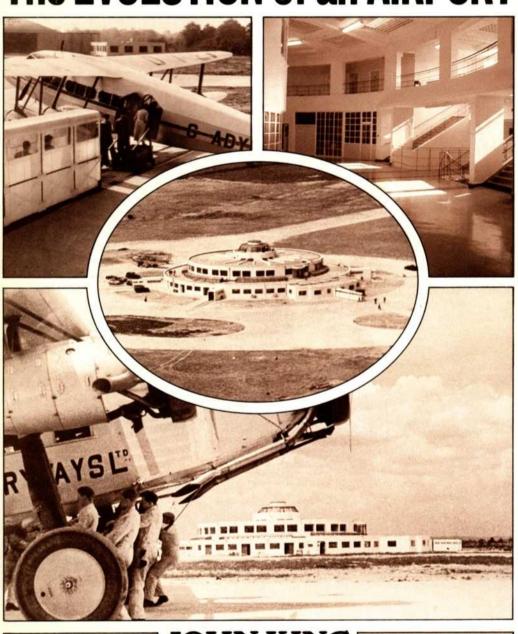
# GATVICK The EVOLUTION of an AIRPORT



**JOHN KING** 

Gatwick Airport Limited

and
Sussex Industrial Archaeology Society



### SUSSEX INDUSTRIAL HISTORY

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## GATVICK The EVOLUTION of an AIRPORT

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#### **FOREWORD**

Air Marshal Sir Frederick Sowrey KCB CBE AFC

This is a story of determination and endeavour in the face of many difficulties — the site, finance and "the authorities" — which had to be overcome in the significant achievement of the world's first circular airport terminal building. A concept which seems commonplace now was very revolutionary fifty years ago, and it was the foresight of those who achieved so much which springs from the pages of John King's fascinating narrative.

Although a building is the central character, the story rightly involves people because it was they who had to agonise over the decisions which were necessary to achieve anything. They had the vision, but they had to convince others: they had to raise the cash, to generate the publicity, to supervise the work — often in the face of

opposition to Gatwick as a commercial airfield.

My own introduction to the Beehive came six years after it was opened when the squadrons at the grass airfield that was war-time Gatwick used the building as a Headquarters. As well as the administrative centre, it also housed the Link instrument flying trainers on which we practised our developing skills. Some of those whose achievements are the thread of this story were still living locally and were hospitality itself to the Royal Air Force pilots using their brainchild.

Perhaps the most remarkable thing about a remarkable building is that it is still around. No one has demolished it, yet it is not now used as a terminal. Although it never achieved the success hoped for, successive owners have recognised its worth. All credit to Gatwick Airport Limited, (formerly the British Airports Authority) for marking the 50th Anniversary by publishing a work of historical significance which will materially help to achieve the preservation of the building it portrays.

#### INTRODUCTION

In 1980 I co-authored an outline history of Gatwick for the airport's fiftieth anniversary as a licensed aerodrome. There was always an intention to follow this with a more detailed history of Gatwick but time has not been propitious. Nevertheless I felt I wanted to see a publication in 1986 to mark the fiftieth anniversary of the world's first circular air terminal, now universally known as the Beehive. 1936 also marked the beginning of scheduled services from Gatwick, the airline being British Airways Ltd.

I have deliberately concentrated on Gatwick's early years as I felt that it was important to set down the history of that period. I have also deliberately concentrated on the parts played by certain individuals, in particular Morris Jackaman and Marcel Desoutter, without whose visions and persistence we would not have Gatwick today.

Many people have made this publication possible and it would be invidious to try to name them all. Nevertheless I must mention Mrs. Cherry Jackaman who in 1981 enthusiastically received me at her home in Australia so soon after her husband's death. As the story will reveal, it was Morris Jackaman who purchased Gatwick in 1933 with a vision of developing it for scheduled services.

The late Dudley Dalton who worked at Gatwick from the earliest days was also very helpful as was Raymond Graebe who from 1936 was the accountant of Airports Ltd for many years. Alan Marlow, the principal architect of the 1936 terminal building, provided equally vital information. Dennis Desoutter and other members of the family have also helped with information about Marcel Desoutter.

Without the help of the above-named, it would not have been possible to chronicle in detail the early history of the airport. Nevertheless, I am most grateful to all those who have helped including the various archivists and librarians who by convention one does not name.

