

The White and Thompson/Norman Thompson Flight Company Aircraft Factory in Middleton and Littlehampton (Hubert Williams):

Its impact on the local area and people during the
Great War and beyond; its importance in early
aviation from 1909 to 1919 and as an early
“holiday camp” from 1922



Norman Thompson Flight Co. NT2B, photographed on completion at Middleton (from print/postcard belonging to employee Albert Bacon)

By Ian Evans

Summary

The White and Thompson/Norman Thompson Flight Company, although effectively only in existence from 1909 to 1919/20, (voluntary liquidation 12th July 1919, sale of assets February 1920) has had a significant effect on the local area almost to the present time and a major role in the development of aviation before, during and after the First World War. The factory buildings themselves have had an interesting history almost to the present day. Specialist aviation authors and local historians have done much work, but nonetheless the Norman Thompson story is largely unknown locally or nationally. The following is not a detailed history of The White and Thompson/Norman Thompson Flight Company or of every aircraft made, although covered in summary, but is intended to look at the impact the concern had on the local area and people, the development of Middleton as a seaside resort as well as its importance in the Great War war effort and in the evolution of aircraft design.

Introduction

I was interested in researching this case study for several reasons. My grandfather worked for the company, possibly both at Middleton and Littlehampton, although I never knew this when I was younger and becoming interested in WW1 flying and aircraft. While reading 'The Norman Thompson File' ⁽¹⁾ I discovered that an early Swiss aviator/designer and artist from Amberley my maternal grandmother and great aunt and uncles knew as a resident of the village (they ran errands for him up to Amberley Mount) also had a connection with one of the test pilots working for White and Thompson. (E.C. Gordon England flew Jose Weiss's glider from Amberley Mount and his powered monoplane at Brooklands before becoming a test pilot for White & Thompson).

The aircraft factory was one of the first in the UK and built the first flying boats in the UK, (originally re-designed Curtiss Flying Boats) using innovative design and materials. Land was acquired in 1909 and the first aircraft tested in 1910. It needs to be remembered that the first aeroplane flight by a British pilot over the UK did not take place until May 1909, by JTC Moore-Brabazon, a flight of 500 yards in his early Voisin at Leysdown on the Isle of Sheppey. (He later gained the first British Pilots Licence – i.e. Aviators' Certificate - in 1910). Meanwhile Bleriot flew across the English Channel on July 25th 1909. It was in 1913 that White & Thompson switched from experimental aircraft to making flying boats, with the hulls being made in Littlehampton. They had two different designs entered into the Daily Mail Circuit of Britain competition for August 1914. The company had a big impact on employment in the area as it expanded and left a lasting legacy.

Background

Norman Arthur Thompson became interested in aeronautics and after reading the automotive engineer and flight experimenter F. W. Lanchester's books on the subject (Aerodynamics and Aerodnetics published in 1907 and 1908) formed a partnership with the aim of designing and manufacturing aircraft with an old school friend, Doctor

John Douglas Campbell White. They approached Lanchester and persuaded him to be a consultant for them, partly at least because their aim was to help put Britain at the forefront of the new industry. He took up this role on 31st March 1909. By August of that year they had visited the first ever international flying exhibition at Rheims, while Lanchester had started designing a biplane (later known as "the Grey Angel") and Thompson and Lanchester began making a series of visits to the South Coast to find a suitable location for a "flying ground". They found "what seemed like a perfect location at Middleton" (now Middleton-on-sea). "Here the foreshore consisted of several miles of good firm sand about 300 to 400 yards wide at low tide and free of obstruction of any kind" ⁽²⁾. (See details in the biography of F W Lanchester and in 'The Norman Thompson File') ⁽³⁾. Consistent wind was also important. The aim was to find a good and safe take-off and landing strip for landplanes, the idea of manufacturing flying boats came later.

Although this was the reason for choosing Middleton, unfortunately the sands were swept away and coastal erosion set in, after a major storm not long after the factory was set up, and sadly before the trials of the first aircraft were completed. Some sand was lost before trials of the Grey Angel were completed and there was a further loss after a storm in 1913. By 1915 there was a low cliff on part of the site, based on the background of a picture of a "Bognor Bloater" landplane photographed near the factory. A further "tidal wave" caused local flooding and prompted the factory to bring in workers initially by lorry according to Dorothy (Dolly) Glue (nee Greenfield). This would be no earlier than 1915 as she started working at Middleton that year having managed to buy a bicycle to travel from South Bersted. The first trip on the lorry was her first in a motor vehicle. Later on White & Thompson/ Norman Thompson Flight Co. provided one or more bus services by charabanc, Dorothy remembering that one was damaged by fire, as the bus depot (then by the railway station, rebuilt in the High Street) was burned down due to a driver checking for a petrol leak with a match!

