



1918) left in its wake, there are a number of "romantic" episodes that continue to capture the public imagination.

Chief among these are the exploits of the Imperial German Navy's Luftshiff Abtilung or Airship Division. To the terrorized citizens of Great Britain, they were simply known as ZEPPELINS!

THE CRAZY COUNT

The world's largest flying craft was the design and inspiration of Count Ferdinand von Zeppelin (1838-1917) of Baden, Germany. Zeppelin sought a military career and became a Lieutenant in the cavalry. At the age of 23 Lt. Zeppelin traveled to the United States of America to witness the War Between the States as an observer and military student. he was hoping to see and report on any innovations that might be found to be useful to his own branch of the military.

At the time of the American Civil War, a primary function of the cavalry was to serve as

WITH THE BOMBING OF LONDON IN WORLD WAR I, THE GERMANS HERALDED THE BEGINNING OF TOTAL WARFARE.

reconnaissance for the main army. The speed that the cavalry could deliver important information on enemy troop movements was considered vital to the success of any military maneuver or campaign. In August of 1863, Lt. Zeppelin was invited to St. Paul, Minnesota to witness and participate in a new development in the science of military information.

There, on 19 August, Lt. Zeppelin ascended in a balloon to an altitude of nearly 100 feet. Professor Thaddeus Lowe had developed a hydrogen balloon that was capable of elevating



The gondola of any airship was a bevy of activity from the moment of takeoff until safely moored back at home base, some 24 hours later. The captain, executive officer, navigator as well as radio operator share space with observers keeping lookout for approaching British airplanes. From a painting by Felix Schwormstadt.

possessed and began to think of ways that it could be adapted to better serve his country's military.

Upon his return from America, Zeppelin remained in the Army and served with distinction during the Franco-Prussian War of 1870-71. With the unification of Germany, Zeppelin found himself becoming more and more disenchanted with the old and staid manner in which the Prussian military machine conducted its affairs. Soon after, he was passed over for promotion he was encouraged to retire

and separated from the service, returning to his home in Friedrichafen.

There for the next 15 years he experimented with making something useful out of the ideas that had been planted in his mind from those visits to America years before. His experiments were bizarre enough to earn him the moniker "The Crazy Count" by his neighbors. He continued to wrestle with designs and plans to create something for the military that would allow him an opportunity to redeem himself in the eyes of his former superiors.

On July 2, 1900 the "Crazy Count" fired up two Daimler internal combustion engines that were attached to a 416-foot-long airship, named LZ 1 (Luftshiff Zeppelin) and with the twin 16 hp engines grinding away, managed to keep his monster of the skies aloft for over 20 minutes. Few people then, or even now, fully realized the historical significance and the full potential of what happened over southern Germany that July day. To place it in



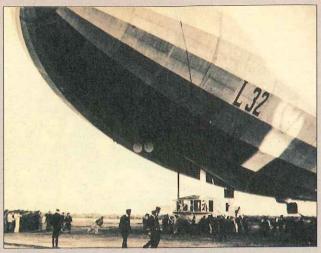
One of the many airships owned by the Army, LZ37, became the first airship victim of British airplanes on June 7, 1915. Flying a monoplane, Ft. Lt. Reginald Warneford, RFC won the Victoria Cross by being the first pilot to bring down a Zeppelin in combat. Warneford accomplished the task by dropping 6 bombs into the airship. Unfortunately the resulting conflagration crashed into a convent killing civilians including two nuns.



Kaptainlieutenant Heinrich Mathy, perhaps the greatest and most successful airship commander of the entire war. Good looking, daring and skilled, he was the romantic embodiment of a crusading knight. He personally accounted for close to half of the damage inflicted by airships during the war. He died with his ship (L31) on October 2, 1916 over Potters Bar, England.



Professor Thaddeus Lowe's balloon "Intrepid" offered Zeppelin his first airship ride during the American Civil War and planted the seed for his future experiments and designs.



L32 was only a month and a half old when it was brought down in flames on September 24, 1916 over Great Burstead with a loss of all 22 members of the command and crew.



