

Heritage Review of Planning Application 21/00915/FUL

The Historical Significance of 'The Flight Shed'

The following document outlines the historical significance of the Supermarine 'Flight Shed' and why Planning Permission that would permit the demolition of this important historical asset should not be granted.

The document will outline:

- Historic Context:
 - What the actual historical significance of the building is and why its preservation must be given far greater consideration than has presently been accorded it.
- Review of Applicant and Planning Officer's Reports
 - Why the guidance provided to the Planning Panel by both the Applicant (by Pegasus Group) and by the Head of Planning & Economic Development, in their respective reports, cannot be regarded as having made a reasonable or accurate assessment of either the historical importance of the building or the degree to which the original structure remains intact.
- A recommended course of action

Historical Context

Overview

The Flight Shed hangar formed a vital and integral part of Vickers-Armstrongs Ltd.'s expansion programme to provide the increased production required to meet for the Ministry of Aviation's orders for Spitfires for the RAF.

Throughout the crucial early months of WWII and the defining months of the Battle of Britain it was exclusively through the Flight Shed that the Spitfires which helped save Britain were tested, checked and delivered. Only in the later months of the Battle did other Spitfires begin to reach the RAF.

It continued to operate, without interruption despite the bombing of the airport, throughout the entire Second World War, the only surviving building that can claim an uninterrupted association with the Spitfire from the very first production aircraft to the very last.

The Flight Shed was retained by Supermarine after WWII and continued in use throughout the 1950s playing a vital role in the post-war modification of Spitfires and Seafires for export; experimental aircraft development with Hursley Park and Chilbolton; the production of tooling and sub-assemblies for the new jet fighter aircraft being made by Supermarine as well as the training of the Supermarine workforce.

Background

Supermarine Expansion to meet demand for Spitfire

In the early 1930s Britain began a massive programme of military re-armament which included the expansion of the manufacturing capability of aircraft manufacturers to meet the new orders for all types of military aircraft. For the Supermarine Aviation Works (Vickers) Ltd. their successful orders of Walrus amphibians, for the Admiralty, and the Stranraer long range flying boats, for the RAF, had already placed a strain on the company's production capacity even before it won its first order of 310 Spitfires.

To meet the increased demand Supermarine began a massive programme of expansion. The expansion programme can be charted through the publically available Vickers Archive at Cambridge University Library and falls into three broad phases, each directly linked to the requirement to meet the orders for the new aircraft, specifically the Spitfire:

- 1936-1937: Woolston
 - An expansion of the main Woolston Works, including a new art deco Office block (demolished 1970s), extended Workshops (destroyed during bombing of Southampton 1940) and ancillary buildings.
- 1937-1938: Southampton Airport
 - The first stage in this expansion was the building of an extended Final Assembly Area in the main airport and the construction of the Flight Shed on the southern boundary of the airport.
- 1938-1939: Itchen Works, Mould Loft at Woolston, Southampton Airport
 - Itchen was a new factory built close to the Woolston Works and dedicated to the production of Spitfires. The Mould Loft was a new build close to the Woolston Works for pattern making.
 - Sale of the Flying Boat sheds at Hythe, a reflection of how the Company's focus had shifted away from flying Boats to the Spitfire
 - As the pressure to further increase production mounted the hangars adjacent to the existing Supermarine Final Assembly hangars were taken over from Cunliffe Owen (who had moved into their new factory on the airfield) and Jersey Airways (who had suspended operations for the duration of the war).

The new Final Assembly and Flight Shed at Southampton Airport were key to Supermarine's ability to manufacture the desperately needed Spitfire, forming the lynch-pin between the production at Woolston and Itchen and their delivery to the RAF.

Purpose of the Flight Shed

Flight Test

The Flight Shed played the key final stage in the production of the Spitfire.

Once all of the various parts of the Spitfire had been brought together and assembled in the Final Assembly Hangars in the airport the completed aircraft would undergo final inspection and flight testing. An article in Flight Magazine on 9th February 1939 entitled "Spitfires for the Squadrons" detailed the process involved.

"Two days or so before the first flight the Merlin is run up and any necessary adjustments made. The Spitfire is then wheeled round in front of the pilot's office, which faces the tarmac, and is taken off. During the first ten minutes Quill determines whether or not any rigging adjustments or other minor changes are desirable."

Flight Magazine 'Spitfires for the Squadrons', 9/02/1939

Final Inspection

Following Flight Test the Spitfire would undergo a Final Inspection by the Air Ministry before delivery to the RAF (during the War this was typically performed by the ferry pilots of the ATA).

"The actual handing over of a Spitfire to the Service is superintended by Mr A. H. Mitchell, the chief A.I.D. inspector, who requires each Service pilot to present a letter from his C.O., stating that the bearer is in uniform. The pilot is then handed a form (No. 1090), authorising the machine to be delivered to His Majesty's Service, together with an inventory of its equipment."

Flight Magazine 'Spitfires for the Squadrons', 9/02/1939

Experimental Flight Test

In addition to the formal Flight Test and Inspection for production aircraft, the Flight Shed also provided the key Experimental Test facility for Supermarine. Supermarine's Test pilots Jeffrey Quill (Supermarine's Chief Test Pilot), George Pickering, Les Colquhoun and Alex Henshaw (later famous for his role at Castle Bromwich where he is credited with flying more Spitfire's than anyone in history) were among those who were based in the Flight Shed. The Experimental Test was vital for the numerous modifications and new Marks of Spitfire that were being rolled out of the factory. The importance of this test can be judged by the reaction to the reaction to the Royal Navy command in the airport (HMS Raven) trying to restrict their flying time. In Jeffrey Quill's own words,

"... as soon as a new Spitfire emerged from the factory we proposed to fly it – whatever the state of air raid alerts, whatever the time of day and irrespective of whether the balloons were up or down. We would also fly come rain or shine, regardless of whether the ack-ack guns took pot shots at us"

Quill, J. Spitfire: A Test Pilot's Story, 1983

Construction

It is hard to be precise as to the history of the construction employed for the Flight Shed as I am currently awaiting documentation from the Vickers Archives and it has not been possible to gain access to the building to compare the extant building with the original photographic and documentary information.

