

# The Blue Ring of Death and Destruction

*A first person account of Hindenburg disaster.*

by Robert Shaw

Captain Max Pruss turned the airship Hindenburg to the final approach of the landing run as darkness fell. He had to get the ship into the mooring mast now. One thunderstorm had just passed the field, and he dare not risk a landing in a thunderstorm during darkness. The excitement of the passengers was high after the long wait; and the ship was already eleven hours overdue for the scheduled 8 a.m. landing at Lakehurst Naval Air Station, New Jersey.

The U.S. Navy airship officers on the ground at Lakehurst had concurred in Captain Pruss's decision to land, and at 7 p.m. Commander Charles E. Rosendahl, Commandant of Lakehurst Naval Air Station, had again recommended that Captain Pruss effect an immediate landing.

The rain had slackened to a drizzle, the cloud ceiling was 2500 feet, and the wind at 200 feet altitude was 6 knots from the West. Commander Rosendahl thought that the final approach turn was tight and too fast, but the ship was headed into the wind one-half mile from the mooring mast. All was well.

The 803-foot airship Hindenburg, with 97 passengers and crewmen aboard, had been cruising slowly between New York City and Atlantic City during the afternoon of Thursday, May 6, 1937 waiting for a long line of thunderstorms to break. Departing May 3rd from an airport near Frankfort, Germany, on the first leg of 18 Atlantic round trips, she had dodged thunderstorms and bucked headwinds. In spite of being 14 hours short of the record run of the first trip to the United States in 1936, her hour Daimler-Benz 1100-horsepower diesel engines had carried her through the air gracefully; and on the morning of May 6th she had been sighted over Boston, heading toward New York City.

The day not yet completed would climax the rather serene and mild crossing of the Atlantic. The passengers and the crew were in good spirits and all were anticipating the landing for their own special reasons. The passengers had thrilled to the sights of New York, each time the ship passed over, and they were able to hear the fireboat whistles and the blaring horns that signaled the enthusiastic welcome by the people of the City of New York. To be one of the most celebrated arrivals of any foreign craft, surface or air, representatives of the Press, Radio, and Film companies now awaited the landing of the Hindenburg.

The U.S. Navy ground crews, the Aerographer School personnel, official guests and others awaited, too. We were ready. As a matter of fact, we were getting impatient. We had rehearsed our part in the landing several times, and we knew exactly what position to take on the field and what to do when we got there. I was one of the Aerographer School personnel who were to take a position underneath the control car of the ship. Our purpose in this position would be to steady the control car when the ship was lowered mechanically after mooring to the mast.

The thought of disaster was as remote from our minds, I'm sure, as the passengers and crewmen aboard the ship. Standing by, we strained to hear the order that we had been waiting for so long.

"All hands on the field—on the double!" The order came from commander Rosendahl through Chief Boatswain's Mate Frederick J. Tobin, both veterans of the Shenandoah disaster. We approached the field from all directions, on the dead run. Reaching our positions on the field, we stood in place; all eyes trained on the approaching ship.

Over the buildings to the East, nearly one-half mile away, she let go the water ballast and gained altitude. This seemed a little strange to me since the ship appeared too high already. Not more than a second later I could hear a valve opening and closing. This, I learned, was the release of hydrogen gas to lessen the lift and dissipate the excess altitude.

At exactly 7:20 p.m. the ship nosed over the edge of the field. It was a beautiful sight. Then two coils of 400-foot line spun down with lightning speed. Under the direction of the Chief "Bull" Tobin the 200-man ground crew began coupling the lines to corresponding lines from the mooring mast. The first step toward control of the dirigible for mooring was now under way.

When I looked up again the ship seemed to be bearing down fast, and then I heard the surge of power as the engines were thrown in reverse to check the forward speed. She was but a few hundred feet away, now a huge shadow looming toward us at seemingly breakneck speed. Then it happened:

A beautiful powder-blue smoke ring appeared very suddenly around the stern of the ship, just aft of the tall fins. It remained there only long enough to turn brown, to dull red, to bright orange, and then instantly vanish. A fraction of a second later all hell broke loose.

