

# Royal Naval Airship Station Polegate



Doc1500006 Borewell ©

# Submarine Scout in action





SS Airships over Dover Harbour

# Synopsis

- The year is 1915 second year of WW1, losses of ships in the English Channel from U-boats is becoming critical. The Admiralty introduced a new hi tech weapon to combat submarines called the Submarine Scout Airship. SS airships were located all along the south coast including Eastbourne . This is the story of the airships based at Polegate, their operations and the involvement of the local community.

# Observation Balloon used for SS Airships



# Observation Balloon Ypres 1917



# BE2C used for SS Airships



Introduced in 1912 - 3500 built - withdrawn from front line service 1915

Converted to a night fighter - shot down the first Zeppelin in 1916

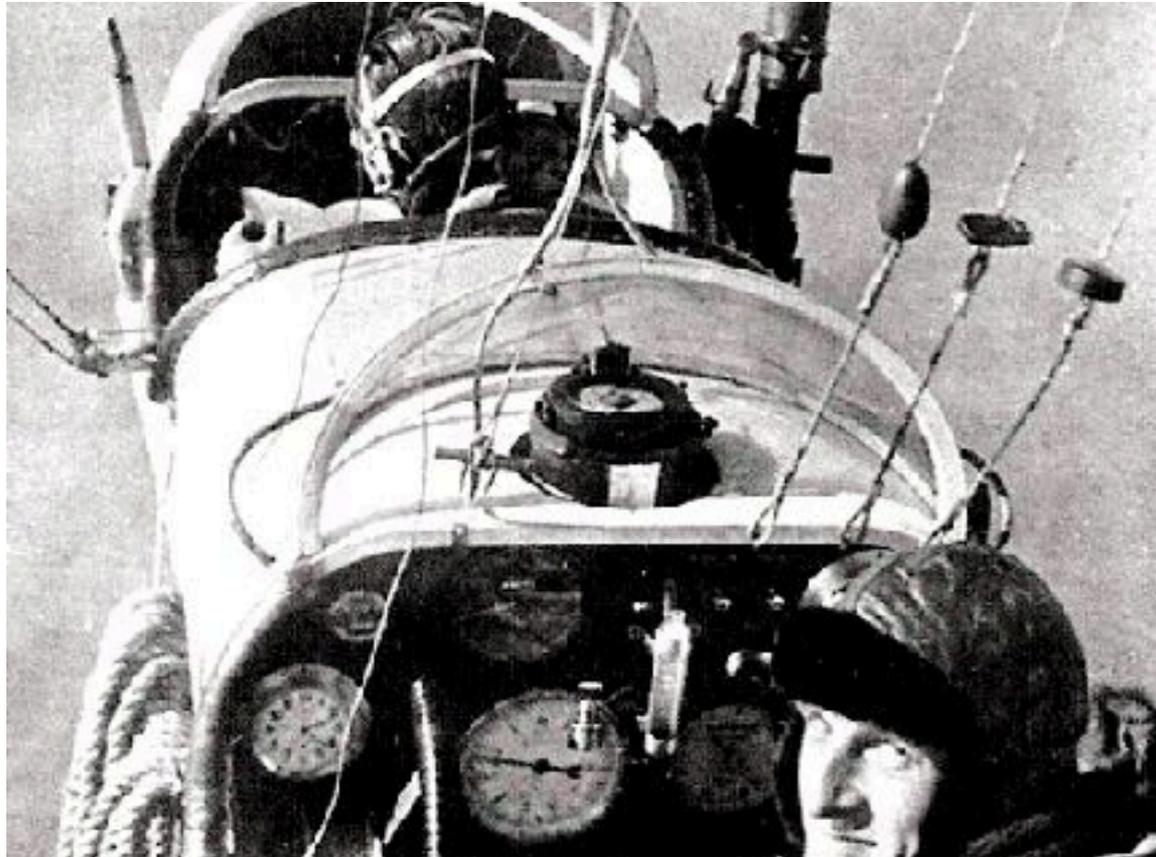
# Excess stock of BE2C Spotters





**Submarine scout airship**  
Submarine Scout with a BE2C car

**SS (*Submarine Scout* or *Sea Scout*) class airships** were simple, cheap and easily assembled small non-rigid airships or "[blimps](#)" that were developed as a matter of some urgency to counter the German [U-boat](#) threat to British shipping during World War I. The class proved to be versatile and effective, with a total of 158 being built in several versions. [\[2\]](#)



### **Pilot and Observer in flight**

**BE2C** The Pilot sat at the back and operated the bomb release

The Observer Navigated and fired the Lewis machine gun synchronised through the propeller