Middleton was still very rural at the time although some development was taking place. There were only 40 people recorded in the census of 1891 after closure of the Coastguard Station, while there had been about 30 as early as 1296.⁽⁴⁾ It was the building of the private estates in the area from the early 1920's onward and absorption of Ancton in the 1930's which massively increased the local population. The area still remained rural in character helped by the large number of trees lining and overarching local roads (many planted in 1920's) until the Dutch Elm disease ravaged them in the 1970's and early 80's. The parish of Middleton's population according to the 2011 census (current boundaries) was 5,077.

There was no other industry in the immediate area although there was plenty of industrial activity at Littlehampton (especially boat building) and Bognor (not Bognor Regis then) was nearby. Once the company switched to mainly manufacturing flying boats (as from Autumn 1913) the local boat and speedboat builders Williams at the Britannia Works in Littlehampton harbour became key to the operation, starting with the hulls of the two Circuit of Britain entries completed in 1914. Also with

expansion due to the war the factory employed large numbers of people from Bognor and surrounding villages, particularly women and especially from Yapton according to Dorothy Glue.

Scale and local importance of the factory

The company became a major local employer. Starting with 10 staff at Middleton in 1910 in a new factory on a greenfield site, building an experimental aircraft, it moved into full-scale aircraft manufacturing. The concern was incorporated (private limited company) as White and Thompson on 8th June 1912, becoming the Norman Thompson Flight Company on 4th October 1915, after Dr. White left the business to join up. The factory expanded further, with the onset of the war and especially as a result of new government orders for aircraft, the factory being enlarged as a government prerequisite for awarding the contract for the large NT4 flying boat. The Hubert Williams concern at the Britannia Works, Fisherman's Quay, Littlehampton became a subsidiary of the Norman Thompson Flight Company (NTF Co.) and other companies sheds (e.g. John E. Butts timber importers according to Tom Jeffers) at the harbour provided yet more manufacturing and storage space. By late 1915 White and Thompson/Norman Thompson Flight Co provided a regular Charabanc service from Bognor town, Littlehampton and other places to Middleton for some 250 staff every day, requiring 6 vehicles. Cars and lorries also appear to have travelled between the Arcade at Bognor and the Middleton Works according to an admittedly tongue in cheek article in the company magazine quoted in a 1991 article in the Bognor Observer. Flying boat hulls were transported from Littlehampton to Middleton by large Lorries. At it's peak NTF Co. employed between 700 and 900 people across the Middleton and Littlehampton sites, peak year for aircraft manufacture being 1917 (Phillip Linberry & others production graph in Ray Brooks collection). Many staff members were women and many employees came from surrounding villages, especially Yapton (according to D. Glue), including my grandfather. At least two people who worked for Norman Thompson Flight Co. (NTF Co.) were interviewed in the 1990's. Dorothy (Dolly) Glue of South Bersted, working at Middleton, and Tom Jeffers, a boat builder at Littlehampton, who started in 1917 at the age of 14. A tape by Tom Jeffers is kept in the collection at Littlehampton Museum.

White and Thompson/ NTF Co. employees organised regular fund raising events during the war, including for naval servicemen's' charities, a number of these events were reported in the Bognor Observer from February 1915 onwards, and they may have started before that.

The company was very forward thinking for the day, with a person to look after the welfare of staff, a staff canteen that provided employees hot meals twice a week, increasingly important as food shortages became commonplace, (mentioned by Dorothy Glue) and an regular in-house magazine (High Flyer) which reported on staff social activities and included articles of general interest including, in 1917, a history of the company. Women workers were provided with a uniform of a brown dress with (light based on photos) blue collar and mob caps (D. Glue). A Miss Clemisha is recorded as working for welfare and as the canteen

manageress (⁵). At one point 6 Charabancs were kept by the company at Jones's Garage in Belmont Street for works staff transport (⁶).

Aircraft Production:

The first aeroplane completed was the Thompson-Lanchester No1 Biplane in 1910, known as the "Grey Angel". This was the only aircraft designed by Lanchester that was ever built, after many attempts to get it to fly it crashed and was written off early in 1912, partly due to the state of the beach, parts being buried in a local duck pond, probably Middleton pond, though there was at least one other option. In addition Doctor White's initial funding ran out. Other experimental aircraft were then designed and built by Norman Thompson.

