By J. A. BAGLEY

This paper is one of a series generated by the Southampton University Industrial Archaeology Group which attempt to record industrial sites in the county. In the case of aerodromes, the term 'industrial' can perhaps be fairly challenged, because many of the airfields have a military origin, and most have served in one or both wars as part of the defence system of this country. On the other hand, in almost every case, surviving buildings or traces can be related to the former activities at the site, and thus form a proper subject for the student of industrial archaeology. The author admits to being a pioneer in the field, but is encouraged by the interest of fellow-members of the Group to hope that this survey will be of general interest; and perhaps encourage other students of military archaeology to publish their researches on other forms of defence works.

#### THE SCOPE OF THE SURVEY

An attempt has been made to list all the sites in the county where a recognised aerodrome existed, even briefly, excluding only private landing grounds used by an individual aircraft owner, and unprepared fields with no permanent structures used for joy-riding flights or one-day air displays. There are two major documentary sources from which aerodrome sites can be identified. The first is a list prepared in the Air Ministry about September 1918, now held in the Public Records Office, which is virtually a 'Domesday Book' of the Ministry's properties at that date.

In most cases, this provides a detailed map of the airfield which pinpoints the location and identifies the buildings, although photographic and other evidence shows that in some cases (e.g. at Eastleigh) not all the buildings on the map were built, and not all the buildings which were built are shown on the map. The second major source is the *United Kingdom Aerodrome Index* published by the Aeronautical Information Service of the Department of Trade and Industry, dated May 1971. This contains the names of 'all aerodromes and landing grounds known to this office to have existed since 1938', together with their geographical location quoted as latitude and longitude to the nearest minute. Whilst this would appear to be sufficient to locate the site precisely, the aerodrome at Marwell, for example, is about one and a half miles away from the point thus identified. This list contains no indication of the size of the airfield or of the structures built upon it, so that in all cases inspection of the site is essential. The author has visited all the sites listed at least once between September 1971 and September 1973, though in many cases only a fairly cursory survey of the site was made. For details of Hythe he is indebted to Mr. W. C. Wells.

#### AIRCRAFT FACTORIES

The gazetteer includes a number of sites where aircraft factories have existed, but it does not pretend to provide a complete list of all the aircraft factories in Hampshire.

A number of smaller companies are not mentioned at all, and most of the major manufacturers had additional buildings away from the airfields mentioned here. During the second world war, in particular, production of aircrast parts was undertaken in many buildings – e.g. garages and laundries – normally used for other purposes.

#### THE DEVELOPMENT OF AIRFIELDS IN HAMPSHIRE

Practical aeronautics in Britain can reasonably be said to begin with Vincenzo Lunardi's balloon flight on 15th September 1784 from Moorfields in London to Standon Green End near Ware, but for the next 100 years ballooning remained mainly an activity for showmen who left little or no permanent trace of their performances. By the 1880's, however, there were two or three civilian manufacturers of balloons for sportsmen, and the Army had established a balloon factory at the Royal Engineers Depot at Chatham. This was moved to Aldershot and reconstituted as a separate unit reporting directly to the War Office in 1892; it is a remarkable fact that the largest of its buildings is still in existence today, though about two miles from its original site (Pl. IIIb). The move of the Army Balloon Factory to the wider spaces of Farnborough was intended originally to facilitate the operation of airships, but by 1908 the Army's first heavier-than-air aircraft was under construction, and with its first flight on 16th October the first airfield in Britain was established. Subsequent clearances of trees and bushes, and piecemeal drainage of the site, produced a reasonably level aerodrome about half-a-mile square by about 1913, although it remained a piece of common land (to which the public had free access at weekends) until 1939.

By 1909, various pioneers were flying in different parts of the county, including De Havilland at Seven Barrows to the north of Whitchurch; in general they required only a reasonably clear field and a substantial slope (as at Seven Barrows) was no disadvantage, but rather an aid to acceleration on take-off. As more people took up the sport, groups of individuals came together at one site, notably at Brooklands where nine hangars were occupied by March 1910 and at Hendon where 200 acres of farmland were cleared and drained to make 'The London Aerodrome' early in 1911. In Hampshire, two airfields were made in 1910, at Beaulieu and at Bournemouth: the latter had only a brief life, but a flying school struggled on at Beaulieu for about 18 months.