Renault Engine prone to overheating

# Lieutenant RN Airships



# Movie of Submarine scout in operation

- <https://www.youtube.com/watch?v=lJojLgmmkil>

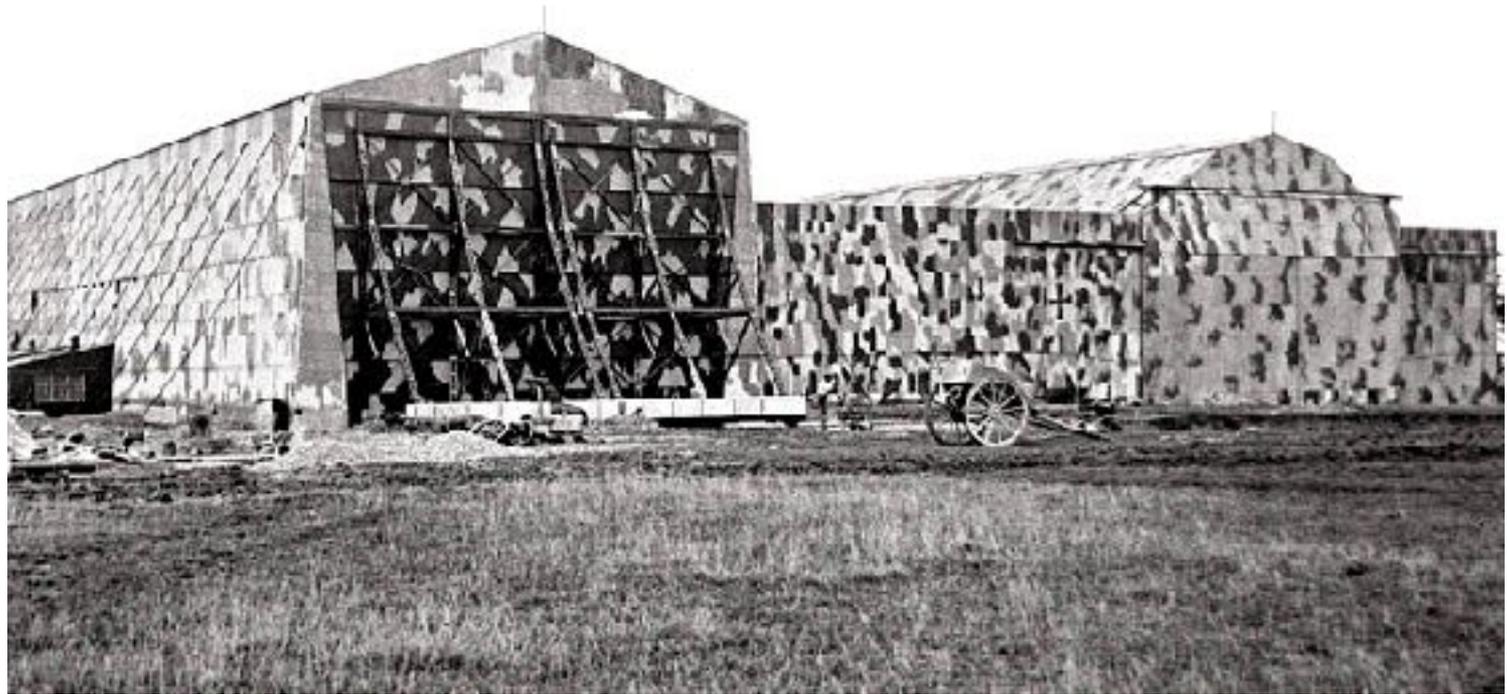
# Some Facts about RNAS Polegate

- 142 acres requisitioned from Ratton Estate located at Willingdon triangle
- 2<sup>nd</sup> airship station after Dover (Dover command)
- Opened on July 6<sup>th</sup> 1915
- 2 Airship sheds and workshops
- Hidden airship storage in local area
- Motor transport depot
- Hydrogen gas manufacturing
- Accommodation huts and facilities for more than 300 personnel
- Explosives magazines
- Parade ground, sports fields
- Medical facilities