After this the company went over to the manufacture of aircraft rather than experimental work and by 1913 were designing and building flying boats based on an improved Curtiss design. White and Thompson had flying boats of two designs ready to take part in the Daily Mail Circuit of Britain air race due to take place in August 1914. However, the start of the war on 4th August intervened and the admiralty requisitioned both of them. Production of aircraft during the war totalled approximately 249 (253?) aircraft, all flying boats except 12 "Bognor Bloater" land planes and 24 Short S38's rather than Norman Thompson models. In addition various hulls were made as spares for NTF Co. or other manufacturers' aircraft and some aircraft were not completed due to changes in government specification, about 34 in all.

S.E. Saunders of Cowes (makers of Consuta) and Supermarine at Southampton were subcontractors making NTF Co. aircraft models but selling direct to the admiralty as I understand it.

The most successful aircraft made was the NT2B, (picture on front cover) which became the main flying boat trainer for the Royal Naval Air Service (RNAS). However, it was the success of the "impressed" W&T No3/N.T.2 that caused the admiralty to put in its first large order. One land plane was designed and built by NTF Co. early in the war, 'The Bognor Bloater', designated NT3; it was designed as an improvement on the BE2c being produced by the government aircraft factory. Only 12 were made. Another key order was for a large flying boat designed for anti- submarine work, known as the "Small America" (to distinguish it from a Curtiss model), designated NT4.

The aircraft made, in rough order, included:

Pre-war: The Grey Angel Lanchester Design, NT No 1 Biplane, Curtiss type F and Bass-Curtiss models, White and Thompson No1 and No2 Flying Boats (2 Circuit of Britain aircraft of different designs). All one-offs.
Wartime: W&T No3/N.T.2 (6) N.T.2A (2), N.T.3 Bognor Bloater (12); N.T.4, N.T.4A, "Small America" and similar types – N2c (28 + 4 part built), N.T.5 (20); N.T.2B (156 completed, plus 6 spare hulls), TNT flying boat fighter (1) N.T.6 (2 part built); Short S38's (24), hulls for Felixstowe Flying Boats (8); various other parts for N.T. and other manufacturers (34).

Above are approximate numbers of aircraft completed. Orders for many more were cancelled, both due to changing admiralty requirements during the war and at the end of hostilities. A number were never completed, although some were made or finished post-war and these are included in production figures. According to Phillip Linberry the last aircraft built at Middleton were the two N2c (hybrid NT4 wings/Porte design hulls) flying boats ⁽⁷⁾. These may have done better than the NT4's but came too late – at the end of the war.

The factory was expanded (initially proposed in 1915) in order to make more N.T.4/Small America types, but it was the admiralty order for this, with a requirement to enlarge the factory to accommodate increased production of larger aircraft, followed by a reduction in original numbers ordered, that was a key cause of the collapse of NTF Co.⁽⁸⁾

National importance and innovation:

The White and Thompson/Norman Thompson Flight Company were highly innovative. Both Norman Thompson himself and his Chief Designer (F.P.H. (Percy) Beadle) made important contributions to future aircraft design. The original Curtiss flying boat they were licensed to build was given a major redesign as it was structurally weak, both in terms of “flight organs”/members (a particular strut etc.) and the hull. A new hull of ‘Consuta’ laminated material was developed which was more resistant to landing stresses (‘Consuta’ having been developed by S.E. Saunders Ltd. on the Isle of Wight for use as motorboat hulls and manufactured by them in bulk). This constituted the first British built flying boat built to what became modern/standard principles.

This material was also used to build a monocoque fuselage for the N.T.3 “Bognor Bloater” landplane. Some “Consuta” was made using copper wire stitching, with diagonal mahogany strips, this type was used on the “Bloater” and looked like fish scales, and being varnished must also have been shiny, hence the name. As the N.T.3 was designed in September 1914 it was probably the first ever aircraft with a fuselage of this type. It was some years after the war, in 1923, that Norman Thompson was finally recognised for developing the British Flying Boat and other novel aviation inventions by the Government.