Based on the known evidence the construction of the Flight Shed began after June 1937 when the land was leased from Southampton Corporation (this agreement is recorded in the Vickers Archive 315 – Sheet 124 See Appendix Figure 1), and was nearing completion on 1st January 1938 according to a report in the Hampshire Advertiser (Appendix Figure 2)

The construction details and the location of the Flight Shed in the context of the airport buildings in 1938 (early 1939) is provided by annotated aerial photographs provided in the Appendix (Figures: 4, 5 and 5). These photographs shows the construction of the newly completed hangar with a triple apex roof with sky lights, extended hangar doors and a row of square windows running midway along the length of the sides and rear of the building. A single single-storey annexe is located along eastern side of the hangar. Figure 6 shows that the rear-side of the hangar also included a single full-height hangar entrance interrupting the run of windows on the west side.

This construction matches closely the construction seen in both 1953 and 2021 included in the Pegasus Report (Plates 12 and 13) and a photograph taken by J. Temple in 2013 (Appendix Figure 7). Between 2013 and 2021 it is clear that new roofing and cladding has been added concealing what does remain of the original exterior.

Based on the known size of the Flight Shed (Appendix Figure 8, 1945 letter from Commander J. Bird detailing the Supermarine premises) of 26,250 sq.ft and the reported size of the building in 2017 when advertised for sale (29,467 sq ft including WCs) the basic integrity and dimensions of the Flight Shed do appear to have remained intact although ancillary buildings around the hangar have been added and removed at various points during the lifetime of the building.

However, without access to the site and a thorough survey of the building by experts in 1930s aircraft hangar construction it is impossible to be more accurate or provide a comprehensive analysis.

Use of the Flight Shed during WWII

Battle of Britain

Through the early months of WWII the Supermarine Flight Shed was the only location where Spitfires were Flight Tested and inspected before delivery to the RAF. It was not until June 1940 that the Castle Bromwich Shadow Factory managed to deliver a single Spitfire and although production at Castle Bromwich did increase as the year progressed it had only just reached the numbers being delivered by Supermarine towards the end of the year. As a result all of the Spitfires that fought protecting the evacuation of Dunkirk and the vast majority of those involved in the Battle of Britain passed through the Flight Shed.

The Flight Shed played a unique role in two of the most defining moments in modern British history.

In August 1940 Prime Minister Winston Churchill acknowledged this in his famous “The Few” speech. Remembered for the line *“Never in the field of human conflict was so much owed by so many to so few.”* which praised the airmen who defended the skies in the very Spitfires that had been tested and

delivered from the Flight Shed he reminded the country that *“The front line runs through the factories. The workmen are soldiers with different weapons but the same courage.”*

Bombing of Supermarine & Dispersal of production

On 24th and 26th September 1940 the Woolston and Itchen Works came under intense enemy attack resulting in the abandonment of these factories and a wholesale dispersal of production into smaller workshops and factories in Southampton and the surrounding area.

Although the subsequent reorganization of production into additional, new, ‘Areas’ at Reading, Newbury, Salisbury and Trowbridge the Southampton Area continued to function and parts continued to be delivered to Southampton Airport for Final Assembly and Flight Test without interruption throughout the war.

Continued use of Flight Shed during WWII

By the end of Spitfire production it is estimated that some 3,793 Spitfires can be identified as having their first Flight at Eastleigh. All of which would have passed through the Flight Shed.

(Source: Spitfire Production Records: <http://www.airhistory.org.uk/spitfire/production.html>)

Use of Flight Shed post war

Towards the end of 1945 Supermarine began a programme of relinquishing the requisitioned premises that had helped during the war. A letter written to Major Kimber at Vickers-Armstrongs (Aviation) Ltd in Weybridge on 5th June 1945 detailed Supermarine’s intent to retain the Hangars and Flight Shed at the airport as an integral part of the organization (Appendix Figure 9).

Between 1945 and 1957 the Flight Shed was to retain a central role with Supermarine as Spitfire manufacture was replaced with new Cold War era jet fighter aircraft and developments.

Refurbishing and Modifications

With post-war production moved to South Marston the Southampton Airport Works became involved in the refurbishing and modification of Spitfires and Seafires. Some were modifications to upgrade RAF Spitfires and Royal Navy FAA Seafires, others were Spitfires that had been bought back from the RAF by Vickers-Armstrongs to sell on to air forces and individuals around the world.

A picture dating, probably from June 1947 shows members of the Flight Shed team, including Bernie Byrne who had worked there since 1940 aged 14, with ‘The Last Seafire’ to pass through the Shed. Appendix Figure 10

Tool and Component Workshop

In 1947 a review of Aircraft Manufacturing capacity by the Ministry of Production detailed the Vickers-Armstrongs Supermarine works at Southampton airport, listing the use of each building and available space, Appendix Figure 11. This listed the Flight Shed as being used for Component and Sub-Assembly work which reflects the accounts of many workers who were trained as apprentices there. Work included parts and tooling required for the Swift (RAF jet fighter and last British production aircraft to

hold the World Airspeed record) and Scimitar (twin engine naval fighter-bomber with construction at the rebuilt Itchen Works in Southampton).

The Last Spitfire

As Spitfire and Seafire production was cut back following the end of the War the majority of production work was moved to the South Marston works in Swindon. South Marston was responsible for the production of the final Spitfires, however, Flight Shed worker Brian Simpson recalled that the last four production Mark 24 Spitfires were taken from the Production Line in South Marston and transported by road to the Southampton Airport for completion. On 4th April 1949 Chief Test Pilot Guy Morgan took the last Spitfire out of the Flight Shed for testing before delivery.

The Flight Shed had delivered the very first production Spitfire to 19 squadron in August 1938 and the very last eleven years later. No other location can claim such an association.

