The Russian Izhmash factory is famous for being the home of both Mikhail Kalashnikov and his legendary Avtomat. If you travel some 1,500 kilometers due east of Moscow, you’ll find this dilapidated icon of the Cold War. While Izhmash is certainly the most famous arsenal producing Kalashnikov rifles, it is hardly the only one. There are actually quite a few licensed and even non-licensed manufacturers of Kalashnikov rifles spread out around the world. These include the Bulgars, Chinese, Romanians, and Serbs. Each has its following.

Perhaps the most interesting AKs, though, are those built in Poland. This is especially true when you consider how this old Warsaw Pact member has become an important ally to the USA. Polish troops have fought alongside U.S. forces in both Iraq and Afghanistan. Today, Poland stands as one of America’s closest and most reliable allies in Europe.

To bring SGN readers a first-hand look at small arms production in Poland I recently embarked on a journey to Eastern Europe. On arrival in Warsaw, I met up with Mi-
Michał Michalczuk, president of Pioneer Arms of Radom. Over the next week, Michalczuk and Uli Wiegand of I.O. Inc. would be both my hosts and traveling companions.

The two of them opened previously closed doors, allowing a look into not only Pioneer Arms but also Fabryka Broni Lucznik-Radom. Additionally, I was also given the opportunity to have a first look at the new 9.5x45mm Archer rifle developed for export to the United States. If you have followed along as SHOTGUN NEWS heads to Poland!

**Pioneer Arms of Radom**

Arriving at Warsaw’s modern airport I grabbed my luggage and cleared customs. I tossed my luggage into Michalczuk’s car and we began the 100-kilometer journey south to the city of Radom. Founded in 1340, it lies on the Mleczna River in the Masovian Voivodeship. Current population is just over 223,000, and the city is famous for its small arms production. As an American, visiting a former Communist Bloc arsenal cities is not without its adventures. Americans, after all, were “them” for a very long time and certain habits may die hard. This is especially the case in a nation like Serbia, if your country has recently bombed the factory you are visiting. Poland, though, was different. The average person on the street was very friendly towards Americans. Better still, a surprising number of people spoke English, making interacting with the locals fairly easy. Poland might have been the home of the Warsaw Pact, but times change, and today the Poles are very pro-American.

Arriving in Radom, Michalczuk and I proceeded to the grounds of Fabryka Broni. However rather than visiting the well-known Polish arsenal, we entered Pioneer Arms’ facility. Pioneer Arms’ home is actually in some of the original Fabryka Broni buildings inside the original grounds of the old facility.

Michał Michalczuk originally founded the company to produce high quality side-by-side shotguns for cowboy action competition. Their effort in this regard was a handsomely built Greener-style double with exposed hammers. This sported dual triggers, rebounding hammers, Greener-style locking crossbolt and thick 18.5-inch barrels.

The piece was accented with a reddish European hardwood stock with a period correct rounded ball pistol grip. A handsome piece, Pioneer Arms’ Coach Gun was well received.

Today though, Pioneer Arms’ focus is on a different segment of the market. They have teamed up with I.O. Inc. to offer some very interesting pieces to the US market. The first of these was their 7.62x25mm PPS-43C pistol. This is a semi-automatic pistol version of the famous PPS-43 (Pistolet-Pulemet Sudaeva, model of 1943) submachine gun.

Pioneer Arms produces these using a combination of newly designed and manufactured and original parts. During my time at Pioneer Arms, I had a chance to examine scores of original unissued Polish-produced PPS-43s. These were waiting to be disassembled and turned into parts for the production of new PPS-43C pistols. The quality of workmanship on these 1950s-vintage Polish submachine guns was excellent. I have to say it was a unique experience to pull one of these submachine guns, brand new, from its original wooden shipping crate.

Better still, though, was the opportunity to test one on Pioneer Arms test range. I found the piece to be comfortable, with well laid out controls. It was very simple to operate and proved easy to control and hit with, despite the zippy rate of fire.

I’m glad to see these classic submachine guns being used for parts on commercial guns exported to the USA rather than simply being destroyed.

Walking around the facility with Wiegand, I asked questions, examined machinery and chatted with workers. While the building is old, the workers are well versed in firearms production. Most have well over a decade of experience and most came to work at Pioneer directly from Fabryka Broni.

