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GUN SALES, REVIEWS, & INFORMATION

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SHOOTING ARIZONA:

MACHINE GUN
SHOOTING LIKE
NOWHERE ELSE
IN THE WORLD,
PART 1 – EVOLUTION

THE PANZER ARMS
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J. Curtis Earl in a timelapse photo of tracers from a 1919 Browning circa 1968. Note the impact ricochets and impact fires — two Bren guns on the right and a 37mm Bofors on the left. (Chuck Olsen)

SHOOTING ARIZONA:

MACHINE GUN SHOOTING LIKE NOWHERE ELSE IN THE WORLD

Part 1 – Evolution

By Richard Maclean

[EDITOR'S NOTE: The views and opinions are the author's and not necessarily those of the staff or management of Outdoor Sportsman Group or Firearms News. They are presented for educational, informational, and entertainment purposes only.]

The Coen Brothers are American filmmakers known for their dark comedic and eccentric genre in award-winning movies like *Fargo* and *No Country for Old Men*. *Raising Arizona* is one such movie starring Nicolas Cage as Herbert, the ex-con. It was filmed in Arizona in 1986 and had guns, more guns, kidnapping, robberies, jailbreaks, biker gangs, and death by explosion. The storyline has all the essentials for a quirky movie, including a dream ending with Herbert in a happier future.

Shooting Arizona is the story of machine gun shooting in Arizona, as unconventional as the movie. Unfortunately, it also has an accidental death by an explosion and a robbery. It describes how urban growth and other forces drove an Arizona shooting community from site to site for half a century. The main actors sought a permanent place to shoot crew-served machine guns and heavy weapons at targets

that explode, move, and even fly. *Shooting Arizona* has some extraordinary incidents and famous and infamous individuals who laid the groundwork for the world's largest machine gun and heavy artillery shoots.

The chronicle covers a lot of territory, thus the need to segment it into three parts. *Part 1 — Evolution* is about the significant transitions over the past seventy years, the dominant personalities, and their actions in developing machine gun shooting in Arizona. *Part 2 — War Stories: Memorable Events and Characters* describe some of the more unusual and interesting events, key individuals, and their disagreements that affected the shoots. The final part, *Part 3 — Progression to Current Shoots and Epilog*, describes the lead-up to Arizona's current shooting environment. In addition, an epilogue explains what became of the key characters in this story.



Bill Woodin in the Wooden Laboratory in 2010. Bill was internationally recognized as the leading collector and expert on military and police cartridges comprising nearly a quarter-million specimens.



Bill Woodin traded a carton of cigarettes for a Japanese Type 96 light machine gun and bayonet with a tank crew in Burma that had recently captured it. It's behind a Lewis machine gun on top of the cartridge cabinets at the Woodin Lab 2010.

The three parts overlap somewhat; events described in *Part 1* initiated transitions and influenced events in the other two parts. To help make sense of this evolution, who was involved, and why, we'll mention the "generation" or influence period of these characters.

■ Plausible Deniability

Articles in *Firearms News* rarely have disclaimers. However, *Shooting Arizona* has one because of its unusual and potentially controversial content. Some of the commonplace practices decades ago in Arizona would be serious, arrestable offenses today. For example, the buying, storing, and transporting of "reactive targets" is tightly controlled today compared to pre-1995. The Oklahoma City Federal Building bombing changed everything. Hard to imagine nowadays, but sacks of ammonium nitrate were once sold at the Home Depot pre-Oklahoma City bombing.

According to the *Wall Street Journal*, the number of federal laws has increased 36% since the 1990s. Regulations are becoming so vague as to be difficult to decipher, even by those who enforce them. However, some restrictions related to recreational shooting remain unambiguous and reasonable and have changed little over time. For example, trashing shoot sites on public land and shooting protected Saguaro cacti or road signs is illegal and gives all shooters a bad reputation. Responsible machine gunners do not engage in these activities. This is a story about them, the serious-minded shooters.

That said, in some instances, identities are withheld to shield the innocent or guilty who may be still alive and/or need to remain anonymous for various reasons. For example, a nameless gun writer told me decades ago, presumably in just after a rather public dispute with Peter Kokalis (more about Peter later), that if he is found dead from machine gun fire, Peter did it. He was laughing at the time. Today, he and

others, if pressed, might deny what they said or did years ago.

The historical events vary in accuracy and reliability. They range from my experiences; to photographic documentation; to recorded interviews; to commonly accepted as accurate (e.g., multiple eyewitnesses); to pervasive rumors. In most cases, the reader can differentiate among these categories.

For example, if something is directly quoted, there is more than likely a voice recording of the individual. The information could still be inaccurate since these interviews may have occurred decades after the events described. Memories fade, stories get augmented and/

or egos and grudges play out. If an event or an individual is presented in a less than flattering perspective, the reader can assume that there are multiple credible collaborating sources. And they may all declare plausible deniability.

■ The Beginning — Bill Woodin

Arizona's recreational shooting has existed since firearms first arrived in the 19th century. However, this story focuses on the evolution of machine gun shooting and the individuals who fostered it after WWII. First among these "pioneer" individuals was Bill Woodin.



The walls of the Woodin Lab were lined with all manner of interesting items: vintage cartridge boards, rare reference books, and deactivated hand grenades. Cartridge cabinets were topped with weapons: 1918 A2 BAR, WWI Mauser 13mm anti-tank rifle, and a Solothurn 20mm anti-tank cannon.