It was a struggle between keeping my balance, thinking of what I should do, and watching what was happening to the ship. The first explosion occurred in the tail section which contained the first hydrogen-filled gas bag. In rapid succession but slow enough to count, each gas bag exploded, the explosions traveling forward through the ship to the nose section. The aft section of the ship was now a mass of

flame and had already started to settle.

For a moment I stood transfixed, not really believing what I saw. Then the thought struck me that the ship was directly above and that I had to run or she would fall on me. With the ship still moving forward, it was difficult to decide which direction would take me away from the fire. I started out as near abeam of the ship as I could judge and ran as fast as I could without stumbling. It felt like my shoes were filled with lead, and looking back to watch the movement of the ship slowed my speed.

As I looked back I saw people jumping or falling from the ship; then I heard the roar of a dozen falling trees as the ship squashed to the ground. I turned and ran back toward the fire. The intense heat stung my face, and I rolled the rim of my hat down for protection. As I ran in I met one man aflame from head to foot; close on his heels were two men desperately trying to shed their burning uniforms.

Within a matter of seconds all of the ground crew, and others, too, were there together leading the blinded, burned survivors away from the fire, turning them over to ambulance attendants who appeared like magic from nowhere. I found

it incredible that so many could walk out of a huge mound of flame and survive. From then on it was gruesome and sickening. The stench of burning human flesh was overpowering, blotted out only by the thought of the terrible human suffering and agony.

When the intense heat subsided enough so that we could get inside the tangled mass of girders and wires, we found that many did not survive. In one spot a tangled mass of bodies lay smoldering, and we removed them one by one by sliding tarpaulins underneath and carrying them to waiting ambulances. One poor soul had to be dismembered for removal. A little later nothing remained but the shell of the ship laying in a bed of smoldering embers.

As the gallant ship lay there in its shallow grave, the stories of hell and terror were being told by the survivors in the hospitals and infirmaries over the countryside, as far away as New York and Philadelphia. The pieces put together revealed the stark horror of the flaming end of the majestic dirigible. In 32 seconds, a luxury airliner became a trap of death and destruction.

An official report of the Hindenburg

survivors made by Commander Rosendahl revealed that 44 of the crew of 61 and 20 of the 36 passengers escaped alive.