The company’s engineers are also very impressive with a deep and diverse base of knowledge. One I spoke with had worked on the original Polish military project to modernize the SVD Dragunov sniper rifle into the SVDM. They are well versed in small arms design, theory and manufacturing techniques.

I had a chance to see workers busy with a production run of PPS-43C pistols. However, by the time you read this, Pioneer Arms will have finished gearing up for the production of semi-automatic Kalashnikov rifles. A great deal of work was being done at the factory to facilitate this during my visit.

What was most interesting though was the company was pushing to improve and modernize manufacturing techniques compared to the traditional methods normally utilized. These ranged from how the receiver was manufactured and heat treated to how the markings were engraved.
Initially, 7.62x39mm caliber rifles will be offered through their US partner I.O. Inc. It will be interesting to see where things go from here as they have some very interesting projects in the works. These include a semi-automatic version of the ultra light and compact 9mm pistolet maszynowy wz. 1963 (9mm submachine gun model 1963) or simply PM-63. The PPS-43C with four magazines retails for $449.95 while the 7.62x39mm Sporter will retail for $649.95 with two magazines.

I.O. Inc. and the 5.56x45mm Archer

For the last couple of years, the famous Polish small arms manufacturer Fabryka Broni Lucznik-Radom, sp. z o.o. has been displaying their wares at SHOT Show. This created a wave of interest among American collectors eager to acquire a current production Polish Kalashnikov. Unlike the Bulgarians, the Pole’s moved away from the Russian standard and developed unique models following the collapse of Communism. Their current 5.56x45mm “Beryl” wz.96 assault rifle is an excellent example of an updated Kalashnikov. More importantly perhaps to some collectors, this model has been fielded by Polish forces in both Iraq and Afghanistan. The problem was that Fabryka Broni wasn’t exporting rifles to the USA.

Then Wiegand stepped in. While I.O. Inc.’s background was in surplus, it has greatly expanded in recent years. It not only produces AK rifles in the USA, but was looking for reliable partners to bring new and exciting products to the U.S. commercial market. Wiegand worked with the management at Fabryka Broni and became the exclusive US importer of the semi-automatic 5.56x45mm Archer rifle. This is a very nicely made AK developed for the U.S. commercial market.

I was given the opportunity to test serial number 00002 from the first production run. It is built on a stamped sheet metal receiver and the heart of the rifle is straight Kalashnikov. However this is not a run-of-the-mill AK-74 clone rechambered to 5.56x45mm by any means. It is fitted with an 18-inch barrel with a 1:7 twist. The last 2 inches of barrel is concealed within a 3.5-inch muzzle device. This unit features four sets of two holes located at 12, 3, 6 and 9 o’clock. The ports are drilled at an angle to act as a muzzle brake. The whole unit is fairly heavy, but easily removed/installed.
and I liked how the rifle felt, but the optic ended up higher
The low recoil combined with the excellent trigger made
graphic Weapons Sight. Running drills inside 100 yards,
coil was also very mild with this load.
It was extremely light at 3.5 pounds and fairly crisp. Re-
well. The trigger on this example was surprisingly good.
reinstated. The rifle's overall length is 37.5
shaped, allowing use of the iron sights, and it's quickly
moved optic rail. This attaches below the rear sight and
but it and the pistol grip do feel good on the rifle.
A front sight block and 90˚ gas block are both pinned
onto the barrel. The front sight is standard AK fare and
runs over the top cover to the tang. The rail itself is U-
lever is also wider than the Russian pattern to ease oper-
it is cut to act as a bolt hold-open. The magazine release
ed tab to allow easy manipulation from a firing grip. Plus,
I.O. Inc. will be offering the Archer for $1,499.95. They
will also be offering the original Polish collapsible stock,
ripped fore-end system and optics mount. As I.O. Inc. and
Fabryka Broni work together, it will be interesting to see
what they come up with next.