The holy grail of a machine gun library is an autographed five-volume set of *The Machine Gun* by George Chinn, United States Navy Department Bureau of Ordnance. On the inside back covers are photographs of small arms legends such as Eugene Stoner and William Ruger next to one of William H. Woodin.

The reaction of most readers might be, “Woodin who?” but to forensic scientists, ammunition collectors, small arms authors, and researchers worldwide, it is a name that ranks right up there with other industry notables. For example, he was a founder of the IAA (International Ammunition Association) and a Distinguished Life Member of AFTE (Association of Firearm and Tool Mark Examiners). His professional accomplishments are extensive, too long to list here.

His grandfather was Secretary of the Treasury under Franklin D. Roosevelt, and his stepfather was a founder of the American Quarter Horse Association. This family heritage gave him access to unlimited opportunities that very few had during the Depression. Yet, surprisingly, his initial career choice was to collect snakes and seek a graduate degree in herpetology which is the study of reptiles.

WWII changed his focus to guns and especially ammunition. From here, he tells the story: “I joined the American Field Service and drove an ambulance for the British army shuttling wounded soldiers from the front lines. After that, I requested to be sent to India and Burma because that is where the best snakes are [laughs]. I was first stationed in Imphal in northeast India, arriving after the great battle of Kohima, which

halted the Japanese invasion of India. I was attached to a Punjab battalion of the Indian army.

“The ammunition dump at Imphal was a treasure trove, especially since I was interested in artillery ammunition then. After deactivating whatever ones I could, I would mail them home to my mother, who was a good sport about this. So was the mailman who lugged armfuls to her front door. My mother told me that a heavy package had disintegrated one time, and he wrapped his belt around the shells to lug them up the driveway to the house.

“I also collected some guns, trading a carton of cigarettes for a Japanese Type 96 light machine gun that a tank crew had just captured. Back then, you could bring back such weapons with the proper paperwork and get them registered under the Non-willful Violation Clause. And after I found a very unusual Japanese hand grenade in a village we had just captured, I deactivated it and started collecting other grenades.”

His cartridge collector reputation grew after the war. “I was writing for the newsletters and journals of the various collector organizations. I generally wrote about cartridge areas where little or nothing has been written previously. There was a real need among forensic laboratories for information or samples.

“After the Kennedy assassination, I received a call from the House Select Committee on Assassinations which wanted samples of the identical cartridges used in that 6.5mm Carcano rifle. And they wanted them NOW! Many people assumed that he was shot with Italian war surplus ammunition. In fact, it was contract ammunition made by Western Cartridge Company in the US in 1954, with a WCC headstamp.”

The Woodin Laboratory was built in 1973 near Tucson, Arizona, to accommodate the collection that eventually reached a quarter million specimens. “We have had a full spectrum of visitors, from famous inventors such as Eugene Stoner to the infamous such as William Thoresen, the machine gun collector killed by his wife, Louise. [She later wrote about it in the 1974 book, *It Gave Everybody Something To Do.*]

“I suppose I must have been born with the same collector gene as J. Curtis Earl, the famous Class 3 gun dealer. Earl started collecting arrowheads on his parents’ Utah farm, majored in wildlife biology, raised turtles, and collected guns. I knew him and once testified in his defense at a trial where they needed someone who knew something about cannon ammunition.” More about J. Curtis Earl later.

■ Bob Faris

Bob Faris was an armorer during the Korean War. Before and after his military service, he worked at Aberdeen Proving Ground in Maryland. His reputation at Aberdeen grew to the point where he had direct influence over drafting federal regulations. For example, Congress was considering restrictions on the amount of powder in ammunition heads. Bob became concerned that if the limits were too low, it would outlaw common incendiary and tracer rounds. So instead, he recommended the 50 caliber BMG round as the weight standard. Congress adopted these criteria as part of the 1968 Gun Control Act.

His interest in cartridge collecting and his influence over their regulation was a significant element in forming a close friendship with Bill Woodin. He met

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Bob Faris in Yuma looking rather dapper in front of a Mark 2 Ferret with a 30 cal. Browning in a traversable turret. Faris claimed that the US Border Patrol was astonished to see it. No doubt. (Kenton Tucker)



John Cross (L) with his friend Dolf Goldsmith repairing a Hotchkiss M1914 held on a 1919 M2 tripod at the Big Sandy 2013. Both were close friends of Bill Woodin. Dolf became internationally known for his books on Browning, Maxim, and Vickers machine guns. (Rob Lippert)

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Bill through John Cross, a British firearms collector extraordinaire who had developed friendships with Bob Faris, Dolf Goldsmith, and Herbert "Herbie" Woodend, Custodian of the British Ministry of Defence (M.O.D.) Pattern Room.

Today, it is hard to imagine the networking that went on in the 50s with these individuals. For example, Dolf Goldsmith (more about Dolf later) was with John when John bought around twenty-five Sturmgewehr 44s from a dealer. Each one had some minor feature that was different from the others.

Today's value of this number of C&R (Curio & Relic) first-generation assault weapons would be worth over a million dollars. "When I stayed in his guest room, there was a Vickers on its tripod next to my bed." Such was the nature of machine guns worth a few hundred dollars back then and now worth tens of thousands of dollars.

Bob Faris also remembers the early networking, "John came over here with a cartridge collector who knew Bill. I would see John practically every year afterward. In addition, John introduced me to Herbie, who would visit me, Bill Woodin, and the others back East whenever he came over here."