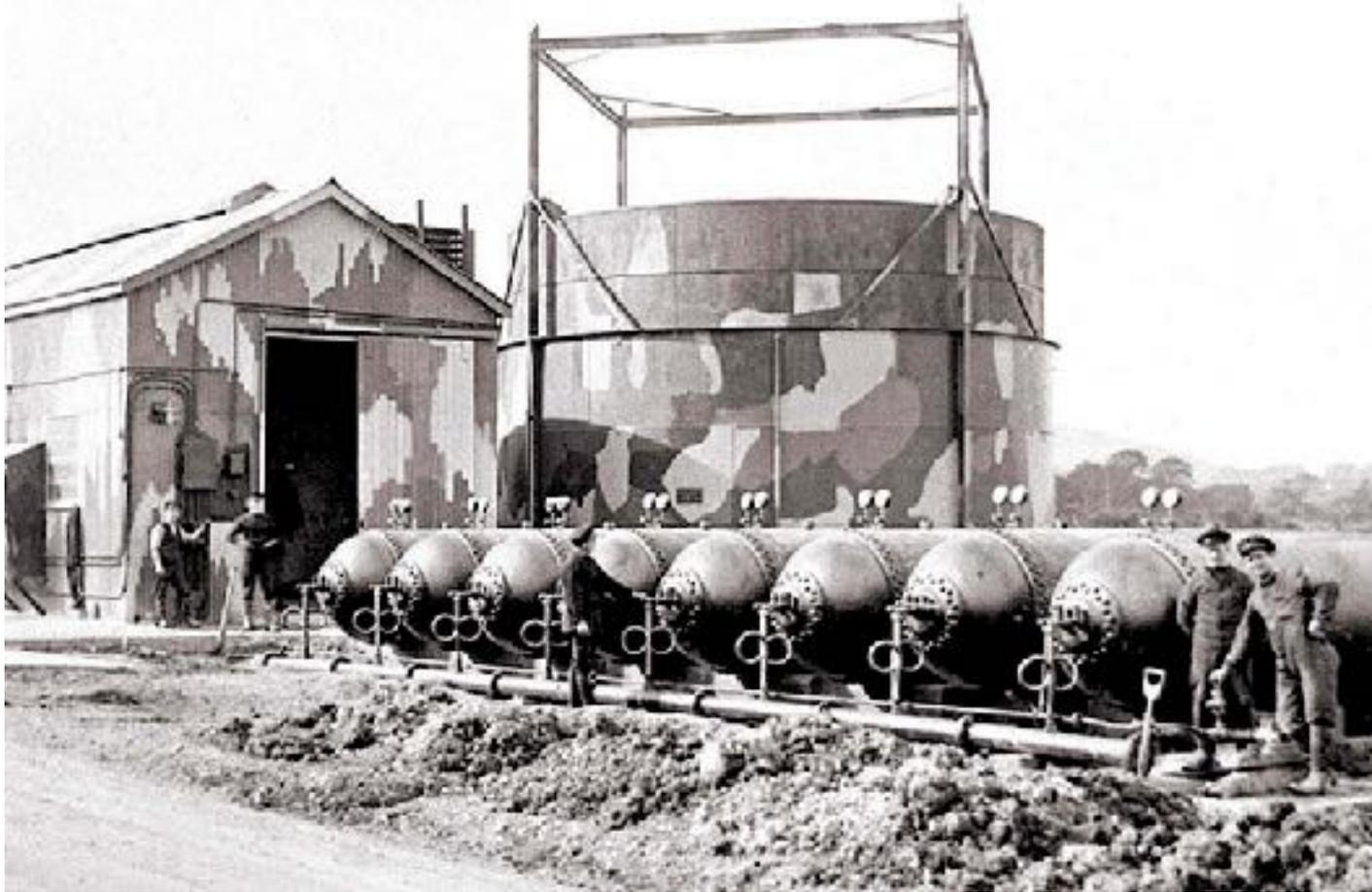
# Airship Station Polegate



# Airship sheds Willingdon

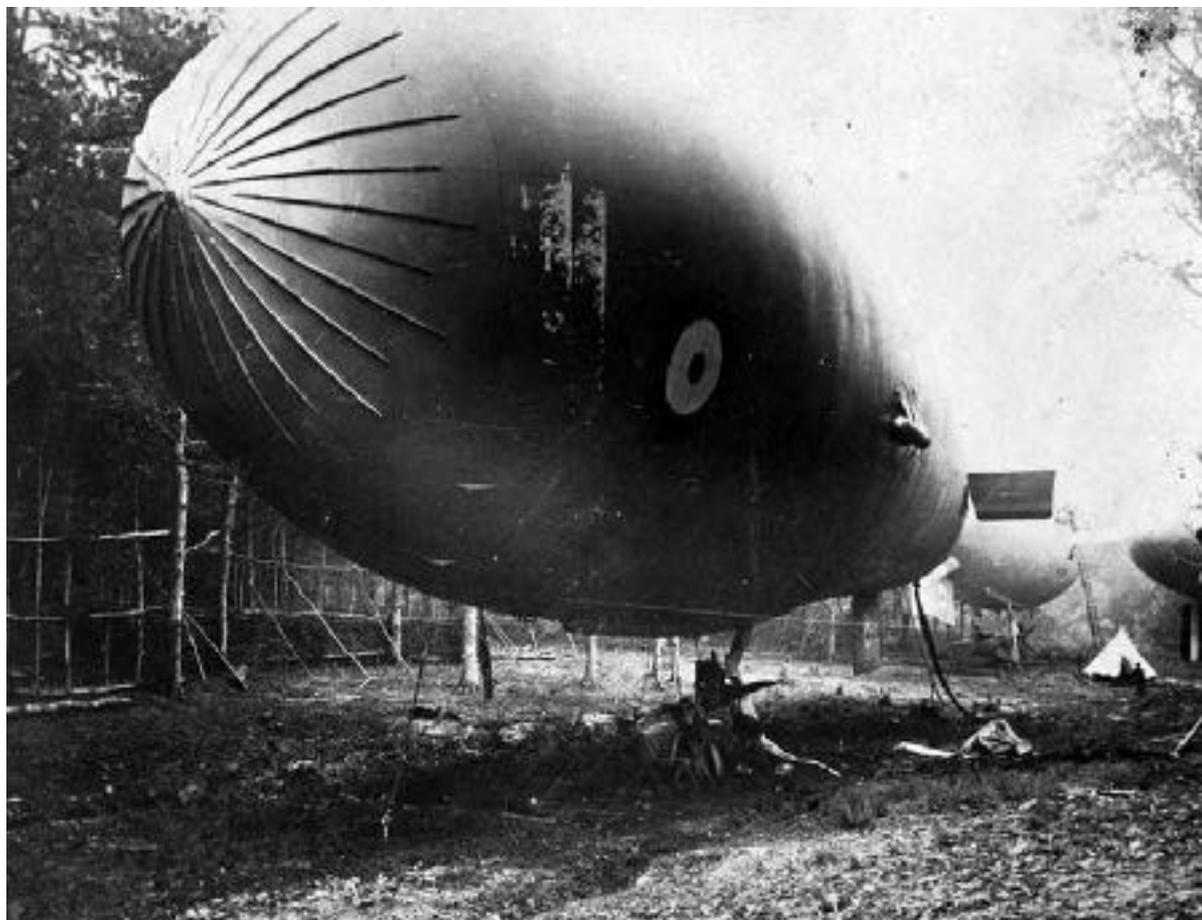


# Hydrogen gas manufacturing Willingdon



# Airship mooring ring at Donkey Hollow





Airships Hidden in Woods possibly  
Butchers Hole Jevington

