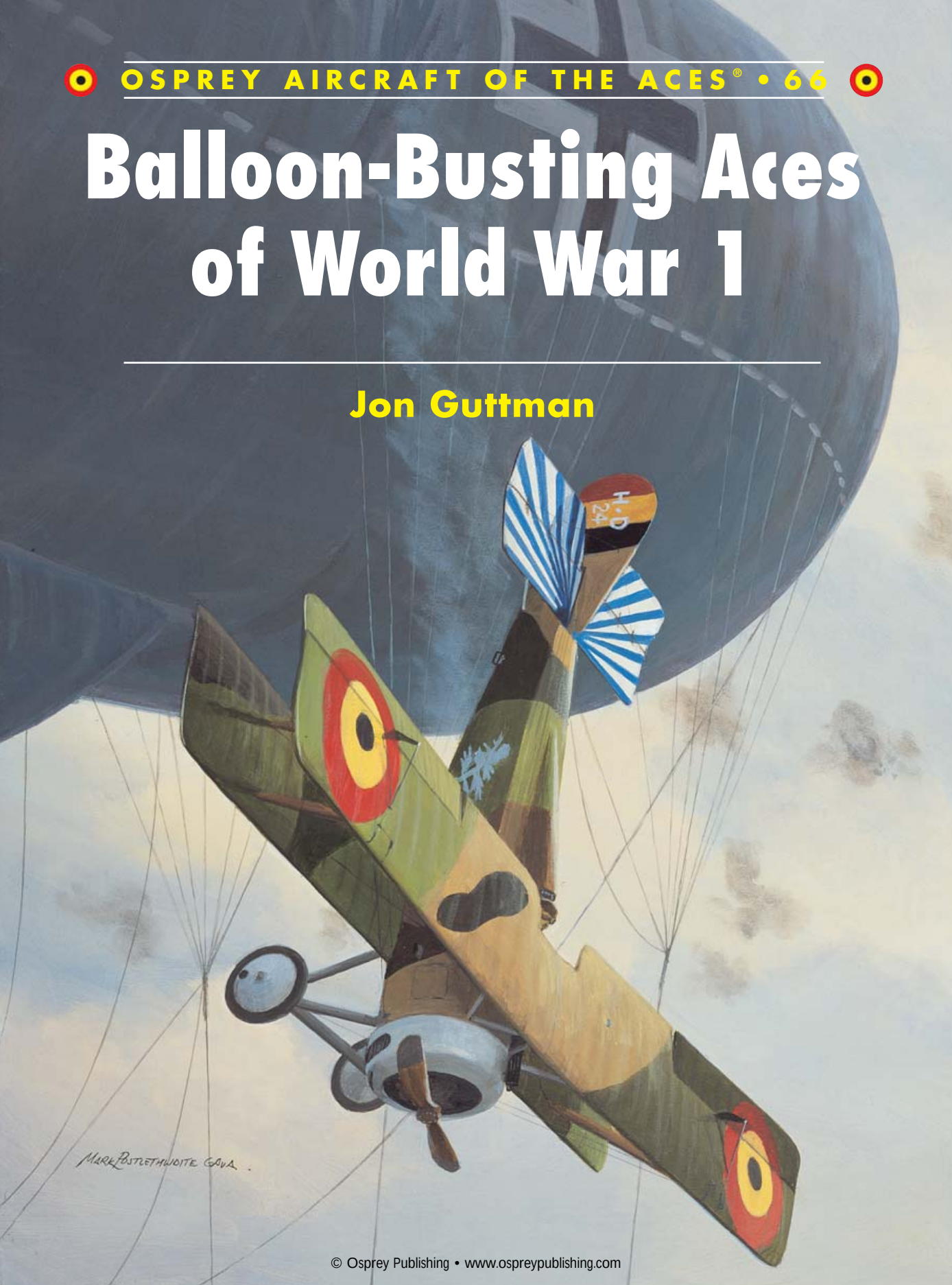