■ The Maxim — Gun One

Bill Woodin had several machine guns brought back from WWII in addition to the previously mentioned Japanese Type 96 light machine gun. He also had the family Model 1921 Thompson, bought by his grandfather direct from the manufacturer, who may have been influenced by the famous Auto Ordinance advertisement. They all functioned except one, a Maxim he got

in 1949 from the renowned Boston collector, William Goodwin Renwick. For nearly a decade, the Maxim sat inoperative until Bob Faris spotted it.

Bob describes what happened, "Around 1959, Bill had an old complete maxim gun, and I told him, 'Why don't you get this thing fixed and shoot it?' So, I finally talked him into it, and we started shooting it in his backyard. [AUTHOR'S NOTE: Such was the nature of Arizona in the mid- 20th century. His backyard was about 7 miles from where Paul McCarthy bought a 150-acre ranch in 1979.]

"Every year from 1961 forward, I would come out for two weeks. We had one small shoot on a ranch west of his property to test the Maxim. Around the same time, Bill met Ralph Wong, who was putting on a shoot, so I told him, 'Why don't we get together.' The first real shoot was around 1962." Because of residency issues, Bob did not have a machine gun in Arizona, "I loaded the belts until 1965." He transferred to the Yuma Proving Grounds in 1971.

Later in the 1960s, Ralph Wong's shoots migrated about 20 miles west of Ralph's property to Ironwood Forest National Monument. Bill continued to go to these Tucson area shoots, not so much to shoot but to look over the ammunition, Machine gun shooters typically have large inventories of ammunition, particularly military surplus ammo. It is unlikely, but not out of the question, that some of this might be rare and collectible, worth much more than shooting value. For example, I once had a belt of .30-06 stopped that was about to be fed into a machine gun — I think by J. Curtis Earl — that had the rare "EC 42" headstamp instead of the common "EW."

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This German MG-08 Maxim machine gun on a sled mount in the Woodin Lab was "Gun #1" in Arizona's provenance of machine gun shooting. Non-functioning, Bob Faris repaired it for Bill Woodin, so the shoots began in the 1950s.



The real deal: 37mm high explosive rounds amnesty registered with each assigned a serial number. If fired, ATF must be notified that a specific round is destroyed. A \$200 tax stamp plus the round cost could buy you one. And you think ammo is expensive?



Praise the Lord and pass the ammunition. The range of ammunition used at Arizona shoots is impressive, from pistol and rifle calibers to 25mm through 152mm cannon rounds. In this case, 105mm round for an M60 Sherman Tank at the Big Sandy Range 2011.



Rare British .303 smoke tracer fired from a Bren. The bullet leaves a spiraling smoke trail from phosphorus spun out of a weep hole and igniting on contact with the air. SP Crater Shoot circa 1998.



Class 2 manufacturer Pat Tomlinson fires a Japanese Type 97 air-cooled machine gun. These were licensed copies of Vickers and used on Japanese Zero airplanes. Famous for doing quality caliber conversions. Yuma shoot circa 1995. (Ed Hope)



First-generation radio-controlled airplane held by Ralph Wong in 2010. These have evolved in speed and sophistication to the current electric-powered pushers flown at Big Sandy shoots. Incredibly difficult to shoot down, even back in the 1970s.



R. Lee Ermy (a.k.a. Gunny) at the Big Sandy shoot 2009 holding a fourth-generation target plane. The only time this author directed a movie star or told a gunnery sergeant what to do. Listen up, you maggots!

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Transitions – The generations of Key Organizers

The 1960s were a significant transition period for machine gun shooting in the United States. The 1968 Gun Control Act hit, including a 30-day amnesty registration period for those lucky enough to know about it and take advantage. Machine guns were ridiculously cheap by today's standards and readily available. The \$200 tax stamp cost was, instead, the barrier for many.

The word was spreading that machine gun ownership and shooting were legal. J. Curtis Earl was instrumental in getting the word out by distributing thousands of sales brochures and running ads in national magazines such as *Guns*, *Gun World*, *Guns & Ammo*, and the forerunner of this one, *Shotgun News*. J. Curtis Earl applied for his Class 3 FFL in 1964 and did his first recorded transfer in December 1965. By the end of the 60s, he had sold 528 Title II weapons.

Not surprisingly, machine gun shooting in Arizona increased rapidly over the next decade. This rise was mainly due to the conditions in the sidebar, *Why Shoot Arizona*. But every bit as essential was the synergy among key firearms dealers, shoot organizers, manufacturers, and collectors that influenced machine gun shooters along the way.

The "first generation," as some shooters now call them, included an internationally recognized cartridge collector (Bill Woodin), a talented armorer (Bob Faris), an ammunition manufacturer (Eric Lutfy), an influential gun collector (Ralph Wong), a self-promoting gun dealer (J. Curtis Earl), a gun magazine writer (Peter Kokalis), and an innovative manufacturer (Mike Dillion). In addition, a handful of other Arizonians were involved in the 50s and 60s, such as Class 2 manufacturers Pat Tomlinson and Fred Kaase.

Some of these 1st and 2nd generation shooters, and in particular Bob Faris, knew industry leaders such as Samuel Cummings, founder of International Armament Corporation (Interarms), and Val Forgett, Jr., founder of Navy Arms Company. They were allowed to go through recently imported shipments of ammunition and firearms during the 50s and 60s and pluck out gems. One can only dream of what that must have been like.