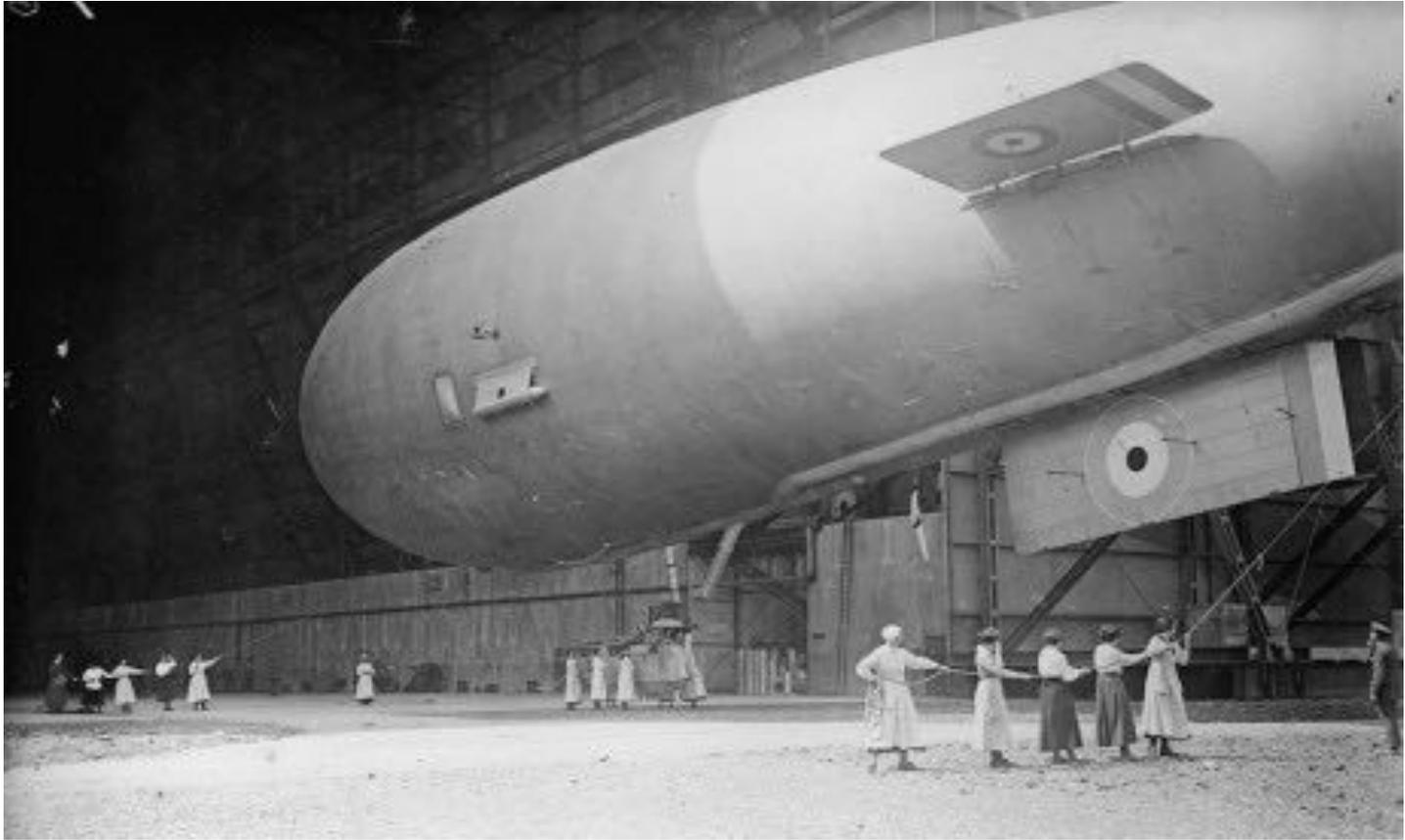


## Maintenance in Willingdon shed

SSZ

A later version on the Submarine scout with a RR pusher engine

# Locals ladies handling airships



# SS Airship Landing Willingdon





SS Airship Landing two waiting

# Over Donkey Hollow



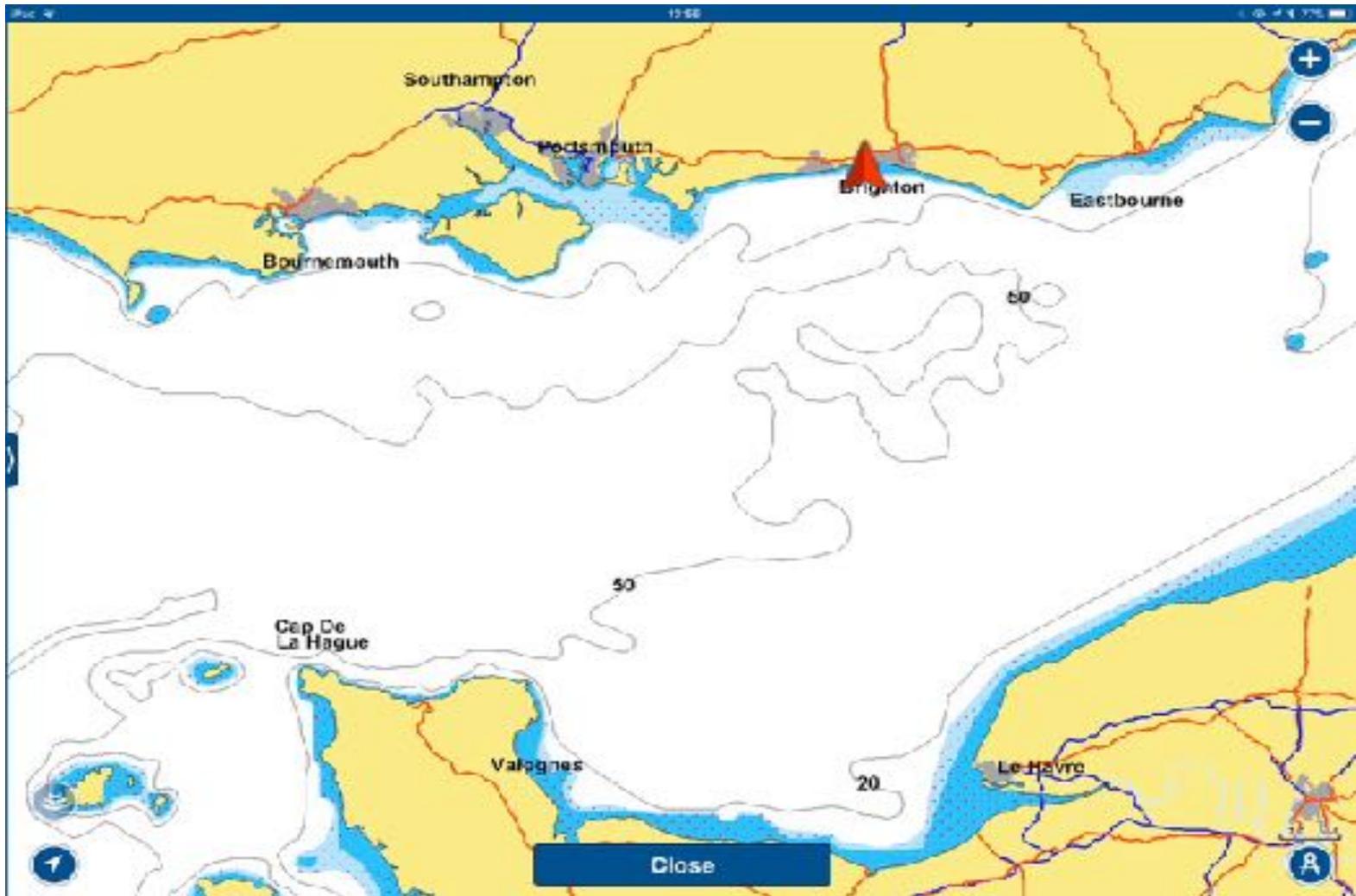
# Quotes from the Eastbourne Herald

All this activity had quite an effect on the small village of Willingdon. “Several local girls married men from the base at Willingdon Church with often an airship floating overhead and comrades of the groom dropping a lucky boot and cheering the happy couple.

