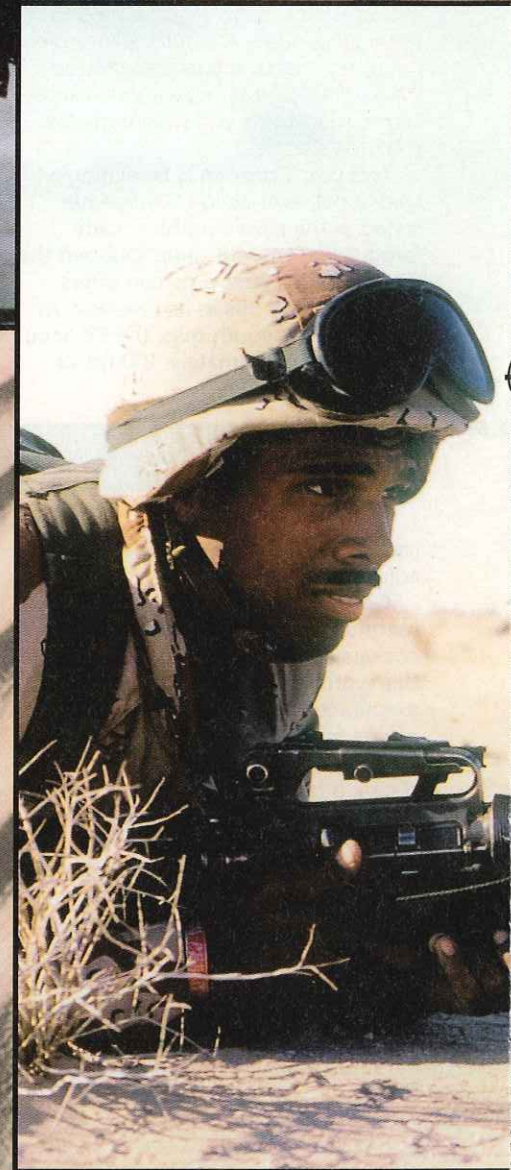


▲ The standard U.S. infantry rifle, the M16A2, is a close variation of the rifle that was adopted by the U.S. military in 1964, during the war in Vietnam. This rifle, produced by Colt, is capable of shooting single shot, three-round burst and fully automatic at a rate of 600 rounds a minute. It fires the 5.56 mm NATO round that in civilian garb is known as the .223 Remington.

**O**n Aug. 2, 1990, three divisions of Iraqi Republican Guards attacked the neighboring country of Kuwait and within hours occupied the entire country. Months were needed to assemble the Coalition force and to stage a jumping-off point for the Allies against the well-entrenched Iraqi military numbering nearly a half-million men. By January, 1991, everything was in place, and on the morning of the 17th, an air campaign began what would be known as Operation Desert Storm. Forty days later, the Allied ground assault began and U.S. and Coalition forces quickly overran every Iraqi stronghold. Within 100 hours after the ground assault had begun, the war was over.

As in the current war on terrorism being fought in Afghanistan, an air campaign alone cannot win the war. Ground troops must physically occupy every inch of enemy territory. The U.S. mobilized nearly 250,000 men for Operations Desert Shield/Storm and put over half that number in the actual theater of operations. Here is a description of some of the combat infantry weapons that the U.S. ground forces used in their 100-hour war against the best that Saddam Hussein could muster. ♡



▲ The M16 has the distinction of being the longest serving of our nation's service rifles, with nearly 40 years of active service. Its gas-operated design and unique plastic/metal components make it easy to adapt the gun to other receiver designs, making for a most versatile weapon system. When fitted with a 40 mm grenade launcher this rifle is known as the M203.





