By Derek White with John Goble

1. THE BACKGROUND

The Battle of Jutland, called Skagerrak by the Germans, was the major naval action of World War One, fought in the North Sea between the afternoon of 31 May and the early hours of 1 June 1916.

An overall account of the engagement has been fully covered on many occasions and discussions with reference to the strategic and tactical points arising have been long and often contradictory. Some historians have dismissed the first use of aircraft in a fleet operation with no more than a passing reference to the fact that an aircraft was used.

This article relates only to the involvement of aeronautics in the action and discusses the possibilities of greater contribution had circumstances been different.

2. THE AERONAUTICAL BACKGROUND

The year 1916 was only thirteen years after the first controlled flight of a heavier than air machine and thirty two years since the first fully controlled flight of an airship. It was six years since the first floatplane take-off and the first take off from a ship.

Only a year had elapsed since the first ship was sunk by a torpedo dropped from an aeroplane.

Few landplanes and probably no seaplanes or flying boats had as yet flown at night but airships certainly had done so extensively. Six years had elapsed since the first installation of a wireless telegraphy transmitter in an aeroplane.

From the above it can be appreciated that the use of aircraft in war was still in its infancy and it is little wonder that opinions as to their use and effectiveness varied wildly between well informed enthusiasm and complete apathy. On the British side, after the sterling work of the RFC machines on the Western Front in 1914, senior army officers, at first doubtful as to their value, realised what excellent reconnaissance work they could do.

The Navy was aware of the potential but there had, as yet, been no dramatic demonstration of it. Wireless telegraphy was more advanced in the RNAS than in the RFC. The principal achievements of the RNAS aircraft early in the war had been strategic raids by landplanes on the Zeppelin sheds at Düsseldorf and Friedrichshafen. Reconnaissance with the fleet posed very different problems from overland reconnaissance.

British airships were few, and at the time, had neither the power nor range to work with the Fleet. Seaplane carriers had to stop to launch and recover their aircraft, making them very easy targets for submarines. The Royal Navy had experienced what a shocking risk it could be for ships to be stopped when they lost three armoured cruisers to one submarine in 1914.

During 1915, the overwhelming concern of the Royal Navy was to combat the submarine menace. Flying boats having sufficient range to make long patrols or to operate with the Fleet were not yet available. In June 1915, Admiral Jellicoe, Commander in Chief, Grand Fleet, in a memorandum stated what he considered were the main functions of the RNAS, namely: Coastal observation, especially from bases; attacks on enemy aircraft; defence of naval centres; and lastly reconnaissance for enemy submarines and minelayers. It will be noted that there was no mention of work with the Fleet. Jellicoe, always known as a practical man, knew that no means existed at that date to deploy aircraft, other than seaplanes, with the Fleet. In fact HMS *Campania* had a forward flying off deck from which Sopwith ‘Baby’ Seaplanes had been launched, but trials had shown that this was marginal for the larger Short 184’s.

In combating marauding Zeppelins the only fighting seaplanes available, Sopwith ‘Schneiders’, had proved unreliable during the Summer of 1915. Floats often broke up in moderate seas, propellers fractured, and wireless equipment failed. This could hardly have encouraged Jellicoe’s confidence. To balance this, in the same year, gunnery spotting for ships by aeroplanes was proved with excellent precision in favourable weather in coastal waters.

Recognising the limitations of seaplanes, submissions had been made to Admiralty for construction of ships, or conversion of merchant hulls to provide launching platforms for land based aircraft giving greater performance. These proposals were not adopted because of lack of dockyard capacity and the increasing need for merchant hulls.

In August 1915, Vice Admiral Beatty, proposed the use of kite balloons to operate with his Battlecruiser Squadron and some favourable trials were carried out. However, although the Navy was the first to order these aerostats, Army demands on the Western Front were given priority, and it seems only one was available.

The use of kite balloons was considerably promoted by Beatty in the Autumn of 1915 following trials conducted by the seaplane carrier HMS *Engadine* at speed in strong wind conditions. Thoroughly impressed, he suggested kite balloons should replace the seaplanes in *Engadine*. In May 1916, HMS *Campania*, the seaplane carrier attached to the Grand Fleet based at Scapa Flow, carried out intensive exercises with a kite balloon right up to the eve of the battle.