Experimental Work

The team in the Flight Shed also worked alongside the Experimental team at Hursley Park and Chilbolton. A photograph taken in 1956 shows the large 'Flight Shed Personnel' and includes the Head of the Experimental Department at Supermarine, Frank Perry. Figure 13:

Conclusions

The Supermarine Flight shed is a unique heritage building.

It has numerous, unique, associations with both the evolution of Supermarine as a company and the Spitfire itself..

- It was built specifically to meet the expansion of Supermarine's production capacity to produce the Spitfire.
- It played a vital part in the production process, forming the vital final link between Supermarine and the RAF
- It is one of the few buildings remaining associated with the factories that formed the front-line in the 'The Battle of Britain'
- It has the unique claim to be associated with the Spitfire from the very first to the very last production aircraft.

Whether the hangar retains sufficient original features internally, or beneath the modern cladding is impossible to tell from either the Pegasus Groups Heritage Report or the Planning & Economic Development Departments report.

Externally the building does retain much of its original structure and integrity and the few photographs of the interior do indicate that much of the interior may still exist.

Both Reports make comments suggesting that historic content does exist but has been either ignored or misinterpreted by their reports (see the section on "Review of Applicant's & Planning Officer's Reports" below for more detail). However, without access to the site and an actual on-site formal review of the

site by Historic England &/or other independent and qualified Aviation & Industrial Heritage experts no conclusion can be drawn at this time.

Review of Applicant's & Planning Officer's Reports

Applicant's Report by Pegasus Group:

Lack of Research

The Archaeology and Built Heritage Assessment produced by Pegasus Group makes surprisingly little mention of the Flight Shed. It states that:

5.41 The building was included as part of a historic building survey of several former buildings to the west of site, however, was not formally recorded as it was not proposed for demolition at this time and continued to be in active use (ref. ESH2332). The building is recorded as the 'Tool Shed' in the survey report and is identified as a former Vickers Supermarine Flight Shed

5.42 The building is not represented on the 1933 OS map of the site, however, is visible on aerial photographs dating to the 1930s, prior to the construction of the Cunliffe Owen Factory to the west 51 O'Reilly, J. (Heritage Collective), 2017, Historic Building Record: Ford Transit Factory, Wide Lane, Swaythling, Southampton, p.29 from 1938 onwards so is likely to date to the mid-1930s.

5.43 There appears to be some uncertainty as to whether the building remained under the ownership of Vickers Armstrong or was taken over by Cunliffe-Owen Aircraft Ltd in the 1940s, however a 1950s plan records the structure as being under Vickers Armstrong ownership, so the former seems likely.

What is particularly noticeable about this report is that it shows that a woeful lack of effort or research had been undertaken that is inappropriate to professional Heritage Report.

Whilst uncovering the date of the Flight Shed's construction would have taken some original research rather than simply reworking other reports the basic information was available online and would have lead the report to the publically available records that have confirmed the date. For example the Newspaper Article was available online.

That the Report believed that there "uncertainty as to whether the building remained under the ownership of Vickers Armstrong or was taken over by Cunliffe-Owen Aircraft Ltd in the 1940s" demonstrates that no attempt to look at almost any of the available published material on Supermarine. Including but not limited to Morgan & Shacklady's definitive "Spitfire: The History", Jeffrey Quill's "Spitfire: A Test Pilot's Story" or more recently "Secret Spifires" by Howman & Cetintas or online <https://supermariners.wordpress.com/the-places/southampton/the-supermarine-works-1936-1939/southampton-airport-1936-1939/the-flight-shed/>

Perhaps most worrying is that in the entire document there is not a single mention of the Spitfire.

A fact that defies belief in a professional report when the Hatchard's book 'Southampton Eastleigh Airport' prominently features a photograph of the Flight Magazine photograph of "Spitfires for the Squadrons" (Appendix Figure 8) with the caption "Here an array of Spitfire Mk Is are collected at the Vickers Flight Shed" (Appendix Figure 16) and the website "About us, Our History" page for the modern

airport uses the Spitfire prototype as the page banner <https://www.southamptonairport.com/about-us/our-history/>

The report goes on to list (5.45) alterations but with no knowledge of what the original Hangar looked like (the comparative photographs are from 1953, fifteen years after the original and includes the “removal of original extensions” which were not original.

Inconsistencies and Inaccuracies

The Report also states that alterations include

- “New windows/general alteration of the fenestration” which is contradicted by the Planning & Economic Development Report which states that that “The original flanking metal windows remain in place” (5.9.6)
- “Removal of the original hangar door mechanism (**and most likely the doors as well**);” (highlights for this review). Again this contradicts the Planning & Economic Development Report which states that “One side of a vertical hangar door remains in its housing in the easternmost bay” (5.9.7)

Further reference is made in the Report (Plate 11) which references a moving crane at the top of the photograph. Note in Appendix Figure 3 the Supermarine Expenses include costs for a Mobile Crane in the Expansion Expenses for 1938.

Conclusions

It is clear from the lack of research, lack of awareness of what is and what is not original or altered that the Pegasus Group Heritage Report lacks credibility as a source for the Planning decision.

Planning & Economic Development Report

The overview to the Planning Application Report of the Head of Planning & Economic Development begins with the following statement:

Reason for granting Permission

Other material considerations are not judged to have sufficient weight to justify a refusal of the application, and where applicable conditions have been applied in order to satisfy these matters. The loss of the Flight Shed as a nondesignated heritage asset is justified because it's historic connection with the manufacturing and testing of the Supermarine Spitfire is not sufficiently unique and the building has been significantly altered and the replacement industrial units will achieve substantial public benefits in terms of job creation

I do not intend to discuss what might potentially be achieved but rather to look at what we do know and how both the Applicant's Heritage Report and Planning Department's Planning Application Report have failed to adequately reflect the historic significance of the Flight Shed.

I believe the Report has significant flaws and incorrect assumptions that have resulted in an incorrect conclusion.

