

THE STORY OF THE ZEPPELIN L-11



by José Florez

Why should I choose to write the story of the L-11? Why did I pick this airship among others? After all, there were bigger and better built German airships, such as the Height Climbers and others like the Afrika Zeppelin that travelled up to 6,750 kilometres. This alone was a record for a Zeppelin in its time, a long distance in vain. So why then this Zeppelin? There are many reasons. L-11 enjoyed a successful career and fought well for its country, serving as a fighting machine, a trainer and as a camouflage experiment. She was well directed by reputable commanders; Oberst. zur See Horst Freiherr Treusch von Buttlar Brandenfels - one of the best the German Navy produced, Korvettenkapitan Victor Shütze and Kapitanleutnant D.R. Blew. There were other commanders with pages worth of credit to their names, commanding other airships, but the L-11 was an achiever. Furthermore, L-11's part at the Battle of Jutland was unique. Many other airships were famous for being shot down by prominent English aviators or for failing to return due to a storm or other distressing reason. There are stories that the airship was a flaming cage - an insecure monster, and their lifespan could be measured in a matter of months. Zeppelins were lost during most of the war, (as were other airplanes), though, thanks to the Zeppelins, Germany gained superiority at the front in 1916 for three months. And though production of airships was stepped-up, losses continued to be high for Germany. The number of Zeppelins lost due to military action and bad weather during the war ran up to 77[#], but what the German crews endured and suffered to perform their duties remains a great cause of admiration to many.

During its unusually long and successful three-year career the L-11 accomplished many of its expected roles, such as scouting, bombing and as an airship trainer. This is even more admirable considering what it had to contend with - the odds of war and weather - before finishing its career with honours at the Hage hangar in November 1917.

In November 1914, the Admiralty had predicted that the Navy's first big million cubic feet Zeppelins, L-10 and L-11 would be completed in January 1915. In actual fact they weren't commissioned until May 13 and June 17, 1915 respectively.

At that time the requirements at the Naval Airship Division in the German Navy's personnel were met to the best of their ability. Their trained and petty officers were in peak performance due to the Division Commander, Peter Strasser. Strasser had 25 flight crews with 412 officers and men, all ready for November 1914.

When L-11 was ready for action on June 15, 1915, during one of its first raids an engine malfunctioned and L-11 had to return home. This was a poor start to its career.

[#] This figure is debatable.

But the L-11 made a commanding comeback in the Battle of Jutland and other naval actions. This is considered the peak of the L-11's career, commanded by one of the best German Naval airship commanders, Horst Freiherr Treusch von Buttler. This battle marks an important page in the history of flight, in that for the first time in history an airship took part in a major naval engagement.

In March, 1915, the English High Fleet was at sea carrying, for the first time, aircraft carriers of a very rudimentary nature. It is interesting to note that on one of these carriers was the famous Sopwith Schneider, the seaplane that had the previous year, won the Schneider Trophy for Britain. Also on board were a few Short seaplane fighters which were carried to engage the marauding Zeppelins. These were the three carriers of the Harwich force; *Ben-my-Chree*, *Engadine* and *Riviera*. The foul weather prevented an attack on the German Naval radio station at Norddeich and the Zeppelin base at Hage. To the credit of the Zeppelins, the L-9, with Kapitanleutnant Heinrich Mathy on board, engaged the English submarine D-4. Though receiving a load of bombs, the D-4 was able to survive destruction due to Mathy's fast [sic] command. D-4 only received a few scars to its conning tower.

At last, on July 3, the airships had a chance to distinguish themselves when surveillance and protection of the German minesweeping flotilla became an important issue. The Zeppelins were able to detect the Harwich fleet in time so that the German flotilla and destroyers were able to return to ports in time. This time, the patrolling airship was the L-5. The British ships entering the German Bight were met by two patrolling German airships, but it was the L-9 that glued itself to the marauding fleet, reporting all its movements. The constant reports sent by Kapitan Lt Odo Loewe in the L-9 alerted the Nordholz ships, L-10 and L-11. Von Buttler, commanding the new L-11, found the fleet off Ameland and was fired at by the English battle cruiser *Indomitable*, forcing it to rise to a higher altitude. This was the kind of trap put up by the British to catch the Zeppelins, with their new squadron of three brand new Sopwith Schneider seaplane fighters, each one armed with a Lewis Gun and a rotary engine giving them a speed of 87 mph.