Age was not the partitioning factor among the generations, but when they became involved and influenced the shooting in Arizona. The 2nd through 4th generations were from the 70s through the 90s. The 5th generation was 2000 forward. We've touched upon Bill Woodin. More about Bob Faris and other individuals later, such as Eric Lutfy (1st), Peter Kokalis (2nd), and Mike Dillion (2nd). Other key individuals, such as Kenton Tucker (2nd) and Ed Hope (3rd), brought the shooting to its current state. I'm a 4th generation. Next up is Ralph Wong (1st).

Ralph Wong – Shooting Takes Off, Literally

Ralph Wong was in the Air National Guard and was taught to fly by WWII veterans. His family lived near Marana Airfield, a United States maintenance base northwest of Tucson for CIA operations. Let's say he and his family were very well connected. Ralph was the state's Agricultural Commissioner during most of the 70s and served on various state and local boards. He had access to other influential people, including politicians. These connections would later prove essential to such well-known individuals as Mike Dillon.

During the 1960s, Ralph Wong began building his gun collection, running twice a year invitation-only shoot. He was one of the first to be able to deal in machine guns, then under the control of the ATU

(Alcohol Tax Unit) and the 1941 Federal Firearms Act of 1938. J. Curtis Earl would later claim to be the first.

Ralph was inventive and helped create today's unique shooting environment. For example, he was the first to use radio-controlled (RC) model airplanes as moving targets in the early 70s. His interest originated from his background as a pilot, plus there was an RC club that used his property. He states, "It had

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A radio-controlled plane launched with balloon targets released on command at the Yuma Range. Very elaborate, but not very successful. The 6" cannon is a fuse-lit, black powder reproduction. Yuma Shoot circa 1990.



The famous sign of a Teddy bear holding a Mini Uzi at Mandall's gun store in Old Town Scottsdale. Tourists and locals could rent and shoot machine guns for the first time. Mandall helped spread the word that full-auto guns were legal to own. (Michelle Biely)



Organized by Ralph Wong, private shoots in Marana were unforgettable. Being invited got you a catered dinner, an acrobatic demonstration with actual planes, networking opportunities with gun world heavyweights, and bragging rights. 1987 (Kenton Tucker)

WHY SHOOT ARIZONA?

There are five reasons why this story unfolded in Arizona versus any other place in the United States or, for that matter, the world. Unfortunately, population growth and cultural constraints have recently created significant constraints on small, informal shoots.

Laws. If machine gun transfers were illegal in Arizona, as in some states, it would have been game off from the get-go. However, Arizona has consistently ranked among the top ten gun-friendly states. National Firearms Act (NFA)-controlled items are allowed. Hunting with suppressed firearms is permitted. Chief Law Enforcement Officer (CLEO) sign-off on Form 4's is rarely a problem. Constitutional Carry is allowed.

Environment. Arizona machine gunners can access public land with vast, line-of-sight views and upland backstops. These factors have enabled unique shoots such as radio-controlled (RC) airplane and cannon shoots. There are expansive desert areas with limited vegetation, low fire risk, and unrestricted views. Deep groundwater levels and little rainfall minimize the potential lead migration.

Leadership. Some of the best-known Class 3 dealers, writers, collectors, trainers, reloading equipment, accessory, and firearm manufacturers and distributors are currently or once were based in Arizona. The list is very long. Indeed, the *Arizona Republic* states that Arizona has more than 100 firearms and components manufacturers. In addition, as described in this story, influential individuals have supported machine gun shooting.

Population Density. Up until the 1980s Arizona had vast empty public lands directly adjacent to major cities. For example, when I first moved to the Phoenix area, informal shooting spots such as gravel pits were just twenty minutes from my home. Between 1980 and today, however, the population has nearly tripled. Urban sprawl is rampant as waves of people escape from other states, especially adjacent California. The once remote Ben Avery Shooting Facility, the largest publicly operated facility in the United States, is surrounded by suburbia.

Culture. To state the obvious: guns were an essential tool on the frontier. Indeed, the Arizona State Flag traces its history to the 1910 National Rifle Matches at Camp Perry, Ohio, before Arizona became a state. The visiting Arizona Rifle Team noticed that all rifle teams held state flags. The Arizona team had no such banner, so they designed one that was carried next year. It became the basis of the state flag.

Unfortunately, some new arrivals bring their views on restrictive firearm regulations. Their views have not had a significant impact to date, but the long-term trend is worrisome. The bombing of the Federal Building in Oklahoma City had an immediate negative impact. Timothy McVeigh was a resident of Kingman, Arizona. As described in this story, cheap and readily available "reactive targets" are now both expensive and tightly controlled. This plus, the government's recurring message of the threat of "white supremacists" does not bode well with the public's image of automatic weapon shooting. **FN**

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no interfering radio signals. It was clean. Mike Dillion brought his family down here to Ironwood, and it was the first time he shot model planes. I knew Dillon when he was still flying for TWA."

In addition, he was one of the first to use wooden surveyor sticks to elevate sticks of dynamite, sometimes cut in half, or cans of black powder. The sticks served three purposes: first, they prevented rocks from blowing back at the shooter; second, they stopped the dynamite from cratering and scaring the desert surface and improved target visibility. Another innovation was attaching reflectors to the dynamite, later replaced by newly invented glowsticks.

