

# UP, UP & AWAY!

Text and Photos: James H. Hillestad

James H. Hillestad documents the 250-year development of military observation balloons and collects examples in miniature

After a 30-year hiatus from the hobby, I returned to collecting toy soldiers in 1985. What a time it was to resume collecting. Jan and Frank Scroby released their spectacular Marlborough Military Models Delhi Durbar series of elephants, Len Taylor of Trophy Miniatures of Wales Ltd. launched his exciting Nile River gunboat, and Peter Cowan produced his iconic Mark Time observation balloon. These three releases took painted metal toy soldiers to a new level.

Today we are not surprised to see awesome elephants from The AeroArt St. Petersburg Collection, a Nile River paddle steamer from W. Britain or V-2 rockets from Figarti Miniatures. "Toy soldiers" have come a long way!

The Mark Time balloon still holds a special fascination for me -- I guess because I can't quite figure out how Cowan did it. The balloon itself is perfect in size and weight. The netting



The balloon's going up in an illustration from the collection of writer James H. Hillestad.

is glitch-free. Remember: This was done 25 years ago. My example is still in pristine condition, and the inspiration for this article.

Cowan also delved into the balloon subject matter working under his Kingcast label. Other examples in my collection were created by makers such as Harold Pestana of Soldiers of the Queen, E. Joe Shimek of Potsdamer Zinnsoldaten (Potsdam Toy Soldiers) and William Speer of Royal Express Ltd.

## BALLOON BORN

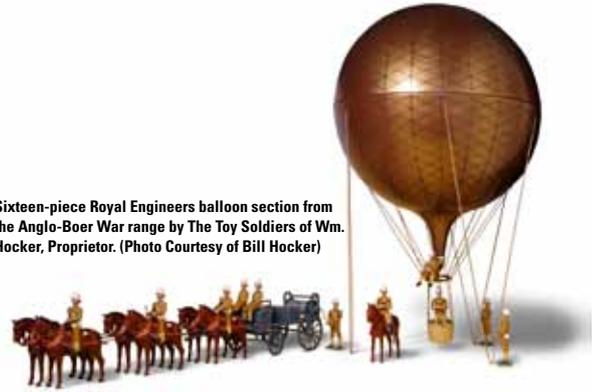
Ten years before the outbreak of the American Revolutionary War, Scottish chemist and physicist Joseph Black of Glasgow University identified a combustible gas, later known as hydrogen. He used it to inflate the fetal membrane of a calf. With a group of visitors looking on in his room, he watched it ascend and rest against the ceiling. The lighter-than-air balloon was born.

The first successful balloon was demonstrated by the brothers Montgolfier at Lyons, France, on June 5, 1783. Joseph Montgolfier envisaged using the balloon to facilitate the capture of Gibraltar.

American Benjamin Franklin foresaw the value of balloons for military reconnaissance and airborne assaults.

"Five thousand balloons capable of raising two men each could not cost more than five ships of the line," Franklin observed. "Ten thousand men descending from the clouds might in many places do an infinite deal of mischief."

Sixteen-piece Royal Engineers balloon section from the Anglo-Boer War range by The Toy Soldiers of Wm. Hocker, Proprietor. (Photo Courtesy of Bill Hocker)



Royal Engineers balloon section created by Peter Cowan of Mark Time.



Mark Time observer and signalman in a wicker basket suspended from the balloon.



Mark Time officer and signalman on the ground.

## FIRST AIR FORCE

In 1794, the world's first military observation balloon, l'Entreprenant, was launched in France.

It was manned by two persons: one to manage the balloon; the other to signal to the ground crew controlling it. The observer communicated with those below by flag signals or by placing messages in sandbags fitted with rings which could slide down the cables that held the balloon captive.

The balloon rose to 1,770 feet and the observer was able to clearly distinguish objects 18 miles away.

Its success resulted in the formation of the world's first "air force" March 29, 1794. The initial complement of assigned personnel numbered 33 men and one drummer boy. They wore blue uniforms with red braid and a black collar.