The Army's first flirtation with aeroplanes in 1908 was followed by a decision that they were too expensive – no less than £2,500 had been spent! – but early in 1911 the Air Battalion of the Royal Engineers was formed at Farnborough, with a commitment to operate both airships and aeroplanes. At about the same time, the Admiralty allowed four naval officers to learn to fly at Eastchurch, and a slow but continuous expansion of flying in the Army and Navy began. New airfields were established: Larkhill, and Upavon in 1911–12, Netheravon, Montrose and Dover in 1913. A month before the outbreak of the war in 1914, No. 5 Squadron of the Royal Flying Corps moved to Gosport; presumably the airfield was intended to defend Portsmouth against aerial attack, but by mid-August the squadron moved to France and Gosport was

handed over to the Royal Naval Air Service. Meanwhile, the Admiralty had established a number of seaplane bases, including Calshot, during 1913, mainly for scouting aircraft to work with the Fleet.

During the first world war, several hundred airfields were opened in the United Kingdom, mainly for training purposes: Hampshire was fairly sparsely occupied, with the re-opening and expansion of Beaulieu and the establishment of four new fields in the north-east of the county, fairly close to a group of stations on Salisbury Plain. By 1918, the layout of the typical R.F.C. airfield was largely standardised: the landing ground was about 2,000 ft. square, and usually not very level since it relied mainly on natural draining. On one side of the field, adjacent to a road, were three pairs of hangars plus one single one, often supplemented by about a dozen canvas-covered smaller hangars. The main hangars were usually 180 ft. long by 100 ft. wide, with folding doors at each end covering the full width; earlier examples were entirely of wood, but all the Hampshire survivals have brick walls with large external buttresses supporting a curved wooden roof on wooden Belfast trusses. The remaining buildings on the station were usually single-storied brick-built blocks with asbestos-tiled roofs, or wooden huts, though it is doubtful if any of these latter survive today. If the airfield was close to a railway line, it usually had a private spur for delivery of stores.

The manufacture of aircraft in the Solent area started in January 1913 when the boat-building company of John Samuel White & Co. Ltd. started an aviation department at their yard at East Cowes; they were followed later in the year by Noel Pemberton-Billing's Supermarine company at Woolston (Pl. IVa). During the war, the Fairey and Avro companies both started works at Hamble (Pl. IVb). The Army's Balloon Factory at Farnborough became the Royal Aircraft Factory, but political pressures curbed its aeroplane-building activities, and it became instead the major centre for aeronautical research in Britain under its present title – Royal Aircraft Establishment – which was adopted in 1918.

At the end of the first world war, the Royal Air Force (which had absorbed the Royal Flying Corps and the Royal Naval Air Service) was sharply contracted, and almost all its airfields were returned to agricultural uses. Andover and Worthy Down were, however, retained as bomber bases for the period until 1935 when the only plausible enemy was France, forming part of the Wessex Bombing Area. Gosport airfield, and Calshot and Lee-on-Solent seaplane stations, housed the naval co-operation squadrons, and Farnborough was shared between research flying and the Army cooperation work of No. 4 Squadron. Only in 1935, when the re-arming of Germany posed a new threat, was the expansion of the R.A.F. authorised: as a result of this, two new airfields were opened in 1937 at Odiham and at Lee-on-Solent, followed in 1940 by another at Middle Wallop. Odiham conformed closely to the standard pattern established for new permanent R.A.F. stations, with well-designed brick buildings compactly grouped at one side of a carefully drained and graded grass airfield. Three steel-framed brick-clad hangars of the standard 'C' type were provided, each 300 ft. long by 150 ft. wide, screened by poplar trees partly for camouflage and partly to reduce the impact on the local landscape. The typical R.A.F. airfield of the period was designed to provide a circle of diameter 1,100 yards known as the 'bombing circle' clear of all buildings: this obviated taking up more land for practice bomb ranges.

On the civilian side, a significant movement developed in the 1930's for the provision of municipal airfields. Local councils were given powers to construct and operate aerodromes in 1920, but none were actually built (except at Manchester) until it was agreed in 1929 that aerodrome works could qualify for grants from the Unemployment Grants Committee. Portsmouth and Southampton took advantage of this to establish aerodromes: Portsmouth as part of a land reclamation project, and Southampton by taking over the old wartime airfield just outside the city boundary at Eastleigh. In both cases, the incentive was to provide a base for aircraft manufacture. The recently-formed Airspeed company came to Portsmouth, whilst a major expansion of Vickers-Supermarine at Eastleigh was supplemented by new factories for Cunliffe-Owen Aircraft Ltd. A new centre of aircraft manufacture in the Bournemouth area was provided by the Air Ministry's 'shadow factory' scheme: the new factory at Christchurch was managed by Airspeed Ltd. and started work in 1941.