Zeppelins, on average, were 650 feet in length, 2 million cubic feet in volume, 80 feet in diameter and had 16 gas cells. The five 1,200 horsepower Maybach engines could propel the behemoths along at 65 mph.

some sort of perspective, Zeppelin flew a powered aircraft 31/2 years before the Wright Brothers flew for the first time at Kitty Hawk. Zeppelin's flight lasted 20 minutes, the Wright Brothers' lasted less than 20 seconds. From his first flight, Zeppelin was demonstrating his aircraft for his peers in the military, almost a full ten years before the American military showed an interest in the Wright Brothers' plane and its

capabilities.

Though Zeppelin was a former Army officer, it was the German Navy that showed the most interest in the potential of the airship as a weapon of war. Zeppelin's first airships used the flexibility of a floating hanger located on the Boden Zee (Lake Constance). This enabled the Zeppelin crew to maneuver the nose of the craft into the wind to avoid the inevitable disaster a sudden crosswind would produce if the craft was in the process of exiting or entering the hanger. Given its berth on the sea, it was a natural assumption

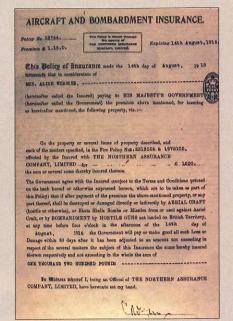
that the craft would become known as an Air Ship and thus named as such. Luftschiff is German for "airship." (As First Lord of the Admiralty, Winston Churchill used the same logic to try to gain control of the fledgling British Armour service by calling tanks, land ships. His logic, as history has proved, didn't hold water, as such, and the Army has maintained control over them ever since.)

Between the years 1900 and 1914, a handful of airships served as passenger liners of the skies, logging in over 100,000 safely flown miles having carried a total of 34,000 paying passengers. These behemoths became the most successful and safest way of traveling for what would soon become the airline industry that we know today.

ZEPPELINS AT WAR

In 1913, as tensions between Germany and Great Britain increased, Germany's Kaiser Wilhelm II continued to tweak the efficiency of his

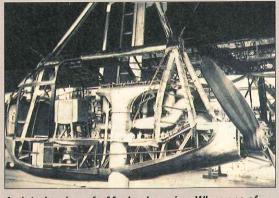
> prized possession, the High Seas fleet. Feeling that the success of any conflict between Germany and her English cousins depended solely on his ability to defeat England on the open seas, the Kaiser ordered the purchase of three Zeppelins for use by the Kaiserliche Marine, the Imperial German Navy. The initial idea for the Zeppelins' employment would be to serve as an aerial screen for the fleet as it maneuvered on the high seas, in a way quite



Never at a loss to exploit an opportunity, insurance companies were quick to offer special policies against damage from airship raids.

similar to the fashion that General Robert E. Lee used General J.E.B. Stewart's cavalry during his two Maryland campaigns. The eyes and ears of the Navy would be floating 12,000 feet above sea level, capable of reporting enemy positions.

Naval Captain Peter Strasser became the first head of the Naval Airship Division and began an enigmatic career as the dynamic leader of a closeknit group of pilots who quickly became folk heroes for their daring exploits. His chief advisor was the most experienced airship pilot in all of Germany, Hugo Eckener. Dr. Eckener, a former economics professor, had become impressed with the possibili-



An interior view of a Maybach engine. When one of them failed at 12,000 feet, it was the duty of a mechanic's mate to open these exposed plates to perform the needed servicing in the open air, often while under attack.

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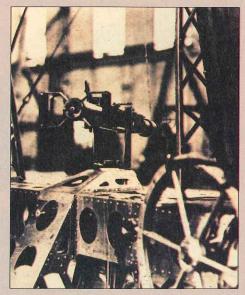
ties that airships offered when he first saw LZ1 fly over Lake Constance in 1900. He quickly learned the craft of piloting directly from Count Zeppelin himself and was soon training Strasser's new cadre of young pilots.

Count Zeppelin's manufacturing company (DELAG), located in his home town of Friedrichafen, began to supply the Navy with airships, numbering them L1, LS2 and L3. From this point on, all airships manufactured for the navy were consecutively num-

bered. Zeppelin, however, continued to number the frame of each airship with the more familiar LZ numbers which represented the place in the order of manufacture since the first Zeppelin in 1900. A helpful hint in exam-

ining period photographs is to note that the navy Zeppelins have a conspicuous number painted near the nose that is just the letter "L" and a number. Civilian Zeppelins have the "LZ" moniker painted on their nose. During the course of the war, the Zeppelin factory was able to produce a new Zeppelin once every two weeks and completed nearly 109 airships before the war's end. (Note that a small number of air-

