

War Work

My work during the last War, from 1938 - 1946, came under the Official Secrets Act.

I started work for the Royal Aircraft Establishment at Farnborough, Hampshire, in April 1938 as a labourer. We were doing experiments at an old chalk pit at a very small village called Eriswell in Suffolk, and at Berners Heath, which is near Eriswell. The experiments were with balloons.

In May 1939, I was transferred to the Balloon Development Establishment (BDE) at Cardington, Bedford, and became semi-skilled with balloons at Eriswell. When flying the balloons, we had what was called a "lazy leg" with secret experiments attached to it.

I recall that when flying a French balloon on Lakenheath Warren, my mate and I were leaning on the winch reading the newspaper, a few spots of rain started to fall. We went to get our jackets, and got about ten yards from the winch when it was hit by lightning. Down came the balloon in flames, and all the secret equipment went up in smoke. The French balloon was different to the English balloon, it being shaped like a bunch of bananas!

We carried on doing experiments right up to the day that war was declared. The next day, we deflated the balloons, packed them onto lorries with all the equipment that we had been experimenting with. Other lorries carried the winches and gas trailers with thirty cylinders of hydrogen on each trailer.

When we were not flying because of bad weather, I would be doing drawing and sketching. I was asked to go into drawing, but the job fell through, as I had not had a sufficiently good education. I attended Lakenheath Primary School, which was well over fifty years ago. I do not think that situation would arise today. If you can do the job, it doesn't really matter what school you went to.

the Coventry area and Fischer was killed.

It seems hardly credible that an aircraft should be deliberately flown into a barrage balloon cable but this was the case as related in Group Captain J A Kent's autobiography *One of the Few* which tells about a special unit detached from RAE Farnborough to Exeter during the early part of the war to carry out experiments in balloon cable cutting.

Tim Lamacraft found the site of these experiments at Pawlett Hams, near Bridgewater, Somerset, where a black corrugated iron shed marks the spot from where a special barrage balloon once flew.

The balloon was secured to the ground by an anchor cable while a second wire, with a weight on the end, hung free from the balloon, and it was this cable which specially-equipped aircraft attempted to sever. Fairey Battles were used for most of these experiments, specially modified for the job with strengthened wings and a cockpit which was almost entirely encased in steel plates. A number of methods of cutting the cables were tried before one was finally adopted, which involved forming a notch in the wing into which the cable slid, where it was severed by an explosive-powered cutter.

Not surprisingly there were casualties involved in this highly dangerous work. On October 1, 1940 Battle K9223 lost a wing after coming into contact with the test wire. An eye-witness saw the crippled aircraft go into a violent spin and both crewmen bale out. One of the two men came down safely but the second's parachute snagged on the tail of the Battle and he was dragged down with it. The crashing aircraft caused considerable damage when it hit a barn full of fresh hay at Cokerhurst Farm on Wembdon Hill. Fire entirely destroyed the barn, and the nearby farmhouse narrowly escaped being damaged.

A later casualty from the same cause was Wellington P9210 of the RAE which was destroyed during an experiment on March 24, 1942. Tim Lamacraft investigated the incident and found that the Wellington had crashed two fields distant from the balloon site. It had apparently flown into the test wire in the usual manner but then the wingtip had struck the second cable connecting the balloon to the winch. The Wellington swung violently around the wire, but with tremendous skill the pilot maintained partial control and managed to bring the aircraft down in a crash landing from which he and his crew escaped.

Barrage Balloons

Barrage balloons have a capacity of about 20,000 cubic feet of gas. At the tail of each balloon there is a horizontal stabiliser on each side, and a rudder underneath. These are filled with air which enters through a scoop as the balloon ascends.

Inside each envelope is an air chamber called a "Ballonet", which is filled through a scoop underneath the nose. When the envelope is full of gas, these ballonets are empty, but when gas escapes, or is valved off, the ballonets fill with air, and so keep the balloon in shape.

The balloons were evacuated back to Cardington, Bedford, within a week of war being declared.

War Work (continued)

Soon after the outbreak of war, the police came and told us that four of us had to go to Exeter University, as we came under the Official Secrets Act. Upon arrival at Exeter, where we joined up with the "boffins" in charge of the experiments, we were given the job grade of Rigger, Class II. We stayed at the University until a site could be found for the balloons.