Fabryka Broni Company History:
The Early Years
Poland had spent 123 years partitioned and occupied when it finally regained its independence following World War I. As the occupying powers (Russia, Germany and Austro-Hungary) had never allowed the development of an arms industry, this became vitally important to the resurrected country.
The repair shops and armories then available only fac-
ilitated repairs and spare parts manufacturing, not des-
ign work and mass production. The need for a national
defense industry became all too clear during the Bos-
hvik War of 1919–1920. During this period, Polish forces
were irregular and could not be relied upon. If Poland wanted to defend itself it would have to be able to
arm and equip its Army on its own.
To solve this problem, the Economic Committee of the Council of Ministers voted to create a state-owned munitions industry on April 29, 1922. It was decided Poland's new munitions industry would be concentrated within the “Safety Triangle”, making it distant from the borders.
In 1923, the Panstwowa Wytwornia Broni (State Arms Factory) was founded in Radom, Poland.
Msc. Eng. Andrzej Dowkontt was appointed Director with Lt. Col. Jan Siczek as his deputy. The facility was built from scratch, and by 1923
some 25,520 square meters was under roof. In 1924 large export orders arrived. This, combined
with a shortage of rifles in the strategic reserves led the Polish General Staff to increase Fabryka Broni's production capabilities.
Switching from a single to a double shift, the plant struggled to meet the required goal of 13,000 rifles/carri
bines per month. A lack of skilled labor and machinery hindered production initially. Monthly production fig-
ures averaged 12,000 units for 1938. The plant managed to increase productivity to 31,000 units per month for the
first three months of 1939.
Service pistols were also produced at Fabryka Broni. The first of these was the Ng wz.30 revolver, a licensed
weighted copy of the obsolete 7.62mm Nagant.
While it was an outdated design,

Fabryka Broni turned down the chance to license-produce AK-74s and instead developed its own models, including this 5.56x45mm Beryl wz.96.
there was still a market for it in 1930. Better still the price of the license, along with a complete manufacturing line, was dirt-cheap. Approximately 17,000 Ng wz.30s were made through the production run, which lasted until 1937. The last 810 were not shipped until 1938 (110) and 1939 (700).

In late 1932, a decision was made to move production of the new 9mm P.A. WiS wz.1931 self-loading pistol to Fabryka Broni. However, during troop trials the Department of the Cavalry vetoed further production. They demanded a means to securely decock the pistol single-handedly while controlling the mount with the other hand.

This led to a complete redesign, testing and adoption of the new 9mm P.A. WiS wz.1931 self-loading pistol to Fabryka Broni. However, during troop trials the Department of the Cavalry vetoed further production. They demanded a means to securely decock the pistol single-handedly while controlling the mount with the other hand.

To a complete redesign, testing and adoption of the new 9mm Vis wz.35 semi-automatic pistol, Vis (Latin for force) was actually a carryover of WiS, which stood for Piotr Wilniewczyk and Jan Skrzypinski. They were both senior management staff of the PWU and PWU-FK in Warsaw. The young designer who actually labored on the design, Feliks Modzelewski, received little credit for his efforts.

Unfortunately, handgun production fell victim of the need for increased rifle production. Ng wz.30 revolver production was canceled while Vis pistol production was suspended in March 1937. Production was restarted at an increased rate in 1938 with 17,900 pieces accepted by the Polish Army. 6,800 pistols were produced in the first quarter of 1939 with 30,000 produced for 1939 prior to the German occupation. Total production exceeded 49,000.

Production was kept at a frantic pace throughout 1939, with monthly carbine production averaging some 31,000 pieces. As an example of measures taken to increase production, on December 1, 1930 Fabryka Broni had 2,967 employees working one shift six days a week. On January 1, 1939 there were 4,635 employees working two shifts a day.

Fortier had the chance to test an FB Archer 5.56x45mm, which is being imported by I.O. Inc. The Archer proved quick handling and reliable.

During this time, mechanical workers, assembly shop employees, and woodworkers were paid at a piece rate. The auxiliary branches (electronics, tool-makers, repair shop, administration, security and warehouse staff) were paid on a daily rate. Bonuses were issued to reward productivity, both to individuals and to whole departments.

Fabryka Broni also actively supported the professional advancement of its workers. They did this by organizing and paying for evening technical classes led by the Radom Technical Courses Association.

**Nazi Occupation**

Despite the best efforts of Fabryka Broni, in September 1939 the Polish Army was faced with the impossible task of trying to fend off both Nazi Germany and the Soviet Union. Fabryka Broni was captured by the Germans on September 8, 1939. After its capture, Fabryka Broni, renamed Waffenfabrik Radom, sat idle for almost one year before it was put under the administration of Steyr-Daimler-Puch AG.