In order to explain why this has occurred and why the conclusions drawn by the Planning Report are, I believe, mistaken I will try to step through the report clarifying where assumptions and incorrect conclusions have been drawn.

Paraphrasing of objection letters

5.2

At the time of writing the report 6 objection letters have been received. The following is a summary of the points raised:

Loss of a building of historical significance due to the association of the flight shed for the assembly of component parts and testing of the Supermarine Spitfire.

Officer Response The flight shed is the last surviving structure of what was once a prominent group of aerodrome buildings that contributed to the development, the testing, and the mass production of commercial and military aircraft in the 20th Century. It played a vital role in the build up to, and during, the Second World War and contributed to the early testing and development of the Spitfire. It also played a vital role in the development of Eastleigh Airport during the post-war period. For these reasons, the Council's Historic Environment Officer considers the building should be afforded a high degree of historic interest.

Statutory and Local Listing

However, the flight shed is not considered to meet the national significance criteria for statutory listing, and would not be afforded protection from demolition as a locally listed asset, based on the following:

I will discuss the criteria for Statutory Listing later as it is a key issue and the statement that “the flight shed is not considered to meet the national significance criteria for statutory listing” is not one that the Report can make. However, with regard to Local Listing there are numerous assumptions made that can be challenged and others for which the opportunity to challenge (or acquiesce to) has been denied.

However, in covering the consideration for Local Listing the overview makes several claims that are expanded later in the Report. I will endeavor to step through each in turn.

Condition of the building

- *Other than the pitch roof form of the hangar the building has been subject to notable alterations which have changed its character including:*
 - *recladding and alterations to fenestration;*
 - *extension which has changed the building proportions*
 - *removal of original fabric;*
 - *removal of the original door wings and door units;*
 - *and internal remodelling and insertion of a mezzanine floor*

The report notes that “The original flanking metal windows remain in place” (5.9.6) and that “One side of a vertical hangar door remains in its housing in the easternmost bay” (5.9.7)

This suggests that the original building proportions do remain, together with at least elements of the original structure. However, requests to review the interior of the building have been declined so it is not possible to assess just how much of the original structure remains.

It is worth noting here that the Applicant’s assessment claimed that “the hangar door mechanism (and most likely the doors as well);” had been removed.

It would appear, to use the Applicant’s own phrase, “most likely” that not even the Applicant’s Heritage Assessment is aware of exactly what does survive! Therefore until a proper assessment of the structure, by someone knowledgeable about 1930 Hangar construction, the condition of the Hangar’s heritage cannot be made and certainly cannot be used.

Uniqueness of Construction

- *The building does not represent an early example of an aircraft hangar structure, nor is it unique or innovative in construction design terms.*

The following statement is expanded later in the document as follows:

- *An image of the interior of a hangar thought to be the Flight Shed found within Solent Sky Museum’s collection illustrates the type of assembly activity occurring within, however, by virtue of its simple steel frame construction and high-level windows, it is not too dissimilar in its form or appearance to other contemporary hangars of the period, such as the similarly constructed Bellman hangars used to house folding and fixed wing aircraft at this time. These units were simple to erect and were utilitarian in character and many intact hangars of this period can be found at airfields today.*

Many of the assumptions about what is, or is not, unique or original about the Flight Shed are based on this photograph.

Unfortunately, despite its attribution in Solent Sky's collection to being the Flight Shed it is possible to demonstrate that this is not the Flight Shed under discussion but a photograph of the Erection Shed at South Marston (Swindon) taken in 1946. I have appended an annotated detail from the picture showing the serial number of one of the aircraft under construction confirming the date and location.

Because of this incorrect assumption other conclusions drawn in the report must also be questioned. For example the assumption that the gantry crane is not original is based not on an historic review of the crane but because it does not match a photograph of a different hangar

A full width gantry crane remains in-situ, but its orientation differs from the interior image referred to above suggesting that this element relates to car manufacture and is not an original feature.

Reference to Apprnx Figure 3 shows that a mobile crane was part of the original Expansion programme expemnsed in 1938, precisely when the Flight Hangar was built.

Similarly therefore comparison with other temporary Hangars like the Bellman Hangars is also erroneous not simply because of the misattribution but because the construction of the Flight Shed is, quite simply, not the same.

Uniqueness to history of Supermarine and Spitfire construction

- *The building does not represent the only surviving site operated by Supermarine (with designated examples surviving at Hythe), nor does it represent the only location in the Country where Spitfires were built.*

The comparison with Hythe is curious and largely irrelevant in the context of this heritage assessment, other than serving to illustrate exactly why the Flight Shed was such a fundamental part of the changes being made by Supermarine in order to meet the demands of the Air Ministry for Spitfires. Hythe is significant to the old Supermarine based on Flying Boats. It was precisely because of the shift in production from water to land based aircraft that Supermarine relinquished the Hythe Flying Boat Shed in favour of new premises at Southampton Municipal Airport, the expansion of the existing Woolston Works and erection of the new Itchen Works.

In terms of whether this was the only location where Spitfires were made. No it wasn't but that fails to tell the whole story and fails to address the significance of the Flight Shed. In the critical years before the start of World War II the only location where the Flight Testing of Spitfires was undertaken was the Flight Shed. This remained true until June 1940 when the Shadow Factory at Castle Bromwich started to deliver their first aircraft, however it would take several months for these to reach front line RAF stations. Therefore in the most critical months of World War II, through the height of The Battle of Britain it was Spitfires that came through the Flight Shed that were flown by "The Few".

It was also through the Flight Shed that the new modifications and prototype Spitfires were put through

their paces.

By the end of the Battle of Britain Castle Bromwich Spitfires were alongside them and following the dispersal of Supermarine production in the aftermath of the bombing of Woolston and Itchen Spitfires were also made and Flight Tested elsewhere, and experimental testing had moved to Worthy Down, but Flight Testing of the Southampton built Spitfires continued, accounting for approximately 4,000 Spitfires.