■ Shoots Attract Attention

Ralph's shoots grew in size and reputation. The word of legal machine gun ownership was also spreading in Arizona through businesses such as Mandall Shooting Supplies. Incorporated in 1975 and located in Scottsdale's "Old Town" tourist area, it displayed an attention-getting sign with a Teddy bear holding an Uzi. You could try one out in the below-ground range. Ventilation was all but nonexistent, but at least you could shoot a machine gun. Many did for the first time until it closed around 2005.

Marty Mandell may have had a Class 3 license, but he never got involved in or held large Arizona shoots. His personality was like that of J. Curtis Earl: you either loved him or could not stand him. Chuck Olsen, an early participant in Arizona shoots reflects, "They were kindred spirits. It's hard to imagine him fitting in." James, a former employee of Mandell's, put it more bluntly in an online posting, "I knew Marty pretty well, and he was a character ... Marty would cheat you. Straight up."

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Ralph's shoots were only once or twice a year, invitation-only, and done on a range where Ralph wanted to keep attendance to no more than 40 shooters. There were constraints akin to those at the now-retired Knob Creek Machine Gun Shoots: demand for a line position exceeded the supply. An invitation to Ralph's shoot gave you bragging rights.

Bragging rights, indeed. The shoots included an air show with acrobatic biplanes and monoplanes from the nearby airstrip. That plus a dinner! A Who's Who list of attendees attended, including Sandra Froman, NRA President, and the usual suspects such as Mike

Dillon, Peter Kokalis, Dolf Goldsmith, Bill Woodin, and most of the Class 3 dealers in the state.

J. Curtis Earl also attended Ralph's shoots and concluded that such shoots were a tremendous marketing tool. The pitch was something along the line of "Try out machine guns and buy one — from me, of course." In the early 70s, everyone participated in each other's shoots, but friction was mounting between Curtis and other shooters. Some would refuse to attend a shoot if Curtis was going. More about personality clashes later. Curtis began his own "marketing shoots" around the late 1970s.

Around that same time, others started to organize shoots around Arizona, mostly on public land (see the sidebar, "Where were the shoots?"). Traditional outdoor ranges such as the Ben Avery Shooting Facility would not allow reactive targets or airplanes (i.e., the fun stuff). Favorite spots developed all over the state. More and more shooters got involved. By the late 1990s, professionally designed indoor ranges such as Shooter's World and Scottsdale Gun Club provided machine gun rentals. But for the hard-core shooters, the restrictions were far too limiting.

Organizers recognized that incidents such as the Kokalis New River Raid described in Part 2 — *War Stories* could cause long-term problems such as land-use restrictions. For the first time, a reporter was invited to a major shoot in 1981. Nyle Leatham wrote a glowing six-page *Arizona Republic Sunday Magazine* cover story.

That same year the *Champlin Fighter Museum* in Mesa, Arizona, opened and featured a breathtaking display of over 100 machineguns, primarily bought and transferred through J. Curtis Earl. Then, in June 1984, another positive story appeared in the *Arizona Republic* titled "Going Great Guns." It detailed the process of legally owning machine guns.



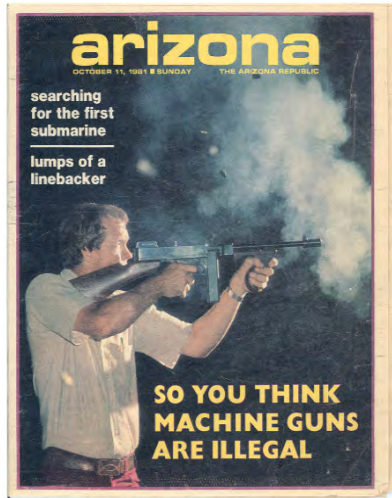
British Bren Gun Carrier Mk II (a.k.a. Universal Carrier) cresting a hill at a Marana Shoot. One of the more unusual armored vehicles; this one armed with a Vickers. (Ed Hope)

In September 1996, another *Arizona Republic* front-page story declared, "Machine-gun hobby: More bucks for the bang." Such state-wide publicity increased the awareness that machine guns were legal in Arizona. More shoots and more attendees were the inevitable outcomes. More shoots also meant more police encounters of the type described in Part 2 — *War Stories*.

■ Problems Grow and The Search Begins

Easily accessible shooting sites were becoming "endangered spaces." For example, until the 1990s, a small group could travel less than 30 minutes north of downtown Phoenix and shoot machine guns without restriction. Today, the population of that area is over a million. Large shoots of more than 20 participants became especially difficult to site if tracers and reactive targets were involved. Flatiron, Saddle Mountain,

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In the 1980s and 1990s, the largest state newspaper, *Arizona Republic*, wrote several favorable news stories on machine gun shoots. Mike Dillon was instrumental in maintaining good relations with the media. This feature Sunday magazine article appeared in October 1981. (Chuck Olsen)



The press during the early days was, in retrospect, surprisingly fair and balanced. For example, this June 1984 article in the *Arizona Republic*, the state's largest circulation newspaper, describes shooters as "upwardly mobile people who are the most solid of citizens." (Chuck Olsen)



In the 1980s, shooting sites next to metropolitan areas were abundant. Idan Greenberg shoots his 1917A1 Brownling next to a 20mm Lahti and a 1912 Lewis Gun in Happy Valley, North Phoenix, in 1988. Today there are over one million residents in this same area. (Idan Greenberg)



Overview of a 2001 shoot at SP Crater, a cinder cone volcano in the San Francisco volcanic field, 25 miles north of Flagstaff, Arizona. The backstop was perfect for shooting anything, including cannons. (Ed Hope)



Overview of the Yuma shoot circa 1995. This was the site raided by a Marine Special Reaction Team (SRT) and subsequently shut down as described in Part 2. (Kenton Tucker)



Tracers, ricochets, and a falling flare at Big Sandy 2001. Some shooters wrote their names in the sky with tracers at remote locations decades ago. No more. Shots must be below mountain backstops, and airplanes fly very low to prevent overshoots.