I am also grateful to various copyright holders for allowing me to reproduce their photographs. In certain cases, it is regretted that it has not been possible to ascertain the copyright.

Finally, I must express my gratitude to the three ladies who successfully deciphered my manuscript to produce a typescript.

#### 1. THE EVOLUTION OF AN AIRPORT

Gatwick Airport began life as a licensed aerodrome on 1 August 1930 when two young men, Ronald Waters and John Mockford, transferred their pilot instruction and joyriding company, Home Counties Aircraft Services Limited, from Penshurst. They subsequently formed the Surrey Aero Club. Waters had visions of developing Gatwick, which was just a field next to the Gatwick Racecourse, into an airport for scheduled services but he had difficulty in interesting the Air Ministry in designating Gatwick as an Emergency Landing Ground. Nevertheless the aircraft of the international airlines did, occasionally, use Gatwick when Croydon was fog-bound.

Waters and Mockford were unable to make any money from their activities at Gatwick which had an air of abandon and good living. By the time the Air Ministry began to take an interest in Gatwick, it was too late for the young men who in May of 1932 sold out to the Redwing Aircraft Company.

The Redwing Aircraft Company was the manufacturer of an attractive side-by-side two-seater light aircraft. At the time of the Gatwick purchase, the company was based near Colchester. The original plan was to move the factory to Gatwick but in the event Redwing restricted its activities at Gatwick to a School of Flying & Aeronautical Engineering and the main sales office. The Surrey Aero Club was taken over by the aerodrome's new owners, thus continuing the relaxed atmosphere. Discussions also continued with Imperial Airways and the Air Ministry about use of the aerodrome as a bad weather diversion point for Croydon, while the Southern Railway became involved in the negotiations. By the end of 1932 the Air Ministry was committed to a limited expenditure at Gatwick as a diversionary airport for Croydon, the country's principal airport.

In the meantime, Redwing's owner, a wealthy American ex-patriate, grew tired of aviation. The second change of the aerodrome's ownership came in September 1933. The Air Ministry file on Gatwick records that on 30 September, one Morris Jackaman, telephoned Wing-Commander Allen at the Air Ministry to say that he had purchased Gatwick a few days earlier for £13,500. Allen was the Technical Assistant in the Directorate of Civil Aviation at the Ministry and had special responsibility for airports. The exact circumstances of the change are not clear but certainly on 19 September there was a charge on the property from Redwing's owner, the Fairfield Investment Company, to Vera Ford whose identity is not clear and to R. C. Bartlett.

Morris Jackaman, an energetic young man of 29 who lived with his parents near Slough, explained to Allen his plans for Gatwick. He envisaged a scheduled service operating from Gatwick to Paris from the spring of the following year, using the new six-seat D.H.84. In the meantime, he hoped to purchase an additional field to the west of the aerodrome and to induce the owner of the adjoining racecourse to allow him to include a strip of land to the north to give longer runs for aircraft. He also said he would be prepared to make improvements to the aerodrome to bring it up to the standards of a relief aerodrome for Croydon.

Allen was quite familiar with Gatwick and had been involved in discussions about the aerodrome almost from the beginning of his career at the Ministry in 1930. In August 1932 he had visited Gatwick to see if Redwing had improved the aerodrome to the standard required for a relief aerodrome. His opinion was that there was no reason why it could not be used as an alternative to Croydon when the latter was fog-

bound, provided the surface could be improved and some of the adjoining thick growth removed. Imperial Airways operations managers shared his views.

Some improvements had been carried out before the aerodrome changed hands but not to the standard required. Thus Allen told Jackaman that he estimated the outstanding work would cost £11,400 which was nearly as much as Jackaman's father had paid for the aerodrome. Allen also pointed out that before Gatwick would be of any value for Continental traffic, it would be essential to drain its north eastern corner and to improve the flow of the Mole. At the time of the change of ownership, Gatwick had take-off and landing runs of 650, 800, 550 and 650 yards. Its buildings included one corrugated iron hangar with dimensions thirty-four by thirty-five feet. Jackaman acknowledged the expenditure required but it did not seem to worry him and he told Allen that he would be prepared to find the necessary money as he preferred the whole concern to be under his control.