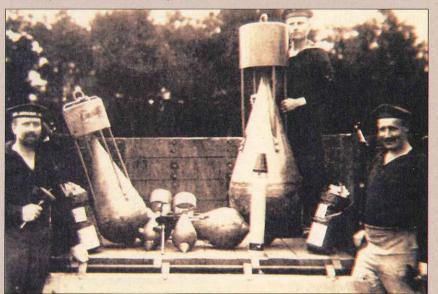
ships were also ordered by the Army who used them in the fashion that the



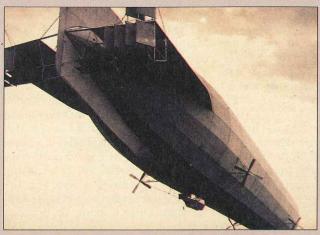
Control panels on airships were simple and primitive by today's standards.

old Count had originally intended, as the eyes and ears of the Army. Army airship pilots proved to completely lack in the training or esprit de corps that the Navy pilots displayed and soon, after numerous pilot error disasters, all Army airships were transferred and absorbed by the Navy.)

As previously stated the mission of the airship was to screen for the High Seas fleet. However the Kaiser was reluctant to send his favorite toy, the fleet, out into the open and tempt direct combat with the enemy. This provided the airship division with a lot of downtime. Capt. Strasser soon began to spoil for a fight and recommended that the airships be used in a more offensive manner against the enemy. He suggested the bombing of selected military targets in England. With stalemate developing in the west and no quick end to the war in sight, the Kaiser reluctantly agreed to allow the use of airships as offensive bomb-



German Naval ratings display a variety of bombs carried from the airships, weighing from 22 pounds up to 660 pounds.



Aft photo of L2, the second in the line of Navy Zeppelins.



Officers and crew pose for a picture as an early naval airship embarks on a test flight before the war.



Cartoon depicting a panicked crowd in Trafalgar Square as a Zeppelin makes an attack. In reality, Zeppelins exclusively flew under cover of darkness and rarely damaged any historic sites.

ing weapons. With a stipulation that the bombing of targets be confined to those located east of the Tower of London, Strasser soon began to map out an offensive battle plan.

On January 19, 1915, three naval Zeppelins, L3, L4 and L6, rendezvoused off Heligoland and began a run on the east coast of England. It was, as Britons would later come to call it, perfect Zeppelin weather. A cool,



Fregattenkapitan Peter Strasser, Chief of the Naval Airship Division, died in the last great Zeppelin raid of the war on August 5, 1918.

crisp, moonless night where the prowling airships could easily see the lights of their targets and yet remain undetected, save for the constant drone of the powerful Maybach engines. Leaving in the early morning and making the rendezvous point by mid afternoon, the Zeppelins, who's top speed reached an astounding 80 mph, arrived off the coast of England as darkness began to fall, concealing their



Early airship attacks were confined to areas east of the Tower of London by order of the Kaiser. Unwilling to risk damaging familiar haunts, the Kaiser still had a fondness for the Royal playgrounds that he enjoyed in his youth as a grandson of Queen Victoria.

approaches but giving them enough light before total darkness to mark landfall on their maps and make directional adjustments.

The payload of an airship is considered to be the amount of non-structural weight that the ship can safely lift. This includes officers and crew, muni-



The three men most responsible for the development of airships, from left: Dr. Hugo Eckener, Count Ferdinand von Zeppelin and Fregattenkapitan Peter Strasser, Chief of the Naval Airship Division.



Broadsides and posters kept the British civilians appraised as to which planes and airships were friendly and those which were not.

Zeppelm single state of the sta

Zeppelin cold weather clothing. Temperature cruising altitude could reach –4 degrees, Fahrenheit.



One cartoonist expressed a commonly-held desire that the British Isles' only protection from attacks would be to move further west, out of their range.

tions, water ballast, petrol, supplies, cold weather gear and, of course, bombs. The typical Zeppelin in 1915 could lift a payload of 30,000 pounds, by 1918, with improvements in Zeppelin size and strength, it was raised to close to 100,000 pounds.

The typical armament in bombs usually included 22, 110, 220 and 660 pound bombs.

