifle manufacturers were using.

A trial rifle was submitted, but AI didn't expect to win. They did think it would be a good test and a chance to improve their products. To everyone's surprise, after extensive testing by the MoD, it looked as if the AI rifle might be chosen. It was time to combine efforts and form a new company, Accuracy International, with Cooper's Accuracy International Shooting Sports being the parent.

At the creation of Accuracy International, Cooper posed a question to Caig and Walls. "Do you want fame or fortune?" he asked. Cooper explained that they would stand a better chance of success using Cooper's name, being that he was well known. Neither Caig nor Walls really cared much for fame, so they chose to let Cooper be the face of the company, allowing them to focus on making rifles with the hopes of making money, as they had none. The company was formed with Malcom Cooper and his wife, Sarah; Dave Walls; Dave Caig; and Martin Kay. Malcom Cooper was the major shareholder.

The British MoD wanted more than 1,000 sniper rifles and spares to follow. Production had to expand beyond Dave Walls' shed and was initially subcontracted to a company in Dartford, England. Walls was asked to oversee the production lines and manufacturing to ensure the L96 was produced to



The Precision Marksman (PM) rifle was adopted by the UK MoD as the L96A1. For its reputation of delivering first-round-hits and its recognizable green color, it earned the nickname "The Green Meanie" among British snipers.



his precise standard. Soon thereafter, the AI partners decided to take over the manufacturing and moved to Portsmouth. They purchased two used CNC machines and briefly enlisted the help of Brett Walls, Dave's son who had completed a CNC programming course. With Brett's help, Walls learned to program and run these CNC machines to manufacture all parts they were going to need for assembly.

Further developed by Caig and Walls, the final PM submitted for military trials featured a clever new lightweight polymer stock that was assembled from two halves onto a long aluminum bedding block. Its shape resembled the earlier wooden thumbhole stocks used on Caig's and Walls' competition rifles, but was designed with input from the SBS and molded using the same polymer that had proven durable on Land Rover off-road vehicles. Not only did it feature an adjustable buttpad, the stock design incorporated an adjustable monopod at the rear and a folding bipod at the front of the forend just under the barrel. This free-floating stock was formed from two halves that were secured by eight stock screws. The stock applied no stress to the barreled action and allowed AI to incorporate a detachable five- or 10-round magazine required by the MoD



Two types of 7.62 ammunition were issued to British troops in 1990. "Black Spot" was the more common ball ammunition, while "Green Spot" was preferred by snipers for its tight tolerances.

for the contract tender. Dave Caig put the finishing touches on his adjustable two-stage trigger, and AI presented the world with a rifle like nothing before.

Caig and Walls had engineered their own flat-bottom action that's readily identifiable by its flat side slabs, another feature carried into following AI models. When asked if the shape was designed to increase rigidity, Walls said no.

"We didn't have a round bar of the right size," Walls remembers. "We only had a piece of rectangular bar of the size needed to make the action body. This hiccup led to stumbling on the design of the most famous rifle in the history of sniping. It was easier and faster on our machines back then to cut them from flat than it would have

been to make the action round, and this enabled us to use a 10-shot double-row magazine."

During MoD testing, the PM proved to deliver more than an 85 percent first-round hit probability on man-size targets between 600 and 900 meters, and "harassing fire" out to 1,100 meters. Using British Aerospace Defence ammunition, the RG Green Spot 168-grain projectile produced an average muzzle velocity of 2,790 fps and half-MOA groups at 100 yards. Interestingly, this ammunition became quite coveted in the British sniping community for its reputed performance in the L96. It was quietly announced in 1985 that the all-green-colored Accuracy International PM rifle had defeated the Parker-Hale Model 85, the HK PSG-1, the SIG Sauer SSG 2000 and the Remington 700 to become the standard-issue British army sniper rifle: the L96 "Green Meanie." The UK MoD awarded AI with the order for 1,212 rifles on March 11, 1985. With the contract giving AI its big break, the last Green Meanie was delivered to the British MoD in 1992.

### THE AW LEGACY

Malcolm Cooper continued to make headlines after scoring gold at the 1984 Olympic Games in Los Angeles and again in the 1988 Olympics held in Seoul, Korea. He remains the only shooter to have won two consecutive gold medals in the Olympic 50-meter three-position rifle event.