J. Curtis Earl is on the inside cover of his 1976 catalog. L-R 1917 water-cooled Browning, MG34; Bren, Finish Lahti L-39F 20 mm anti-tank rifle (Chuck Olsen)

is unknown, probably Mike Dillion's friend and helicopter pilot Jerry Foster.

The site was also used to film portions of *Fire Storm In The Desert* — 'Machine Gun Magic' in 1988. The physical layout could safely handle Dillon's mini guns and Qual 50. Bob Faris was an expert setting up and sighting in a Quad 50s from his Korean war days and helped Dillon line his up. Kenton Tucker recalls, "We used snow shovels to pick up the brass and links."

By 1988, the SAWS was not organizing shoots routinely at SP Crater. However, during the filming of *Machine Gun Magic*, Bob Faris urged Ed Hope, "You should run a shoot here each year at SP Crater." This was the pivotal point for shooting Arizona. Ed would soon be a Class 3 dealer in Flagstaff and would team with Kenton Tucker, who had extensive connections within the machine gun community. As a result, the shoots became bigger than ever.

As "The Shoot" grew, the underlying problems in running it at SP Crater became more apparent. First, it was on public lands where the organizers legally could not block access or force unwanted people to leave. Although there were no humans for miles around, cowboys did not take kindly to impacts over the mountain near their cattle. Overshoots are not a significant issue so long as there are line safety officers to monitor and control shooters. For the filming of *Fire Storm In The Desert*, Dillon had to do extensive aerial reconnaissance of the area miles in front of the line since a portion of the shooting was above the backstop.

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WHERE WERE THE MAJOR SHOTS?*

Northern AZ

- SP Crater

Central AZ/ Phoenix

- Flatiron Mountain
- Saddle Mountain/Tonopah
- Table Mesa/New River
- White Tank Mountains

Central AZ/ Tucson

- Marana
- Ironwood National Forest
- Gila Bend Mountains

Southwestern AZ

- Abandoned Blaisdell National Gard Range
- Barry Goldwater Range / Yuma Proving Grounds
- Dateland
- Red Top Wash
- Yuma Proving Grounds

* Gravel pits and private property (e.g., ranches with hills as backstops) were used for small shoots throughout Arizona.

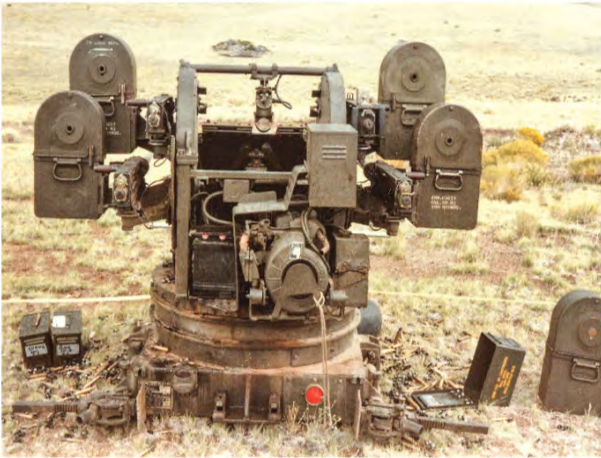
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and the accessible areas of the White Tanks were too close to populated areas near the east-west Interstate Highway 10. Tracers might be seen; explosions might be heard if the wind carried the sound.

Organizers such as Mike Dillion knew they were running out of prime locations and began actively searching for new, safe places to shoot in the late 1970s. In his film *Machine Gun Magic*, Dillon states, "It took us the better part of 5 years to find [SP Crater]."

Non-Arizonians might think Arizona has endless expanses of remote land compared to the rest of the US. However, this is not the case for machine guns, airplanes, artillery, and dynamite shoots. Finding places that meet the requirements for remoteness, vehicle access, a mountain backstop, and vast, level open space is challenging. Much of the state is tribal territory, private property, or public lands where shoots are prohibited (e.g., wilderness areas).

In the late 1970s, large shoots gravitated towards SP Crater 25 miles north of Flagstaff. The SP stood for "Shit Pot" on early maps. Despite its politically incorrect name, the site had most, but not all, of the needed requirements. It was used in the 70s and early 80s by the Southwest Automatic Weapons Society (SAWS), formed by Mike Dillon, Al Nordeen, and their friends. Who initially found the spot



Rearview showing ammo can layout feeding the Quad 50 used in the movie *Fire Storm in the Desert, Machine Gun Magic* by Dillon Precision. The combined rate of fire 1,600RPM. (Kenton Tucker)



The lineup at the filming of *Fire Storm in the Desert, Machine Gun Magic* at SP Crater in 1988. Front to back: 20mm Lahti; Swedish Model 37 Browning; M60; 1919 Browning; Vickers. (Kenton Tucker)



Profile view of Dillon's Quad 50 with an initial accumulation of brass strewed around. Shovels had to be used to pick up the links and brass after the night shoot. SP Crater is in the background. (Kenton Tucker)



Mike Dillon at SP Crater while filming *Fire Storm in the Desert, Machine Gun Magic* 1988. (Kenton Tucker)

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The early shoots in Arizona were invitation-only. Ed's wife Julie sent out invitation notices, registered shooters, issued badges, and collected fees, a process which she continues to manage today. A good deal of control could be maintained, especially since shooters were vetted via the requirements for owning NFA (National Firearms Act) weapons. There could be millions of dollars of weapons, accessories, and ammunition at large shoots. In the early years, no one worried about theft.