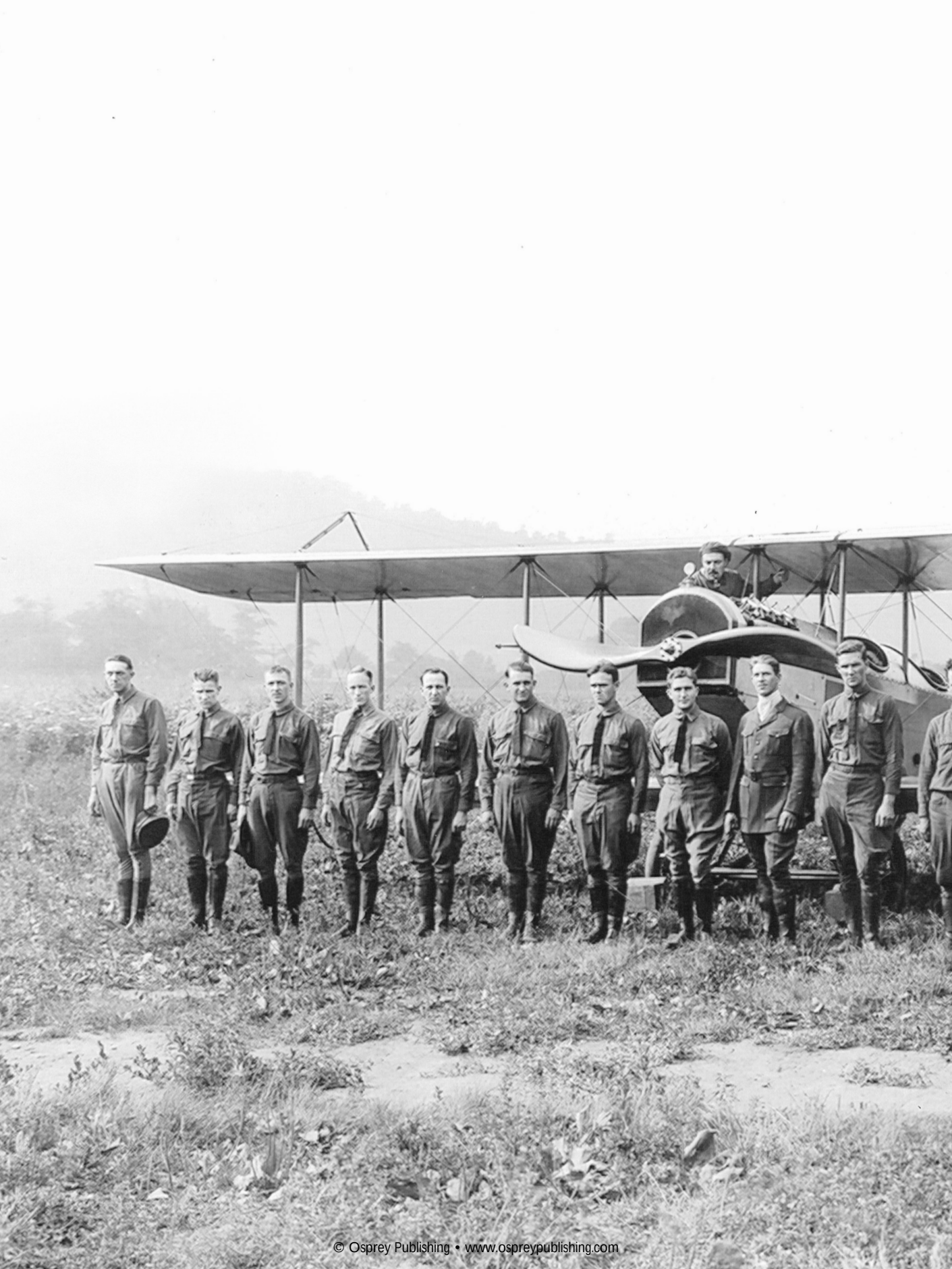
OSPREY AIRCRAFT OF THE ACES® • 66