With the enormous expansion of the R.A.F. after the outbreak of war, new airfields were soon needed; the peak of construction was in 1941 and 1942. By this time, two major departures from pre-war practice had profoundly altered the design of airfields: the provision of hard-surfaced runways, and the need for dispersal as a protection against enemy air-raids. Initially it was planned that only bomber airfields would have concrete runways, but by 1942 it was accepted that all new airfields should be built, as far as possible, to a standard pattern with three concrete runways roughly at 60 degrees to each other. These were usually 50 yards wide; the main runway in the prevailing wind direction was 2,000 yards long and the other two 1,400 yards. Around the airfield a concrete perimeter track was provided, with subsidiary tracks leading off to dispersal areas on the edge of the airfield and in surrounding fields and woods. In place of the compact grouping of all the buildings on pre-war R.A.F. stations, it was decided that the technical and domestic buildings should be separated: usually three distinct technical areas were built, each with one or two hangars, between the ends of the runways, while the living quarters were built at least 200 yards away, in groups to house 250 to 400 personnel in each. The standard hangar used was the 'T.2' type, of steel construction with corrugated cladding, 240 ft. long by 115 ft. wide. These were usually supplemented by various smaller hangars, of which the commonest was the arched 'Blister' hangar, 65 ft. wide by 45 ft. long.

Nine new airfields conforming more or less to this standard pattern were constructed in Hampshire between 1941 and 1943, and Odiham and Lee-on-Solent were also developed to a similar standard. A further four 'advanced landing grounds' were constructed in the south-west of the county to provide temporary bases for squadrons supporting the invasion of France.

Most of the pre-war airfields continued in use after the war, although Christchurch and Worthy Down closed in the 1960's. Of the wartime airfields, Hurn has become a significant airport and a major aircraft production centre, Lasham and Thruxton have continued as civil aerodromes, and Blackbushe has had a more chequered history though it remains in use at present. The three large wartime airfields in the New Forest have been successfully converted by the Forestry Commission to public recreation facilities, and the remainder have been returned to agricultural use.

#### GAZETTEER OF HAMPSHIRE AERODROMES

#### Grid References

The grid references quoted for each airfield denote a point from which the most significant remains should be visible; this point is usually near the centre of the landing ground, or the main group of buildings. For some of the larger airfields, additional grid references indicate separate structures of interest. The sheet number of the relevant 1 in. O.S. map is also quoted.

## 1. FARNBOROUGH 169 SU 869545 (Pl. II and IIIb)

The Balloon Factory and School were established in Aldershot (at SU 863522 – where nothing remains of their buildings) in 1892, and were moved to Farnborough during the winter of 1905/6. The original iron-framed 'Balloon House' was moved from Aldershot and still exists, though much modified internally. Other early buildings still visible are the original workshops block (built between 1906 and 1911); the Head-quarters and Mobilisation Store of the Balloon School, later the first headquarters of the Royal Flying Corps (1909); the main offices of the Balloon Factory, later Royal Aircraft Factory and now Royal Aircraft Establishment (1912); three of the original ten aircraft hangars (1912); and a pair of hangars near the main gate (1914) which became a standard pattern built at many R.F.C. airfields during 1914–1917. The track of the railway built into the Factory in 1916 from the L.S.W.R. main line at Farnborough Station can still be traced. Eight terraces of workers' cottages (1915) are immediately adjacent to the Factory at 867549, and a larger estate named Rafborough (1918–20) is at 859550.

The airfield can be said to date from 16th October 1908, when S. F. Cody made the first official flight by a powered aeroplane in Great Britain. In 1909 the Army decided that experiments with aeroplanes were too expensive to continue, but they resumed flying in January 1911 and the airfield has been continuously used since then. The runways were laid in 1940, and progressively extended south-westwards towards the Basingstoke Canal.

## 2. LAFFAN'S PLAIN 169 SU 842529

After the Army dispensed with his services in 1909, S. F. Cody continued to fly as a private individual from this large open space (which was originally cleared by the Army and had been used for large parades and reviews since about 1880) until he was killed in August 1913. The site of his wooden hangar, alongside a small copse and exactly on the boundary between Aldershot and Farnborough, can still just be identified. The area of Laffan's Plain was absorbed into the Farnborough airfield around 1944.