The small English carrier *Engadine*, in front of the four Zeppelins, turned in to the wind in order for its planes to take off, but the sea was rough and two planes sank. The attack had failed; it was a fiasco for the English. All the Zeppelins had returned by mid-afternoon. The English attack was broken, but the advantage given to the German Fleet Command by the Zeppelins was wasted.

The L-10 marked a new era for this class of Zeppelins. It was the first of a class in itself and later the L-11 was born on June 7, 1915 when it made its first flight. It was built at Lowenthal and the following day sent to and commissioned at its first base at Nordholtz.

The new airship, L-11 was 536.4 ft long with a diameter of 61.35 ft. Its gas capacity was greatly increased from the earlier Zeppelins, like the L-9, which had 879,500 ft capacity, to 1,126,700 ft capacity. This increase in gas lift saved 35,050 lbs of lift and all this power was contained in 16 gas cells. The L-11 was powered by four Maybach C-X engines of 210 hp each. Each engine had a four bladed-laminated wood propeller, manufactured by the famous Lorenzen factory. The new Zeppelin could reach a maximum speed of 57.7 mph/h giving an endurance of 2700 miles. This was a great achievement in its time for Zeppelin designs. In average conditions it could go as high as 10,500 ft with a crew of 18, including officers.



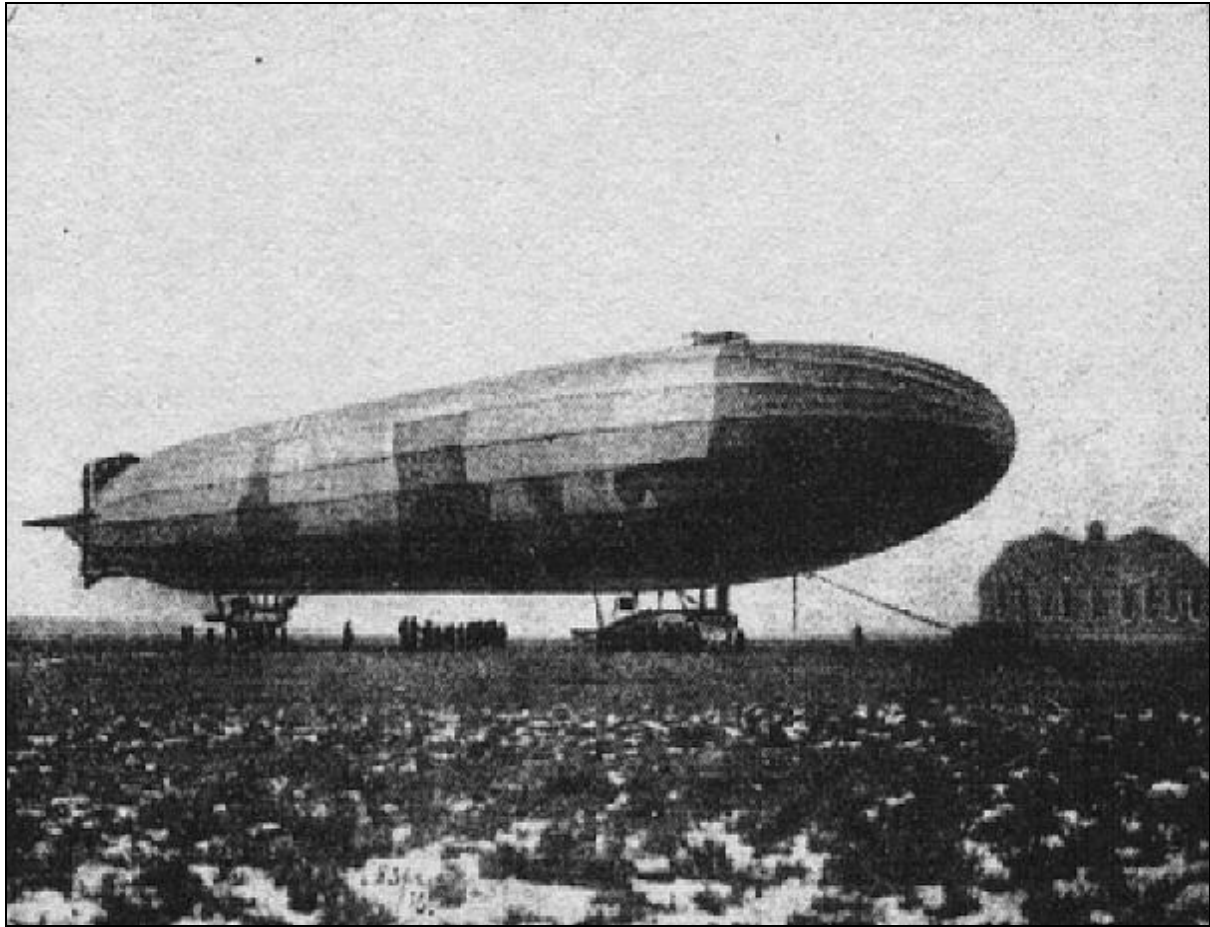
Zeppelin L-11 being taken out of her shed at Nordholz. Note the damage to her stern.