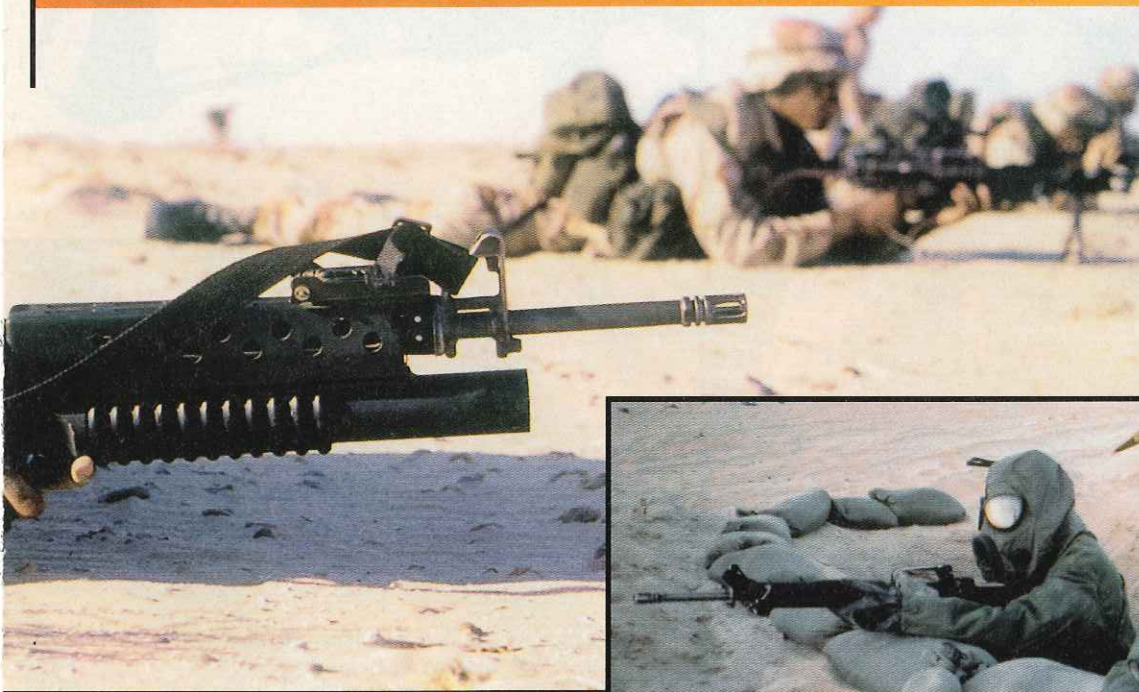
**By Philip Schreier**

PHOTOS COURTESY U.S. DEPARTMENT OF DEFENSE

▶ The U.S. M60E3 machine gun is belt-fed and capable of shooting 600 rounds of 7.62 mm NATO per minute. It weighs almost 25 pounds and is gas operated. It features a quick-change barrel assembly so after a few thousand rounds of continuous fire, the barrel can be exchanged for a fresh barrel while the old one air cools. In use since the early 1960s, the M60 has been a venerable support machine gun and functioned well under the sandy and desert conditions of Kuwait.

# GUNS OF

## DESERT STORM



▶ Known as the SAW (Squad Automatic Weapon) this versatile machine gun fires the standard 5.56 mm NATO rifle round at a rate of 750 rounds per minute. This machine gun can fire from either an M16 30-round box magazine or a 200-round belt of ammo. It is an Americanized version of the FN Minimi machine gun made by Fabrique Nationale Herstal GmbH and accepted into service in 1982. Two SAWs are standard for each squad of infantry.

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# GUNS OF DESERT STORM

▶ The M16A2 model used in Desert Storm was adopted by the Army in 1983 and remained until replaced in 1996 by the M16A3 which is currently being used by the U.S. military in Afghanistan. The original M16 was designed and developed by Eugene Stoner who worked for Fairchild Industries and whose initial rifle designs were produced by Fairchild's Armalite Division in California.



▶ When the M16 was first introduced, it had a bad reputation for jamming. Soon modifications were adopted that included a forward assist button, a closed "bird cage" flash suppressor, (the original "3-prong" had a bad habit of catching on vines and branches when used in the brush) and a deflector that kept empty brass from flying into the face of left-handed shooters. The rear sight was modified on the A2 so that the operator could make rapid changes under combat conditions.





▲ Two Navy Seal teams were sent to serve in Desert Storm. Due to the high level of training and special operations work that they were called upon to execute, special weapon systems were essential to the successful completion of their objectives. The 9 mm HK MP5 is considered the ultimate in modern submachine gun firepower. Lightweight (five pounds) and compact (less than 24 inches with the stock collapsed) the MP5A3 can accept a 30-round magazine and shoots at a rate of 650 rounds per minute.



▲ The XM177 is the carbine version of the M16 rifle with a 15.5-inch barrel and a collapsing stock that makes the carbine not only a pound lighter but almost an entire foot shorter. Today's army uses the very similar M-4 carbine.



# Living History

By Philip Schreier

## Permission to come aboard?



## Living History on the USS Olympia

**A**t the intersection of Philadelphia's South Street and the Delaware River sits in neglected glory, one of America's national treasures, Admiral Dewey's flagship from the 1898 Battle of Manila Bay, the USS Olympia. The protected cruiser settled at her present berth in 1957 alongside the USS Becuna, a submarine from the World War II period. Today she stands as a memorial to the officers and men who

served aboard her during her 30 years of active service.