By the end of the War, as production was scaled back and South Marston in Swindon completed the assembly of the Final Spitfires it was still through the Flight Shed that the very last Spitfire passed. As old RAF Spitfires were revamped and exported to other countries it was the Flight Shed that made many of those modifications.

No other location has this link to the Spitfire, from first to last.

A later statement also requires comment

Unfortunately, despite further research, no building plans or primary documentation for the construction of the Flight Shed appear to exist. Nor, despite recent assumptions, is there any evidence that the building was built by Supermarine to specifically develop and test the Spitfire alone. (5.9.4)

Despite quoting and referencing “*The Supermariners*” website no attempt was made to contact the project or me directly. Had this been done then it would have been possible to provide some of the primary documentation. Additionally the website references the lease of the land from Southampton Corporation, all material publically available in Council minutes.

I am also waiting for additional documentary evidence from the Vickers Archive.

With regard to primary documentation I have included one such piece from the Hampshire Advertiser dated 1st January 1938 which clearly states that “The new Hangar is nearly complete” confirming and an extract from the Vickers Archive which records the lease of the land for 99 years on which the Hangar would be constructed. To support these documents I have provided an annotated 1939 photograph of the main buildings. It is worth noting here that the Flight Shed did not have some of the extensions that are cited as a reason for the building having changed because they are no longer there!

Following the receipt of the original order for 310 Spitfires Vickers Armstrongs began a massive reorganisation of production facilities and procedures specifically to accommodate the production of Spitfires. Although the Walrus and Stranraer construction was being completed in the final months before war the focus of the new expansion at Woolston, Itchen and at the Airport was for the Spitfire. Such was the focus of Supermarine on Spitfire production that Walrus and Sea Otter production was sub contracted to Saunders Roe. That other Supermarine aircraft may have undergone Flight Tests there is entirely possible but does not change the fact that the Flight Shed was erected to Flight Test and deliver the Spitfires being produced at Woolston, Itchen and assembled in the main hangars in Eastleigh. Additionally, clearly the Flight Shed may have originally been intended to form part of the Supermarine expansion to enable them to meet their orders for Spitfires it did not remain so and played a role in the

development of many of Supermarine's later aircraft from the Spiteful and Seafang through to the jet age Swift and Scimitar. A post war shift from Flight Testing to component and tool design and manufacture is not a detrimental part of its heritage value but an asset as it played a role in not only the World War but the Cold War era too.

The same could be said for the Hawker factory at Weybridge. The significance of the Hurricane was paramount but not exclusive and this is the cited example of an historically significant aviation site for statutory listing.

Significance of Design and Construction

As Supermarine moved on to new types of aircraft the Flight Shed continued to work closely with the Design Office and Experimental Department at Hursley Park and later South Marston through into the 1950s.

- *Although the building was associated with the assembly and flight tests of Spitfires, it is understood the aircraft was not designed in this location nor were the major components constructed here (this was undertaken at other Supermarine facilities and manufacturing sites).*

The Spitfire was never design or constructed in any single location. It was always a modular construction with different locations having different roles. The Flight Shed's role was the last stage where all the design and construction came together with the Ferry Pilots from the ATA and the RAF and Royal Navy.

Specific type of work

- *Furthermore, the building was not specifically created to facilitate a specific form of aircraft testing - for example, designated examples of testing facility at RAE Farnborough and RAE Bedford are deemed to be of importance due to the role which they played in aviation research and testing, and the manner to which this is reflected in the structure of the buildings. The building within the site is a very simple aircraft hangar structure.*

Building Preservation Notice & Historic England assessment

The Council received a recent request to serve a Building Preservation Notice (BPN) on the Flight Shed. A BPN is served to preserve a building from demolition or alteration, ahead of statutory listing. As part of this process the Council sought the opinion of Historic England, the relevant body, who responded to indicate the building has been too altered to satisfy the listing criteria. Therefore a BPN has not been served and the building is not afforded any significant protection from demolition.

Historic England have not stated that the building has been too altered to satisfy the listing criteria. They have provided "*an **informal steer** that the building was **probably** too altered for listing*" and that this was "***based solely on the limited information provided***" (full quote from Historic England below)

As has been demonstrated this “limited information” was neither accurate nor complete.

To suggest that this is their final position is highly misleading and a BPN should be provided until such time as a full review can be completed by Historic England

Criteria for National Listing

It should be noted that Historic England’s guidance on the listing selection criteria for Industrial Buildings provides the following guidance in relation to motorcar and aircraft factories: “The large assembly plants seldom are unless they have intrinsic architectural or technical interest, [...] Some factories can claim historical importance, such as the former Hawker factory in Kingston-upon-Thames of 1933 (Grade II) wherein a number of important aircraft, above all the Hurricane, were designed and produced. Often, however, remarkable vehicles were produced in unremarkable premises whose listing is unlikely to be warranted.”

Therefore, the Flight Shed building is considered to be a non-designated heritage asset as having a degree of heritage significance whilst not meeting the criteria for designated heritage assets (statutory listing). On this basis, the NPPF tests in the public benefits of the scheme must be balanced against the loss of the heritage asset.

I must stress again that, however well intentioned, the Planning Officer cannot state that the Flight Shed does not meet the criteria for designated heritage assets (statutory listing). That is for Historic England to determine.

I specifically asked the officer for Historic England about what they had been asked with regard to the Flight Shed by the Planning Officer. I quote their reply (highlighting is mine)

“I can confirm that Historic England were recently contacted by the local authority for an informal view following their receipt of a planning application. The London and South East Listing Team responded, providing an informal steer that the building was probably too altered for listing. ***It should be noted that this informal steer was based solely on the limited information provided and should more/new information be brought to our attention this view could change.*** No formal applications to consider the building for designation have been received, no formal assessment has taken place and no listing report, advice or recommendation has been made.”

“Should a listing application be submitted to us we will consider it in line with our standard policy and procedures.”