Photo: Archiv Luftschiffbau Zeppelin GmbH

It is time to mention that the real 'grey matter' behind the Zeppelin design was Dr. Ing. E. H. L. Dürr. And though the airship bears the name of Ferdinand Adolf August Heinrich Graf von Zeppelin, it was Ernst Dürr who was the great builder. All Zeppelins were of aluminium construction and covered by doped cloth. But the real controversy today is the real colour of the airships. The L-10, 11, 12 etc, were a somewhat grey colour. The reason is due to the cotton fabric used for camouflage purposes. The fabric had an imprint of light blue dots and often lines as well. This gave the airship an overall garish blue look. The canvas was stitched to the girders and then covered with fabric strips glued to them to protect and reinforce the seams. These strips were sometimes lighter or darker than the canvas, and when you consider the weathering effect, gave the notorious overall colour.

Henry Beaubois and Carlo Demand show a full diagram of the L-11, later during the war, in their book *Airship*. This shows experiments made with a three tone colourful camouflage. This scheme was later abandoned for the more conventional black. However L-11 was one of only a few which retained its initial greyish colour. The wear and tear showed its marks in the airships and had to be patched with new canvas several times. Therefore different colours would be seen covering large areas. Black and white photography was used and the different colour patterns could be well noted. It is not unusual to see the same Zeppelin in different photographs looking different and with different patterns. At one time the L-11 spent some time as a training ship and carried a white band around its nose to denote its purpose. The L-11 was the first Zeppelin built at the new Lowenthal plant, and like the L-10 they were known as the 'P' class Zeppelins. They were an improvement over the others in size and craftsmanship. The crew was made up of a commanding officer, an executive officer and a warrant quartermaster-navigator. There was also a warrant engineer, a sailmaker to look after

the gas cells, a crew to man the elevators, rudders, radio, and machinists for the four Maybach engines. There was usually a two shifts watch.



Zeppelin L-11 being handled by a ground crew. Note the uneven camouflage pattern applied at the time.