As Jackaman is a vital character in Gatwick's story, it is necessary to look at him in some depth. Alfred Charles Morris Jackaman was born on 8 January 1904 in Slough. He was educated at Oundle, subsequently studying at Clare College, Cambridge where he graduated as a Master of Arts. He was not only academic but excelled in three sports — rowing, swimming and rifle shooting. After leaving Cambridge, he joined in 1926 the family civil engineering business of A. Jackaman & Sons Ltd. which his grandfather had started



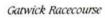
First licence for Gatwick Aerodrome, issued in 1930 to Home Counties Aircraft Services Ltd (Public Record Office)







In the beginning: a line up of Gatwick aircraft, 1930 (Eve Brothers)







in the nineteenth century. The company had been one of the first to use reinforced concrete in any large quantity for construction. Morris' father had been involved with work on the Forth Bridge. In fact, much of the company's work was with railways, especially the Great Western Railway and to a lesser extent the Southern Railway. His father was involved with bridges over the railway near Paddington Station. Other work included Tower Bridge and the Victoria & Albert Docks in London. Morris became a director of the company and became personally responsible for two bridges over the Thames and several reinforced concrete warehouses and railway bridges.

Morris first went up in an aircraft in 1913 at the age of nine. Thereafter he became fascinated with aviation and became intent on acquiring and flying his own aircraft. The exact date when he started taking flying lessons is not clear, but it was almost certainly in May 1927, while he was with the family firm. The lessons were at the de Havilland School at Stag Lane near Edgware, Middlesex, where he also joined the London Aeroplane Club. Morris wanted his own aircraft but did not have the personal capital to purchase a machine. Eventually he decided to strike out and at an aviation week at Selfridge's Oxford Street store in May 1927, he enquired where he could purchase an aircraft. He was not taken seriously at first and was directed to the toy department, but he stood firm until the staff realised he meant what he said, whereupon he was directed to Whitely's store in Bayswater which Selfridge also controlled. He then ordered a de Havilland Moth aircraft.

There was still the problem of finance. Undaunted, Morris traded-in the three-litre Sunbeam car which his father had given him, in part exchange. Thus on 1 June he wrote to Francis St. Barbe, the Sales Director of the de Havilland company, to confirm his verbal order of two to three weeks ago for a Moth with delivery either during or before the first week in July of that year. 'As I intimated to you a day or two ago,' he wrote, 'you would doubtless be receiving in the course of the week, an order from Messrs Whitely who are taking my Sunbeam car in part exchange.'

Eventually his father noticed the absence of the Sunbeam and enquired accordingly. Morris made a full confession, telling his father that he wanted to go into aviation. How Morris expected his father to react is not clear, but he was probably not prepared when his father did not rebuke him. He told his son that he only had one life and if that was what he wanted to do, so be it!

Much of the Jackaman company's business may have been with the railways but one contract in which Morris was involved, was with civil aviation. It was for Airwork Ltd, the owners of Heston Aerodrome near Hounslow to the west of London and a little over ten miles from the Jackaman home at Slough. The contract was for two hangars. One of the hangars was of particular note, probably being the first all-concrete in the world. The aerodynamic elliptic shape of the hangar was dictated by the need for a side-to-side span so that the whole of the front facing the aerodrome could be covered by one large folding door, eighteen feet high. The building was completed in 1929. Morris was involved in some of the work for this hangar, the family business being sub-contractors for the reinforced concrete and paving.

With the way now clear for his entry into civil aviation, Morris left the family business, although he retained his directorship. On 12 July 1927 he obtained his private pilot's

licence which enabled him to fly certain aircraft solo but not with passengers 'for reward'. From that moment he was in his Moth G-EBRT at every opportunity, often flying to meet people in connection with the family business. He flew to Paris only five hours after going solo. On the return, a day or two later, he had hoped to reach the English coast before it got dark but a strong headwind delayed him. He was consequently forced to alight on the French side of the Channel but he made a perfect landing in the dark. Early one Saturday morning in August he flew with his brother Nigel from the private landing ground at Chalvey Grove near his home to Littlehampton for a dip in the sea before breakfast. At the beginning of September, he flew to Cornwall to join his family on holiday. The brothers were less lucky, however, a few days later. When returning from a swim at Rustington on 13 September, the Moth banked too steeply and span into the ground from about 100 feet. The machine's undercarriage was wrecked, although the engine was undamaged. Morris and Nigel were taken to Littlehampton Hospital, but fortunately they only had bruises, although Nigel was slightly concussed. Nevertheless, they stayed in Littlehampton Hospital for nearly a week. Perhaps the precious Peridot stone which his mother had found shortly before he was born and which always accompanied him when he flew, was looking after him. He had named the Moth 'Peridot' and later aircraft were also to have this name painted on the fuselage.