Balloon-Busting Aces of World War 1

Jon Guttman





SERIES EDITOR: TONY HOLMES

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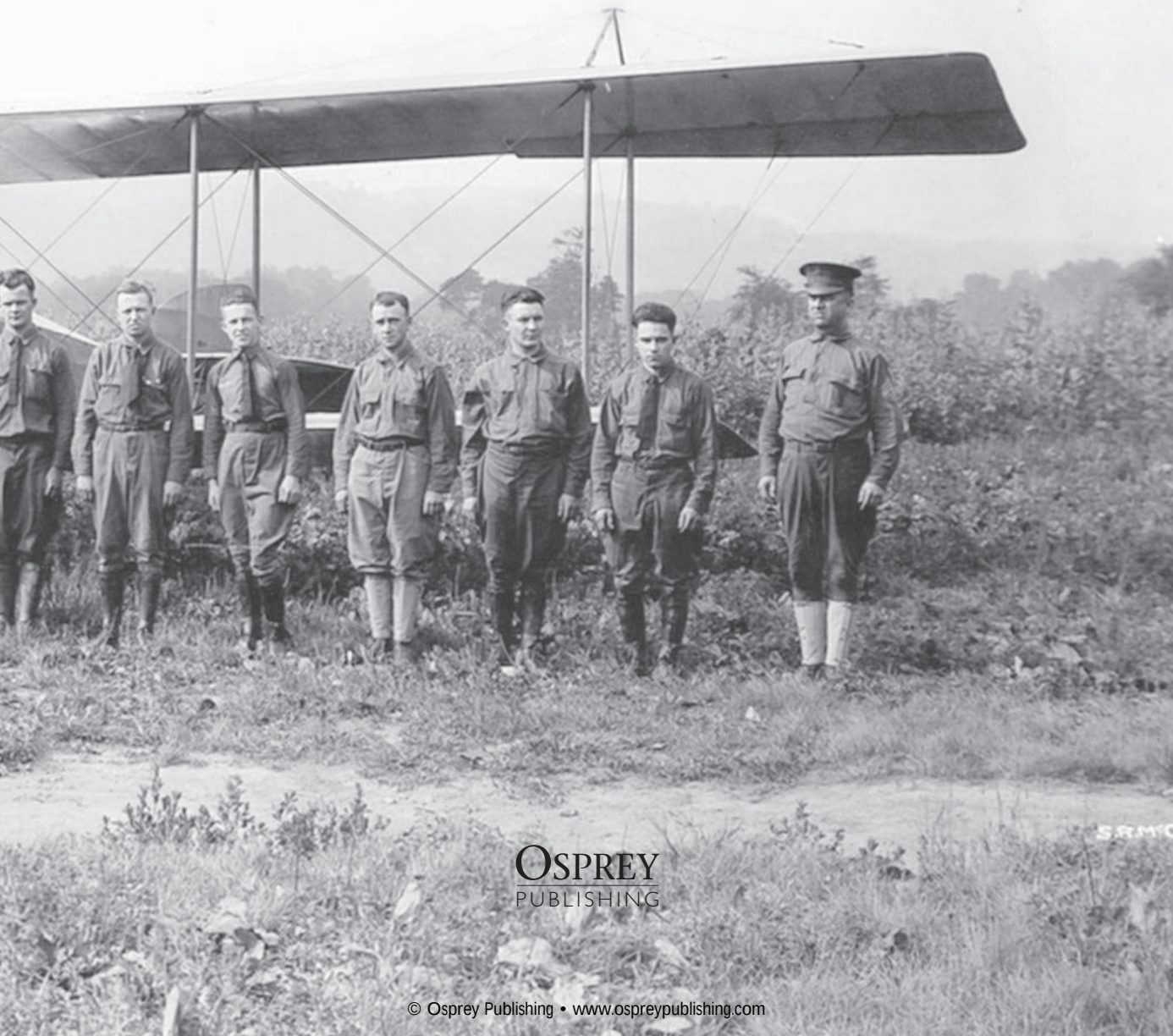

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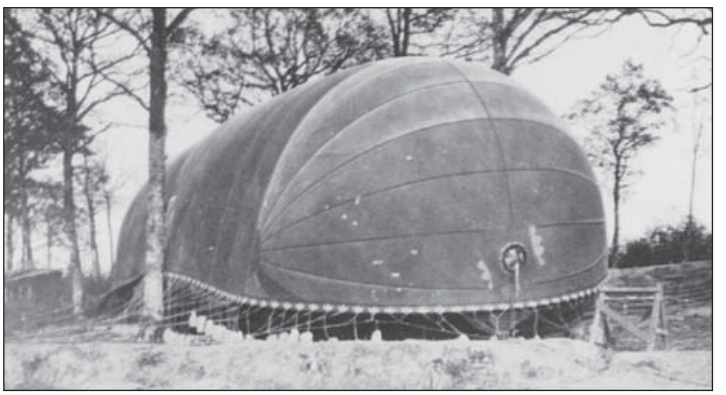
A NOT-SO-EASY TARGET