On the German side, the ten available naval Zeppelins in the spring of 1916 offered a superior capability of working with the High Seas Fleet. Their range and endurance surpassed anything the Entente possessed, and their multiple engines gave them greater reliability. They were equipped with wireless and could make use of the early direction finding facility whereby bearings could be requested from shore stations. (A far superior system was established in 1917-1918)

3. THE NOMINAL AERONAUTICAL EQUIPMENT AVAILABLE

On the British side were the Seaplane carrier *Engadine* a converted South-Eastern and Chatham Railway cross Channel passenger steamer. At 1,676 tons she carried two Short 184’s and two Sopwith ‘Baby’ Seaplanes. *Campania*, converted from an old Cunard liner, had a tonnage of 12,884. She carried three Short 184’s, three Sopwith ‘Babies’, four Sopwith ‘Schneiders’ and a Kite Balloon. The seaplanes had endurances of between two and three quarter, and five hours.

On the German side the aerial strength was vested in the ten Naval Zeppelins L.6, L.9, L.11, L.13, L.16, L.17, L.21, L.23 and L.24. Another L.30, was working up but not yet operational.

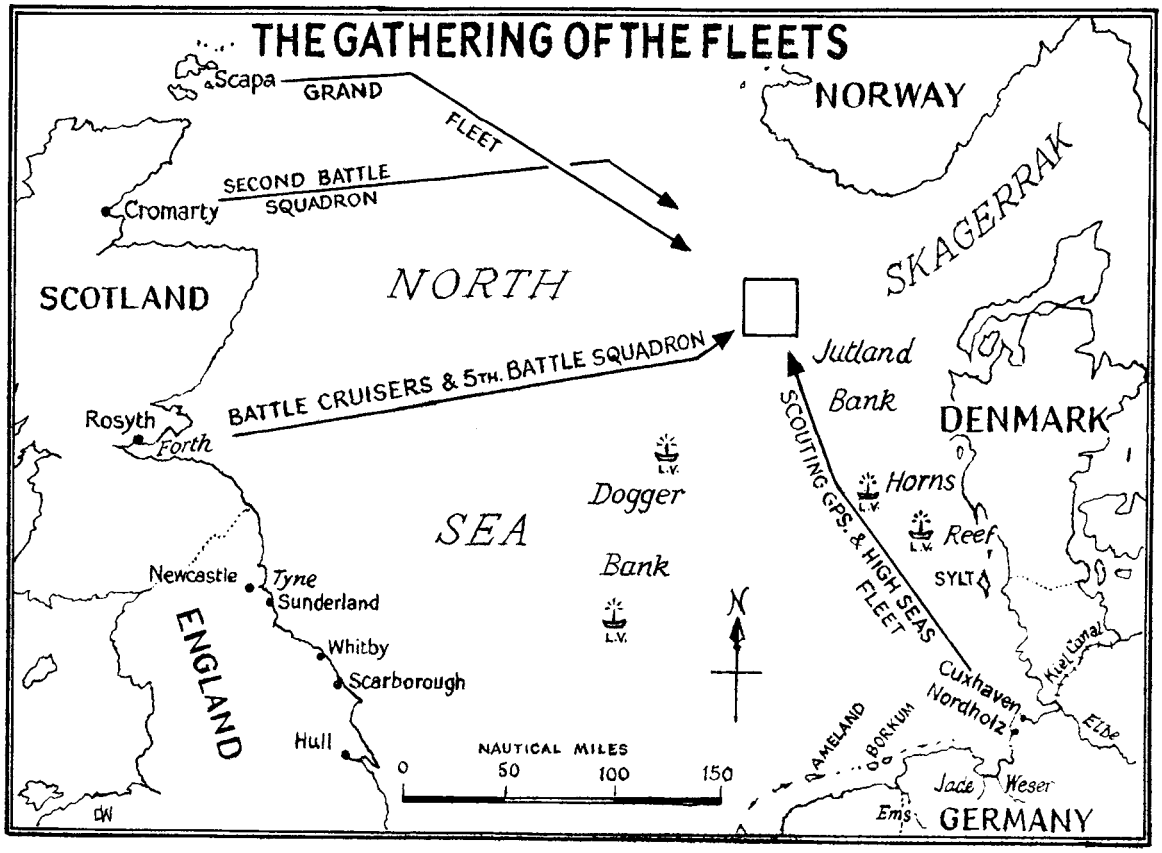
4. PHASES OF THE BATTLE	**APPROXIMATE TIMES (See NOTES 1.)**
A. The gathering of the fleets.	
B. The battlecruisers and the run to the south.	1520 to 1645
C. The run to the north, the clash of the fleets and the subsequent turn to southwards.	1745 to 1900
D. The night actions and the evasion by the High Seas Fleet.	2100 to 0400