# 3. SEVEN BARROWS 168 SU 463561

A pair of wooden sheds (no longer extant) were erected here in 1909 to house a Voisin biplane owned by J.T.C. Moore-Brabazon, but he sold the machine before bringing it to Seven Barrows. In November/December one shed was lent to Geoffrey

de Havilland to test his first aeroplane, built in Fulham. In 1910 he returned with his second aeroplane, which flew successfully on 10th September. A small memorial obelisk was erected on the site in 1960.

## 4. BEAULIEU 180 SU 372006

The New Forest Flying School opened here in May 1910; it closed in 1912, but the aerodrome was re-opened by the Royal Flying Corps from 1915 to 1919. The foundations of the original hangars can be found, close to the East Boldre Village Hall which is a conversion of a wartime building. More hangars were built in 1918 on the other side of the airfield at 362004, and the main barracks were at 359003, but nothing now remains. The site was listed as a civilian landing ground at least from 1933 to 1938, but was replaced by a new and much larger airfield further west in 1942 – see item 28 below.

## 5. BOURNEMOUTH 179 SZ 150918

An aerodrome was made on allotments at Southbourne for a large flying meeting held in July 1910, and temporary hangars and grandstands were built. The aerodrome seems not to have been used subsequently, though the site was not built over until the 1930's.

# 6. Calshot 180 SU 489025 (Pl. IIIa)

The Admiralty established a base for flying-boats in March 1913; the three original hangars are mingled with later ones on the end of the spit around the tower of Calshot Castle. The main domestic buildings of the camp were built about a mile away at 478013, and a narrow-gauge railway ran between the camp and hangars. The camp buildings mainly survive; the former Officers' Mess (built 1914?) now functions as the Owl and Crescent Hotel. Calshot remained as a flying-boat base until 1953, and also served as the R.A.F.'s main centre for marine craft from 1927 to May 1961; since then it has been occupied by Hampshire County Council as a sports-training centre.

# 7. Woolston 180 SU 435112 (Pl. IVa)

The Supermarine Aircraft Works was established by Noel Pemberton-Billing on a disused coal-wharf next to the Floating Bridge in September 1913, and continued until the majority of the buildings were destroyed in a German air-raid in 1940. The main office block, built about 1935, survives and is now used by Southampton Technical College. A new factory was built in the 1930's about 500 yards upstream, and is now occupied by the British Hovercraft Corporation. Woolston was used sporadically for passenger services using amphibians and seaplanes, and was a Customs airfield until 1937.

## 8. GOSPORT 180 SU 501004

No. 5 Squadron, R.F.C., moved into Fort Grange in July 1914, and established an airfield on the open ground between Fort Grange and Fort Rowner, which remained in use until about 1958. The forts remain, but the oldest buildings now seem to be three hangars of about 1930, whilst the greater part of the airfield has been covered by a Naval housing estate.

## 9. Hamble SU 480070 (Pl. IVb)

There are several sites at Hamble. The Fairey Aviation Company took over some Admiralty buildings at Hamble Point (485059) in 1916 for assembly and flight-testing of floatplanes built at their main factory at Hayes, Middlesex. They continued to build aircraft at Hamble until about 1945, when the works were transferred to the associated boat-building company, Fairey Marine Ltd. It is believed that the original buildings still survive, in substantially rebuilt form.

About one mile to the north, the Avro company built a small factory in 1916: A. V. Roe had planned to move his main works from Manchester and to build a Bournville-style Garden Suburb, but wartime restrictions prevented this. The original factory, with a distinctive square concrete chimney, now forms the central part of Petters' works at 477068. The original aerodrome lay between the factory and the shore of Southampton Water, with a slipway for testing seaplanes; this area is now occupied by the Shell fuel depot. A new airfield north of the main road was opened in August 1926, and this is still used by the College of Air Training.

Another factory was built at 469072 by British Marine Aircraft Ltd. in 1934 to build large flying-boats; none were in fact built, but the factory was taken over by Folland Aircraft Ltd. in 1936 and is now used by Hawker-Siddeley Aviation. The slipway behind the works is now used by boats.