It is clear that both the **Pegasus Group Heritage Report** and **Planning & Economic Development Report** have used limited information that is both flawed and incomplete.

Further I believe that the Criteria stated illustrate precisely the historical importance referred to by the example "Some factories can claim historical importance, such as the former Hawker factory in Kingston-upon-Thames of 1933 (Grade II) wherein a number of important aircraft, above all the Hurricane, were designed and produced."

Conclusion (Recommendation)

No Planning decision should be made until a full review of the building for Statutory Listing by Historic England has been made.

The Supermarine Flight Shed is quite literally of unique historical importance:

- It was created specifically to meet the requirements of Supermarine for increased Spitfire Production following the order for 310 Spitfires in 1936
- It was the site through which the vast majority of Spitfires that fought in the Battle of Britain passed.
- It is the only building which had a direct and vital role in what is unquestionably the most iconic fighter aircraft ever produced from the very first production aircraft to the very last.
- It continued to play a key role in the development of Supermarine aircraft through to the Cold War jet age with the Swift and Scimitar

The Planning & Economic Development Report accepts tis:

“The flight shed is the last surviving structure of what was once a prominent group of aerodrome buildings that contributed to the development, the testing, and the mass production of commercial and military aircraft in the 20th Century. It played a vital role in the build up to, and during, the Second World War and contributed to the early testing and development of the Spitfire. It also played a vital role in the development of Eastleigh Airport during the post-war period. For these reasons, the Council’s Historic Environment Officer considers the building should be afforded a high degree of historic interest.”

However, it failed to offer protection based on, what has been demonstrated to be, incorrect assumptions and inadequate research.

Without access to the site to provide that adequate research it is impossible to judge the actual historic condition of the building. However, before any decision is made a proper, formal review should be undertaken.

For a City proud of its heritage and proud of its links to the Spitfire to allow the destruction of one of the most significant remaining buildings associated with the Spitfire and the Battle of Britain would be tragic. But to allow its demolition without first having done a proper analysis would border on criminal.

A full formal review with regard to Statutory Listing must be undertaken and the Flight Shed preserved until this has been done.

Whether Historic England believe that there is sufficient historic significance to merit Statutory Listing is for them to determine but until that determination has been made no permission for the development of the site that involves the demolition of the Flight Shed should be approved.

Use of material in review

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David Key
The Supermariners

Appendix

Figure 1: Lease of Land for the Flight Shed (New Hangar) June 1937

Vickers Archives 315 – Sheet 124 – 8th May 1938

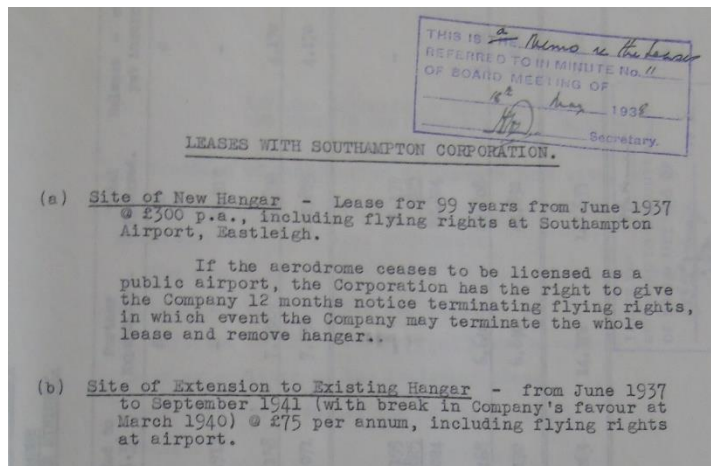


Figure 2: Hangar nearing completion, Hampshire Advertiser 1st Jan 1938



<https://search.findmypast.co.uk/bna/viewarticle?id=bl%2f0003142%2f19380101%2f123&stringtohighlight=%22the%20airport%22>

Figure 3: Expense for Expansion Programme – Extensions

Vickers Archives 315 – Sheet 123 - 8th May 1938

Potentially referring (by dating) to the Extensions at the Airport. Note: the reference to a mobile crane

123

EXPENDITURE UNDER EXPANSION PROGRAMME
AND APPROVED AS SUCH IN PRINCIPLE BY A.I.H. MINISTRY.

	Amount of Grant	Expended to 31.3.38	Further Expenditure.	Total Incurred.	Balance - or not yet incurred.
	£	£	£	£	£
WORKS EXTENSIONS.					
Completed:					
As already reported	69,913	69,913	-	69,913	-
Still in Progress:					
Expenditure authorised to 30th April, 1938	37,060	25,158	7,732	32,890	4,170
	<u>£106,973</u>	<u>95,071</u>	<u>7,732</u>	<u>102,803</u>	<u>4,170</u>
PLANT AND MACHINERY.					
Completed:					
As already reported	21,199	21,199	-	21,199	-
Mobile Crane (No. 92) (Original Grant £1,040 - Exp. 2/25)	825	825	-	825	-
	22,024	22,024		22,024	
Still in Progress:					
Expenditure authorised to 30th April, 1938	28,050	16,168	6,640	22,808	5,242
	<u>£50,074</u>	<u>38,192</u>	<u>6,640</u>	<u>44,832</u>	<u>5,242</u>
TOTAL of WORKS EXTENSIONS & PLANT AND MACHINERY	<u>£157,047</u>	<u>133,263</u>	<u>14,372</u>	<u>147,635</u>	<u>9,412</u>
Already financed		£133,263			
To be financed:					
Incurred	£14,372				
Not yet incurred	9,412				
	<u>£23,784</u>				
		<u>£157,047</u>			

THIS IS THE *9th* ACCOUNT REFERRED TO IN MINUTE No. 14 OF BOARD MEETING OF 18th March 1938 Secretary.

FR/O. 9.5.38

Figure 4: Southampton Municipal Airport 1938

Flight Shed southern aspect showing windows alongside and rear of hangar, triple apex roof with skylights and extended hangar doors with fascia.