Soon the factory was working three shifts a day, primarily making Vis wz.35 pistols, with the new designation P.35(p), delivered to the Heereswaffenamt of the Third Reich. When stocks of Polish rifle parts were exhausted, the P.35(p) became the main product of the factory, though automotive parts were also produced and a large truck repair facility organized. The factory also became home to a forced labor camp.

**Accuracy**

Accuracy was very good when teamed with a 1-4x24mm Hi-Lux CMR scope and good ammunition. Downside is the mount placed the optic rather high.

**The Mini Beryl**

The Mini Beryl is a compact 5.56x45mm carbine with a short barrel, optics rail and collapsible stock. It’s modern, but still based on the AK-47.
Initially several thousand, mostly Jewish, laborers were held here.

It should also be noted that Waffenfabrik Radom no longer produced complete P.35(p) pistols. Rather, it produced a parts set minus the barrel. Steyr added the barrel and performed final assembly and technical acceptance. This was done in an attempt to prevent the Polish workers from smuggling complete pistols to the Polish resistance.

Despite this step, hundreds of parts sets were smuggled out. To discourage this, 15 Waffenfabrik Radom employees were hanged at the factory entrance on October 16, 1942. Rather than strike fear into the workers as intended, it had the opposite effect. Smuggling rose to such a level the Polish Home Army had to organize a barrel manufacturing line to make use of all the parts kits they received.

Throughout the years of occupation, the Germans mandated changes and shortcuts in the design and manufacture of the P.35(p). These measures, along with the use of forced labor and running three shifts per day, dramatically increased production far beyond prewar figures. Between 1941 and 1944, approximately 350,000 P.35(p) and simplified P.35/II(p) pistols were accepted by the Heereswaffenamt.

Machinery from the plant was evacuated in the face of the Soviet advance beginning in August 1944. By November 1944, this had been set up at the Diturvit industrial porcelain plant in Czech Znaim and assembly restarted. That plant was heavily bombed on January 2–3 1945, bringing a close to this part of the factory’s history.

Liberation and the Kalashnikov

The factory was not liberated by the Soviets until January 1945. By then, 85% of the equipment had been stolen by the retreating Germans. So on January 17, 1945, a 20-person Factory Rebuilding Committee set out to revive the plant. First, an ordnance repair depot was established. After the war ended, a variety of commercial products were manufactured. Small arms production recommenced in January 1947 with the licensed manufacture of 7.62x25mm Tokarev pistols. These were designated pistolet wojskowy wz.1933 (Model of 1933 Military Pistol).

On September 15, 1948 the company’s name was changed from Panstwowa Fabryka Broni (State Arms Factory) to Zjednoczone Zaklady Wybrobow Metalowych, Zaklad Nr 1 or United Metalworking Works, Work Nr 1. This eliminated the politically incorrect prewar name and logo. 225,000 pw wz.1933 pistols were produced before production ceased in 1956.
Fabryka Broni is looking far beyond the AK. This is the MSBS-5.56mm modular rifle system currently under development for the Polish Army.

[Cont. from page 32]

The plant also produced 343,000 Mosin kbk wz.44 7.62x54mm carbines through 1955. A .22LR trainer, the kbks wz.48, was produced until 1956.

Peak production years were from 1990 to 1993 during the Korean War, when the plant ran on a war footing with three shifts per day. Hundreds of thousands of small arms were produced, including licensed manufacture of PPSh-41 and PPS-43 submachine guns. These bore the famous oval with 11 code number logo.

On December 31, 1951 the Work Nr 1 was renamed again. Its new name became Zakłady Metalowe im. gen. Waltera (General Walter Metal Plant), taking its name from a Communist hero. It would later become Zakłady Metalowe Predom–Łucznik.

Beginning in 1957, the Kalashnikov series of rifles became a staple of the factory. All types of 7.62x39mm Kalashnikov rifles adopted by the Polish Army were manufactured in Radom:

1966–72: still secret number of 7.62x39mm ‘kbk AKM’ (Soviet analogue: AKM with fixed wooden stock).