Captive or kite balloons, also known as *Drachen* ('dragons', which was an Austrian analogy for Chinese kites) and 'sausages', represented the oldest form of man-made aerial reconnaissance. They had first been used by the Revolutionary French Army in 1795, but General Napoleon Bonaparte had abandoned them because he decided that the heavy, cumbersome equipment required to generate hydrogen for them slowed his armies down too much to make their intelligence-gathering capabilities worthwhile. However, more mobile observation balloons subsequently saw widespread use in European and American armies from the mid-19th century through the early 20th.



Weighted down with sandbags, a German *Drachen*-type *Fesselballon* sits in its 'nest' awaiting the next observation assignment during World War 1 (*Tom Darcey Collection via Greg VanWyngarden*)

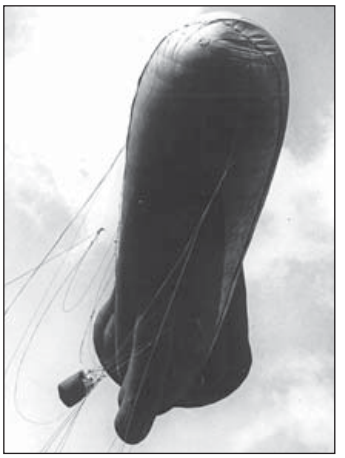
Even after the invention and refinement of the aeroplane, balloons continued to be a military asset throughout World War 1, since they could stay in the air longer, and more continuously, than aeroplanes, allowing an observer to scan a large portion of the front from a safe distance within his own lines.

The principal problem for early, spherical balloons was maintaining a stable platform in high winds, but at the turn of the century the Germans developed the Parseval-Siegsfeld *Drachen*, which was an elongated balloon with a large stabiliser underneath. Rudely nicknamed a '*Nülle*' ('testicle') by its users, the stabiliser worked in a light to moderate breeze, inflated by the wind itself and driving the nose of the gasbag up and into the wind without much deviation. Belgium adopted the design before 1914, and soon after war broke out other Allied and Central Powers countries also began using *Drachens*.

This German *Drachen* type kite balloon is seen in Belgian use in Flanders in late 1914. At that time the British were still using spherical observation balloons, the Belgians being the first to adopt the more stable German design (*IWM Q55555*)

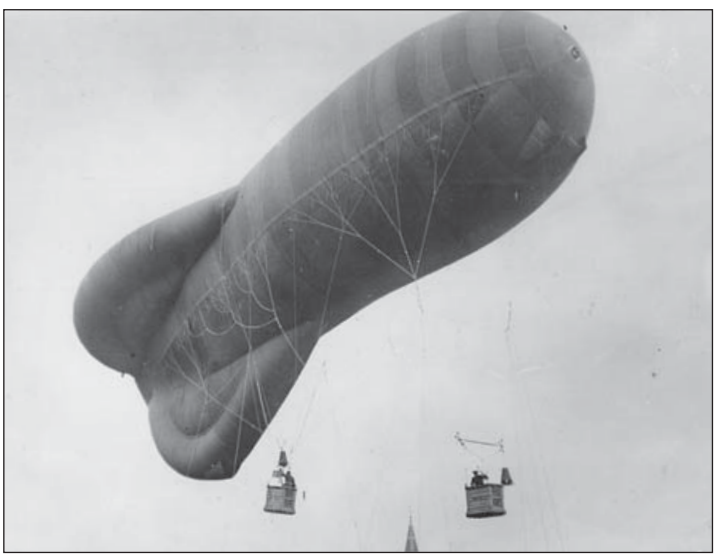
In 1915, Capitaine Albert Caquot of the French Army introduced a more streamlined gasbag with a large vertical rudder, but it offered little over the *Drachen* when

it came to preventing the balloon from pitching in the wind. In mid-1916, Caquot produced a newer design, with three air-filled stabilisers arranged around the body at 120-degree angles. This proved to be such an improvement that in 1917 the Germans began fielding a copy – the Type AE – and began phasing out their *Drachens*, although a few of the latter would still be in evidence right up until the end of the war.