Figure 5: Southampton Airport 1939,
Annotated detail Britain from Above EPW060855 - Eastleigh Airport 1939

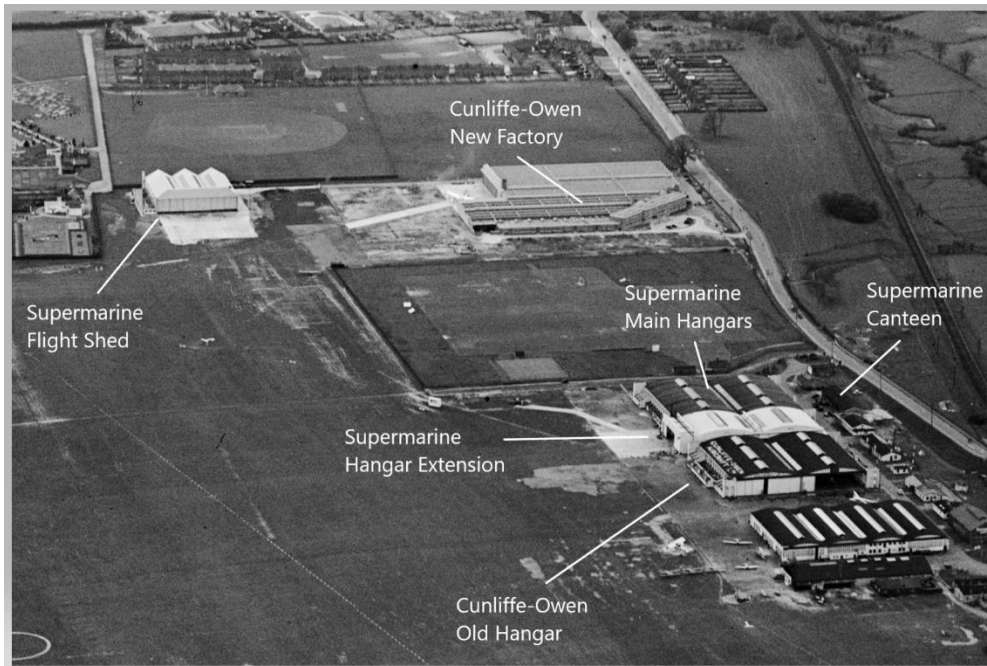


Figure 6: Photograph of Flight Hangar 1939

(dating based on construction of Cunliffe Owen factory)
Note the rear corner of the hangar has a separate single hangar doorway

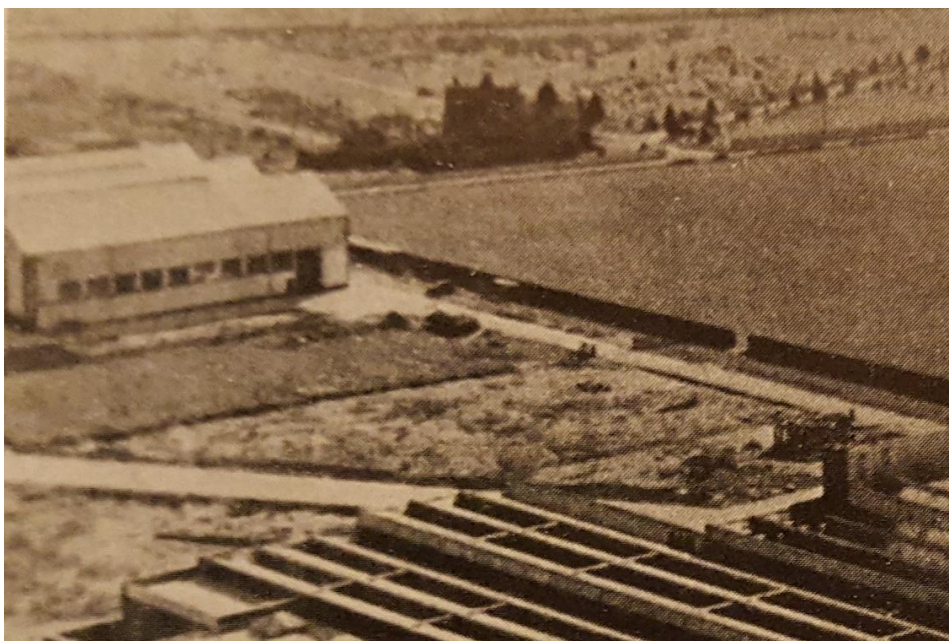


Figure 7: Flight Shed 2013
Photograph J.C. Temple



Figure 8: Spitfires for the Squadrons

Flight Magazine, 9th February 1939
View looking out of the Flight Shed towards main airport hangars



Pushing them out : A view through the hangar doors at Eastleigh. Nearest the camera are (left) Mr. A. H. Nelson, Supermarine's assistant works manager, and (right) F/O. J. K. Quill, test pilot.

Figure 9: Post War Supermarine premises – the Flight Hangar

Extract from letter written by J. Bird of Supermarine to Major Kilner of the Vickers-Armstrongs Weybridge Works, 5th June 1945.

Vickers Archive 754

Rebuild Ithen and the application for license for this work should be pressed for immediately.	80,400 sq.ft.
Retain hangars 1 & 1A at Eastleigh rented from Southampton Corporation and	71,000 sq.ft.
Flight Hangar at Eastleigh, property of V-A, Ltd.	<u>26,250 sq.ft.</u>
These areas give a total of :-	<u>626,298 sq.ft.</u>
which does not cover our requirements by :-	133,702 sq.ft.

