NEW LIFE FOR A COMBAT CLASSIC:

US ORDNANCE

MK43 MOD 1

MACHINE GUN

a special report by

ROBERT BRUCE

The M60E4 is a great weapon and definitely fills the gap between vehicle mounted M240B and dismounted M249 SAW. Scout teams have been taking them out to overwatch and support the snipers, occupying OPs near them and carrying the M60E4 because it is small enough to hump a good distance and has great firepower. Some comments directly from soldiers: The M60E4 is small enough to maneuver in tight places, it allows for easy access entering and exiting vehicles and aircraft, can be shoulder fired in short bursts accurately, does not require a complete crew to operate effectively.” Email to US Ordnance from an officer of 101st Airborne Division in Operation Iraqi Freedom.

What’s not to like about a real machine gun that’s significantly lighter than a chunky M240, about the same size as a puny SAW, pumps out powerful 7.62mm rounds with reliability and accuracy, and has long been a force multiplier in elite Navy SEAL Teams? GIs who’ve tried ‘em love ‘em, they’re comparable in price to buy and sustain as the FN guns, they’ve been in the logistics and combat doctrine chains for ever, and they’re 100 percent American designed and built. Slam dunk? Sorry.

Meanwhile, production of M240s and 249s at FN’s South Carolina plant continues at breakneck pace but there remains a substantial backlog. This necessitates keeping large numbers of existing M60s in service with all branches of the US Armed Forces. But these guns are mostly old and tired veterans of decades of hard service and victims of poor maintenance with shoddy and cannibalized parts. What’s going on here?
Passing a Sputtering Torch

Prior to its last-ditch effort in the “Upgrade Kit” trials, M60 production had long been the exclusive domain of Saco Defense, where a skilled force of dedicated craftsmen had been turning out hundreds of thousands of these guns in various configurations. But for some reason the level of quality seems to have dropped.

This is particularly puzzling given Navy Special Warfare’s apparent satisfaction with their measurably improved M60E4/MK43s of about the same time frame.

It must be left to others to explain the reasons for the abysmal performance of the eighteen guns SACO brought to the Army’s gunfight in 1994. Our numerous phone calls – with detailed messages left for a certain individual who had been identified to us as a key player on the industry side of the trials – were not returned.

Market forces being what they are, SACO was acquired by defense industry giant General Dynamics in 2000. No secret that the Sixty was by then a try giant General Dynamics in 2000. SACO was acquired by defense industry giant General Dynamics in 2000. It was deployed for accurate shooting from a prone position. 7.62mm ammunition worn bandoleer style over their flak jackets. The gun’s bipod is deployed for accurate shooting from a prone position. (USMC photo/National Archives)

SADJ: We have seen plenty of evidence to convince us that US Ordnance’s M60E4 – initially fielded by Navy Special Warfare as the MK43 Mod 0 and now the Mod 1 – represent significant ‘design improvements’ over all previous versions. Will you take our readers through its mechanical upgrades?

Helzer: In 2000, Curtis Debord recognized that there was a business opportunity for a small arms manufacturer in acquiring the original tooling, technical data packages, processes, and procedures necessary to make a MIL-SPEC M60. General Dynamics (GD) was just completing the purchase of Saco Defense and recognized that they had an obligation to ensure the availability of spare parts for the M60 for the next five to ten years. But GD wanted out of the 7.62mm General Purpose Machine Gun business so a licensing agreement between US Ordnance and Saco Defense/GD was a logical conclusion. It ensured the availability of spare parts and ensured that the M60 remained in production.

Spare parts and complete weapon systems would be available, and design improvement work could continue.

2. Adjustable front sight allows for zeroing of spare and primary barrel prior to mission operation. The old design required the gunner during combat to remember to adjust the rear sight for each barrel change. A slight relief cut in the new front sight base decreases the chance of losing the front sight in the field.

3. Bipod moved from barrel to receiver. This has reduced the weight of the spare barrel and keeps the receiver stable, off the ground away from debris and pointed down range during barrel changes.