While Cooper competed and marketed AI around the globe, Caig and Walls provided its military clients with service and support while developing what would become the AW series. At the request of Swedish armed forces, the L96 received a few cosmetic updates, a new 27-inch stainless steel barrel and a 1:10-inch twist. As told to AI Vice President Scott Seigmund by Cooper, a good deal of the testing for the Swedish armed forces was conducted at the U.S. Army Cold Regions Test Center (CRTC) at Ft. Greeley, Alaska. It was at CRTC that the issue of bolt freeze-up was discovered. The stockhole, bolt, maga-



The AI G22 was supplied to Germany in 1997 and featured the larger Arctic Warfare Magnum (AWM) action. It was chambered for .300 Win. Mag., carried a Zeiss 3-12x56mm SSG scope and featured Dave Caig's folding stock design.

zine and triggerguard were enlarged to ease functionality with shooters using gloves in extreme cold and snow, and a grooved bolt was added. This enhanced rifle carried the Arctic Warfare (AW) designation.

In 1991 Sweden purchased 1,100 AW308 rifles from AI. The improvements developed for the AW308 were shared in new rifles delivered to the British MoD. The AW308 became known as the L118A1. The L118A1 is the AI Arctic Warfare (AW) series still seen in use by 60 militaries and law enforcement agencies elsewhere around the world including Australia, Belgium, Germany, Ireland, Norway, the Netherlands, New Zealand, Russia and Spain. By the late 1990s, the L96A1 was completely superseded by the AW.

The AW series maintains the signature flat-bottom action that's permanently bonded and bolted to the full-length aluminum chassis. The rigid construction coupled with a full-width integral recoil lug eliminates movement to ensure repeatable accuracy. Every component is manufactured in a corrosion-resistant material or given a protective finish prior to assembly. Possibly the key to the success of the AW series is the fact that all major parts were engineered to be interchangeable between rifles of the same caliber. Features of the AW series included a standard muzzlebrake, a free-floated match barrel, a bonded action, a two-stage trigger, a short bolt throw, a three-position safety, polymer stock sides and a fixed recoil pad with spacers. A Picatinny rail was made optional, as well as a folding stock and

thumbhole grip originally developed by Caig in 1998.

The success of the purpose-built AW sniper rifles led to the development of numerous configurations. In 1995 AI co-developed the .338 Lapua Magnum in conjunction with Lapua. The resulting AWM action could not only handle .338 Lapua Magnum, but also the .300 Win. Mag. Consequently, AI developed the .300 Win. Mag. variant of the AW in 1998 and supplied it as the G22 to BWB Germany. This was the first AW to utilize Dave Caig's folding stock. The AW338 was sold to the UK MoD as the L115A1 the same year that the Netherlands army first adopted it in 1996. The UK also procured another variant designated the L115A2.

France, Italy, the Netherlands and Saudi Arabia also purchased AW338s, and the innovations continued for AI in the year 2000 with the AW50. The UK MoD and Australia's armed forces purchased it, too. In response to specific requests of American law enforcement

agencies, the AE followed shortly to meet those requirements in 2002.

### THE AI CHASSIS SYSTEM

The Accuracy International Chassis System (AICS) was a well-received result from the AW improvement program. For American shooters who couldn't obtain a complete AI rifle or only wanted to upgrade a Remington 700, the AICS allowed them to do that. In the late '90s, there was a copy of the AW stock made for the Remington 700. AI successfully sued and in 1999 introduced its own Remington 700 AICS. Remington 700 users have been able to benefit from the many advanced ergonomic and functional benefits of the AICS, not only a stock, but a far superior chassis system with full-length aluminum, self-aligning and self-bedding block.

Popularity of the AICS grew between 2000 and 2003, but the product nearly went out of existence when the new owners realized their financial difficulties. The AICS wasn't making them a profit.



The "Green Meanie" continued to serve British snipers in Iraq and Afghanistan. However the fixed-power 6x42mm scope was upgraded to the Schmidt & Bender 3-12x50mm PM II. (DoD photo)



The AICS stock is a popular option in the U.S. for Remington 700 users and custom rifles like this one from GA Precision.





Tom Irwin (near left) spearheaded the initial effort to save Accuracy International when a bankruptcy announcement was made in 2005. Once the new ownership was firmly in place, Irwin instituted a rate-based workflow and improved efficiency. Not only is space better utilized, but workers assembling AI products don't have to travel far between the parts shelves and their benches.