A second Moth came into Morris' possession at the end of the year by quite fortuitous circumstances. In November, he purchased a ten shilling (50p) raffle ticket in a lottery. The prize was an aircraft, a two-seater Moth G-EBVK. His ticket was in his mother's name, Harriet Jackaman. The draw was on 10 December and Harriet was the winner. An appropriate notice about the draw and the winner appeared in the personal column of *The Times* on 13 December. The new aircraft was delivered to Morris on 19 December, the Air Ministry issuing an interim Certificate of Airworthiness the same day and a full one two days later.

Morris had not been deterred by the accident in September and over the ensuing five years, he became a very accomplished pilot, winning over fifty-five flying awards, thirty-two of them of international status. In 1928 at Rotterdam, Morris was most successful, winning every event in which he competed, so qualifying to receive the International Challenge Cup. He took part in five King's Cup races in England, on two occasions finishing seventh. The first time was in 1928 in his first Moth G-EBRT. In 1929 he used his third machine, a Moth Coupé which he had acquired at the beginning of the year, G-AADX — when he purchased it, Flight photographed it and gave it a long write-up, describing its style as luxurious and Morris as 'an experienced private owner'. He must have been proud that the 1929 race started at Heston where his building work would have been seen by the contestants and spectators. He used the same machine in 1930 but this time the race started from nearby Hanworth. In May 1931 he had another success abroad when he won three of six events in his Puss Moth at the first international meeting at Aachen as well as leading the successful team in the relay race.

It was also in 1931 that Morris won the Siddeley Trophy Cup in his fourth machine, Puss Moth G-AAYE, in the King's Cup race which began at Heston. The course was 982.5 miles and began at 06.00 on 25 July with a route of Norwich, Birmingham, Liverpool, Heston, Bristol, Southampton, Shoreham (near Brighton) and back to Heston. Morris averaged a speed of 123.9 mph in the race, the trophy being awarded to the solo club pilot obtaining the highest placing. By this time he had flown 1,250 hours as well as about 130 hours in the Auxiliary Air Force.

Throughout 1932 Morris continued his flying activities, all the time building up his hours for his 'B' licence which would enable him to fly passengers commercially. To this end, he took a course of instrument flying at Brooklands, which he completed on 25 April. He was less happy a few weeks later on 4 May when he was disqualified in the Morning Post race in his latest machine, Monospar ST-4 G-ABVP. It was also in 1932 that Morris joined the Air Ministry as honorary — i.e. unpaid! — technical assistant to the Director of Civil Aviation.

Without doubt Morris' greatest achievement that year was organising what was known as the Week-End Aerien. Morris had often flown to the Continent where he had been impressed by the hospitality of the flying fraternity. He and others decided they would like to reciprocate by arranging a weekend of flying and social activities for their European friends. With Ivor McClure, Nigel Norman and Gordon Selfridge Jnr, a programme was prepared and invitations sent out. Morris actually delivered some of the invitations by flying to the different countries. One day he flew from Heston to Zurich, then on to Basle, returning to London the

same evening. Over a hundred invitations were sent out by the organisers from a temporary committee office in Room 170 of the Mayfair Hotel in London.

The programme began on Thursday 1 September with the guests from the Continent arriving in thirty-seven aircraft at Heston. After lunch, Imperial Airways took the visitors on tea flights over London. The guests were then taken to the Mayfair Hotel were they were later received at a cocktail party by Lady Simon, the wife of the Foreign Secretary. The weather was not kind to the visitors but nevertheless they flew from Heston to Bristol on the Friday for lunch as guests of the Lord Mayor and the Bristol & Wessex Aero Club. After lunch, they flew on to Hooton near Liverpool where they were again hosted by the Lord Mayor. On Saturday, they visited the Armstrong-Whitworth aerodrome at Coventry and a private aerodrome near Leicester. The final event was a dinner dance at the Mayfair Hotel which was presided over by the Under-Secretary of State for Air, Sir Philip Sassoon. The event was widely reported in the press and the organisers were generally acclaimed. It was also a superb demonstration of good international relations.