# 10. LEE-ON-SOLENT SU 557011 (Pl. VIIa)

A training station for seaplane pilots was opened here in July 1917 by the Royal Naval Air Service; originally a large crane was used to lift the aircraft into the water, but in 1918 three slipways were built. Two of these are still in use by the Joint Services Hovercraft Unit, who occupy the original hangars at the top of the slipways. An aerodrome was built behind the seaplane station in 1937, and enlarged during the war to the standard three-runway pattern; it is still used as a base of the Fleet Air Arm.

# 11. CHATTIS HILL 168 SU 333353

The first airfield here was used by the Royal Flying Corps for training from 1917 to 1919; over 100 aircraft operated from an undulating aerodrome 1,100 yards by 850 yards on Houghton Down. All that remains are the foundations of the hangars, and a pair of buildings, probably originally garages, now used as a cottage and barns. A second airfield was used by Vickers-Armstrongs Ltd. for assembly and testing of Spit-fires from 1940 to 1945; the airstrip was on the west side of the road to Danebury Hill, and the assembly sheds were in the woods at SU 330362. The foundations are used as a County Council dump for roadstone.

## 12. LOPCOMBE CORNER 167 SU 270355

An R.F.C. training station in 1918; only a few of the smaller buildings are still in existence around Hollom Down Farm.

## 13. Worthy Down 168 SU 470350

An R.F.C. training station from 1918 to 1921; then a bomber station from 1926 to 1938, and a Royal Navy airfield until 1960; now headquarters of the Royal Army Pay Corps. Their buildings appear to have incorporated some barrack huts probably of about 1938 vintage, but no hangars survive. The bomb stores of about 1930 at 473356 are now used for agricultural storage; an Air Ministry boundary stone at 462357 marks a corner of the 1918 aerodrome.

## 14. ANDOVER 168 SU 330455

This airfield, opened by the R.F.C. in 1918 as No. 2 School of Navigation and Bomb-Dropping, is still used by the R.A.F. and is the best-preserved World War I airfield in Hampshire. Five of the original seven hangars with wooden 'Belfast Truss' roofs and brick buttresses survive, and the airfield still has a grass surface and almost its original boundaries. The original hutted accommodation was supplemented in the 1930's by substantial brick-built blocks.

## 15. Eastleigh 180 SU 450170 (Pl. V and VIa)

This airfield was built for the R.A.F. in 1918, but before completion it was allocated to the United States Navy as an aircraft assembly and repair depot supplying their bomber squadrons in France. The original wooden-trussed hangars from this period still survive: the four larger ones used for storage by the Ford Motor Company, and the four smaller ones converted for passenger-handling. The Americans built a steel-framed mess building which was used until 1973 as a warehouse; other smaller buildings of 1918 still exist, though most were demolished in the last months of 1973 to be replaced by modern warehouses. A railway spur off the main line served the airfield, but no trace remains.

The Americans left Eastleigh in April 1919, and for some time afterwards the buildings were used as a transit camp for European immigrants to the U.S.A., maintained by the shipping companies under the name of Atlantic Park. In November 1932 the airfield was re-opened by Southampton Corporation as a municipal aerodrome, using the wartime buildings. In October 1935, four Fleet Air Arm squadrons moved into a wooden-hutted camp in the north-east corner; these buildings were demolished after the war. Factories were built on the southern perimeter for Vickers-Armstrongs Ltd. in 1937 and for Cunliffe-Owen Aircraft Ltd. in 1938, both now absorbed in the Ford factory. A new large hangar was built by the Southampton Corporation in 1939, but the proposed new terminal building was not started. Wartime developments included extension of the airfield northwards, and additional hangars.

After the war, the airfield was operated by the Ministry of Civil Aviation for internal airlines, with services mainly to the Channel Islands. It was denationalised in May 1961,

and Southampton Corporation transferred the freehold to a private company. The single concrete runway was opened in January 1966, and the Southampton Airport station on the railway in April 1966.

## 16. Portsmouth 180 and 181 SU 670035 (Pl. VIIb)

The municipal airport was built on reclaimed land on the shore of Langstone Harbour in 1932, with a miniature terminal building and adjacent hangar at 671030. A factory was built for Airspeed Ltd. early in 1933 and progressively expanded in the southern corner of the airfield. Other factory buildings were built before the war for Portsmouth Aviation Ltd., later used mainly for building bus bodies. A new control tower and terminal building at 673037 was built about 1968, whilst the eastern side of the field has been progressively developed as an industrial estate.