The attack of January 19 proved to be a wakeup call to the British. Cries of panic and terror quickly spread throughout the United Kingdom. For a while it seemed that the island was completely defenseless and the Zeppelins could attack anywhere, any time at will without fear of opposition. Public outcry was instantaneous and soon air defenses were developing all throughout England. Damage was measured in the loss of innocent civilian life as well as in pounds sterling. The first year of raids produced £800,00 (\$3,840,000) worth of damage in the 27 raids that were completed during that period. The year 1916, the happy hunting time for the airship service, saw 111 raids completed and over £600,000 (\$2,880,000) in damage caused. By war's end, £1,500,000 (\$7,200,000) of damage had been inflicted as well as the deaths of 557 people and 1,300 injured in a total of 177 airship raids. Of course the loss of any life is considered tragic and devastating to those close to the victims, and

this kind of warfare brought the fight to the personal homes and fac-



The "Crazy Count" Ferdinand von Zeppelin's hope of lighter than air travel was all but dead by the war's end, only to see a revival during the inter war years with the success of Graf Zeppelin I & II as well as the famous Hindenburg. In 1998, working from the same airship facility that Zeppelin made LZ1 in 1900, Zeppelin NT-1 successfully marked a return to rigid, lighter than air travel.

tories of the civilians for the first time in modern warfare. The effect was monumental on the public psyche. Soon demands of protection were near riotous pitch. By the war's end, nearly 500,000 men, hundreds of planes and thousands of artillery were in place surrounding the cities and docks thought to be prime targets for the Zeppelins.

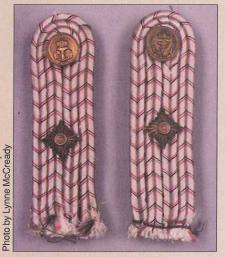


At first, cloudless, moonless nights were thought to be the best for airship raids. With the development of an observation gondola, cloud cover provided a useful screen against the probing searchlights of anti aircraft batteries.

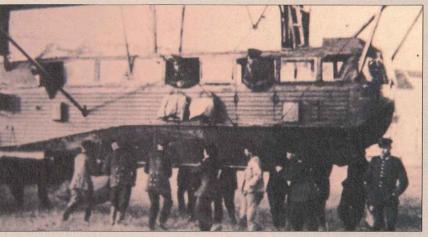


Recruiting posters soon took advantage of the civilian attitudes and prevailing panic caused by airship raids to encourage young men to enlist and do their part in bringing about an end to their attacks.

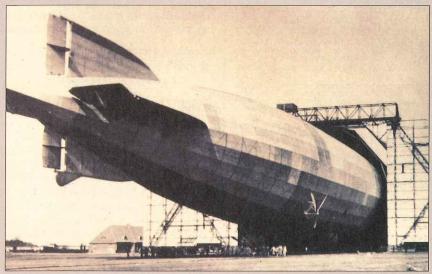
The Kaiser's edict of "hands off" on targets west of the Tower of London was declared for the simple reason that the Kaiser was still the first cousin of King George V and as such had spent many blissful vacations with his mother, the daughter of Queen Victoria, at the royal palaces and estates within and near London. This rule was lifted after a while and open bombing was permitted throughout the whole of



Shoulder boards for officers were of the same color patterns as the belts and fastened by brass buttons with the imperial crown and anchor design.



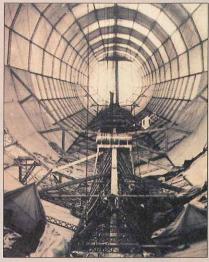
Early airships had suspended gondolas. Later modifications and construction placed the command and control cars closer to the body of the airship.



LZ4 in 1908 shows the airship entering its hanger shed on a lake. Early hangers were floating so that they could take advantage of quick directional changes as winds shifted.



A Zeppelin gets caught in the searchlights of a barrage battery. The numbers of men and resources spent on combating the Zeppelins was more damaging to the British war effort than the actual destruction inflicted on targets in England.



The interior of an airship showing the massive skeleton of duraluminum that held her together. Empty Zeppelins would weigh on average 45,000 pounds. Later as many as 19 separate gas cells would fill this interior.



An early warning system of spies and ships at sea enabled the RFC to sortie and intercept planes in time to gain enough altitude to attack Zeppelins before they had a chance to do any damage. This Zeppelin is caught near the coast of England.

The Military and Givit Authorities have considered the action to be taken by the Office of the Company of the Military Authorities with it to be distinctly understood that whilst there is always the possibility of such an attack, they do not consider the public have any cause for anxity or for a

In the event of any hostile attack whether by raid, hombardment, or by airward.