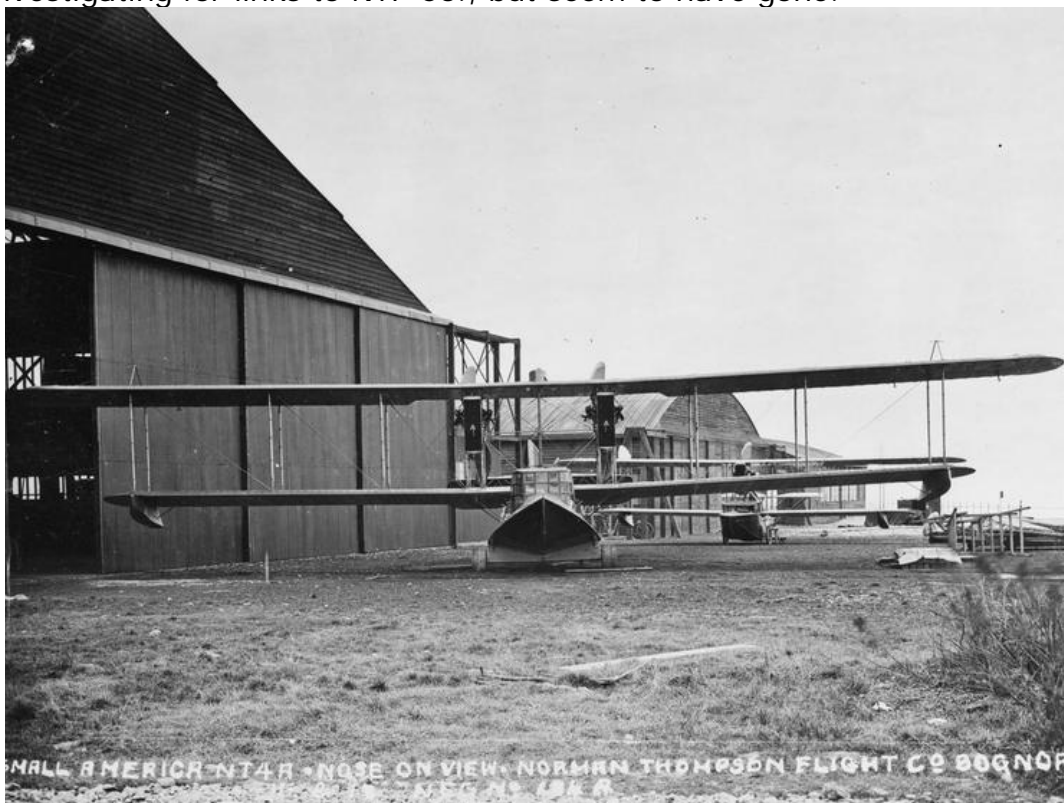
The End of the War and of the Norman Thompson Flight Company:

By the end of the War, partly due to further expansion required by the government, the factory site was substantial with many hangers and erecting shops, covering a site of 10 acres in total. However due to the failure of the government to pay for aircraft and design royalties ⁽⁹⁾ (where NT designed aircraft were produced by other companies for the war effort) the company went into receivership on 19th April 1918, finally being taken over, closed, and assets sold by Handley Page at auction on 17/24th February 1920. On 12th February 1920 ‘Aeronautics’ published an advertisement with the auction details. Amongst other items and 7½ acres of freehold land were 2 Sentinel Steam Lorries and trailer (used presumably for hull transport) and two motor launches (¹⁰). A final legal winding up meeting took place followed by a return signed by the

liquidator on 24th March 1927. Staff at Hubert Williams (the hull builders) were laid off on 12th November 1918, the day after the armistice, according to Tom Jeffers; although this business seems to have restarted once again in its own right and carried on into the 1930's at least, along with other motor launch and boat builders. Boat building was used to help fill gaps in aircraft production at various stages before the end of all manufacturing by The Norman Thompson Flight Company.

As the hangers and workshops were mainly prefabricated a number were sold and moved to key sites in the area, "the large erecting shed" (where wings etc. were fitted) became "The Pavilion" dance hall north of Waterloo Square in Bognor in 1922 (burnt down 1948). Other units were also re-used, for example forming part of Wilmotts motor garage in Aldwick Road (now Slated Barn (?)) and if so dismantled during building work in 2013?). It is possible that some of the buildings at Butlins at Bognor Regis might also have a connection with the factory or other WWI activity at Littlehampton. Even parts of NTF Co. aircraft were re-used in building bungalows in Felpham, Bognor and surrounding areas. In recent years demolition of a bungalow in Felpham revealed a wing complete with RAF roundel used as an internal wall.