### 17. SOUTHAMPTON WATER 180

Flying-boat services were operated in 1923-4 from Supermarine's slipway at Woolston (see item 7) to Guernsey, but regular passenger services to South Africa, India and Australia were started by Imperial Airways in February 1937. A maintenance base was established at Hythe (429077) using aircraft hangars of wartime vintage leased from Vickers-Supermarine Ltd.; these still exist, together with the pier built alongside for passenger embarkation. In 1939, the embarkation of passengers was moved to Berth 108 in Southampton Docks, but when services were resumed from Southampton in April 1948 (after wartime diversion to Poole Harbour) a new B.O.A.C. terminal was provided at Berth 50: this building is now used by the R.N.R. A specified 'water aerodrome' was reserved for flying-boat operations in the Southampton Harbour Act (July 1939): this area off Netley is still marked on some maps and charts, but has not been licensed as an aerodrome since Aquila Airways ceased operations in September 1958.

# 18. HAYLING ISLAND 181 SU 722039 (?)

A civil aerodrome was operated here by Mr. G. Morgan-Harris from about 1933 until 1939. Childhood memories of a local inhabitant record one metal hangar at the map reference quoted, but nothing can now be seen. The operator also had joy-riding fields at Horndean and at Eastoke Point.

# 19. ODIHAM 169 SU 740490

Part of the present airfield was used as an R.A.F. summer camp from 1926, but the main hangars and permanent buildings were built in 1936-7 under the R.A.F. Expansion Scheme. A very high standard of design and construction was used for the major R.A.F. stations built at this period, and Odiham provides an excellent example. A compact grouping of the brick-built main buildings at one side of the airfield was used, and trees were planted to reduce the impact on the countryside. Hard runways were laid down in 1942, with post-war extensions; a metal T.2 hangar on the south side is a remnant of wartime dispersal practices.

## 20. MIDDLE WALLOP 168 SU 305393

Like Odiham, this was built as a permanent R.A.F. station under the expansion scheme, but it was not completed until April 1940, and austerity restrictions during construction still leave their mark today when the airfield is the headquarters of Army Aviation. The absence of tree-planting around the buildings is obvious; also the wooden huts which largely took the place of brick-built barrack blocks. Some of these still exist, particularly on the north side of the A.343 where former hutted accommodation is now occupied by a firework factory. The airfield was extended during the war, but only had one temporary runway, now disused.

## 21. CHRISTCHURCH 179 SZ 185934

Opened about 1935 as a flying-club airfield, Christchurch was selected as the site for a 'shadow' factory managed by Airspeed Ltd., which started production in 1941. After the war, the main Airspeed design organisation moved to Christchurch; the company amalgamated with the De Havilland Company in June 1951. A hard-surfaced runway was constructed in 1950 to allow testing of jet aircraft. Aircraft production ceased about 1962; the airfield finally closed about 1968. New houses are covering the airfield from the south-west, whilst the Ministry of Defence Signals Research Establishment has occupied the north-eastern end.

## 22. MARWELL 168 SU 505212 (Pl. VIIIa and b)

Marwell was established by Cunliffe-Owen Aircraft Ltd. about September 1941 as a flight test base outside the Southampton balloon barrage. The site reverted to agricultural use in 1945; several small hangars are still to be found amongst the woods on the north side, and the main entrance gate is still obvious at 501210. The line of the main landing strip is revealed by a gap in a line of roadside poplars at 511211.

# 23. CHILBOLTON 168 SU 390380

Originally opened in September 1940 as a small grass airfield and built to the standard wartime 'dispersed' pattern with small groups of buildings around the perimeter. Three runways were built, between June and December 1943; it was used by American and British fighters until 1946, and by Vickers-Armstrongs for Spitfire assembly and testing, and reactivated in about 1958 for test-flying by Folland Aircraft Ltd. One T.2 hangar (and other buildings) at 388377 is now used for grain storage, and there is a good example of a dispersed domestic site at 407380. A large radio telescope has been built near the intersection of the runways, which have otherwise been taken up.

# 24. IBSLEY 179 SU 155090

An R.A.F. three-runway airfield opened in February 1941, and used mainly by fighters until closed in 1945 or 1946. The largest relic is an unusually large derelict control tower at 158088, Nissen huts, air-raid shelters and remnants of runways are also visible.