5. AIR ACTIVITY DURING THE BATTLE.

In considering the small contribution made by aircraft during the battle, three majors factors should be acknowledged:-

1. The standard of any science at any one moment in history always lags behind the stage reached experimentally in that science.
2. Communications are only valuable if they are based on facts and the extent of that value depends on the belief in them and the action taken by those in command.
3. Reconnaissance in 1916 was almost entirely visual. In the battle, visibility was seriously limited by adverse weather, smoke from ships' funnels and guns, and eventually darkness.

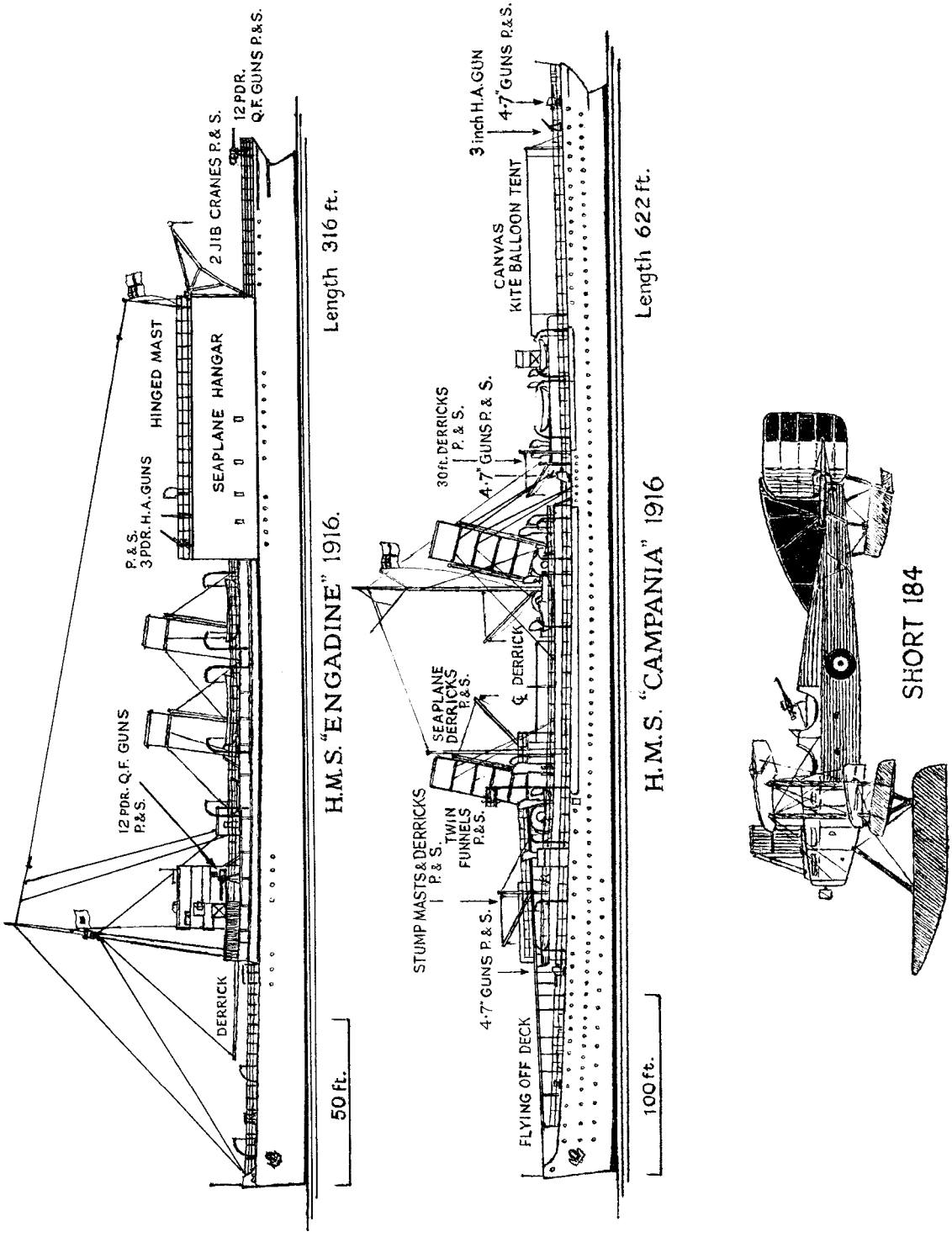
Allowing for the above, there were still inexcusable mistakes involving the air element. The first one could well be considered to be the major one committed by either side. Given the circumstances this British blunder, made on the evening of 30 May was incredible**.** *Campania*, having completed successful exercises, had returned to her anchorage in Scapa Flow at 1715. For some reason her anchorage was about five miles from that of the main fleet**.** At 1735 all the Grand Fleet received the preparatory signal, by flag hoist, to raise steam for Fleet speed and report when ready. At 1900 *Campania* received a signal to raise steam for Full speed and she was ready by 2130. Finally, at 2254, her stationing and the time to be in station was sent but apparently not received on board. The all important questions now arise – how was it transmitted? If it was received and acknowledged, why was a responsible officer not informed of this signal? If it was received, but not acknowledged, why did the originator not repeat it? Thus the Grand Fleet departed from Scapa Flow without HMS *Campania*. How this vast number of ships could fail to be seen at some stage of their departure remains a mystery, observing at that time of the year at Scapa Flow it would have been twilight all night. Diary entries made at the time refer to the magnificent sight of the Fleet departing.