ALL PERSONS MUST REMAIN INDOORS OR

RETURN TO THEIR HOUSES OR SHOPS.

NO NON-COMBATANTS MUST REMAIN IN THE STREETS.

DOCTORS AND SURGEONS ARE REQUESTED TO REMAIN AT THEIR HOUSES OR SURGERIES UNTIL SUMMONED BY THE AUTHORITIES, WHO WILL ADVISE THEM WHERE THEIR SERVICES ARE REQUIRED.

HOUSEHOLDERS AND OCCUPIERS OF BUSINESS PREMISES SHOULD AT ONCE TURN OFF GAS AT THE METER AND TAPS, AND ALSO ELECTRIC POWER, AS A PREVENTATIVE AGAINST FIRE OUTBREAK AND EXPLOSIONS.

The public are strongly advised to shelter in basements or cellars and to remain there until the danger is over. Householders who have such basements or cellars should admit their snighbours whose habitations do not afford such accommodation, and also packers by in the street.

School teachers should take all possible steps to secure the safety of the children to the schools, and parents are particularly requested not to leave their homes to go to the schools to seek their children.

Pomit Abra SPg

H. P. P. LANE,

Chief Constable of Lancash

Local governments published guidelines and instructions on how to protect against the sudden and silent attacks from the skies. England. However no serious destruction of historic or Royal sites occurred from the frequent Zeppelin attacks.

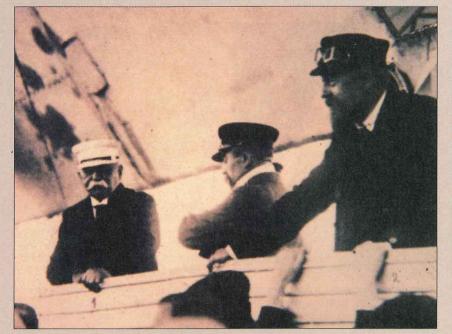
DEFEATING THE ZEPPELINS

In 1916 the airship service had a banner year with 187 sorties being flown, over one third of the total sorties flown during the entire war. Some 111 raids on England that year helped bring the level of panic there to a veritable hysteria. At the beginning of the year, weather was one of the airship's worst enemies. By 1918 end, it is estimated that out of all the days in that time period, only one quarter were considered decent enough flying

weather for Zeppelins to operate in.

Once the clang of air raid alarms became commonplace in England, methods were hurriedly devised to try to destroy the brutes. Artillery and concentrated firepower seldom succeeded in ripping enough holes in a Zeppelin to cause enough escaping gas for it to lose altitude and eventually crash. A method to ignite the volatile hydrogen gas that filled the monsters was sought.

Hydrogen is very flammable, but only when mixed with oxygen. this combination creates a huge fireball when ignited. The Air Ministry in Whitehall sought a method to trigger this reaction, not knowing that the answer was already in their hands. As soon as the war had started in August of 1914, an Australian by the name of John Pomeroy had submitted plans for an explosive bullet. Other inventors such as J. F. Buckingham and F. A. Brock also developed phosphorous incendiary rounds. A combination of their ideas helped create a round that was capable of blowing holes in the skins of the airships, causing large amounts of gas to escape and igniting the gas bag on fire. By August of



Count von Zeppelin (L) and Dr. Eckener (R) prepare to ascend in an airship on a training flight.

GERMAN NAVAL AIRSHIP BASES

Nordholtz - HQ Luftschiff Division Ahlhorn, Duren, Fuhlsbuttel, Hage, Kiel, Jamboli, Juterbog, Namur, Seddin, Seerappen, Tondern, Wainoden, Wildeshausen, Wittmundhaven Airship Manufacturers Zeppelin Werke (Friedrichafen) (62), Schutte-Lanz (8), Parseval (3), Gross-

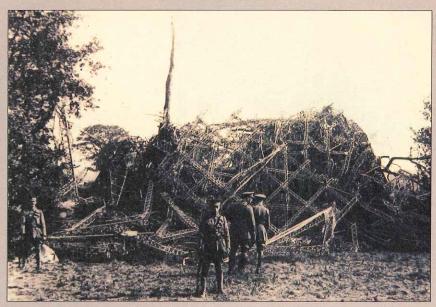
Basenach (1)



One of the most harrowing duties for an airship crew was the defense of the ship at altitudes of 12,000 to 20,000 feet. Here a spotter and a gunner man a Maxim gun against approaching British fighters.