Redwing G-ABRL at Gatwick 1933 with the Surrey Aero Club, formerly Hunts Green Farm, in the background (Frank Payne)





 $\triangle$ 

Morris Jackaman, Gatwick's visionary, at his home 'Little Orchard', Tinsley Green, near Gatwick (C. Jackaman)

Morris was still working at the Air Ministry because a week later he received another letter from the Director General of Civil Aviation, Francis Shelmerdine. Morris appeared to have been a little off-colour but this was perhaps not surprising after all the hard work in organising the Aerien. Shelmerdine told Morris not to think of coming back until quite recovered; he hoped that rest and treatment would soon put him right. Certainly his efforts were not forgotten later in the year when on 6 December he was a guest at the Junior Aero Club's first annual dinner together with C. W. A. Scott. The president of the club was Francis Shelmerdine. The menu included Morris Sprouts, New Monos Par, Coupe Jackaman and Weekend Cheese.

It was probably as a result of his experience at the Air Ministry and the insight he had obtained into aerodromes that Morris began to formulate plans for a faster service between Gatwick and Paris. The Imperial Airways service from Croydon was undoubtedly comfortable, the H.P.42 aircraft giving the service a distinctive majesty. But it was not fast at two hours twenty minutes. Morris was also familiar with Gatwick as a pilot and had flown in there on several occasions since 1930.

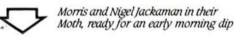
By December 1932, Morris was obviously planning some kind of faster service to the French capital. Thus on 12 December, Shelmerdine wrote from the Air Ministry to the manufacturer C. R. Fairey at his Hayes (Middlesex) factory. You will remember, he wrote, that I spoke to you on Wednesday last at the Royal Aero Club about a project for a really fast London/Paris service and that you told me that you should be glad to look into this if I would let you have a general specification of aircraft required. Shelmerdine then

revealed the people behind the project — Morris Jackaman and Commander Geoffrey Rodd. The object of the letter, he concluded, was to introduce Fairey to the two; he would be happy to arrange a lunch with them, he added.

The sequence of events is not then obvious in that it was not until September 1933 that it was known that Morris was buying Gatwick. No records have survived to indicate whether a meeting took place between Jackaman and Fairey. Nor is it clear what the effect on the plans had been when Geoffrey Rodd crashed his aircraft on 31 January 1933, killing himself. Nor is it clear if there had been discussions with busman-turned-aviator Edward Hillman who was intent on starting a service to Paris. In November 1932 a newspaper story had linked Hillman's plans with use of Gatwick but that had subsequently been denied, although in the event Hillman was to become involved later in plans to use Gatwick.

Whether Morris envisaged himself flying commercial aircraft to Paris is not clear, but certainly he got a step nearer to that on 14 March 1933 when he gained his B licence. Perhaps it was just coincidental that *Flight* reported two days later that there were rumours of a really high speed service being run from Gatwick to the Continent before very long by certain well-known private owners. With little doubt, the writer was thinking of Morris, although names were not mentioned.

On 11 April 1933 Morris followed in his Monospar, the Wessex aircraft with which the Great Western Railway inaugurated the first railway airline service in the British Isles from Cardiff to Plymouth. After the official celebrations were completed, Morris flew the railway's Assistant Secretary and aviation advisor, S. B. Collett, and his wife back to London. This earned him a warm letter the following day when Collett wrote about his difficulty in adequately thanking him on behalf of the GWR 'for all you did yesterday to make the party a success; your machine was universally admired at all





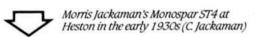
the stopping places. It was good of you to come all the way round, and I am most grateful to you for bringing Kitty and myself home so rapidly and pleasantly'.