## 25. THRUXTON 168 SU 280455

A three-runway airfield of standard pattern opened in August 1941, used mainly by ground-attack fighters until 1944, then by gliders and tugs until 1945, and by civil aircraft since 1946. It has also been used as a motor-racing circuit since about 1965, using the runways and perimeter track. Various wartime buildings still exist, notably a T.2 hangar at 280452 and a typical air-traffic control tower at 274453.

# 26. LASHAM 168 and 169 SU 675435 (Pl. VIb)

This airfield is a typical example of an R.A.F. standard operational airfield, built in 1941/2 with three hard runways and buildings dispersed in small groups around the perimeter. Airfield construction entailed diversion of the A.339 road away from Lasham village onto a line including part of the former Basingstoke and Alton Light Railway, leaving a milestone and signposts to mark the old route. The three original T.2 hangars still exist (with later additions), occupied respectively by the Lasham Gliding Centre, Dan-Air Ltd., and the Ministry of Defence; only fragments of the domestic sites dispersed between them remain. Apart from being used by three squadrons of light bombers for most of the war, Lasham was apparently also a glider storage unit, with additional T.2 hangars in the fields to the north of the airfield, and connected by taxitracks; one hangar survives, now completely cut off from the airfield, which is occupied by a firm of aircraft breakers. (Destroyed by 1974.)

# 27. HURN 179 SZ 115930

Hurn opened in August 1941 as a fighter airfield, and was extended in 1942 for use by airborne forces, with the standard runway pattern and dispersed sites up to a mile from the field. In November 1944 Hurn became the main base for civil flying by B.O.A.C. until their operations were transferred to London Airport. In 1951, Vickers-Armstrongs Ltd. opened a flight-test centre at Hurn, which expanded into a production factory now operated by the British Aircraft Corporation, still in part occupying wartime buildings.

# 28. Beaulieu (2) 180 SU 350005

In August 1942 an entirely new airfield was opened about one mile to the west of the original Beaulieu airfield discussed above. This had three concrete runways and was originally used by anti-submarine aircraft of Coastal Command. Before the invasion of France in June 1944 American bombers and fighters were based there, but from January 1945 until September 1950 it housed the Airborne Forces Experimental Establishment. Nothing now remains except parts of the runways and perimeter track used as a public car park, and foundations of buildings, e.g. at 360010.

# HAMPSHIRE AERODROMES 31♦ FARNBOROUGH BASINGSTOKE **Kilometres** ♦32 □19 Miles **ANDOVER 33** ♦26 Land Aerodromes ALTON ∇ Pre 1914 Δ 1914-18 \$20 ♦23 1919-39 **(26**<sup>11</sup> o 713 ♦ Post 1940 STOCKBRIDGE WCHESTER O ★ Water Aerodromes **♦22** SOUTHAMPTON ♦30 LYNDHURST \$24 RINGWOOD ♦36 28♦ ♦ **♦**29 **♦27** 37 BOURNEMOUTH

## 29. HOLMESLEY SOUTH 179 SZ 210986

A standard three-runway airfield opened in September 1942; used mainly for antisubmarine operations until 1944, when fighters and bombers supporting the invasion of France moved in, followed by R.A.F. transports until the airfields closed in October 1946. Parts of two runways still exist on privately-owned ground at the western edge, and two small brick huts at 216985. A public caravan park at 215992 uses the perimeter road and aircraft dispersal areas, and a public road from 210986 to 209993 is laid on part of one runway.

# 30. STONEY CROSS 179 SU 247130

A standard three-runway airfield opened in November 1942, used initially by ground-attack Hurricanes and Mustangs, then from August 1943 until March 1944 by British and American gliders and tugs. American fighters and bombers supporting the invasion were followed by R.A.F. transport squadrons from November 1944 until October 1946 when the airfield closed. No structures remain except the water tower at 250129, now serving a camping site on the foundations of the main barracks area. Other camping sites at Janesmoor Pond (246136) and Ocknell (250129) occupy old aircraft dispersal areas. At 247131, the road to Linwood lies along one old runway, and that to Lyndhurst uses the old perimeter track. Brick rubble in the old foundations at this point may possibly have been derived from bombed buildings, probably in Southampton.