1916, the tide began to turn for the airship division as Zeppelins began to light up the English sky as they fell to earth, struck down by the Brock, Buckingham & Pomeroy bullets.

The initial German response was to get out of the range of the bullet shooting biplanes that were responsible for their destruction. At the beginning of the airship raids, most Zeppelins flew at approximately 10,000 feet altitude. Later Zeppelins, called 'height climbers' could attain nearly twice that. There were severe tradeoffs for the increase in altitude. At 20,000 feet the outside air is about 4F below zero. This has an obvious effect on the functioning of the engines as well as the condition of the crew. Most gondolas



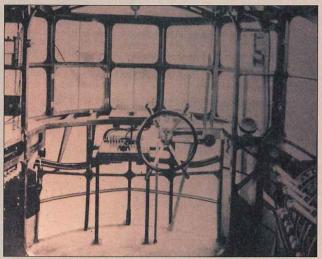
The skeleton of a collapsed airship. As soon as it hit the ground, and often while it was still on fire and glowing red from heat, souvenir hunters would pick it clean. Military police were often placed on guard to prevent the loss of any sensitive materials that might be of help to British intelligence.



An English street showing the effects of a Zeppelin raid. The actual damage caused had little or no effect on the war effort other than to "pin down" thousands of men and equipment to defend against them.



Lt. von Zeppelin as an observer attached to the staff of General Philip Sheridan during the American Civil War. Zeppelin is in the white cap in the back row.



The command gondola of an airship provided little protection for enemy bullets or the harsh elements encountered at 12,000 feet.

(control cars) on the early airships had been external, mounted below the structure of the gasbag itself. With the new design, the gondola was moved up so it was flush with the belly of the ship. This eliminated the need for crewmen to ascend or descend an external ladder to access the control car from within the body of the airship.

The extra height that the airships soon acquired enabled them to reach their target and drop their payload long before enemy planes could catch up with them. The little single engine biplanes that so often gave chase to the mighty beasts took nearly one hour to reach an altitude that put them

on a level with the airships. Within that critical hour, the airship could have easily come and gone. Soon tactics changed and on nights that favored Zeppelin flying, Royal Flying Corps squadrons took to the air soon after dark to hunt and destroy the airships before they even knew where they might be heading. This took a great deal of intelligence work on part of the

RFC. Spies were advising of Zeppelin sorties during the mid day rendezvous and forwarding the information that an attack was imminent. Other sky watchers along the coast learned to listen for the familiar rumble of the Maybach engines. It wasn't long before Zeppelin tactics changed to meet the challenge. Drifting and silent running, as well as using the cover of clouds, aided with sub-cloud observation gondolas, aided the Zeppelin commanders to reach their destinations with as little enemy interference as possible.

AUGUST 1918

Soon it was nearly impossible for the formidable airships to wantonly raid England with the ease that had been accomplished before. The yearly raid total for 1918 was just 10 percent of



The standard Imperial German naval uniform for officers consisted of a navy blue wool tunic with five double rows of brass buttons, notched lapel and two small flapped side pockets. Most airship commanders wore a high wing-tipped collar with a black bow tie. Traditionally the Navy wore navy blue in winter and whites in summer. This airship KaptainLieutenant wears a dark cap. The airship service, based on a habit initiated by Count von Zeppelin, established a tradition of ship captains wearing white hats and the rest of the officers and warrant officers wearing the dark cap, irregardless of the season.



The Zeppelin badge on the left is an original as issued at the end of World War I. Made by a jeweler in sterling silver, it bears on its reverse the "800" Junker hallmark - a sign that the piece is really made from silver. The Zeppelin badge on the right is a modern, well-made copy. Note that it is of composite metal, not silver, and bears no hallmark. The crown is attached in a vastly different fashion from the original.