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The balloon took off with some of the equipment still attached, and three of us were detailed to go and retrieve it. We set off in an RAF van, and found the balloon at a place called Somerton. On the way back, we were stopped by Military Police. We had no identification on us, as we had to leave in a hurry, and as there was an invasion scare on, we were taken to the guardroom until things

were sorted out with a few telephone calls and we were released.

One experiment carried out was to fly a balloon at 2000 feet, and another balloon at 100 feet. A bomb was attached to the top balloon on the rigging under the balloon on a special wire. The object was to release the bomb from the top balloon to pass by the bottom balloon and explode it. A few bombs failed to go off, so we had to dig the up to see why they had failed.

After a few weeks, the boffins got it right. The bomb was called the "Blockbuster", but aircrews called it the earthquake. The bombs were made in 8,000, 12,000, and 16,000lb sizes, and were timed to go off at factory and house rooftop levels to cause maximum devastation. I think this bomb was first dropped on Hamburg.

We continued carrying out the experiments on bombs, rockets, parachutes, wire tension and napalm bombs. The napalm bombs contained petroleum jelly which was highly inflammable, and was to be used in the jungle against the Japanese.

At that time, I was made Rigger, grade I, and was sent to Dunster just outside Minehead to work on Radar, then it was on to Burnham-on-Sea doing trials on parachutes and cord strain. I then returned to our base at Pawlett Hams, and was sent to Bristol for a medical which I passed A1. Four of us were then recalled to Cardington in 1944. Ted Clare, one of the balloon experts, and I were put in digs at Costin Street, Bedford. When we had moved to Somerset in 1939, my wife had accompanied me, but on return to Cardington my wife returned home to Lakenheath. In the five years we were in Somerset we had four different houses. Back at Cardington, we carried on with experiments, but they were not as dangerous as the work we had carried out in Somerset. We were now working with mark six balloons. These were the ones to be

used on the invasion fleet to stop the possibility of dive bombing. The mark six balloons were about a sixth of the size of a barrage balloon.

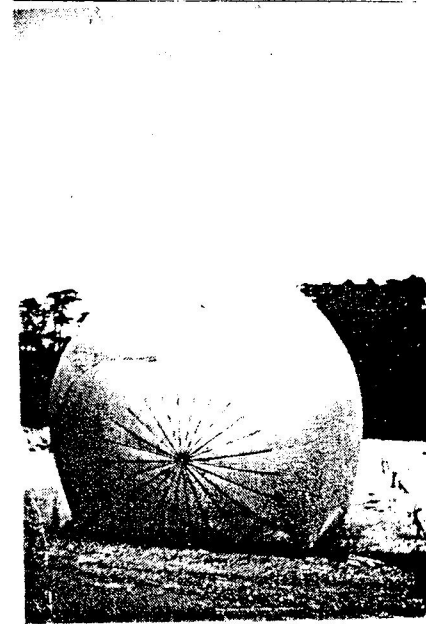
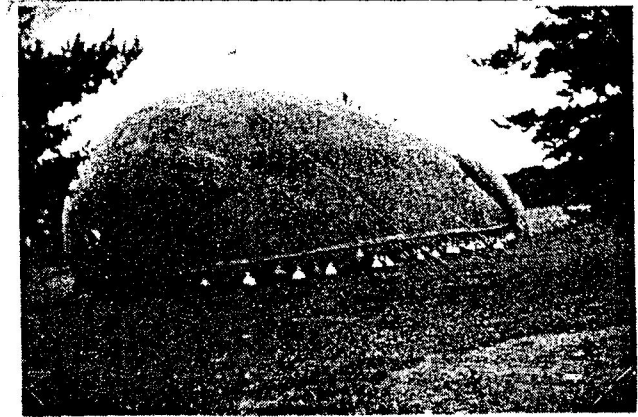
Another experiment that we carried out was turning sea water into drinking water. About ten of us sat down with a tank of sea water. We had a small canvas bag with a filter, at the bottom of which was fastened a plastic cup. The canvas bag was filled with sea water. We put in four cubes, each about the size of an oxo cube, and squeezed the the water from the bag into the cup. This was part of a survival kit.