Figure 10: The Last Seafire

B. Byrne, June 1947



Figure 11: 1947 Ministry of Production Report on Aircraft Manufacturing

Page from Ministry of Production into UK aircraft manufacturing capacity relating to the Vickers-Armstrongs Supermarine Works Southampton Airport in Eastleigh. Note Construction and annexe building unchanged from pre-WWII. Original document, RAeS Farnborough

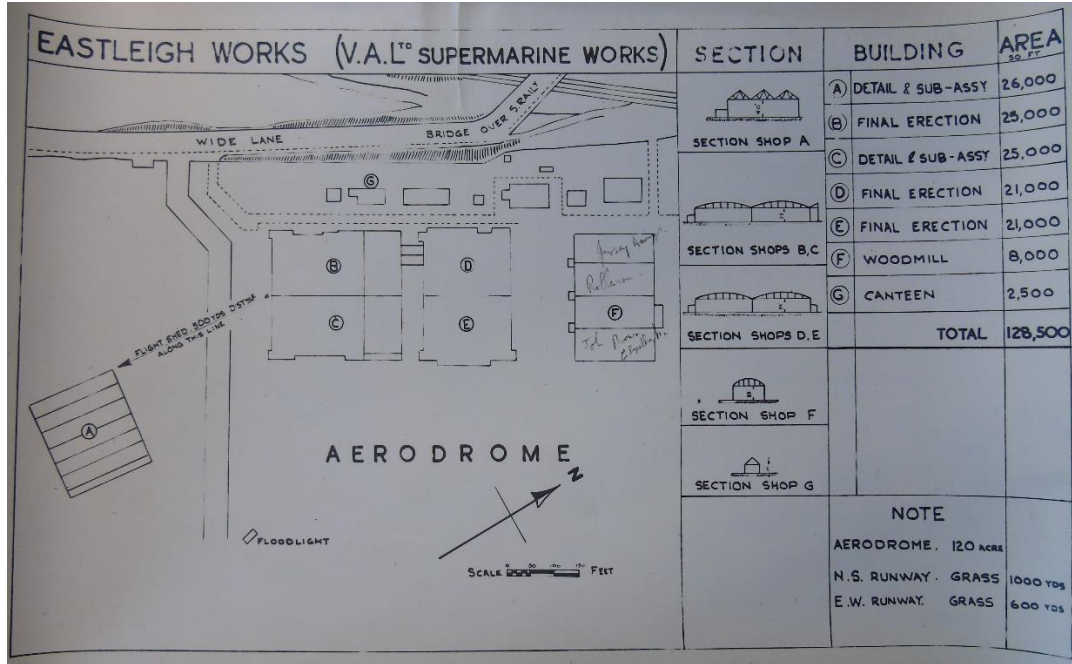


Figure 12: Flight Shed 1950s

Still from home video showing Flight Hangar with doors open
 Rare British Aviation from the 1950s and 60s
 Martin Pengelly <https://youtu.be/E8DjqbxTisA>



Figure 13: The Flight Shed Personnel, 1956

Photograph of the Flight Shed personnel taken in 1956. Picture supplied by a member of the team photographed.



SOUTHAMPTON AIRPORT
VICKERS FLIGHT SHED PERSONNEL
~ 1956 ~
BERT DIAPER (FOREMAN), HARRY MOTRAM (CHARGEHAND)

Figure 14: Solent Sky Photograph of South Marston attributed to Flight Shed

Solent Sky ref. described in Planning report to be the Flight Shed. In reality this is a 1946 image of the Erection Hangar at South Marston near Swindon.



Figure 15: Detail of South Marston Erection Shop

Detail from previous photograph of Seafires and Spitfires at South Marston. Detail annotation shows the Serial numbers of the aircraft by which the location and date were confirmed.

Note a clear indication that this was not the Flight Shed at Eastleigh was the construction of Seafires clearly visible by the arrestor hook at the rear of the tail section.

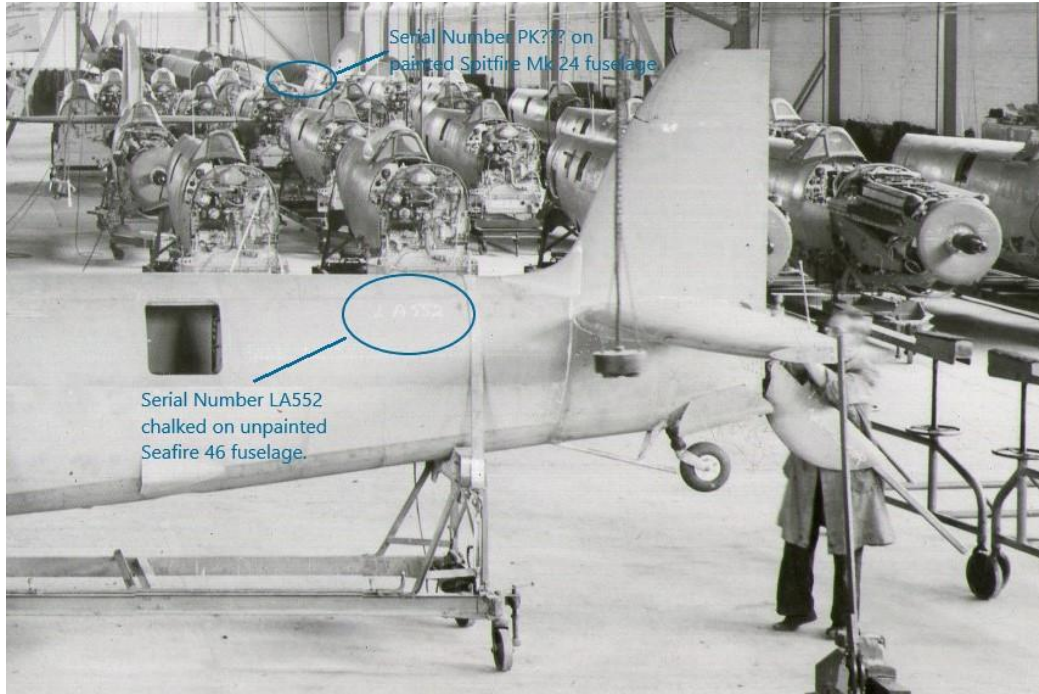


Figure 16: An Array of Spitfire Mk Is at Flight Shed

Hatchard D. Southampton Eastleigh Airport