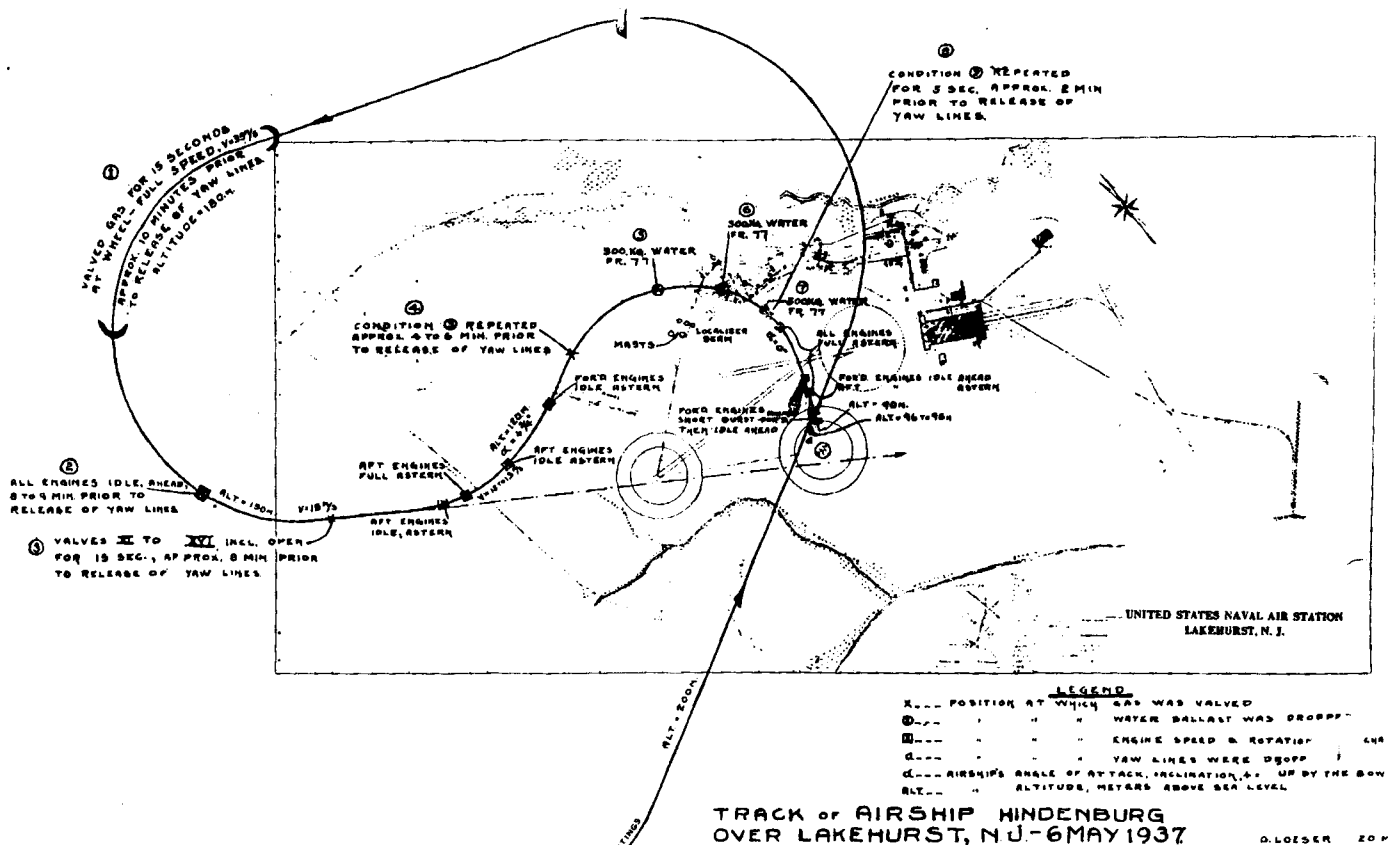
One of the luckiest survivors, George Hirschfield, a German broker, was kept from burning by a heavy overcoat, and his life was spared when he jumped through a wall of flame to the ground. He told of pieces of flaming fabric falling like some hellish rain.

Theodore Ritter, 23, a mechanic, attributed his survival to the fact that the engine gondola in which he was working was blown from the flaming zeppelin. Ritter was in the left forward gondola and had stopped the engine on orders from Captain Pruss.

A miracle, Alfred Groeninzer, 20, a chef, jumped to safety without burns or injury. Hans Hugo Velt, another member of the crew, was equally lucky in escaping without injury.

Mrs. Elsa Ernst saved her life by sliding down a white-hot cable from the zeppelin to the ground. Miss Margaret G. Mather, an American resident of Rome, could not explain how she escaped. Scarcely bruised, she proceeded immediately to the home of relatives in Princeton, New Jersey.

Clifford Osborn of Chicago, Illinois,



Detailed map of the final moments of the Hindenburg on May 6, 1937 from U.S. Government records of the disaster.

was blown from the blazing ship while it was still high above the ground. George Brent, 63, a representative of the Zeppelin company and a nephew of General U.S. Grant, jumped from the lounge, saving his life. As he hit the ground, another survivor landed on his back.

John Pannes, 61, who was in charge of the passenger accommodations when the Hindenburg left Germany, and a North German Lloyd's official, died in the ship while trying to find his wife.

Allen Hagaman, Lakehurst, New Jersey, was the only member of the ground crew that was caught in the crash. Hagaman, unable to get away from the ship in time, was enveloped in flames and died.

The one female crew member aboard, Frau Imhoff stewardess, was never seen after the explosions. Somewhere in the bowels of the ship, she never had a chance to try for escape.

Gano Ferguson, 27, a ground crewman from Linden, New Jersey, had the honor of rescuing both Captain Ernst Lehmann and Captain Max Pruss. Ferguson's left arm was badly burned during the rescue.

Of the three Commanders aboard the Hindenburg, Captain Witteman was the luckiest. He walked from the twisted control gondola without the slightest injury. Captain Max Pruss lay for several days near death, and Captain Lehmann, advisory master of the ship, succumbed May 7th to the burns he suffered in the fire.