They formed an orchestra, brass band, concert party, football, cricket, rugby, tennis and tug-of-war teams. The first sports day was held on what is now the land of Willingdon Primary School in July 1917, a military band visiting from Eastbourne and more than 2,000 guests including most of the inhabitants of Willingdon

The station was disbanded on February 6 1920 and handed to the Disposal Board in June. Buildings, stores and equipment was auctioned between August 3-5 1920.

# English Channel Portland Bill to Dungeness



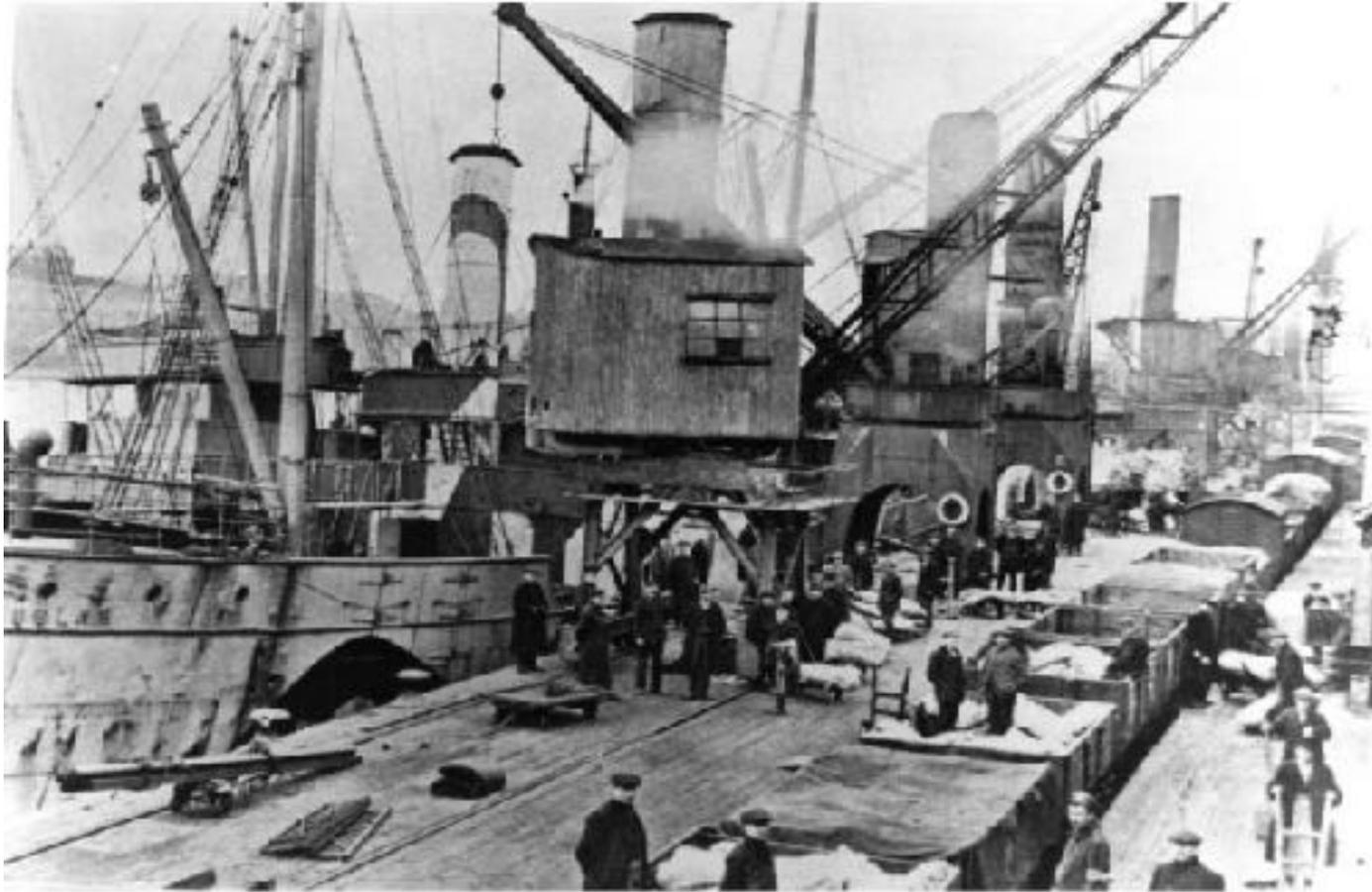
## A number of records were set at the Polegate Airship station

- The highest altitude, 10,000 feet
- The longest flight of 620 miles taking 17 hours in July 1916
- The first parachute descent from an airship was over Willington on August 5 1916 when Sir Bryan Leighton dropped from 900 feet witnessed by many locals.
- In 1916 the War Office attended a demonstration of the stealth vessel, 'Black Ship' SS40, which carried out special covert service in France.
- The Polegate ships played a major part in the war being one of the most effective counter measures against enemy submarines, flying 8,140 hours in the last year of the war.”

