

The R101 disaster

LIKE a great floating railway carriage, airship R101 flew lower and lower over the northern French countryside, causing residents of Beauvais, near Paris, to believe she was going to hit the church steeple.

The night of October 4-5, 1930, was pitch black, with rain and gusty winds so that those on the ground could see only the airship's lights. Just beyond Beauvais, however, a poacher, Alfred Rabouille, had a remarkable view.

He saw the huge dirigible careering straight for the patch of woodland where he had been setting snares. He saw it dip in its flight, level off, then, still nose down, dip again before crunching into the top of the rise not far from him.

There was an explosion, which knocked the little Frenchman off his feet, followed by two more. A huge sheet of flame engulfed the R101. The midship section collapsed. The great frame crumpled and, with fire roaring through the outer cover, subsided onto the ground.

Among the R101's 54 passengers and crew were Britain's Minister for Air, the Director of Civil Aviation, the Director of Airship Development and the chief designer of the craft himself.

The poacher Rabouille could hear the trapped inmates screaming for help. But the whole sky seemed lit up, burning his eyes, and he ran for his life in the opposite direction.

The only survivors were six crewmen, who had been riding in the engine gondolas slung below and either jumped or were thrown out on impact.

For the British Labour Government of Ramsay MacDonald, which had pinned its hopes on the airship as one means of lifting Britain out of the Depression, the loss of the R101 was a calamity of the first magnitude.

Yet ever since His Majesty's Airship, *Mayfly*, had failed to fly in 1911, misadventures of every kind, from accidents on the ground to conflagrations in mid-air, had been a commonplace in airship development all over the world.

As the newly completed *Mayfly* was being towed out of her waterside shed for preliminary trials, for instance, a sudden gust of wind turned her on to her side.

She was trying to right herself when a series of reports like gunfire told of her girders buckling and snapping under the strain. With immense difficulty, the wreck was manoeuvred back into the shed, never to emerge again.

Only rumors about the progress Germany was making with the Zeppelin persuaded British manufacturers to persevere.

The loss of life suffered by German aircrews engaged in Zeppelin bombing raids over England in World War I was almost as great as the casualties they inflicted on civilians on the ground.

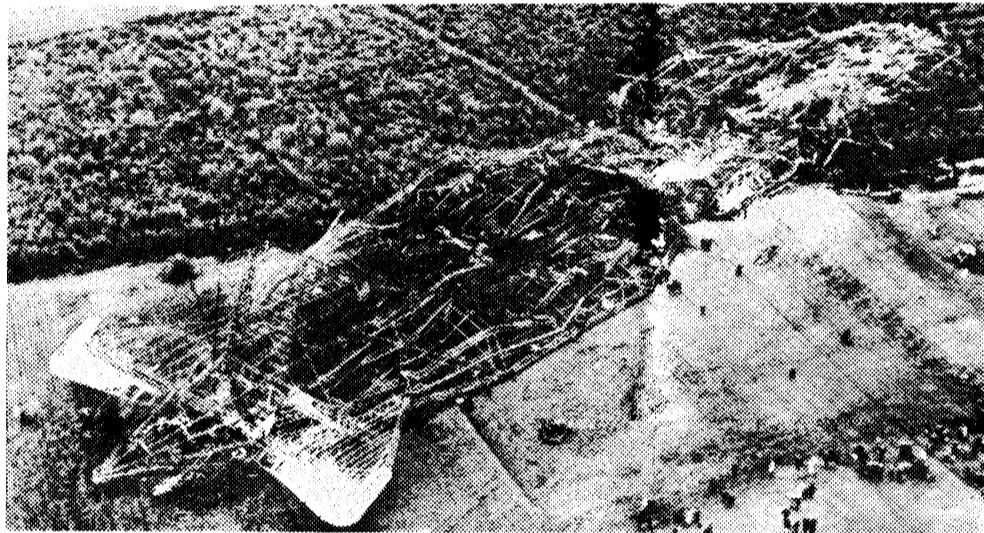
Yet Zeppelin construction continued throughout the war and it was from one shot down over Essex, in 1917, that the British built R34, the first airship ever to fly the Atlantic, from England to America and back in 1919.