This Caquot type balloon caught in a heavy gale shows the improved stability that its three fins afforded compared to the *Drachen*'s single ventral stabiliser. In consequence, the Caquot design began eclipsing the earlier type in armies on both sides of the lines from 1916 onwards (*IWM Q27265*)

In contrast to the fantastic variety of aeroplanes developed during World War 1, virtually all of the gasbags were basically either of the *Drachen* or Caquot type. In spite of the predominance of Caquot-influenced Type AEs by 1918, Allied troops and airmen often continued to generically refer to all Central Powers kite balloons as *Drachen*, whether the sobriquet was technically accurate or not.

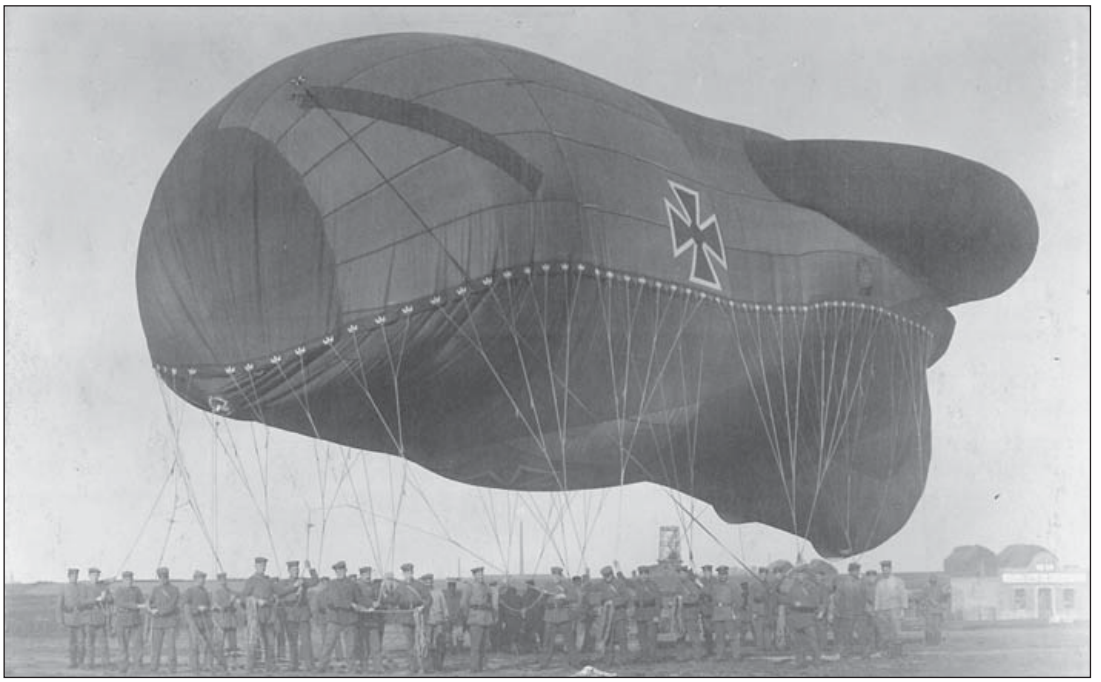


Two observers dangle from separate baskets beneath a Caquot balloon. The inverted cones beside the baskets hold parachutes in case the observers need to make a hasty exit (*IWM Q48044*)

Communicating by telephone or wireless with forces on the ground, the balloon observers could detect frontline movements or direct any sort of artillery from a mortar attack on a precise target to massive, high-calibre howitzer barrages with murderous accuracy. As such, they constituted a very real menace to the other side's ground forces. Destroying enemy balloons, therefore, was a very desirable objective before a major offensive, defensive or logistical support operation was to be carried out.