# Some incidents on Active service

- Breakdowns over the sea were frequent. On one occasion S.S.13 had to be towed back to Newhaven by a destroyer, in heavy weather, after engine failure 30 miles south-west of Beachy Head. But in the course of time pilots and their air mechanics and wireless operators became expert at climbing out on to the undercarriage, locating and rectifying the engine fault and then restarting by swinging the propeller from behind whilst gripping a strut of the landing carriage with their knees, often at a height of 3,000ft.
- Another incident occurred during a patrol on a clear summer afternoon. We received a wireless message to proceed to a plotted area off Newhaven where an enemy submarine, which had caused the loss of troopships sailing for France, was thought to be lying submerged. On arrival over the spot we could see her silhouette and promptly dropped our bombs. Although we were at about 500ft the explosion as the bombs struck home lifted us to over 1,000ft in what I should think was the quickest climb recorded for an airship.

# Newhaven supplies for the British Army in France



# SS Airship escorting a Minesweeper





**A Freighter escorted by an SS Airship**

# Stealth Airships

The Black ship

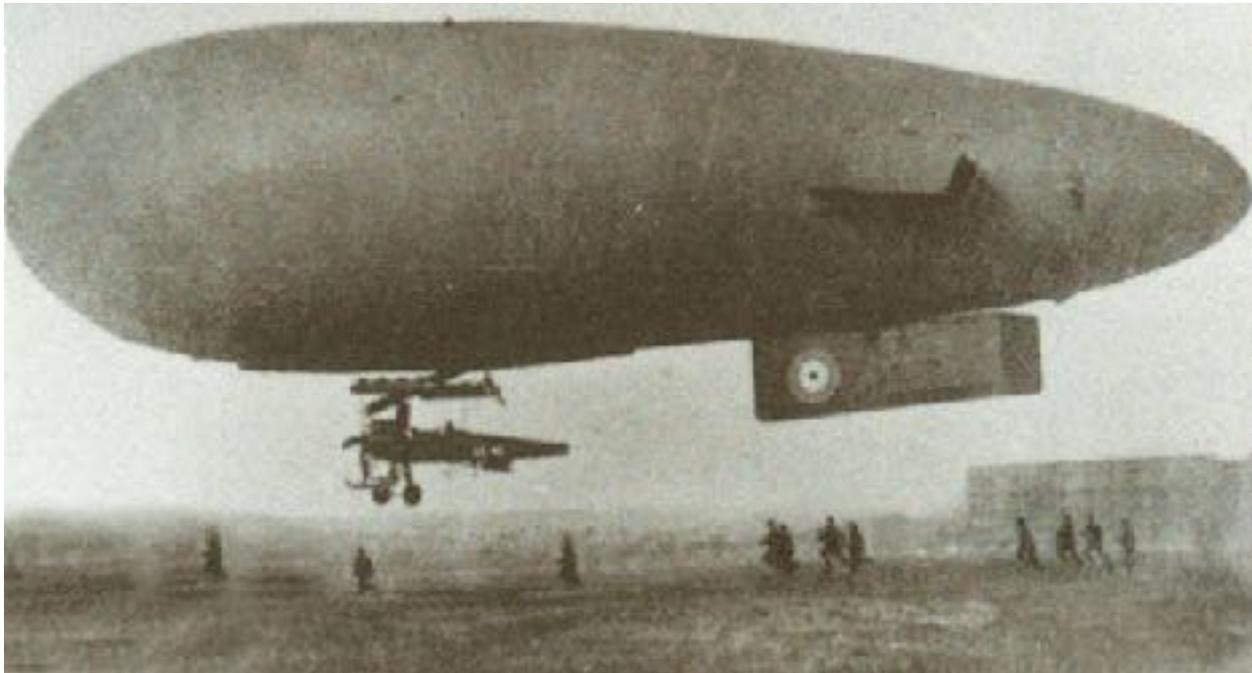
## Stealth Airship trials

The War office decided to look into the use of a stealth airship for covert night operations and reconnaissance. Since March 1916, two young pilots - Sub Lieutenant William Chambers and Midshipman Victor Goddard have been carrying out experiments in night flying using Airship SS13 at the Polegate Royal Naval Airship Station.

At the same time, the Airship SS40 had its envelope and fuselage painted black, and upon delivery to RNAS Polegate, further modifications were made by the crew including fitting a silencer to the engine and building a hand operated air blower to pump air into the ballonettes for keeping the balloon inflated whilst the ship drifted with engines cut. They also made special hoods to shield its landing lights.

At the end of June 1916 Staff Officers from the War Office travelled to Willingdon to witness a night time demonstration. Chambers piloted the ship for this first flight with Goddard acting as navigator. It set off circling around Eastbourne and the surrounding villages, returning after 40 minutes, and was judged to be a great success.