4. Bipod is strengthened and simplified, one hand operated and has ambidextrous legs to ease maintenance and spares.

5. Improved forward handguard with increased heat shielding that protects the operator from barrel heat, plus a forward pistol grip for better control.

6. Mod 1 variant has a Rail Interface Handguard with removable/repositionable pistol grip. This accommodates different sized soldiers and allows mounting of the gun to most all existing platforms. Three rails (both sides and underneath) allow mounting of multiple items like lasers and aiming devices.

7. Carry handle is mounted on the barrel to facilitate hot barrel change and offset so it won’t get in the way of the sights.

8. Improved gas system is “soldier proof” reversible. The old system was required the gunner during combat to remember to change the barrel prior to mission operation. The old design required the gunner during combat to remember to adjust the rear sight for each barrel change. A slight relief cut in the new front sight base decreases the chance of losing the front sight in the field.

9. Gas tube on the barrel is simplified with three fewer parts than the old standard.

10. Both the Mod 0 and Mod 1 come with an aluminum rail top cover to facilitate the mounting of optics.

11. A new spring loaded feed cam allows loading of the weapon with the bolt forward (safe position) or rearward (charged) without damaging the feed cam assembly.

12. A redesigned feed cam, feed pawl assembly, and cartridge retaining pawl for 30% improved belt pull to overcome misaligned ammo and debris.

13. Two rear notches on the operating rod help prevent run away gun in extreme operating environments.

14. The operating rod tube is now hard chrome plated for corrosion resistance and to facilitate cleaning. Its fore end is induction hardened to resist mechanical wear from the forward sling mount.

15. A new captured pin prevents accidental detachment and loss of the trigger group.

16. Improved trigger grip housing that is stronger and redesigned to prevent trigger pin from being installed backwards in unsafe position.

17. Ambidextrous safety.

18. A trigger guard that hinges down to allow trigger finger access wearing thick winter mitts or NBC protective gloves.

19. Nyloc safety nut on cocking handle retainer holds tight despite vibration and allows for multiple assembly and disassembly without any degradation.

20. The ammunition hanger is now rigidly mounted to the side of the receiver – unlike the previous version, where the hanger was mounted to the feed tray. Now, when checking the chamber,
the gunner doesn’t have to lift a belt of heavy ammunition and also risk dumping it out of the bandoleer.

21. Improved polymer buttstock that is lighter and stronger, while retaining the hinged shoulder rest feature.

22. Overall weapon length (fitted with short barrel) is 5 inches shorter than the Standard M60 and almost 4 pounds lighter.

SADJ: When we interviewed Dale McClintian at STS he said there were some other improvements in the works.

Helzer: That’s right. Our improved short fluted barrel is currently available and is based on the ones that STS did the 850 round demos with. Still in the RDT&E (research, development, test and engineering) stages are the improved cooling handle, bolt with new metallurgy, and a modification to the feed tray. We’re always working to improve our M60 family of guns and there are a couple of other things that maybe we can talk about in a few months.

SADJ: What US military/government/ law enforcement entities have purchased at least several guns and/or quantity orders for squares in the last two couples of years?

Helzer: We have sold to numerous Sheriff Departments to assist with their new role in Homeland Security. Primarily for Maritime Security duty escort for tankers carrying oil or LNG (liquefied Natural Gas) in states with ocean shipping. We have also received US Government purchase orders for spare parts from TACOM-RI, Defense Supply Center Columbus (DSCC) and Defense Supply Center Philadelphia (DSCP) for use by our own soldiers. These have primarily been spare barrels and sub assemblies for complete weapons.

And, we just delivered a small quantity of complete MK43 Mod 1s to the US Navy.

SADJ: What foreign countries have gotten guns in quantity over the last two years?