Two indigenous variants, developed locally with no Soviet analogue, were also manufactured in Radom:

1962–74: 50,000 7.62x39mm ‘pmK przystosowany do miotania granatów’ / since 1966: ‘kbkg wz.60’ — a fixed-stocked rifle grenade-capable variant of the AK.
1972: 500 7.62x39mm ‘kbkg wz.60/72’ (airborne variant of the above with detachable wooden stock).

Tight Soviet control of the development and export of licensed AK/AKM rifles led to a bold decision by the Poles in the 1970s. The Soviets offered Warsaw Pact countries the opportunity to purchase a license to produce the new 5.45x39mm AK-74. Tired of the tightening control of their small arms production capability and unwilling to pay what they considered an outrageous price for the license, the Poles declined. Instead, the Poles set out to design their own rifle, code named Tantal.

While the first prototype was ready as early as 1981, the Martial Law period (1981–1983) interrupted work on the new design. Work began anew in 1986 with the design being drastically overhauled. It was type-certified in 1988 and introduced into Polish service in 1989 officially as the 5.45x39mm kbk wz.88. However, Tantal remained its popular name.

The following year a compact version, subkarabinek wz.89, code-named “Onyx”, followed. However this model was never mass-produced, with fewer than 200 pieces being produced.

The sudden fall of communism signaled the demise of the 5.45x39mm cartridge in Polish service. By 1992, 5.56x45mm variants of both the Tantal and Onyx had been developed for export sales. While they did not sell, the design work proved useful when in 1996 NATO announced Poland would be accepted as a member in 1999.

This meant production of 5.45x39mm Tantal rifles was halted after a production run of approximately 20,000 pieces. Finally able to cast off its Russian shackles, the Polish Army would require a new combat rifle chambered for the NATO standard. This led to a new project code named Beryl that led to the development, adoption and fielding of the wz.96 assault rifle and wz.96 automatic carbine.

Both of these new models chamber the NATO standard 5.56x45mm cartridge. Currently, both of these models are in production and standard issue with the Polish Army.

The fall of communism was hard on the plant, renamed yet again to Zakłady Metalowe Łucznik SA (Lucznik Metal Plant Stock Company). With the drastic reduction of the Polish Army and growing economic problems, the company was put into receivership in 1998. On November 13, 2000 it was declared bankrupt.

However, earlier on June 30, 2000 a new company, Fabryka Broni Łucznik-Radom, sp. z o.o., was chartered. In October 2004 Fabryka Broni became the owner of the historical buildings, grounds and then began to pay for the machinery. Today, the company is looking forward, continually buying new modern equipment to increase both quality and productivity.

At the same time, it is not content to merely produce leftover legacy systems. Today, the company is actively designing modern systems for the Polish Army and export sales. These include the 5.56x45mm lkm wz.2003 and very advanced looking MSBS-5.56mm modular rifle system. The company looks forward to moving to an entirely new state of the art facility and meeting the 21st Century needs of the Polish Army and export customers.

**SOURCES**

I.O. Inc.
704-225-8843 / www.ioinc.us

Pioneer Arms Corp.
1905 Roku 1/9
26-612 Radom, Poland, +48 48 383 0775
www.pioneer-pac.com

Fabryka Broni “Łucznik”-Radom Sp. z o.o.
ul. 1905 Roku 1/9
26-600 Radom, +48 48 380 31 00
www.fabrykabroni.pl

Federal Cartridge Company
800-831-0850 / www.federalpremium.com

Hi-Lux Optics
888-445-8912 / www.hi-luxoptics.com

Hornady
800-338-3220 / www.hornady.com

Wolf Performance Ammunition
888-757-9653 / www.wolfammo.com

**SPECIFICATIONS:**
**FABRYKA BRONI ARCHER**

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<th>Action</th>
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<td>Finish</td>
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**ACCURACY CHART:**
**FABRYKA BRONI ARCHER**

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<th>Load</th>
<th>Velocity (fps)</th>
<th>100 yards (ins.)</th>
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<td>Wolf 55-grain SP</td>
<td>2940</td>
<td>3.1</td>
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<tr>
<td>Federal 69-grain Match</td>
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<tr>
<td>Hornady 75-grain Match</td>
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</table>

Groups are an average of four 5 shot groups fired from a rest at 100 yards. Velocity readings measured 12 feet from the muzzle at an ambient temperature of 80° F 1030 feet above sea level with an Oehler 35P.

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