All America thrilled to the arrival of the R34 at Long Island, New York, after one of her officers parachuted spectacularly to the ground, in order to supervise landing operations.

Then, as bad luck would have it, all the marvellous publicity generated by R34 was destroyed by the tragic, apparently inexplicable, loss of R38 two years later.

Seventeen American obser-

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All that remained of the ill-fated R101 after five million cubic feet (almost two million cubic metres) of hydrogen exploded on impact. Miraculously, six crewmen survived.

vers were aboard the R38, as Britain's latest airship cruised serenely over Hull and headed out over the North Sea for what was intended to be a day and night trial flight.

The weather was perfect. She was handling beautifully. The helmsman decided to swing the controls hard-a-port, then all the way back to starboard, to demonstrate to the visitors her capabilities.

But the R38 was never intended to withstand strain of that magnitude. A great shudder passed through her. The nose dropped suddenly and she began to break in two.

One eye-witness of the disaster said later that she looked like an egg that had been cracked in the middle. Furniture, bedding and several passengers went tumbling into space.

A parachute opened and floated down. Inside the two sections of hull, more men were scrambling for their parachutes. Very soon, however, wildly flailing cables and fuel-lines ruptured the fragile gas-

Crash in France spelled end of airships

HISTORICAL *Feature*

bags, causing quantities of highly flammable hydrogen to escape.

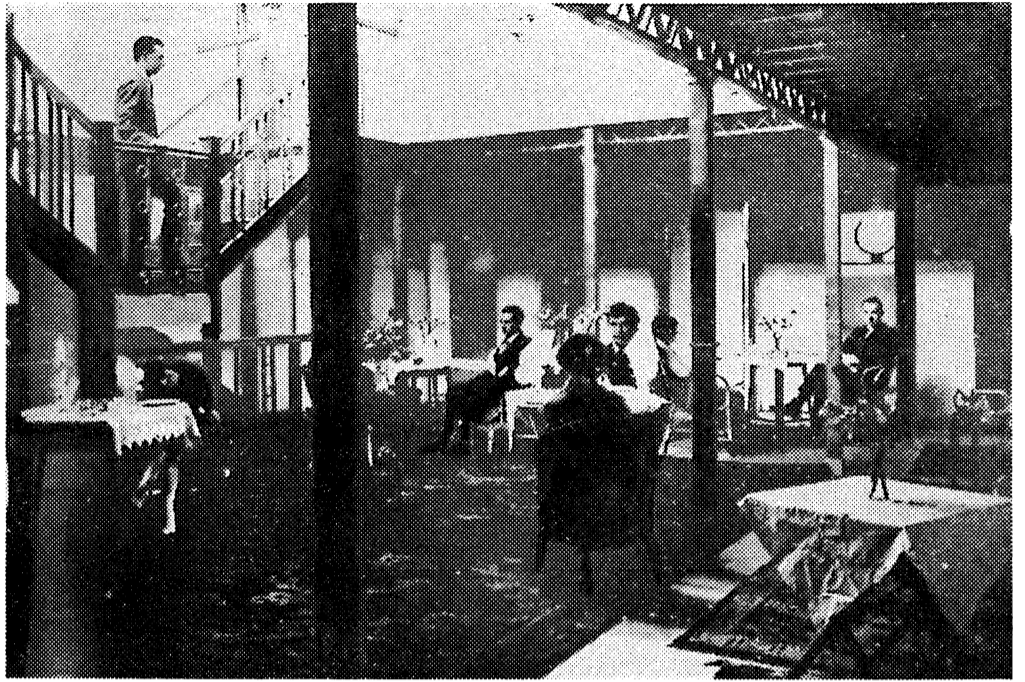
Flames quickly enveloped the forward section and, of the 45 people aboard, only five, including one American, survived.

Lloyd George's Coalition Government abruptly abandoned its airship program, leaving the Americans to go ahead with theirs, with the aid now of German designers and engineers.

Despite the disaster, a few Britons remained enthusiastic about airships and, when Ramsay MacDonald's first Labour Government came to power in January, 1924, many hailed it as the dawning of a new era.