Helzer: Colombian Navy and Army, Czech Republic for their 601st Special Forces, Philippine Air Force, Spanish Air Force, Italian Navy, Chilean Air Force, Mexico, Denmark, Tunisia and Thai Navy. The M60 family of weapons is still very popular around the free world.

SADJ: What’s the price of the MK43 retro-fit parts kit?

Helzer: Anyone with a serviceable M60 receiver can have what amounts to a brand-new MK43 for about 60 percent of the cost of a complete new gun. Or, we’ll be happy to sell them a complete MK43 Mod 1 for $11,200 (domestic suggested retail price). That’s less than commercial price for FN’s M240 and significantly less than their MK48 guns. Our MK43s are in stock and ready for delivery to US Government and law enforcement pending ATF transfer approval.

SADJ: We know that US Ord used to sell semi-auto M60s that were civilian legal with no special paperwork. But now, the website says resumption of sales is delayed indefinitely. Comment?

Helzer: The Global War on Terror has caused a dramatic impact on the small arms industry. As our government orders ramped up we pulled our employees from the semi-auto production line and converted that area in our shop to military and law enforcement. This was a difficult decision because of the large and loyal civilian M60 following but a necessary one to support the warfighter and our coalition partners. Sales are still delayed indefinitely.

SADJ: How many semi-auto US Ord Sixties are out there now?

Helzer: There are more than 150 of the M60, M60E2 and a small number (10-20) of factory M60E4/Mk43 Mod 0 and Mod 1 semi autos in civilian hands. US Ordinance have resumed semi-auto sales and now offer a semi-auto M249 SAW in limited numbers. These are available from Desert Ordinance (www.desertord.com). Live Firing the MK43

The scope of this feature is not intended to include a hands-on evaluation of the new Sixties from US Ordinance. This has been well done by others, most notably Kent Lomont, the highly respected tactical small arms guru.

In a recent telephone conversation, Lomont told us he has put more than 70,000 rounds of “every kind of ammo” through his US Ord MK43 with excellent results. In no uncertain terms he declared, “It’s a goddamn good gun! For the first time there’s a Sixty you can bet your life on.”

Lomont’s salty and straightforward endorsement tracks with what we have repeatedly heard from law enforcement and military users. To the point, the MK43 has proven itself over recent years in hard training and combat operations by Navy SEALs and other elite formations such as the “Screaming Eagles” in Iraq.

We have personally observed the situation where one US Ordinance MK43 Mod 1 was run without incident for several thousand rounds in the industry demo and participant live fire opportunity at NDIA Small Arms 2006. Then, in our day on the range with students of Navy Center for Security Forces’ Crew Served Weapons Instructor Course, no problems occurred with either of two US Ord MK43 guns that were hard-used all afternoon by a dozen Sailors.

Who are these people that are skeptical are invited to see for themselves some real torture test of the MK43. A couple different 850 round continuous burst videos are linked on the Special Tactical Services’ website at www.spectacserv.com. Click VIDEOS on the navigation bar, then select MACHINE GUNS. Plenty more folks have accessed and marveled the one at Blackwater that is posted on YouTube.

9 Sep 2005, Marine Corps Base Quantico, Virginia. Expended brass cartridge cases and steel links pile up as STS President Dale McClintian hammers away with a MK43 Mod 0, nearing the end of another highly convincing demonstration of the gun’s ability to sustain a continuous 850 round burst when fitted with US Ordnance’s high reliability retrofit kit. (Photo courtesy of Special Tactical Services)

**MK43 MOD 1 TECH SPECS**

**CALIBER**

7.62x51mm NATO

**OPERATION**

Gas piston with 2-lug turning bolt

**WEIGHT**

20.5 pounds with short barrel

**BARREL OPTIONS**

- Short (16.5 in.)
- Assault (17.5 in.)
- Long (21.5 in.)

**CYCLIC RATE**

500 to 600 rounds per minute

**MAX EFFECTIVE RANGE**

1,100 meters

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2004-03-29 - DEFENSE SMALL ARMS JOURNAL

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