On a number of weekends during the calendar year, the Olympia springs to life with the aid of a living history crew who demonstrate life as it was aboard the ship in 1898. Comprised of nearly 30 crewmen, and officially known as the Living History Crew of the USFS (US Flag Ship) Olympia, the crew strives to display numerous aspects of how it was to live as a crew-



*The Olympia today sits at Philadelphia's Penn's Landing in a slip on the Delaware River, just opposite from the newly berthed USS New Jersey.*



*Though the Olympia's keel was laid in 1891 and she entered into service in 1895, the original ship's bell bears the date 1893, a reference to the date of her launching.*

man in the age of the old steam navy. From cooking, 5-inch gun drill, sword practice and signaling, the crew makes life for both the visitor, and the crewmen themselves, as close as anyone might come to experiencing things as they once were.

The USS Olympia is the oldest steel hulled naval vessel in the United States. Her keel was laid by the Union Iron works of San Francisco, California in 1891 and she was commissioned into service in 1895. She was serving in the Asiatic Squadron when war clouds developed between the United States and Spain in January of 1898. Commodore George Dewey joined the ships company that month and made her his flag ship as commander of the squadron.

On 16 February, 1898, Dewey, aboard the Olympia, learned of the destruction of the USS Maine in Havana harbor on the evening before. In the afternoon of February 25th he received the following cable from the Navy Department in Washington D.C.

Dewey, Hong Kong: ORDER THE SQUADRON, ... TO HONG KONG. KEEP FULL OF COAL. IN THE EVENT OF DECLARATION OF WAR SPAIN, YOUR DUTY WILL BE TO SEE THAT THE SPANISH SQUADRON DOES NOT LEAVE THE ASIATIC COAST, AND THEN OFFENSIVE OPERATIONS IN PHILIPPINE ISLANDS. KEEP OLYMPIA UNTIL FURTHER ORDERS.

The cable was not signed by the Secretary of the Navy John D. Long, he



had left the office early that afternoon due to a bout of insomnia, one that began the night the Maine blew up. The cable bore the signature authority of the Assistant Secretary of the Navy, Theodore Roosevelt. In an instant the United States was 'mobilizing' for war under the authority of an absent cabinet member. Long was warned by one wag that if he ever left Theodore alone in the office again, it was likely that he would declare war all on his own. The Olympia became the object of international attention once news of the cable became public and Dewey was the man on the spot, the tip of the sword. The U.S. declared war on April 25 and Dewey immediately set off to contain the Spanish fleet, known to be in Manila Bay, Philippine Islands.

The first taste of blood for the U.S. came on May 1 when the U.S. Asiatic Squadron, led by the Flagship Olympia, steamed into Manila Bay and, after a sharp engagement following the famous command "You may fire when ready Gridley," sunk the Spanish Fleet in quick order, establishing an American presence there that would last nearly 100 years. Dewey became a national hero, was promoted to the highest rank in the history of the Navy and the Olympia was treated to the equivalent of a ticker tape parade in every port she visited during her return voyage home in 1899.

She later served the first part of the 20th Century in the Carribean, Atlantic and Mediterranean. In 1916 she was named flagship of the Atlantic Fleet and participated in the Great War, eventually participating in the



**The ship's company on the forward 8-inch gun turret. Uniform for the day is "working whites" one of the most comfortable living history impressions available.**

Murmansk expedition. In 1921 her last noteworthy cruise made world headlines as she bore the remains of the Unknown American Soldier from the Great War home to the Washington Navy Yard for interment at Arlington Cemetery.

She served as a training vessel at various times for the U.S. Naval Academy and today her mission is still training and education. Owned and operated by the Independence Seaport Museum at Penn's Landing in Philadelphia she has been host for various living history crews since the mid-1980's. In January of 1996 the present living history crew was established by the museum to demonstrate and interpret life aboard the historic artifact. Today's prospec-

tive crew member is literally trained in various aspects of navy life before they are passed to serve before the public. Among the various disciplines are:

- 5-inch gun drill
- 6 Pounder gun drill
- "Single stick" (cutlass) drill
- French foil fencing
- Small arms drill
- Signaling (both Myer and International Code of Signals)
- Navigation
- Engine Room operations discussion
- Chanty singing
- Knot-tying and rope work

Most crew members are cross



**Olympia's crew during a few moments of relaxation. Crew members hand make each of the hammocks, and the musical instruments are original to the late 1890's.**



**Crewman Peter Tuttle on the forward 8-inch twin turret guns. The original guns were removed and the current guns are hollow cast replicas.**