As word spread, more friends and family showed up to watch the spectacle. They brought others who might not have the skills to shoot machine guns, especially machine pistols. Some might imbibe a few drinks. Liability concerns and insurance needs became apparent. Costs increased as reactive target

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New Vs. Old: 600RPM 1919 A4 Browning mounted on an M38A1 Willys Jeep with a 1917 Browning cradle.



Hummer mounted Dillon Aero Mini gun. At 2,000-6,000 RPM, it will fill up the Hummer truck bed fast.



Easy to tell the difference in firepower!



From common to rare, all manner of machine guns converge at Arizona shoots. (L-R) M1914 Hotchkiss; Austrian Schwarzlose MG; Vietnam era M60 "pig" with anodized aluminum purple top cover nicknamed "purple people eater"; RPD: SP Crater circa 2000. (Kenton Tucker)



Burning magnesium turnings are incredibly bright even during the day. Awesome at night. At an early SP Crater shoot, the light attracted a pilot's attention, who alerted the sheriff's office, thinking it was a crashed plane. (Kenton Tucker)



Sometimes cars were shot and blown up in early shoots. This Plymouth Duster was used in *Fire Storm in the Desert Machine Gun Magic* by Dillon Precision. Organizers decided the cleanup was not worth it, plus flying car parts were too dangerous. (Kenton Tucker)



Rare, air-cooled Vickers taken off a Japanese Zero, modified for use on a Vickers WWI tripod. Behind is a Lafayette mount for MG42; Water-cooled Vickers, SP Crater circa 1989. (Ed Hope)

dynamite was unavailable, black powder and magnesium shavings with smokeless powder were used. Bob said, "We gave up on cars because they left a mess to pick up." Shooters also realized that putting explosives inside appliances or cars was extremely dangerous, even though the distances to the firing line could be hundreds of yards.

There was also an issue with large magnesium fires and flares. Bob Faris relayed the story, "At one of the earlier SP Crater shoots, we noticed an airplane flying around. It turns out that a Grand Canyon tour plane reported what was thought to be a crashed plane because of the bright flames. The sheriff's office came out. We cut down on these because they would also create field grass fires."

Flame throwers were rarely shot since they would leave a sizeable, ugly mark on the surface of land that did not recover quickly in a desert climate. For example, in the early 2000s, explosions were reported to a local news channel at a shoot west of Phoenix. A traffic helicopter was dispatched to investigate and witnessed triangular sooty burn marks. The incident made the evening news and set off investigations by the police.

There was a period before the late 1990s when reactive targets were, shall we say, inferior quality and improperly managed. Amateur pyrotechnical hobbyists set their own "targets" since commercial dynamite was often unavailable at small, informal shoots. Factors such as static electricity were of no concern, but they were to me because of my background in chemical engineering. I suggested a licensed blasting professional doing demolition work in the Phoenix area, Mike Simmons.

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management, grass fire control, EMTs (Emergency Medical Technicians), line safety officers, and other requirements expanded.

Initially, \$25 per shooter was collected to cover target costs. Some complained when it increased by a few dollars, not recognizing the business implications of putting on a major shoot. Organizers had no sympathy for those who owned a fortune in weapons and shot thousands of rounds of ammunition but would complain over a few dollars. It took a wedding (yes, you read that right) to sort things out and initiate a business model to run the shoots.

■ Target Evolution: The Learning Curve

In a June 1984 Arizona Republic article, Mike Dillon described the importance of targets, "Shooting a machine gun is a novelty at first, but to really appreciate its firepower, it is necessary to develop some pretty exotic targets. Just shooting at a paper target or a rock is not much fun. So, we have invented some pyrotechnic targets such as magnesium shavings, gasoline, and black powder."

Bob Faris described the early days of shooting: "Fireworks were outlawed, so we used dynamite. One time we set off an entire case [of dynamite]." If



Fourth-generation gas-powered target airplanes are being prepped for flight. 2010 Big Sandy



The latest evolution in airplane targets. These are 6th generation "pusher electric" RC models that travel over 100MPH. (Ron Lippert)



RC model target plane designs have evolved so that only a direct hit to a vital part brings them down. This 4th generation one took hits to both its engine and receiver.



Very early SP Crater shoots. Note the absence of canopies, now in common use. 1919 Browning in the foreground.

Commercial pyrotechnics and licensed pyrotechnicians were later added to the Big Sandy Range.

Hollywood loves big, fiery explosions and macho actors who shoot not high, but infinite capacity guns while throwing fake sticks of dynamite. In the real world, a small, bright yellow flash is hidden from the exploding cloud from nitroglycerin-based dynamite. Only specific types of dynamite will explode if hit by certain bullets. Handling some types of dynamite sticks (such as "ditching dynamite") can also produce a massive headache from nitroglycerin absorption through the skin. In the 1970s, glow sticks were strapped together with dynamite for night shoots.