On the face of it, a voluminous bag of hydrogen would seem an easy target for an enterprising fighter pilot, but for a number of reasons most airmen regarded balloon-bursting missions as extraordinarily difficult and dangerous. First and foremost, the gasbags were located deep within enemy lines, requiring their attackers to go after them while exposed to observation, aerial interception and every enemy soldier carrying a gun. Although the balloon floated several thousand feet above the ground, it could be rapidly pulled down by means of a powered winch when attacked, while the balloon company's attached batteries of anti-aircraft artillery and machine guns surrounded it with a descending cone of fire through which the attacking fighter had to dive.

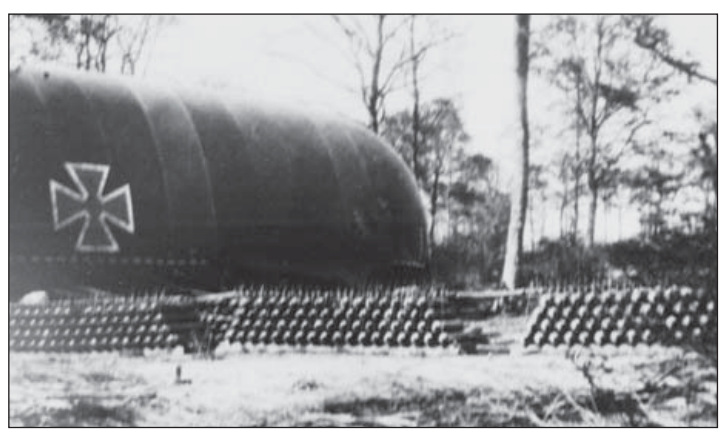
Once he reached his downward-rushing quarry, the fighter pilot found it surprisingly difficult to ignite the pure hydrogen that gave the balloon its buoyancy, even with incendiary bullets. Only by pouring a sustained



Members of a German *Ballonzug* pose beneath their partially inflated Type AE balloon. While still generically referred to as a *Drachen*, the AE was in fact a copy of the French Caquot (*Greg VanWyngarden*)

burst into the gasbag, allowing some hydrogen to escape and mix with the oxygen, could the attacking fighter hope to touch off the fire that, once started, would quickly consume the entire balloon. If he failed to set it alight, the pilot had two options – give up and head for home, or gamble at even less favourable odds by making another firing pass through fully aroused, and consequently more intense, ground fire at an even lower altitude.

Once ignited, a burning balloon could be seen for miles, assuring confirmation for the fighter pilot who destroyed it, provided he returned to claim the kill. But the pyre was equally visible to the enemy, and the returning balloon buster faced a gauntlet of anti-aircraft and ground fire, as well as vengeful enemy fighters converging on his most likely escape route. Taken in sum, those factors caused attacking balloons to be widely regarded as a suicide mission, requiring as much luck as skill on the pilot's part.



Hydrogen bottles sit stacked and at the ready at a German *Ballonzug*. Even if they were not set afire, it cost time and money to repair, reinflate and re-raise damaged balloons. If an observer parachuted while under attack and the balloon was unharmed, it would have to be winched down and then sent up again (*Tom Darcey Collection via Greg VanWyngarden*)

Above
A German observer demonstrates how to exit the basket if his *Drachen* comes under attack. Early parachutes were too bulky and clumsy for practicable use in aircraft until 1918, but they were standard equipment for balloonists of both sides (*Greg VanWyngarden*)

Right
An Allied observer's parachute starts to open as he falls clear of his balloon (*IWM Q48050*)

French soldiers adapt their versatile 75 mm field gun to anti-aircraft use against a German bomber. Rings of such guns surrounded balloon nests, creating a cone of fire around an endangered gasbag as it was winched down (*Jon Guttman*)

French ace of aces René Fonck, who hated leaving anything to chance, did not include a single balloon among his 75 victories, stating in no uncertain terms that 'I do not thus like to combat the enemy, and I prefer to leave it to the specialists of such attacks'. The few airmen who made a practice of volunteering for anti-*Drachen* missions were regarded as something of a special breed, possessed of a combination of pyromania and latent death wish known as 'balloon fever'.