## THE PARADIGM SHIFT

The sale of 90 percent of Accuracy International in 1999 to an investment group caused the company to inherit a very large debt. Sales predictions and development of new products that never materialized gave new management an impossible task. Outsourcing and rising costs exacerbated the problem. Lean techniques were implemented without an understanding of processes. Malcolm Cooper died in June 2001, and by 2004 it was clear that AI was in trouble and attempts to sell the company failed. In February 2005, AI began liquidating its assets.

Just as fast as AI went bankrupt, it was saved. Tom Irwin, a dual UK/U.S. citizen and independent contractor based in the U.S., was responsible for worldwide sales and on a routine visit to AI when the announcement came. Dave Walls indicated to the administrators that he was interested in buying part of AI. Irwin added his interest, and within 24 hours Dave Caig and Paul Bagshaw, the financial director, joined the team.

Tom Irwin started making calls to save the company. He went to local banks and contacted an accounting firm. Dave Walls also made calls, and 48 hours later there was enough interest to think this could really happen.

"I knew that whoever was going to be successful had to buy the whole company," Irwin said. "And we did. There were four shareholders—Walls, Irwin, Caig and Bagshaw—and a number of preferred shareholders who were all subcontractors, agents or distributors. All of the preferred shares were bought back several years ago, and Dave Caig chose to retire and sold his shares back to the company."

"Bankruptcy was a blessing in disguise," says Walls. "It gave me the chance to be a part of the management of AI once again. All of the old machinery we were using was dismantled and removed. Fixtures were taken to the Dumpsters. It was all I could do to keep a few programs. It also allowed us a chance to take another look at the way we machine parts by using a different

approach based on the experience we had gained."

Before 2005 Accuracy International was contract oriented and manufactured rifles and parts on a batch process as they were needed. AI was often behind in delivering products to commercial customers. With a chance to start fresh, this all would change.

"They didn't take us seriously, but we put together a business plan in 12 days," Irwin recalls. "We figured financial projections, hired an accounting company to verify them and went to the bank for an indicative letter. We made our offer and found ourselves in a bidding war. Everybody was made redundant February 18, 2005. We signed documents on April 29th and restarted the business on May 3rd. We were seven employees and four owners, and I had to spend 10 weeks talking to existing customers in order to reassure them."

Irwin had studied William Edwards Deming, a man who revolutionized the Japanese auto industry, and researched a number of successful companies using Six Sigma, as practiced by Motorola and GE. A Six Sigma black belt, he determined that AI needed a new way of managing its output and minimizing waste.

"We use a rate-based workflow process now," says Irwin. "We determine the weekly output regardless of contracts. We don't get an order and push it down like a snake swallowing an elephant. We're going to make X number of rifles a week, therefore we're going to make X number of bolts, triggers, whatever. Then after that X number has been built for that week, we start making the spares and accessories."

A rate-based workflow process does things like improving the utilization of space and minimizing travel for workers to retrieve parts from a shelf for work on a bench. To visit AI now, you'd find that offices are modular and very few walls exist with rooms behind them. Clutter has been eliminated, and everything is literally out in the open.

After bankruptcy, Walls and Irwin saw to it that AI had new CNC machines,

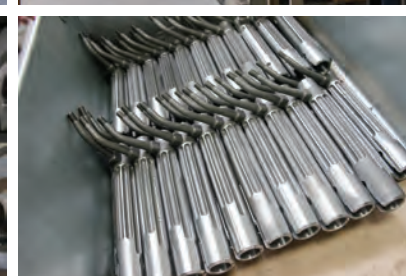


programs and fixtures. In the last three years, a new building has been added and the existing building completely refurbished to provide additional space for manufacturing equipment and assembly. Engineering was also enhanced with instrumentation including a high-speed camera and rapid prototyping 3-D printer.

The company has grown during the past eight years, not only with facilities and equipment, but also with people. Quality product is one thing, but in order to continue the legacy, AI wanted to build a company that could design, develop, test and produce quality products well into the future. Quality people and systems are the backbone of AI.

## THE END OF AN ERA

Since entering service, AI has sold more .338s than any other manufacturer. In 2007, the UK awarded AI a contract for 582 systems in .338 caliber designated L115A3. These were fitted with a Schmidt & Bender 5-25x56mm scope and tactical muzzlebrake. This



Accuracy International operates in an ISO 9001:2008-certified facility. Not only does the factory use the latest CNC machines and 3-D rapid-prototype technology, the strictest standards for precision are maintained through its quality control.

enabled British snipers to extend their effective range well beyond that of the L96A1, which it has now replaced after entering service in April 2008. During November 2009, CoH Craig Harrison used an L115A3 in establishing the new world record for the longest confirmed sniper kill in combat at a range of 2,707 yards. In September 2012, Accuracy International announced that the AWM would be phased out and replaced by the new AX. It was around this time that the UK MoD completely discontinued use of the L96A1.