Another issue was the ricochets from large caliber weapons or artillery aimed at an angle at metal plates. I experienced this firsthand when the round from 37mm Bofors cannon at the far end of the firing line flew past me. I described the weird screeching sound to my father, a WWII Pacific War veteran, who said, "That is exactly what I would hear when poorly made Japanese cannon rounds tumbled as they went overhead."

■ Up, Up in the Air

Arguably, the most unique aspect of these large machine gun shoots is RC target model airplanes, possible in Arizona because of its vast, remote desert areas with unobstructed views (see side box, Why Shoot Arizona?). For most shooters, RC airplane targets moving at over 100mph are the most challenging and, thus, fun. One can gauge this enthusiasm from the incredible wave of machine gun fire as model airplanes traverse the firing line.

These RC planes evolved over six design generations. The first and second generations were gas-powered balsa wood planes. Cheap, but they shattered on impact, making repair impossible. The third-generation was flying Styrofoam delta wings hot glued together. They also shattered on impact. The fourth and fifth generations were of corrugated plastic sheets stapled together, followed by gas-powered pre-cast Styrofoam forms. Current sixth-generation



Even with this firepower, shooting down RC model airplanes is extremely difficult. Twin AN-M2 30 cal. Brownings and twin MG-42 on anti-aircraft mounts at Big Sandy 2010.



This shooter knows how to handle a MAC 11 SMG. Small, high cycle rate full autos are the most dangerous guns in the hands of a novice shooter. That is not just hyperbole: several inexperienced shooters have died when machine pistols got out of control. (Ed Hope)



Tom Spengel at Dateland shoot, circa 1987. Tom, a Class 3 dealer, was one of four founders of Dry Creek LLC in 2001. Front to back: Vickers, Bren, 1917 Browning. (Ed Hope)

RC target planes are electric-driven pushers made of plastic. Cheap, fast, and repairable. Glow sticks are attached to the wings for night shoots.

They are incredibly difficult to shoot down. If one watches WWII kamikaze attacks on the Pacific Fleet and wonders why the trained navy gunners could not stop every attacking plane, this experience can provide insight. (For a detailed description of airplane shooting, see my article *Aerial Gunnery — The Ultimate Challenge*, *Shotgun News*, April 5, 2010 issue.)

■ Obvious Safety and Liability Concerns

As the shoots grew, so too did the safety and liability concerns. Fortunately, no one has been killed or seriously injured in all the years of shooting organized by the individuals mentioned in this article. It has been a long learning curve, and today, all targeting and range safety elements are rigorously controlled at the Big Sandy Range.

Unfortunately, this has not been the case at other ranges. For example, in 2014, a nine-year-old was allowed to shoot a Mini-Uzi at a commercial range along Highway 93 in Mohave County, Arizona. Unfortunately, it got out of her control and killed the instructor. A similar incident (i.e., a child shooting machine guns mounted on a platform they could not control) occurred at Knob Creek in 1995. Another occurred in 2008 at the Machine Gun Shoot & Firearms Expo in Westfield 2008 eight-year-old boy was allowed to shoot a Mini-Uzi.

Handing a full auto weapon with a full magazine to an inexperienced shooter is, at best, inappropriate. If it's a machine pistol, it's totally reckless. Experienced shooters guide beginners by using the "Barney Fife method": one round, then two, then three rounds, etc., loaded in the magazine. Then and only then, full auto with a full magazine.

■ The Marriage of Four

Idan Greenberg was a well-known, respected ammunition and Class 3 dealer in Phoenix. In 2000, he invited a Who's Who of Arizona's machine gun community to his wedding. In an area outside the reception hall, four dealers sat around, drinks and cigars in hand, discussing the issues of continuing the SP Crater shoots. Insurance, liability, target costs, and NRA range certification, were prime discussion areas for Ed Hope, Kenton Tucker, Randy, and Tom Spengel.

They recognized that a limited liability company (LLC) needed to be formed to get insured. For insurance reasons, the site also needed to be an NRA-affiliated range. Each chipped in a few thousand dollars, and *Dry Creek* was created in 2001, the desert version of the well-known *Knob Creek* moniker.

Dry Creek was a partnership that lasted about three years. Friction grew to the point that Ed Hope and Kenton Tucker bought out Tom Spengel's share. Randy decided to focus on his other business needs and withdrew. The search for a permanent, private, access-controlled home continued. *Part 3 – Progression to Current Shoots and The Epilog* describes what happened next. **FN**



Dry Creek at SP Crater was the predecessor to the Big Sandy in Wikieup and was the first insured business-organized shoot in Arizona. It attracted significant crowds such as these in 2003, clearly marking the need for a controlled private property range. (Ed Hope)

NOTES ABOUT IMAGES

Sources noted, and if not specified, they are my pictures. Some images are in the public domain. Others may be copyright protected and used with permission. Individuals at the Dry Creek and Big Sandy shoots sign a liability and image release since commercial filming is conducted during the shoots. Some identities are withheld through image selection (e.g., only side or back profiles), obscured faces, or first name only. For example, SEAL team members and the police are entirely anonymous. The quality of some photos is not up to modern standards since they were scanned from original photographic prints up to 70 years old. **FN**