# Stealth Airship trials at Polegate 1916



## Stealth Airship Active service over France 1916 to 1918

The ship was subsequently sent to France on 6 July for testing at Naval Airship Detachment No 4, and over the next month, Goddard and Chambers carried out test flights over enemy lines. The ship then returned to have a large gusset fitted the length of the envelope increasing the gas capacity to 8,300 cubic feet, enabling her to fly at higher altitudes.

The ship carried out its first official reconnaissance over enemy lines flying at a height of 8000 feet for about 4 hours. Unsurprisingly, the height and the darkness means that little of value was reported

During the trials at Willingdon the first parachute jump was made from 900 feet.

# Taken on Stealth Airships



# **Airship Disaster on the Downs**

20 December 1917

# Airship collision

- On the morning of 20 December 1917 five airships set out early on a routine patrol of the Channel from Polegate, the weather was clear although very cold with snow lying on the ground. By 3 pm the crews were recalled directly to base as thick fog had rapidly developed over the Channel and coastal area. The airships unable to find the base at Willington landed at Beachy Head and near Jevington and Hailsham.
- The wind increased during the evening and the ground crews could not hold the 2 airships on Beachy Head. All airships were then called back to base during darkness and one of the Airships from Beachy Head hit the airship leaving Jevington, both crashed in flames The pilot of the Z7, Flight Sub Lt Richard Swallow, aged 26, was killed and buried on Christmas Eve at Ocklynge cemetery Eastbourne.
- There were 3 other serious casualties and 2 airships destroyed

# Sub Lieutenant Richard Swallow RN



# Wreckage of S.S.Z10 beside Willingdon Hill Farm Dec 1917



# Wreckage of airship S.S.Z7 on Willingdon Hill 1917



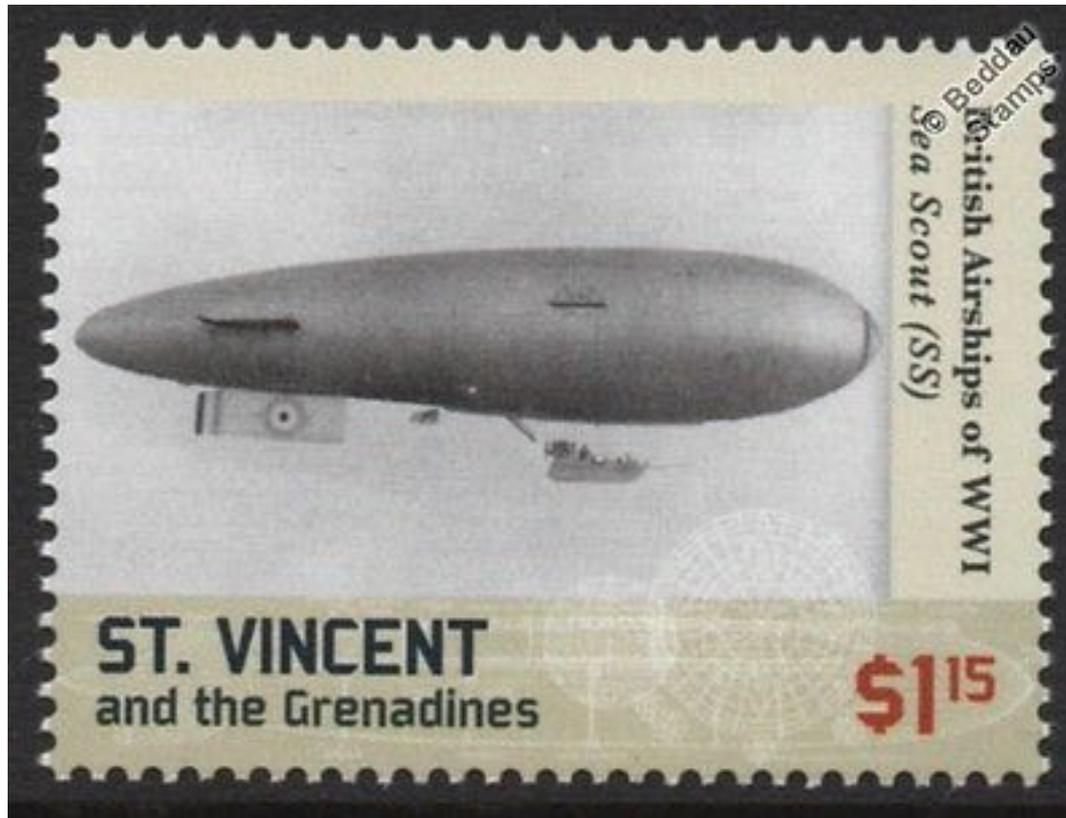
# Richard Swallow Grave at Ocklynge Cemetery



# Clock made from the propellor boss of crashed airship



# Commemorative stamp



[airial footage WW1 battlefields - YouTube](#)

**Airship over WW1 Battlefields**

*fini*