The officer on duty at the Boom Defence Gate, through which ships had to pass to reach open waters, saw the Grand Fleet proceed. At least he was alert and, when at about midnight he realised that *Campania* had not passed with the rest of the Fleet, he signalled to ask her if she was not going out. Again, the method used is not stated but presumably was wireless. This time it was received by *Campania*'s commanding officer, Captain O. Swann, R.N. who realised for the first time that the Fleet had sailed and he passed the Boom Gate over two hours astern of the Grand Fleet.

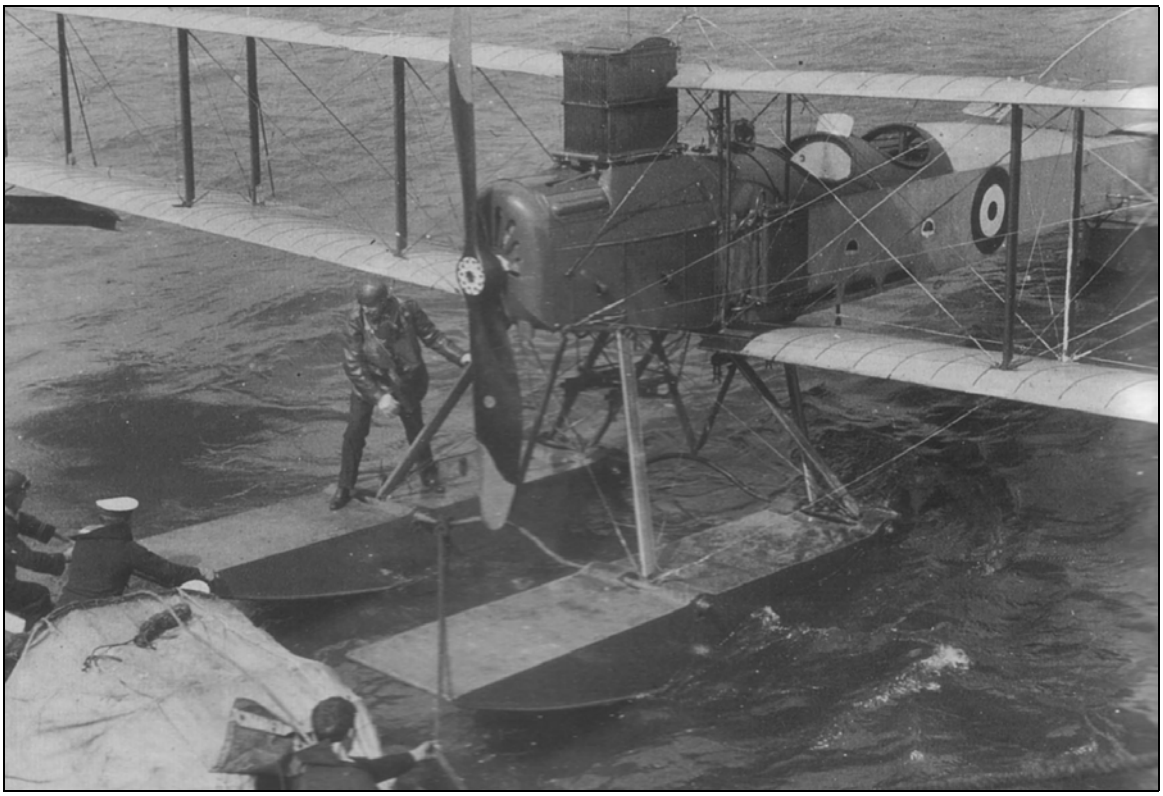
The Commander in Chief was, in his turn, unaware of *Campania*'s absence until about 0200 on 31 May. Always conscious of the threat from submarines, and in the absence of any escorting