The airship badge is a subject of great myth, legend and speculation. The airship surrounded by a wreath surmounted by an imperial crown is the award given to those who were found to qualify to wear one, following the war. Note that this badge was not issued during WWI and was never worn in combat. Following the war, private jewelers produced this award and those who continued to serve the Weimar Navy were entitled to wear the badge if it had been earned during the war. The badge was garnered during the reign of Kaiser Wilhelm II and bore the symbol of his imperial crown. Many holders of the award had the crown removed when they wore the badge during the Weimar period. Other collector references state that the badge, sans crown, was indicative of an Army airship award. This is simply not true, the "missing" crown was only in deference to the new government following the Kaiser's abdication in November of 1918.

what it had been two years before. The days of massed attacks and combined operations were at an end. (In September 1916 twelve airships participated in the largest raid ever on England, only half that number flew in the final raid on August 5, 1918.)

On August 8, 1918, the German Army suffered its worst defeat of the entire war, losing tens of thousands of men, dead and prisoners, as well as the most ground surrendered in a single day. General Ludendorff called it Der Tag, the black day. For the airship service Der Tag came two days earlier on the 5th when during a six-Zeppelin assault, the airship service lost L70 in a botched raid on England where no bombs had found their targets. Aboard L70 was Pour le Merite winner and chief of the airship service, Fregattenkapitan Peter Strasser. With the loss of their charismatic leader, the airship service cancelled any further raids, and until armistice the Zeppelins were used solely on sea patrol.

At the time of the Armistice on November 11, 1918, only 20 or so airships remained in service. Nearly half of them were seized by the Sailors' Soviet and destroyed following the scuttling of the High Seas Fleet in June, 1919. The remaining airships were dismantled and distributed among the allied victors as part of war reparations. The United States contracted with the Germans to produce a new Zeppelin as part of their settlement. The new Zeppelin was LZ 126, and was completed in 1924. When Dr. Eckener arrived with her in America to train her new pilots and to transfer ownership, she was officially entered into the US Navy logs as ZR-3 and christened the USS Los Angeles. Of all the airships that entered US service, she was the only one not to meet a disastrous end. Eventually she disap-

PARACHUTES?

The German Naval Airship service lost almost 20 airships in combat, nearly everyone of them shot down in flames. The total number of officers and crew killed in the Airship Service totaled nearly 40 percent of those who served, making the Airship branch a very risky proposition. Many people have always wondered why crews did not carry parachutes and use them when their ship started to show signs of being in trouble. The parachute did not make a formal appearance until 1917 as a safety measure for airmen. Each 'chute' weighed approximately 20 pounds and with a crew of 20 or so men, it was a considerable amount of weight that would have lessened the payload of either ballast or munitions, both of which were badly needed. Another consideration is that when an airship begins to burn, the sudden release of gas causes the ship to jump up, as much as 200 feet in an instant as it catches fire and begins to really burn. Any airman who choose to escape with a 'chute' on would soon find himself underneath a horrific ball of fast falling flame and debris. There was no simple or practical escape from a Zeppelin once it caught fire, staying with the ship or jumping in a parachute meant almost certain death by burning. Many choose to jump to their deaths in an effort to avoid being burned alive.



The naval dagger was traditional among airship officers. Worn suspended from a set of lions head hangers, the dagger had an ivory wire wrapped grip and a brass or gold plated scabbard. Daggers were privately purchased and reflected the taste and financial standing of their owners. The belts worn with the daggers and swords were of two types, a formal brocade belt with imperial naval buckle, or a "walking out" belt that was half the width and made of leather wrapped with black silk and velvet. Another (third) belt was worn under the tunic and allowed the hangers to pass through the left side pocket so that the dagger appeared to be attached to the pocket itself. The brocade belt was of the imperial pattern of colors. The silver body of the belt was highlighted with red and black threads of the imperial standard. Buckles were of the imperial crown design with fouled anchor.

peared under the breakers torches.

AIRSHIP IMPACT ON THE WAR EFFORT

It is thought that the "pinning down" of dozens of division-strength troops, as well as the planes and munitions on the home front, severely handicapped the BEF in France and Belgium, doing more for the overall German war effort than the actual bombings accomplished. The Naval Airship service lost a total of 53 Zeppelins, 40 officers and 350 other ranks during the four years of service, a small number compared to the devastation and resource depletion that they were able to affect on the English war effort.







The German Imperial Naval Sword was a true work of art. This ivory hilted edged weapon had a lion's head sporting a real emerald green eye on the right (starboard) side and a ruby red eye on the left (port) side, a reference to the maritime running lights of ships at sea. The imperial naval anchor and crown are emblazoned on the basket and on the folding portion of the guard is inscribed the name of OberLieutenant S. Ratz, commander of airships SL8 & SL20 during the war.