The scene of the Hindenburg fire turned from the death-like quiet preceding the landing to complete pandemonium and confusion after the fire. As the evening grew late, newsmen and spectators mingled with Lakehurst officers and men, milling around in a state of shock and sympathy.

While the embers smoldered during the night, a makeshift fence was erected and a cordon of police were stationed around the ship to ward off the souvenir hunters. Gradually some order was restored.

During the early morning and the next day streams of people poured into Lakehurst to get a glimpse of the wreckage. Most of them were disappointed in what they saw, since nothing but the twisted shell of girders and wires were left amid the rubble and ashes.

The sightseers continued to swam over the field around fuel storage tanks

and airplanes, and through the big hangar that berthed the Los Angeles, until Commander Rosendahl and the Executive officer swung into action to secure the field. Soon personnel from the Army, the Marine Corps, and the Coast Guard arrived, and a cordon of guards was set up around the Naval Air Station. Only then was the field cleared.

This sudden influx of personnel placed considerable drain on the facilities at Lakehurst, and those of us stationed there suffered the indignity of standing in line for hours to get two meals a day. Those that were lucky were placed on working parties; the rest were kept within the confines of the building.

A U.S. Navy Board of Inquiry was detailed almost immediately after the fire. Another Board of Inquiry was set up by the Secretary of Commerce, and a third Board was to function for German interests, the member to arrive soon on the S.S. Europa. There were liability and wreckage removal questions to be settled, as well as to establish the cause of the fire.

For the most part the Boards of Inquiry were made up of lighter-than-air experts, lawyers and advisors from the U.S. Navy, the Department of Commerce, and from Germany. Commander Rosendahl, who was standing but a few feet from the mooring mast when the ship's seven million cubic feet of hydrogen burst into flame, played a very active part in the inquiries. Dr. Eckener, long an advocate of the use of helium gas, advised that the disaster must bring an end to the use of hydrogen in airships.

Ludwig Duerr, builder of the ship; Professor Bock, German Institute of Aeronautical Research; Professor Max Diekman, Munich University Aeronautical Authority; Lt. Col. Joachim Breithaupt from the German Air Ministry; Herr Hoffman, Engineering expert; and others were asked to take part in the proceedings of the Boards. Ludwig Duerr poked through the ruins all night attempting to find a clue to the cause of the fire, rejecting the idea that the hydrogen gas may have ignited from static electricity.

Having observed one of the brightest fires in my life, and one of the most memorable landings of an airship, I was keenly interested in the proceedings of the Boards of Inquiry. Although there were many items left in the ashes of the fire and

dozens of qualified witnesses, I knew the task of finding the cause of the fire would be formidable.

The ship was almost fireproof. It had protected indirect lighting in the cabins, and the cabin furniture and furnishings were built of duraluminum. The heating and air cooling systems, and the walls, were insulated with aluminum foil, and the engines were mounted in power cases outside the ship. Too, smoking aboard the ship was limited to one room on the lower passenger deck, the entrance arranged to provide an airlock intended to reduce fire hazards to a minimum. The cause of the fire was more likely to be of an outside source.

Before the Boards of Inquiry arrived at a finding there was much speculation as to the cause of the fire. It was remembered that Captain Ernst Lehmann's last words preceding the disaster were "It's lightning-jump!" In Berlin, Germany, Air Minister Hermann Goering declared, "It was decreed by Hoher Gewalt!" (an act of God). Dr. Hugo Eckener, completely saddened by the tragedy, stated, "It is very likely the disaster is due to an act of sabotage. I have repeatedly received anonymous threatening letters, especially warning me not to land the Hindenburg at Lakehurst. It is quite impossible that the explosion was due to lightning, as the airship was equipped with the most modern preventive apparatus."

After the hubbub of confusion and emotion had subsided, the Boards of Inquiry revealed their findings. The final Board of Inquiry said that although the cause of the fire could not be determined conclusively, the probable cause of the disaster was St. Elmo's fire, an electrical disturbance commonly associated with thunderstorms.