destroyers for the seaplane carrier, at 0437 Jellicoe ordered her to return to Scapa Flow where the ship arrived safely at 0915. It is not clear why this took two-and-a-half hours to decide. In fact *Campania* could have caught up with the Fleet long before the action started, thanks to the efforts of her engineering staff. The Grand Fleet was thus deprived of the reconnaissance and gunnery spotting capabilities of her aircraft. It appears that an extraordinary lapse in communications followed by an exaggerated fear of enemy submarines led to this deprivation.



The battle is considered to have commenced at 1418 with the battlecruisers involvement and by 1440 Beatty ordered *Engadine* to send away a Short 184 to scout on the port bow where smoke had been seen. Flight Lieutenant F.J. Rutland, as the most experienced pilot on board, was to fly Short 184 Serial No.8359, with Assistant Paymaster G. Trewin as observer. They were lowered

into the water and took off at 1508, in cloudy skies with a base at only 1000 feet. They sighted the German 2nd Scouting Group (*Elbing*, *Pillau*, and *Frankfurt*) on a northerly course at 1518 and Trewin made a report by wireless. While he was transmitting, Rutland saw the enemy turn through sixteen points (180°) and head south. An amplifying report was sent advising this.



Although not taken at Jutland, the Short 184 in this photograph is serial No.8359, and the man standing on the float is believed to be Flight Commander F.J. Rutland.

At this stage there was another inexplicable failure of communications. *Engadine* received the reports but Beatty in HMS *Lion* did not**.** Attempts by *Engadine* to relay the information by searchlight resulted in no response from *Lion*’s visual signal staff.

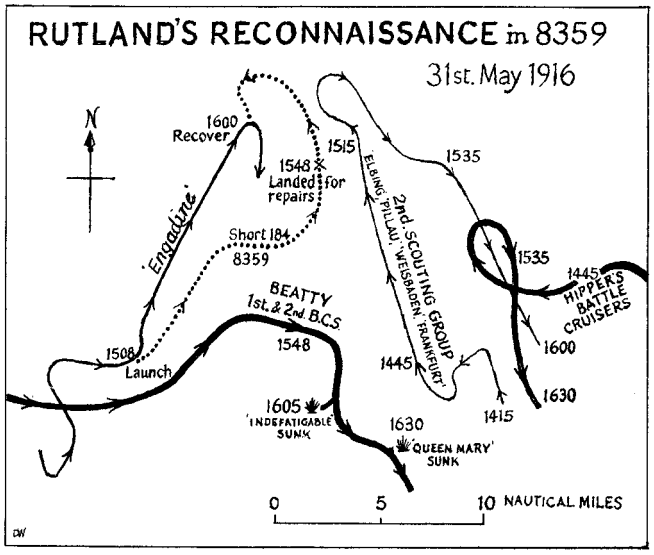
Fortunately, this only delayed the news of the Germans’ turn by twenty minutes, when the light cruiser *Galatea* reported it. Meanwhile the seaplane in poor visibility, was shadowing the German 2nd Scouting Group, at such a close range of about 3000 yards, that she came under fire from four cruisers. (SMS *Wiesbaden* had joined the Scouting Group)