The cold weather was the biggest enemy of the Zeppelin's crew, who often had to endure temperatures way below zero. They had to wear uniforms with greatcoats, and it wasn't until 1917 that they were provided with fur-lined jackets. The machinists were the lucky ones as they were somewhat warmed by the engines, but had to suffer the noise and the trembling of the clattering Maybachs. The exhaust fumes, combined with the petrol and oil, mixed to produce intoxicating gasses. Provisions were very scarce. Thermoses of hot chocolate, a bottle of schnapps and sandwiches were the only meals eaten during the raids. The off-duty crew could relax and sleep in hammocks fastened on the grinders at the keel of the airship. Only Baltic airships were given the luxury of tables and chairs, hot soup and flowers to decorate the commanding quarters. But for the English [raiding] squadrons, conditions were very Spartan. Another problem was the altitude. At 15 to 17 thousand feet the air becomes rarified, and there is the problem of the blood cells in the body not getting enough oxygen, causing a series of physical problems. Later some more sophisticated Zeppelins carried oxygen for the crew.

In his book, *Giants in the Sky: A History of The Rigid Airship*, Douglas H Robinson shows a ballast sheet of the L-11. These ballast sheets were given to each Zeppelin by their builder, Luftschiffbau Zeppelin. The ballast sheet shown in the book was the one given to L-11 for one of its trials at Nordholtz on June 12, 1915. In this document the

amount of fuel, oil, water ballast, armament, personnel, supply and equipment loaded is shown. Also the distribution of the load throughout the airship, a kind of 'weight and balance' was used, as it was by the cargo and passenger airlines. But the most important thing was a report of the weather at the time of take-off. Anton Wittemann, a representative of the Zeppelin factory at the Navy's base, signed the ballast sheet shown in this book.

Aerial navigation was almost non-existent, but the Zeppelins, even for reconnaissance purposes, carried powerful long-range wireless made by the prestigious firm, Telefunken. When the raids to England started in 1915, the Navy's High Command established stations at Nordholtz and Borkum to direct and help their Zeppelins. The wireless made by Telefunken was constantly being improved and sometimes two models in one month were sent to the field to be used in the airships of the army and navy.

Captain Ernst Lehmann and Howard Mingos, in their book *The Zeppelins*, tell of the magnificent patrolling job done by the Zeppelins in scouting, and complimenting the duties and performance of the German Navy's Minesweeper flotilla. There were always an average of 12 to 15 airships commissioned in constant flights to prevent the British from laying mines in the German shores and waters in the North Sea. The British often came in the night to prevent being seen by the Zeppelins, or during fog or in the mornings when the airships were prevented from flying. But when the day came or the weather improved the airships came to detect the mines, clearly seen from above at a short distance. If only a few mines were present they would be destroyed by machine gun fire. Otherwise, when the mines were layed in rows, the Zeppelin would drop a buoy with a flag at the end of the row as a marker and then would radio the minesweeping flotilla, and help them perform their duty by staying in the air as a lookout.

Lehmann also tells us that sometimes the airship would land in the sea next to the flotilla's command and take aboard an officer so he could get an idea of the position of the mines, and then return him to his vessel. All this was done only if the sea was calm. Also the Zeppelins carried sea anchors which, when dropped into the sea, helped the airships gain a quiet repose over the sea by counteracting the wind and sea movement. By doing this, ballast tanks in the cars, as good as boats, were filled with water. This would counterbalance the increasing lift produced by the air flowing between the airship and the sea. When the job was done, all they had to do was to drop ballast to make the Zeppelin take-off. During this effort the ship could be manoeuvred using its propellers and rudders.

This mine clearing operation would happen day after day and was the reason the British could not bottle the German fleet in the North Sea, and why the Zeppelin took precedence over all activities. The L-11 performed 31 scouting flights from a total of 394 flights in its entire career.

The Kaiser initially forbade an attack on England but due to pressures from the army and navy he eventually relented and authorised it. But only attacks on military and strategic positions were allowed. It was the new million-cubic-foot Zeppelins with four engines, the Army airship LZ-30, under the command of Major Erich Linnarz, and other airships that formed the first squadron that bombed London on the night of May 31, 1915. The LZ-30 dropped 3,000 lbs of bombs, killing seven people and causing more than £18,000 worth of damage. This was the first ever raid made on London.