Overall however, very little has been preserved of the aircraft built, one propeller at Tangmere museum exists, but not of a type made by NTF Co. Sadly it has to be taken that the wing parts mentioned above were destroyed during demolition. A few parts exist elsewhere, but certainly no complete aircraft. Two propeller parts were hanging in the Saloon Bar of the Murrell Arms, Barnham until 2013, these might have been worth investigating for links to NTF Co., but seem to have gone.



Small America NT4A (plus factory and NT2B behind) at Middleton - © IWM (Q 63836)

Post War Value of the Middleton Factory and Infrastructure – New Innovation and Economic Benefit:

The main site at Middleton became a pioneering holiday camp, initially in 1921/ 1922 as the New City, an up-market holiday complex with covered car parking for 100 cars, almost unheard of at that time. Later (in 1934) it changed its name to Southdean Hotel and Sports Club and then Southdean Sussex Coast Country Club with variations on this name up to its final days. As such it hosted groups as disparate as Mosley's Black Shirts (British Union of Fascists) and Church Groups/Conferences. My paternal grandmother visited Southdean before World War II and sent a postcard showing the site as it was then.

The fact that the factory remained and was reused and developed was important for the later economy of the area, employing staff, supporting local businesses and in making Middleton a seaside resort in its own right. New City was set up by Sir Walter Blount. "It was one of the earliest attempts to provide a self-contained environment for enjoying the seaside" ⁽¹¹⁾. It had approximately 200 bedrooms, half with private baths and all with central heating, as well as the 100 car garage mentioned above. It really was self-contained with, at its peak, a dance hall and indoor tennis courts in the hangars, outdoor tennis, putting green, card and billiard rooms, sand yacht racing, gymkhanas and children's sports. Infrastructure included its own dairy, a farm, ice generator and mineral water factory, laundry, hairdressing salons and a library. New City employed up to 80 staff at the peak of the 1926 season ⁽¹²⁾. At this time the site was generating its own electricity (very likely continued from Norman Thompson Flight co. days). It also had its own water supply (pumped from wells) and own sewerage ⁽¹³⁾.

Parts of the site and its buildings survived until very recently. The holiday camp as New City became (under various names, chiefly Southdean Sussex Coast Country Club), was still functioning in 1987, when the roofs came off the old hangars during the Great Storm. In 1994 Warners sold it to Shearings Holidays, but in 1995 it was sold for housing development. ⁽¹⁴⁾.

Ironically, when the original factory was built on land obtained in 1909, there was a covenant on it requiring the dismantling of the buildings after they were no longer required (Georgina Male p81 "Incoming Tide") ⁽¹⁵⁾.



The Factory/Holiday Camp Site in 1946 – from Bognor Regis Museum Collection

The Hubert Williams site at Fisherman's Quay, Littlehampton was redeveloped in 1977. Some traces of the old boat building industry survive on the east bank of the Arun, but most buildings went with further redevelopment. (The west bank still supports a local boat repair industry). Nonetheless fast launch building continued in the area after the end of the Norman Thompson Flight Co. through the Second World War, local boat builders gaining admiralty contracts for such things as motor launches and "D Day" equipment (examples of this noted by Tom Jeffers), partly due to the heritage in local skills as a result of flying boat production.

Conclusion:

The aircraft factory had a very important role in flying boat and aircraft development, in manufacturing during the Great War, and in employing large numbers of local people, providing a lot of local economic and I think social benefit (there is a need to find copies of Highflyer which documented the social life of the staff and their voluntary contributions to the war effort). The factory buildings and site continued to provide economic benefit to Middleton and the wider area, promoting the area as a holiday resort location, and allowed the development of the first (originally very upmarket) holiday camp type of British seaside holiday experience. Both large hangars and workshops and aircraft parts such as wings were used to build prominent buildings and bungalows in the local area.

Overall the impact of the White and Thompson/Norman Thompson Flight Company lasted almost up to the present day, and perhaps this should be more widely known about. Finally, if the Middleton duck pond ever needs dredging out, the 'Grey Angel' could be rediscovered and revive interest in the role the area played in the development of aircraft!

Acknowledgements:

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⁷ Phillip Linberry, Bognor Regis Local History Society Newsletter, No16, p32

⁸ Goodall, Chapter 14, 'The Destruction of the Company' and David J Ames as below

⁹ Goodall, appendix containing letter by Norman Thompson, 'The Norman Thompson File'. Also see David J Ames, An Analysis of the reasons for the development and decline of the Norman Thompson Flight Company and an assessment of its role in the aircraft industry WSRO MP2004

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