The French Revolutionary Wars' Battle of Fleurus pitted the army of the First French Republic against a Coalition force made up of British, Hanoverian, Dutch and Austrian troops June 26, 1794. Gen. Morlot remained aloft in l'Entreprenant throughout the 10-hour engagement directing French forces to victory entirely from the air. Fleurus was the first battle in history when mastery of the air played a decisive part.

To this must be added the effect of the balloon on enemy morale. The Austrians regarded it as a supernatural object, reinforcing the widely-held belief that the French Republic had signed a treaty of alliance with Satan.



Photo from The Navy & Army Illustrated showing a British balloon's crew taking observations. (Hillestad Collection)



Circa 1898 photo from The Navy & Army Illustrated showing Royal Engineers wagons loaded with balloons and gas. (Hillestad Collection)



Plans for an aerial ascent are discussed by British soldiers at the School of Ballooning in a late 19th-century photo from *The Navy & Army Illustrated*. (Hillestad Collection)



British balloon section ground crewmen and winch wagon by Potsdamer Zinnsoldaten.



▲ British Lt. Col. J.L.B. Templar, superintendent of the Royal Engineers balloon factory at Aldershot, in a photo from *The Navy & Army Illustrated*. (Hillestad Collection)

◀ British observation balloon set crafted by American E. Joe Shimek of Potsdamer Zinnsoldaten in the style of old Heyde figures made in Germany. The balloon was made from a toilet tank float ball.



Navy & Army Illustrated photo of Royal Engineers crowning a balloon in preparation for filling it with gas for launching. (Hillestad Collection)

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Soldiers of the Queen creations include this soldier depicted unloading gas cylinders from a wagon. Elsewhere others are posed fitting valves to gas cylinders.



Royal Engineer reeling out telegraph cable from the set by Harold Pestana.



Officer of the Argyll and Sutherland Highlanders in an artfully decorated basket crafted by Harold Pestana.

### ACW AIRCRAFT CARRIER

Balloons reappeared in the American Civil War.

Union aeronaut John made the first successful reconnaissance of the war over Fortress Monroe, Va., in July 1861. He ascended to a height of 1,400 feet and spotted two Confederate camps.

Soon after, La Mountain enraged the Confederates by making a successful ascent to 2,000 feet from the deck of the Union armed transport Fanny in the James River. The Fanny thus became the first aircraft carrier!

### LOWE'S AERIAL TELEGRAPH

La Mountain's promising efforts were superseded by the organizational skills of Thaddeus Lowe. Lowe installed electric telegraph apparatus in six balloons and provided them with 5 miles of insulated telegraph cable.

For night use, the balloons were equipped with colored flares and powerful searchlights. Balloons were now capable of heights of 3 miles.

Under Lowe's direction, a coal barge was rebuilt with a special launching deck as a



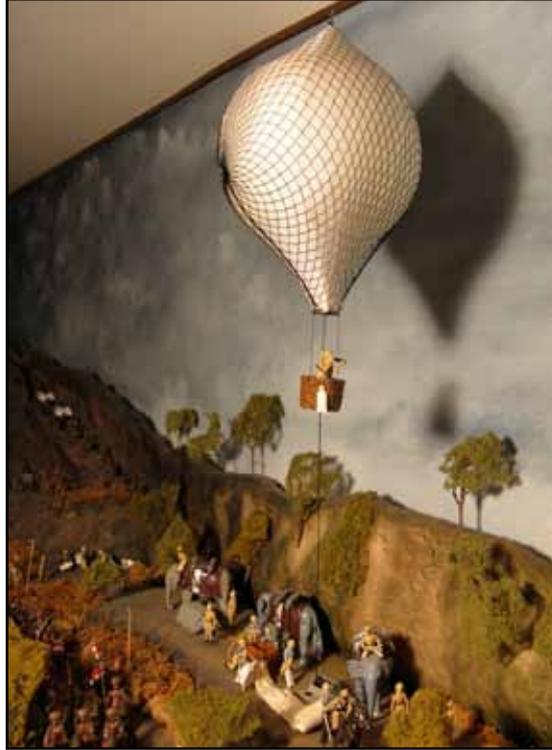
British observation balloon ground support team by Soldiers of the Queen.



British Royal Engineers balloon section by Harold Pestana of Soldiers of the Queen. The balloon is a British Airways promotional prop that was repainted and modified.

mobile balloon base.