On 10 August 1915 the L-11, under the command of Kapitan-Leutnant von Buttlar Brandenfels, and together with the L-10, departed on a raid against England from their base at Nordholz, joining the L-9, L-13 taking off from Hage. Peter Strasser, the German Naval Airship Division's commander until he was killed when his Zeppelin was shot down in 1918, commanded the incursion aboard L-10. At 2030 Strasser sent orders instructing each airship to break formation at 2145 and attack London independently through the west before turning north. Von Buttlar in L-11 reached what he thought was Harwich before a naval battery at Lowestoft fired at him. As the attack was from heavy artillery, L-11 had to climb higher, and with their mission accomplished, von Buttlar turned for home. It was later said the bombs fell at sea. The mission failed to reach London and was a complete fiasco for L-11.



Kapt.Ltn. von Buttlar
and the crew of the
L-11.

*Photo: Archiv Luftschiffbau
Zeppelin GmbH*

Again, on August 12, L-11 and three other Zeppelins embarked on a raid to England. L-11, again with von Buttlar in command, only managed to reach some miles west of The Helder over the Dutch coast because of foul weather. The storm reached the Zeppelin when it was over the Dogger Bank tossing the airship from side to side. L-11's firm construction held off the rain as it came down over its canvas in torrents. Suddenly a Saint Elmos fire appeared over the machine guns. It is reported that the poor lookouts at their posts had haloes around their heads and looked like angels managing the Zeppelin. This is the time when a good commander shows his fibre, as von Buttlar did, taking charge of the situation. He gripped the Zeppelin's direction wheel firm in its position while he shouted orders from his command car. Keeping a cool head, he maintained his ship below the 'pressure height' to avoid the hydrogen escaping from the valves, which could be ignited from the electrical discharges and cause the airship to be blown to pieces. A well commanded ship and the firm resolution of the brave crew saved the L-11. The Zeppelin later landed safely at dawn and safely entered its hangar. All the crew and staff enjoyed a well-deserved 12-hour rest.

August 17, 1915 again marked another L-11 raid, together with L-10. The order of command was simply to attack London, according to the weather of course. L-11 arrived at Ashford in Kent and then von Buttlar released his bombs. Perhaps the weather was not good, or von Buttlar himself thought he was actually over London. L-11 continued its flight north and eventually reached Faversham. A gun battery was

nearby with a searchlight to protect a gunpowder factory, but the electricity was shut down because of the fear the searchlight would attract the Zeppelin to the factory. Von Buttlar dropped his bombs in a field. The sister ship L-10, under the command of Wenke, went through the London suburbs of Wanstead and Leyton causing devastation to the railroads. On September 3 the L-10, under the command of Kptlt. Klaus Hirsh, went down, killing all 20 crew members. This crew was the first naval personnel to die in the war.

The next in the line of attacks over England by L-11 came on October 13, 1915 when it left Nordholz in the company of L-14 and L-15, joining L-13 and L-16 from the Hage base. The initial flight was at 2,600 ft. in overcast weather conditions. The squadron was commanded by Mathy. L-11 was a bit delayed coming up at the rear, and at 2130 came under machine gun fire and jettisoned her bombs over Horststead, Colishall and Great Hautbois. Breithaupt, commanding L-15, did much damage over London, including blowing up a mobile battery, killing its gunners, and going into the heart of London, creating havoc despite being under heavy fire. Five airplanes came to attack L-15 but she climbed higher and the airplanes had to return to their aerodromes - their plans to bring L-15 down had been a failure. All the Zeppelins had success in this raid, which turned out to be one of the worst bombings of London by the Zeppelins. The Zeppelins returned home under heavy fog but landed safely. Only L-15 ran into trouble, failing to find its base and crash landing. She escaped serious damage and was later repaired.

To welcome in the New Year 1916, the German Navy High Command arranged a large armada of airships; nine Zeppelins were going to bomb England and this time the L-11 was to be distinguished as the command ship. With Strasser in command a bombing of Liverpool was ordered.