In the Labour Cabinet, all of whom were new to ministerial responsibility, was Christopher Thomson, the very air-minded Minister for Air.

Thomson, a former Army man before resigning his commission to enter politics, envisaged an Imperial airship



The lounge aboard the R101's sister ship, the R100, gives an idea of the size of the airships. The man on the stairs was the famed author, Neville Shute.

Haunted by the way R38 had broken up in mid-air, the Government designers decided to make R101 extra-strong, with girders of stainless steel.

Another new departure was in powering her with diesel engines, using non-flammable diesel oil, an essential safety precaution for work in the tropics, Thomson pointed out to the press.

With public expectation at a high pitch, the trial flight of R101 on October 13, 1929, proved disappointing. She managed to fly, but only just. The weight of the stainless steel and the heavy, under-powered engines did nothing to improve her speed, or lift, or handling in the air.

As she approached the mooring-tower at Cardington at the end of a five-hour cruise, she suddenly nosed down too far and had to go around again for a second approach.

Two more tries also missed and a good two hours were wasted before her nose-cone finally locked into the tower. Her VIP passengers could then descend, thankfully, to the ground by the tower elevator.

Extensive modifications were soon under way, the British designers being very conscious of Germany's success with the Graf Zeppelin, which had just returned from a leisurely, non-stop flight around the eastern Mediterranean.

Twenty-four pampered passengers breakfasted over the Riviera, looked down on the Holy Land by moonlight and flew on to watch the early morning sun lighting up the golden statue of Pallas Athena, atop the Parthenon in Athens.

R101 was lengthened, strengthened and lightened internally but her performance at the Hendon Air Show the following June was little improvement on nine months before.

Rarely on an even keel, she seemed to snake through the air in a series of dips, dives and twists. Worse still was that, in July, 1930, R100 enjoyed a practically trouble-free flight across the north Atlantic to Montreal.

There seemed to be no problems with her second-hand petrol engines, nor with her gas-bags chafing against their supports and being ripped open. Indeed, there was none of the innumerable minor mishaps and annoyances which were constantly besetting the Government airship.

The public was growing restive, as well. Thomson responded by announcing R101's forthcoming flight to India, in October. He undertook to fly both ways in her and be back

in London in time for the Imperial Conference, which was to begin on October 20.

From the passenger point of view, the airship had so much more going for it than the conventional commercial aircraft of the day. The accommodation included private cabins, a spacious lounge and bar area, a library, writing rooms and a promenade, with huge windows, affording unrivalled views of the countryside below.

The engines were so quiet, it was like sailing.

Not that the passengers aboard R101 saw much of the ground after she slipped her moorings at Cardington on the early evening of October 4, 1930, and set off for Karachi, in British India, her first and only scheduled stop en route being Ismailia, in Egypt.

There was little doubt that getting Thomson there and back by October 20 was a factor in the decision to fly that day, despite an adverse weather report for France.

Winds of 60-80 kph were predicted. Even before leaving England, she was pitching and rolling to an extent which the crew had not experienced before. Every tilt caused precious hydrogen to be released from the gas-bags.

Over the Channel, men working on an engine that was playing up were surprised to see the water so close beneath them.

Over Poix Airfield, in France, they reckoned her to be no more than 300 feet (100m) up. She appeared to be following the railway line through Beauvais to Paris — but travelling very slowly and sinking all the time.

"Jump for it, lads," one of the engineers shouted as her engine-cars slid and scraped along the ground. She bounced another few hundred metres, then, with a mighty roar, five million cubic feet of hydrogen went up in flames.

The end of R101 was the end of the road for R100 as well. The politicians ordered her to be broken up and sold for scrap, before the airship program cost the nation any more money.

Airships, gracious and eye-catching as they appeared in full flight, had no future in aviation. The Germans had the greatest success with them — until the giant Hindenberg blew up while landing in America in 1937.

By that time, England's Short Empire flying-boats were crossing most of the world's oceans, needing to make frequent stops to refuel, but doing the job safely and efficiently.