Twice Lowe's balloons saved Union forces from heavy defeats (Four Oaks and Gaines' Mill). At Falls Church, he used his telegraph to direct artillery fire -- again, another first.



British Indian Army diorama in James H. Hillestad's Toy Soldier Museum featuring an elephant-borne balloon section produced by Peter Cowan of Kingcast.

An important side-effect was that the balloons seriously hampered the enemy by requiring time and effort to conceal their location, including the blacking out of camps after dark.

Lowe was never commissioned and had no military status. He fell prey to bureaucratic



Close-up of observers in the Kingcast balloon's wicker basket.

meddling and, in exasperation, resigned in 1863.

### REBEL PATCHWORK

As for the Confederates, their lack of material supplies



The Kingcast group includes ground crewmen preparing a second balloon for launching. Note the gas cylinder rack at left.



Navy & Army Illustrated's Dec. 3, 1899, edition featured a photo taken at Ladysmith showing a British observation balloon being sent up to spot Boer positions. (Hillestad Collection)

precluded their fielding an air arm on the scale of Lowe's corps. The best-known Confederate balloon use took place during the Seven Days' Battles near Richmond, Va., June 25 to July 1, 1862.

Gen. James Longstreet wrote, "All the silk dresses in the Confederacy were collected and used to patch together a ship of many and various hues."

His colorful recounting is not borne out. Historical records indicate that the patchwork of silks used in the balloon's construction were purchased from clothing merchants in Savannah, Ga.

### SIEGE OF PARIS

The scene now shifts to the 1870 Siege of Paris during the Franco-Prussian War. Hot-air balloons were used to communicate with the outside world by carrying more than 200 pounds of mail on each flight.

The problem was that the air currents went only one way. To provide a roundtrip, a solution was offered by a Parisian pigeon-fancier: that the balloons should transport carrier pigeons to be supplied by him and his fellow "colombophiles."

As many as 34 pigeons could be carried in a balloon. Using a new microfilm process, 5,000 letters could be carried by one pigeon.

### BRITISH INNOVATIONS

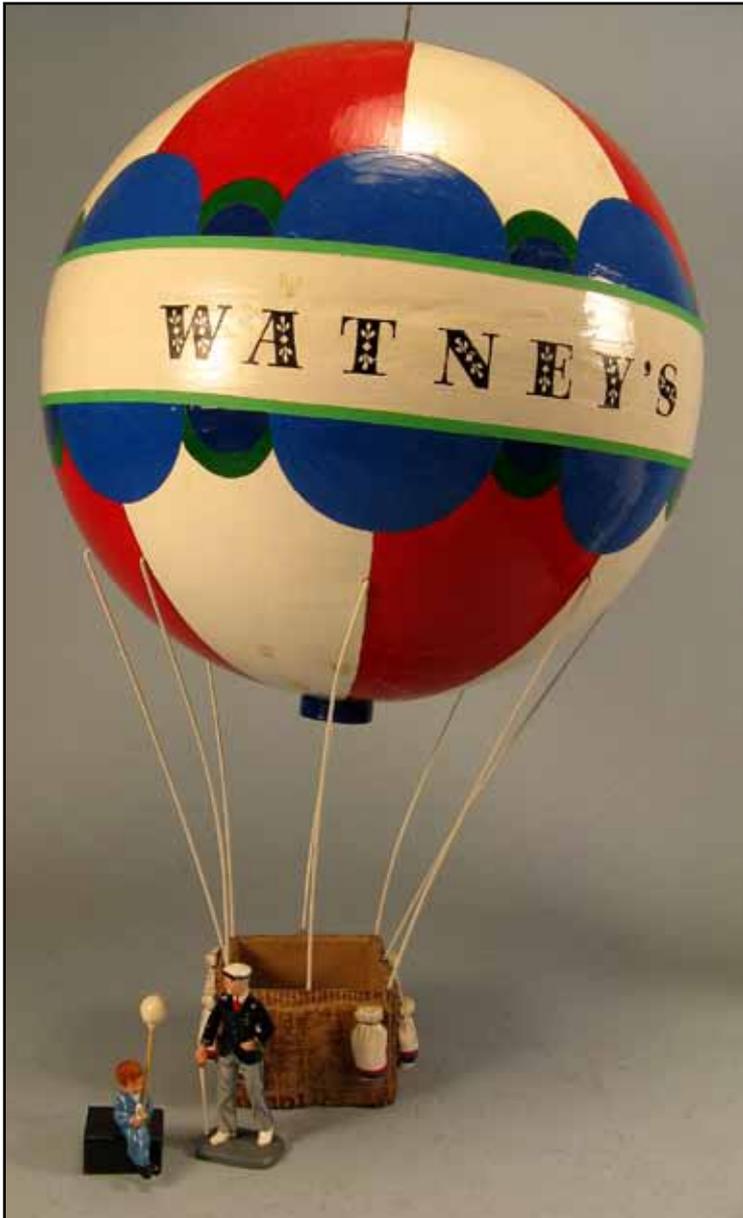
The British entered the picture in 1878 with an enthusiastic aeronaut: Capt. J.L.B. Templar, King's Royal Rifle Corps (later of The Royal Engineers). Under his direction, two critical and innovative improvements were implemented.