The squadron caused great damage; 379 bombs were dropped, killing 70 people and injuring 113. There was £53,832 worth of material damage. L-11 could not find a military target and von Buttlar with Strasser, according to their orders and high concept of duty, together decided to return to base with their bombs in their racks, landing at their base in Nordholz at 1050. L-11 had spent 22 hours in the air. The German squadron lost L-19, which was crippled by gunfire and sunk. Unfortunately for the British defences, they could not claim the destruction of this Zeppelin.

During March, all Zeppelins were stripped of their engines for an overhaul, and their crews for re-training. Only L-11, L-13 and L-14 were left to perform scouting duties. On March 5, 1916 L-11 took off with a new commander, Korvettenkapitan Viktor Schütze and departed with the two other Zeppelins. The airship went through the north of Spurn Head where it encountered some of the worst weather conditions for Zeppelins; rain, hail and snow accumulated on the gondolas and the feared St Elmos Fire accumulated over the machine guns and other objects. It was an ugly night. A strong storm with winds of up to 55 mph/h held the Zeppelin on the spot, but the winds fortunately gave it lift. At 0100 in the morning the weather cleared showing the great city of Hull. Schütze saw Hull from a distance and climbed to 7,500 ft. The city lay before them defenceless, with no airplanes or batteries to defend them. The city of Hull received heavy damage. The people were so furious it is said they stoned a Royal Flying Corps truck.

The Battle of Jutland found the German Navy's Airship Command in the fore line. Ten Zeppelins were made available for scouting before and during the battle clash.

Commander Viktor Schütze was in L-11, Lieutenant-Commander Ehrlich in L-17, Commander d. R. Boker in L-14, Lieutenant-Commander d. R Max Dietrich in L-21, Lieutenant-Commander von Schubert in L-23, Lieutenant-Commander Sommerfield in L-16, Lieutenant Commander d. R Prölss in L-13, Commander z. D Stelling in L-9, Commander Martin Dietrich in L-22 and Lieutenant-Commander Robert Kock in L-24.

On May 31, the German first and second scouting division under Vice Admiral von Hipper joined the High Seas Fleet to cross the Skager Rak during the night. The fleet was at sea from 0400. The first squadron of airships sent on a patrol (L-16, L-21, L-9, L-14 and L-23) were unable to locate the two great fleets at all. It is my aim to tell only the story of the L-11, and not re-tell the story of the entire battle, only what this particular airship did.



Queen Street in Hull, on the morning of 6 March 1916, following the raid by L-11. Severe damage was caused and three men and a boy killed in this street alone.

L-11, at 60 miles off the north coast of Holland, saw the English battle fleet in close formation steaming north east. L-11s commander, von Schütze, gave a good account of the English fleet and then followed it. This Zeppelin had left the base at 0130 on the morning of June 1 and by 0510 that morning had discovered the first English squadron. Thirty minutes later L-11 discovered the second squadron, on course coming from the north coast. Von Schütze reported all these movements by wireless to headquarters before visibility started to become difficult. At 0515 L-11 came under enemy fire, anti-aircraft batteries plus big guns were firing at the Zeppelin. As visibility became better, all the concentrated fire of the English Fleet was vigorously shooting at the Zeppelin. All the volleys shook and rocked the airship but without hitting or damaging her. The British Fleet closed ranks, but the visibility worsened again and the English armada disappeared. Once the enemy fell out of view, L-11 returned to its base at Nordholz at 1400. These reports gave Admiral Scheer enough information to resume the conflict with superior forces. Also the English Supreme Commander was of the knowledge that

his reinforcements had been reported by L-11. The question remains then - why did Jellicoe withdraw his battle forces shortly after the L-11 disappeared from the Fleet's view?

Only two months after the Battle of Jutland, the German High Seas Fleet went out again through the North Sea steaming through Sunderland, with eight airships on patrol. This naval operation, which occurred around August 19, 1916 is known as the Sunderland Operation, in which the British Navy lost two of their ships, the *Nottingham* and the *Faulmouth*; not to the Zeppelins, but to German submarines who were operating in close co-operation with the airships.