## AICS TAKES ON THE U.S.

AI won a contract worth \$8 million to supply the Sniper Rifle Stock System (SRSS) for the SOCOM Mk13 Mod 5. The Mk13 Mod 5 SWS utilizes a tan-colored AICS 2.0 stock for its ability to accept the ultra-reliable detachable AI magazine and provide the user with an adjustable comb, length of pull and

side-folding capabilities. As a result of this contract in 2006, AI started manufacturing and assembling the SRSS and AICS in the U.S.

Shortly after winning the SRSS in 2005, a new contract was awarded to Badger Ordnance to supply the Badger Bottom Metal System with AI magazines for the U.S. Army's Remington M24 and Marine Corps' M40. The AI magazine had been battle proven for nearly two decades. To meet this requirement, AI magazine production in the UK was ramped up. Combined with the tender in 2006 for AICS stocks destined for the Mk13, these two contracts made the difference toward success for AI in the U.S. market. Small quantities of AW rifles had been supplied to SOCOM, but growth in rifles sales came from the demand for AE models in law enforcement. As police and competition shooters started using the AICS, the AI brand was firmly established on U.S.



soil. Ironically, from a product that was nearly extinct in 2003 the foundation of the American market was built. As sales of the AE, AICS and magazines increased, so did the AW.

## BOUND FOR THE U.S.

"The U.S. market has always been a major target going back to the Cooper days," Irwin says, "but the gestation for military contracts is long, and the ability to enter that market is difficult with local competition. There were opportunities with law enforcement, but limited finances and budgets made our rifles beyond what many agencies could afford. The U.S. enthusiast market was by far the quickest way to get back on our feet and build a reputation."

AI had gotten exposure to the U.S. Navy through Naval Surface Warfare Center (NSWC) Crane before 2005, but after emerging from bankruptcy Irwin secured the five-year SRSS contract with Crane. That contract gave AI the opportunity to start building AICS kits in the States in 2006.

In 2009 Accuracy International moved its U.S. manufacturing facility to Fredericksburg, Virginia, and started importing to that location. From there AI ships to its distributors or direct to government clients. Design and engineering feedback from AI customers is fed through Scott Seigmund, vice president of Accuracy International, so that AI can adjust refinements to meet the needs of American shooters.

Originally, the people who started the company were shooters. As AI grows, it's putting an emphasis back on getting expertise within the company by filling its ranks with competitive shooters and former snipers. That decision has paid off in the form of more military contracts coming down the pipe. AI just won a new five-year contract for its AX stock for the newest Mk 13. The Mk 13 wearing AI's new AX-based Sniper Rifle Stock System (SRSS) is designated the Mk 13 Mod. 7.

Tactical rifles mounted on an AICS-like chassis have become the norm. AI responded with the AX, and today the



Accuracy International submitted this highly modified variant of its new AX rifle system for the SOCOM PSR solicitation. It performed incredibly well and provided a glimpse into the future of a sniper's bolt gun.

AX is the main rifle sold by AI. It shows how market demand can influence the future of a company, provided they recognize it. AI has also competed in the highly sought-after Precision Sniper Rifle (PSR) solicitation, and the result has already influenced the development for future products.

For AI, the PSR system was the company's first plastic rapid prototype. This new technology allows them to design, build and test the functions of a product before any material is cut. The PSR takes modularity and part interchangeability to the extreme. For Accuracy International, the PSR represents the culmination of its achievements. The platform is multi-caliber, the shooter can quickly exchange barrels, the folding stock protects the bolt, the new cheekpiece and stock are fully

adjustable while in position. It's like the adjustability of an Olympic-style competition rifle has met the ballistic versatility of every bolt-action sniper rifle from .308 to .338. And the benefits of this engineering revolution are headed our way.

"Our products are rugged, reliable, accurate, easy to maintain and built to last," says Irwin. "Because they are built to last, we have a growing refurbishment market and recently updated 400 Swedish AWs from the original shipment in 1991. I don't think we will have to go back to the target shooting market. At this time, we have just finished our highest sales year ever and have the largest order book in the history of the company."

Stand by. There's more to come from Accuracy International. **SNIPER**