The first involved a gas-tight valve that would allow hydrogen gas to be stored in cylinders. The cylinders were transported in the field by steam traction engines.

Templar's second innovation was the switch to a light and more impervious material for the balloon itself. The answer was Goldbeater's skin, prepared from the membrane of the lower intestine of an ox, and so-called because of its use in the production of gold leaf.



German zeppelin produced from plumbing parts by Potsdamer Zinnsoldaten.



Civilian hot-air balloon promoting a British brewery created by William Speer of Royal Express Ltd.



Recalling having a helium balloon tied to his wrist as a child, balloonist and toy soldier collector Malcolm Forbes remarked, "You were torn because you wanted to let it go and watch it sail away. And you fantasized about soaring away with it. Well, when you're a balloonist, you're at the other end of the string, and you do go with it!"

Templer went on to hold the rank of lieutenant colonel and served as superintendent of the Royal Engineers balloon factory at Aldershot.

During the Mahdist War balloons were used by the Royal Engineers at the Battles of Suakin in 1885 and Omdurman in 1898. The British had 20 balloons in service during the Second Anglo-Boer War of 1899-1902.

U.S. forces used an observation balloon at San Juan Hill in Cuba July 1, 1898, during the Spanish-American War.

### INFLATING SCORN

Despite their successes, balloons were scorned by many generals, Napoleon included. Some soldiers believed they were unfair. The International Peace Conference at The Hague in 1899 prohibited the dropping of projectiles.

Though observation balloons were used in the early months of World War I, their aerial role was supplanted by power-driven, rigid-frame airships.

Noteworthy is the work of German inventor Graf Ferdinand von Zeppelin. He was an observer with the Union Army during the ACW and first ascended in a balloon Aug. 17, 1863. In 1900, in his factory at Friedrichshafen, he constructed the "zeppelin," which was first used in war by Germany against Great Britain Jan. 19, 1915.

The Japanese launched more than 6,000 "Fu-Go" weapons (balloon bombs), each carrying four incendiary bombs, against America in 1944 during World War II. Approximately 1,000 successfully rode the Pacific Jet Stream and reached the U.S. West Coast. Only a few of the Japanese balloons fell on U.S. soil, and only one exploded causing casualties. To avoid panic, all news of the attacks was censored.

Observation balloons are currently used by U.S. and coalition military forces in Iraq and Afghanistan. They are tethered to outposts near bases, with cameras attached to the underside.

The late billionaire publisher Malcolm Forbes, a devoted collector of toy soldiers, was also an avid balloonist (among many other interests). It reminded him of going to the circus as a young boy and being given a helium-filled balloon which was tied to his wrist.

"You were torn because you wanted to let it go and watch it sail away," Forbes remarked. "And you fantasized about soaring away with it. Well, when you're a balloonist, you're at the other end of the string, and you do go with it!" ■

### GET IN TOUCH

**Wm. Hocker, Proprietor**  
[www.wmhocker.com](http://www.wmhocker.com)

### ABOUT THE REVIEWER

**James H. Hillestad is the proprietor of The Toy Soldier Museum and shop in Cresco, Pa., USA.**