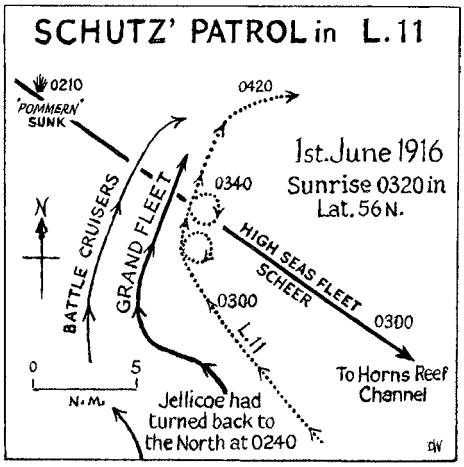
At 1548 a petrol pipe on the aircraft fractured and the crew were forced to alight. Rutland made emergency repairs, using a length of rubber tubing taken from his lifejacket and reported to *Engadine* that he was ready to continue the reconnaissance flight.

Mystery surrounds the identity of the originator of a directive for Rutland to return to *Engadine*, where the seaplane was hoisted aboard at 1600. It is unlikely the Captain of *Engadine* made the decision to cease further flights. However, *Engadine* conformed to the general movements of the Battlecruiser Squadron, remaining on the disengaged side until leaving the formation and heading for Rosyth. It is reasonable to conclude that he would not have left the force and returned independently to Rosyth without a directive from the Officer in Tactical Command – Beatty – although it seems that this did not take place until about 1645. Whatever the answer, the fact is there was no further reconnaissance by British aircraft. It should be noted that a seaplane had been able to take off twice, so the sea state was favourable, even if the cloud was very low and there was some mist.

Despite an eighty mile tow at only eight knots overnight in attempting to save the crippled armoured cruiser HMS *Warrior*, which sank early on 1 June, the carrier reached Rosyth safely at 0135 on 2 June. That she did so suggests that again the submarine threat was over estimated.

Rutland was commended by Beatty for his gallantry, and on 15 September was awarded the Distinguished Service Cross.





On the German side, the involvement of the Zeppelins was also short of their potential. Admiral Scheer had made two plans for a possible operation at the end of May. In each plan, a force of as many as fifteen submarines was to be stationed off Cromarty, Rosyth and Scapa Flow. The first plan was for a raid on the North East coast of England, to entice a limited number of RN units which could be dealt with piecemeal. Airship reconnaissance was essential to this plan to ensure that the German ships were not surprised by a superior force.

The other plan was for a sortie along the Jutland Coast. As this was further from the British bases and nearer to those of the Fatherland, airship reconnaissance was still desirable but not absolutely necessary.

On 30 May, in continuing bad weather, the first plan was abandoned in favour of the second. Five Zeppelins were to cover operation and were to take off early on 31 May. However, the weather was unfavourable and it was afternoon before L.9, L.14, L.16, L. 21 and L. 23, got away, in mist and a cloud layer at 1000 feet. At 1530, when the battlecruisers were heavily engaged, the airships were still close to the German coast; none of them saw any part of the battle on 31 May.

At 2106 on 31 May, Scheer requested early reconnaissance at Horns Reef as a matter of urgency. British Naval Intelligence deciphered the signal but failed to inform Jellicoe – yet another blunder which was almost certainly crucial to the outcome of the battle. As the first five airships concluded their fruitless patrol, a second five, L.11, L.13, L.17, L.22, and L.24, took off heading for the same patrol area. In the early hours of 1 June, L.22 (Martin Dietrich) saw some of the confused night fighting as the High Seas Fleet crossed the rear of the Grand Fleet. The exploding of the battleship SMS *Pommern* was the most dramatic moment witnessed but at a considerable distance in the murk. L.11 (Viktor Schütze) surpassed all others, with the finest performance of any Zeppelin at Jutland. He persisted in accurate observation of the British ships from before dawn on 1 June until 0630, when he was told he was no longer needed. He had been fired at by numerous ships for over an hour while circling to the east of them. This patrol assured Scheer that he was safely southeast of the British Fleet at dawn.