Almost as rare as the balloon specialists were aircraft fast and sturdy enough to improve the odds of carrying out the mission and returning to boast of it. Among those considered robust enough for the task were the British SE 5a, the French SPAD VII and XIII and German Pfalz D III and Fokker D VII. By 1917 the most common means of burning their lighter-than-air targets was a mix of flat-nosed Buckingham bullets to tear the balloon and incendiary rounds to ignite the escaping hydrogen as it mixed with the air. Most were 0.303-inch or 7.92mm rounds, although in 1918 an 11 mm Vickers machine gun saw use with those balloon specialists who could get their hands on one, such as Willy Coppens.

In mid-1916, French fighters were also equipped with a set of air-to-air rockets, also called rocket torpedoes, developed by naval Capitaine Yves Le Prieur. Fired from six to eight tubes mounted on the interplane struts, with aluminium sheathing over the fabric panels that might otherwise be vulnerable to their backblast, the rockets made a spectacular show, but they were wildly inaccurate and seldom effective even at close range.

Crewmen of a German mobile *Flakzug* watch their victim descend in the winter of 1917 (*Tom Darcey Collection via Greg VanWyngarden*)

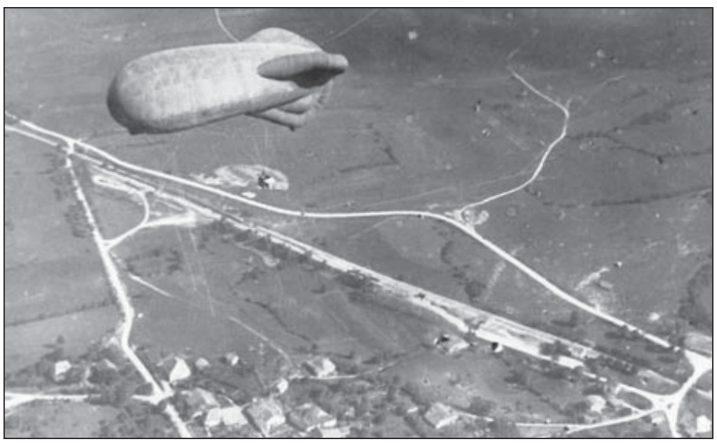
French ace Pierre de Cazenove de Pradines of *escadrille* SPA81 described his experience with the 'torpedoes' on 19 August 1917;

'One day SPA81's commander, Capitaine Raymond Bailly, asked for one pilot to volunteer to destroy a balloon at Montfaucon – I proposed, and trained myself. Arming my SPAD with Le Prieur rockets mounted on the wing struts – an electric charge touched them off – I soon found my quarry and dived fast as the machine gun batteries opened up. At the right moment I pulled up, the rockets fired and went in all directions in an impressive smoky display. When it cleared, I found myself flying at an intact balloon. The rockets had gone in every direction except at the target! I withdrew, with only one bullet through my aeroplane. The next day I returned with phosphorus bullets in my machine gun and flamed that balloon.'

It was Cazenove's only balloon victory out of a wartime total of seven.

Anti-aircraft fire was not the only danger faced by pilots who attacked balloons. Although MdL Blaise Préher of *escadrille* N68 destroyed his target on 11 April 1917, he was intercepted on the way home by Ltn Gerhardt Salzwedel of *Jagdstaffel* 24 and brought down in Nieuport 17 N1955 to become a PoW (*N H Hauprich via Jon Guttman*)

SQUADRON BUSINESS



This aerial view of a typical Caquot in operation shows the vast panoramic view available to its observer – and precisely why its elimination by the other side was frequently a strategic necessity (*Jon Guttman*)

Although a lone eccentric braving the odds in his obsession to score a spectacular – and easily confirmed – kill is a popular image of the World War 1 balloon buster, a good many such aces accumulated their scores in the process of carrying out assigned missions, often in flight or even squadron strength. There were times, after all, when the elimination of even an entire line-up of kite balloons was

Nieuport 16 N976 of *Escadrille* N95, *Camp Retranché de Paris*, in which Adjutant Joseph Henri Guiguet test-fired Capitaine de Vaisseau Yves Le Prieur's 'rocket torpedoes', seen here attached to the interplane struts, in April 1916 (*SHAA B92.3135*)