Four of us, two engineers and two riggers, were sent to Herne Bay with two balloons to do speed trials. During these trials we had one balloon at the start of a measured mile and the other balloon at the end of the measured mile. With us was a Meteor jet with a Whittle jet engine. Frank Whittle, later Sir Frank Whittle, was the inventor of the jet engine. The Meteor was put into service with the RAF in 1947.

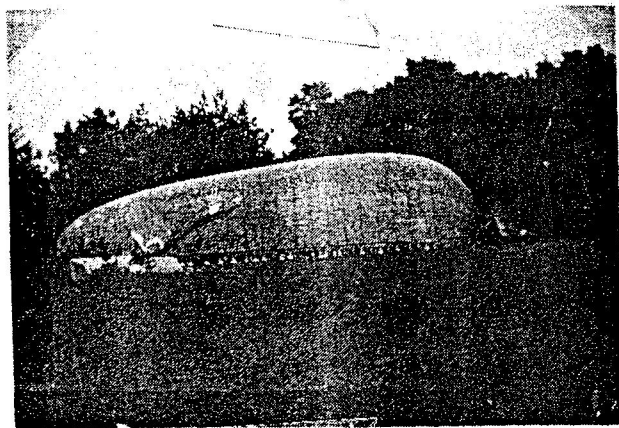
Returning to Cardington, I received a letter ordering me to go to Yorkshire. When walking down to No. 2 shed, I met the Squadron-Leader and gave him the letter to read. He said that he wanted me to stay, so I didn't get to Yorkshire! At Cardington there were two sheds, numbers One and Two. I really don't know why they were called sheds as they were 192 feet high and you could get two football pitches inside each shed. We were working in number two shed. This shed had been the home of the R101 airship which crashed in France on its maiden flight to India. It was during a heavy rain storm, and with the ballast on board, it got too heavy, could not rise, and crashed into the side of a mountain. There were only five survivors, one of them being Ginger Bell, an engineer. He was working with us at Cardington, and that is how I got this story.

At the end of the war, I applied for a release, but was turned down as I still came under the Official Secrets Act. I stayed at Cardington for another seven months after the war doing experiments. I was told that I could get a release if I applied for agriculture, as some of the restrictions were being lifted. So I applied for the second time and obtained my release. I came home to Lakenheath in 1946, and went to work on the land for the West Suffolk War Agricultural Committee after being away for six and a half years.

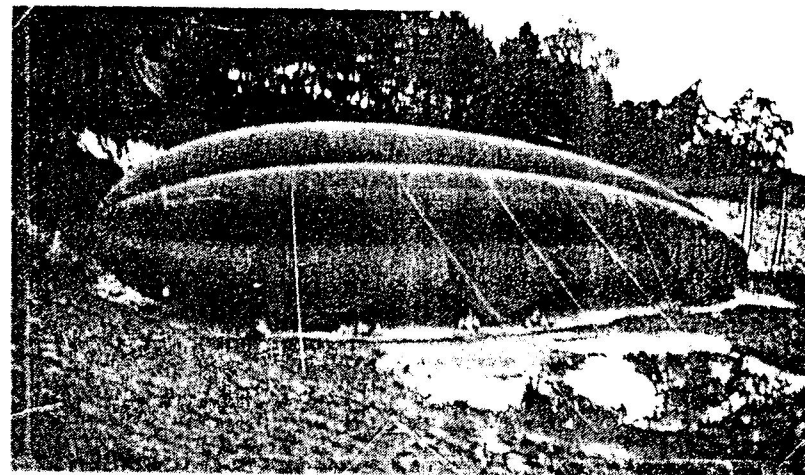
J. C. Morley



These balloons were used at the old chalk pit at Eriswell, for flying on Lakenheath Warren and carrying out the experiments, 1938-39.



R. Type balloons at their moorings at Berners Heath, 1938-39. These were observation balloons, with a basket suspended underneath for the observers.



This is the French balloon, looking like a bunch of bananas, moored in the chalk pit at Eriswell. This was the one that was struck by lightning on Lakenheath Warren in 1939, the one that my mate and I were leaning on the winch just before the lightning struck.