6. WHAT MIGHT HAVE BEEN

If *Campania* had accompanied the Grand Fleet, her kite balloon may have proved invaluable to Jellicoe, giving a wider coverage than the cruisers, although at times, low cloud, mist and smoke would have made the job difficult. Her seaplanes would have been potentially just as capable as *Engadine*'s. If Rutland had been permitted to continue his flight it could have been of value to Beatty in providing early warning of the presence of the High Seas Fleet approaching from the south.

In retrospect it is obvious that the most critical moments, when reconnaissance would have been of most value, were at the early and late periods. The Zeppelins’ performance was severely limited by weather at their base, while the shadowing by L.22 provided Scheer with the information that his escape route was clear.

It must be conceded that any action by the air elements on either side could not have significantly changed the outcome at Jutland. Nevertheless value of air reconnaissance had been established as the eyes of the fleet.

NOTES

1. All times quoted are, for the sake of clarity, those which refer to British time in 1916. This was one hour behind German time. For example SMS *Pommern* exploded at 0210, British time, 0310 German time.

2. The *Campania*, launched in 1893, was holder of the “The Blue Riband” for the fastest crossing of the Atlantic which she alternately swapped with her sister ship *Lucania* for a number of years. She was lost in a storm on 5 November 1918, when she dragged her anchors and was in collision with other ships before foundering.

3. *Engadine*, following her war service, returned to railway ownership. After several changes of ownership, she was sunk by a mine in Manila Bay in December 1941.

4. The famous Short seaplane No.8359 was built under licence by Westlands of Yeovil on 22 February 1916, then put aboard *Engadine* on 10 May 1916. The aircraft was subsequently preserved by the Imperial War Museum and has been on permanent loan to the Fleet Air Museum since 1976.

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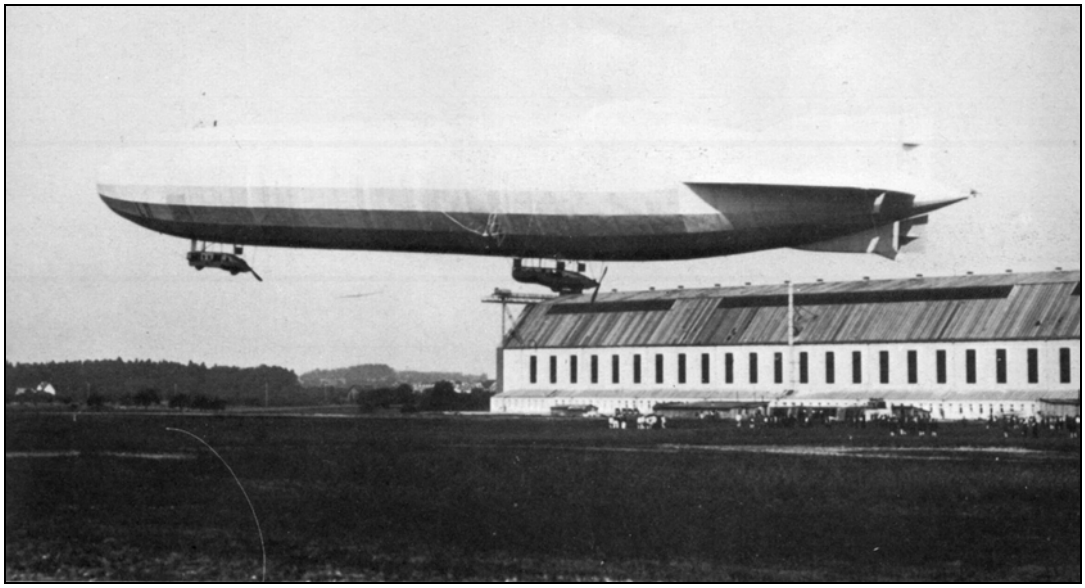

Viktor Schutze’s L.11, which made such a telling reconnaissance at Jutland. Luftshiffbau Zeppelin