## 31. BLACKBUSHE 169 SU 810590

Opened in January 1943 (and known as Hartford Bridge until October 1944), this was another R.A.F. standard three-runway airfield. It was occupied mainly by light bomber squadrons until the end of the war, but was also equipped with FIDO fog dispersal equipment as a diversion airfield for heavy bombers. It was closed in November 1946, but re-opened almost immediately as a base for independent airlines. It remained as a civil airport until 31st May 1960, when the land was de-requisitioned. The eastern end, part of Yately Common, was cleared, apart from a hangar built by the U.S. Navy about 1953 (at 813597), and has reverted to scrub – which grows particularly well in the trenches of the old FIDO installation. At the western end, on privately-owned land the runways were kept, and re-licensed as an airfield in 1962. The only building surviving from the previous era was the passenger terminal at 810588, which still stands, though the eastern half of the building lying on Yately Parish Council's land is disused.

# 32. FROST HILL FARM 168 SU 516530

# 33. Larks Barrow 168 SU 464457

These two airfields (of 1940-44 period) were designated as Relief Landing Grounds, which implies that they were used for 'circuits and bumps' by aircraft from neighbouring Flying Training Schools. Normally the only ground installations at such fields were

one or two windsocks and three huts for the duty crew: a derelict Nissen hut survives at Larks Barrow.

Note: Larks Barrow is the name of a mound at 464508, some three miles away. It seems at least possible that there is some confusion in the A.I.P. Aerodrome Index and that the landing ground at 464457 could have been called Larkwhistle Farm.

34. LYMINGTON 180 SZ 342960

35. NEEDS OAR POINT\* 180 SZ 402978

36. BISTERNE 179 SU 155030

37. Winkton 179 SZ 165975

These four airfields were all Advanced Landing Grounds used as fighter bases for a few weeks in summer 1944 in support of the invasion of France. Temporary runways were made by laying steel wire mesh reinforcement on the grass surface; in most cases the runways crossed roads where the ditches were culverted. Few traces now remain except at Lymington, where a blister hangar at 343965 is used as a farm building, and the site of another hangar at 344960 still has some of the runway reinforcing material. Another scrap of this is to be seen in a hedge at Needs Oar Point at 402977. At Bisterne and Winkton the most obvious trace of the old airfields is the replacement of hedges by concrete posts and wire fences, but culverted ditches can also be found.

# 38. HAWLEY 169 SU 842586

The official name of this airfield is uncertain, but two short concrete runways were built here about 1960 as a training exercise by the Royal Engineers, and have been used occasionally by the Army Air Corps.

Two pre-war civilian airfields have not been positively located, but are recorded in various lists as having existed between 1933 and 1938. One was at Ecchinswell, in the vicinity of Sydmonton (SU 485577); the other one mile north-west of Lymington, presumably at about SZ 305965. Both were probably private landing grounds. A number of post-war private landing strips are known, but do not justify listing. Helicopter landing sites have also been ignored.

## Acknowledgements

The brief notes on the military history of the airfields have been obtained, for the most part, from the records of the Airfield History Group of Air-Britain, run by Mr. J. J. Halley and Mr. P. M. Corbell; they have transcribed and collated a great deal

<sup>\*</sup> The Ordnance Survey has more recently favoured the spelling of this name as Needs Ore Point, but the preferred name in R.A.F. records appears to be Needs Oar Point.

of information from the Air Ministry and other records, and the author gratefully acknowledges the help they have given him. Details of the civilian history have been culled from various sources, notably contemporary issues of the two weekly aviation magazines, Flight and Aeroplane.

The author also acknowledges the interest and encouragement of Dr. E. A. Course, who first suggested that airfields merit the scrutiny of the industrial archaeologist.

#### **BIBLIOGRAPHY**

The list of aerodromes in 1918 is PRO/AIR/1/452 Quarterly Survey of Stations of the Royal Air Force (British Isles), September 1918. (As far as is known, this was the first and only quarterly survey.)

The United Kingdom Aerodrome Index is a duplicated list, published by Aeronautical Information Service (AIS 1a), Dept. of Trade and Industry, Pinner, Middlesex, May 1971. What is essentially the same list, with some additions and deletions, is included in British Isles Airfield Guide, published by Merseyside Aviation Society, Liverpool, July 1973.

Much useful information can be obtained from the aviation magazines, especially for the period between the two wars. The most useful are *Flight*, published weekly since 2nd January 1909, and provided with annual or semi-annual indexes; and *The Aeroplane*, published weekly from 8th June 1911, but indexed only from 1934, which ceased publication 16th October 1968.

There is a large quantity of literature on aeronautical history, but very little on the development of aerodromes except major airports. To the author's knowledge, there is nothing of consequence on any Hampshire aerodrome, although a history of Calshot is due to be published in 1974.