The submarine U-52 torpedoed the *Nottingham*, a light cruiser, at 0656. L-11 was patrolling, coming to his assigned target, while Jellicoe, in fear of the German submarines in this area turned towards the north. At 1445 L-11 sighted four light cruisers and at 1603 U-53 reported a force of ten battleships but Scheer stayed on course for home. The Zeppelins in the north were ordered home but the submarines kept following the English pack. During the English retreat U-66 torpedoed the light cruiser *Faulmouth*. Meanwhile L-11, together with L-31, was patrolling the coast before Humber and Tyne, sighting part of the English Fleet. They alerted Scheer to the fact the English were much further north. Neither fleet's cared for a nocturnal battle and returned to their home bases. Later in the afternoon, L-11 who was patrolling the southern flank of the fleet saw five light cruisers and about 20 destroyers moving at great speed. They were followed and at 2000 L-11 sighted, and noted with great surprise, that the entire British Fleet had turned southwest and disappeared at full speed under low clouds. L-11 returned to its base.

There is a British memorandum dated September 20, 1917 which states: "*It is no small achievement for their Zeppelins to have saved their cruiser squadron on the Yarmouth raid (April 25, 1916), and to have been instrumental in sinking the Nottingham and Faulmouth (Sunderland operation of August 19, 1916).*"

After all these patrolling operations in which L-11 took a leading role, it started its new operations from its new base at Hage. L-11 was now a part of another large armada of newer airships made up of 16 airships altogether - a combination of Zeppelins and Schutte-Lanz. The target was as always - London. Strasser was persistent. It is interesting to note that on this same day, October 2, the army had chosen to bomb London. Also interesting is that a brand new Schutte-Lanz was accompanying the Zeppelins. The first Zeppelin to reach London was LZ-98 under the command of Oberleutnant zur See der Reserve Ernst A. Lehmann. He came under heavy fire. Lehmann says in his book that he was over the River Thames before he dropped his bombs and then climbed to 13,800 ft. He saw the destruction of SL-11, under the command of Wilhelm Schramm, which was shot down. The victor this time was Lieutenant William Robinson, who subsequently gained the Victoria Cross. Robinson was in the air for almost two hours. It is interesting to note that Wilhelm Schramm was born in London and he bombed and died in London.

The day of the airship armada - the biggest in history - L-11, under the command of Schütze flew through foul weather. Hail, squalls and then rain prevented him from reaching altitude. Worse still, the canvas covering rib eight tore, and during the difficult task of mending it, the engines had to run at half speed. It wasn't till 2218 that L-11 flew over Harwick at 7,200 ft, dropping its bombs at the Navy Yard. The bombs missed and caused no real damage and L-11 went home to Hage. 463 bombs were sent on this

raid. 60 fell over London with no casualties here, but four died and 12 were injured in surrounding areas. The damage was estimated to be £21,072.

This raid marked the turning point in the airship bombing of England. On September 23, 1916 12 Zeppelins managed to cause more damage than on the previous raid. L-11 stayed home. During September 1916, L-11 changed commanders twice. First was Kptlt. Hollander on the 12th and then Kptlt. D. R. Blew on the 19th.

L-11 saw its last days out as a trainer ship where future crews and airship commanders were to be taught the art of flying and working efficiently under difficult conditions.

L-11 was decommissioned on August 5, 1917 and kept inoperative until it was dismantled on November 24, 1917. Thus ended the brilliant career of a Zeppelin that was never beaten during its hazardous life.

*"The heavens were the grandstands, and only the Gods were spectators.
The stake was the world. The forfeit was the player's place at the table;
And the game had no recess. It was the most dangerous of all sports
- And the most fascinating. It got in the blood like wine.
It aged men 40 years in 40 days; it ruined the nervous system in an hour.
It was a fast game - the average life span of a pilot at the Front was 48 hours.
And, to many, it seemed an Age..."*

-(Elliott White Springs, American WW1 ace)

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Kapitan-Leutnant Horst Freiherr Treusch von Buttler und Brandenfels,
first commander of the Zeppelin L-11.