In spite of the opinions of the many lighter-than-air experts that participated in the final Board of Inquiry, the cause of the fire was more accurately determined by the human eyes that observed the entire sequence of events. Motion pictures shown several days after the fire indicated the source of the fire as an outside explosive force rather than an electrical disturbance from a thunderstorm. The day following the disaster, Captain Lehmann, gamely struggling to outlive his terrible burns, discussed all possible causes with Commander Rosendahl, ruling out his

original declaration of lightning.

Sabotage, ruled out early by the majority of experts, was out of the question. There had been threatening letters and calls to German Zeppelin officials, and even passengers, in addition to Dr. Hugo Eckener. These were considered to be the work of crackpots.

Looking back to the sequence of events that preceded the disaster, the deci-

around like old Hugo Eckener. And the release of water ballast that followed may have been a premature act, since the immediate effect was to increase the lift of the ship. This would mean that Eduard Boetuis, on the elevators, would have to trim the ship nose-down to prevent climbing, and the nose-down trim would tend to increase the forward speed.

The next step in the sequence was the

ter disappointment for the champions of the dirigibles who through the years battled so valiantly to maintain and increase the prestige of lighter-than-air craft.

Even in the face of disappointment men like Dr. Hugo Eckener, Ludwig Duerr, and General Hermann Goering maintained that this was not the end of dirigibles and advised that the LZ-130, the new German zeppelin and sister-ship of the Hindenburg, would be rushed to completion. The German officials and zeppelin builders were equally optimistic over exclusive use of helium gas in dirigibles in the future.

One of the brighter moments in the aftermath of the Hindenburg disaster came several weeks after the panic-button pushers and the many personnel called in to keep watch over the girded skeleton had departed. With jowls moving in a state of concern and the heavy bags under his eyes showing a long lack of sleep, Dr. Hugo Eckener appeared before us in grateful and appreciative mood.

A humble man, known the world over for his work in lighter-than-air craft, he paced our patio deck in silence for several minutes before trusting himself to speak. His English somewhat measured and deliberate, he thanked us all for rescuing his countrymen and risking our lives. I do not remember his exact words, but I know that this kindly man spoke to us from the heart.

The story of the Hindenburg disaster has been written several times, each one in great respect and style. Even so, I know that all the expert reporting and the pictures will never adequately describe that beautiful, but disastrous, blue ring that swiftly snuffed out the lives of the participants, caused misery and suffering, and closed a weakened final chapter to lighter-than-air crafts.

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sion by conscientious Captain Pruss to land the Hindenburg at his appointed time was a pertinent factor to the cause of the fire. He was forced to make that decision, having no alternatives for further assured safe flight. Normally cautious, the blonde shipmaster began to feel the heavy responsibility.

The ship was far behind schedule. Forty-five prospective passengers had been booked and were waiting at the Biltmore Hotel in New York for the return flight to Europe, which had been scheduled for midnight May 6th. Many were expecting to attend the forthcoming Coronation of King George VI in England. The passengers in the ship were tired of waiting for the landing. Many anticipated business connections in New York before the return trip. More important was the fact that it was getting dark, and contact with another line of thunderstorms in darkness could not be chanced. And, below, the world was waiting for the landing.

The final approach turn to the landing run, believed to be tight and fast, may have from the start influenced the good judgment of Captain Pruss. The old-timers on the field said that he didn't bring her

only logical one for Captain Pruss, that of venting hydrogen gas to the atmosphere, with perhaps a little back trim to raise the nose. This step would kill the excess altitude and prevent an increase of speed. Directly after came the telegraphic order from the control car to check the forward speed, and the four-bladed 20-foot propellers bit in to the air as they reversed direction.

The event that followed, whether resulting from normal and correct procedures, or a series of errors, brought a fiery end to the Hindenburg. The stern port engine backfired, producing an explosive force to the not yet dissipated hydrogen gas and forming the fatal blue ring of ignited gas around the tail section of the ship.

The Hindenburg disaster was a severe blow to the life-blood of lighter-than-air ships. The flaming death of the Italian Roma in 1922, the windstorm crash of the Shenandoah in 1925, the retirement of the Los Angeles in 1932, the unexpected crash of the Akron in 1933, and the plunge of the Macon into the Pacific ocean in 1935 nearly brought the end of dirigibles for all time. Small wonder that the holocaust of the Hindenburg caused bit-