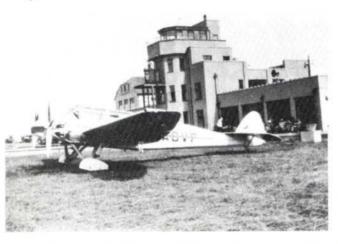
With his B licence, Morris could now fly passengers for payment. In the ensuing six months of 1933, he operated a private air taxi service in which he did all the piloting which included considerable night flying over England and Europe. Sometimes his passengers were honeymoon couples. Morris also continued his interest in the sporting side of aviation and on 5 June 1933 he took part in the Morning Post Trophy from Hendon, a course of 466 miles.

Morris wasted little time in putting his plans into action after buying Gatwick. On 12 October he signed the necessary documents to take control of Gatwick from the Fairfield Investment Company which owned the Redwing Company; this included responsibility for certain contracts which Fairfield and Redwing had entered into. Most important was the formation of a private company to develop the aerodrome. Thus was born The Horley Syndicate Ltd on 3 November 1933 with a nominal capital of £200 at a registered office at 7 Park Lane, London W1. Its objects were simply stated: to take over the rights and liabilities of the contract between the Fairfield and Redwing Companies on the one hand and Morris Jackaman. On 8 November the new company was issued with its Certificate of Incorporation. On 16 November the transfer of ownership was effected from Fairfield/Redwing to the new company.

The reason for the name of the new company is not known. It could hardly have been expected to set the aviation world alight as a lot of people had no idea where Gatwick let alone Horley were. The directors of the company were Morris himself, his father, who had financed the purchase of the airport and Peter Clive. It was now hardly surprising that Morris' aspirations should become public knowledge. Thus on 11 December both the *Morning Post* and *Evening Standard* reported on his plans for a faster Paris service. On 8 January 1934 Morris moved his registered and business office to 164 Buckingham Palace Road which was next to Victoria Coach Station, although the entrance was at 15 Elizabeth Street. At the same time his brother Nigel and T. F. Dowling, another director of the family firm, became directors of the airport company.

The inappropriateness of the company's name must have been accepted by Morris because it was changed to Airports





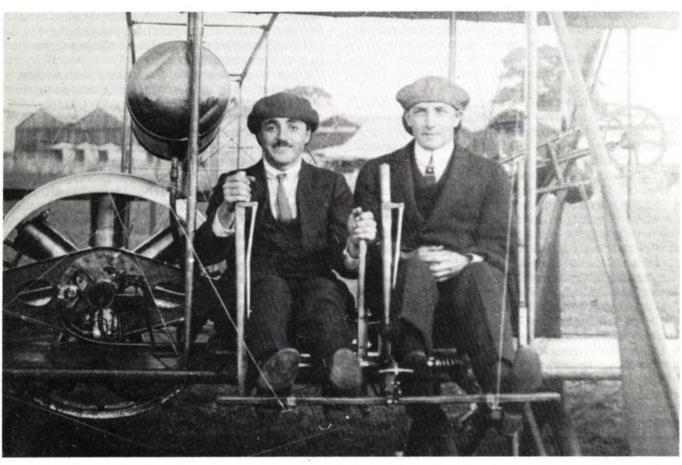
Ltd at an Extraordinary General Meeting of shareholders on 29 January. The plurality of the name was not perhaps coincidental because earlier in the month, Jackaman and his company acquired a controlling interest in Gravesend Aviation Ltd, the owner of Gravesend Aerodrome which had been opened less than two years earlier. Thus on 18 January 1934 *Flight* reported an interview with Jackaman. He said that he aimed to get as much of the Continental air traffic as possible to stop at Gatwick and Gravesend.

Why did Jackaman take on Gravesend at the very time he was about to develop Gatwick? He was almost certainly aware that the pre-war pioneer Marcel Desoutter who wanted to get back into aviation, had an option to purchase Gravesend Airport. Certainly Jackaman was also aware that Gravesend was on a route from Croydon to the Continent. Competition would not be desirable. There was contact between the two men with the result that Desoutter allowed Jackaman to take up his option but on the condition that he, Desoutter, became involved in Airports Ltd.

Marcel Desoutter was to play a central part in Gatwick's history over the following twenty years and it is therefore also relevant to examine his previous activities is some detail. Marcel Desoutter was born in 1894, ten years before Morris lackaman. As his French name suggests, his family came from the mainland of Western Europe, his father being French and his mother Swiss. Marcel, however, was born in England after the family settled in London, their profession being high quality watch-making. Aviation was very much in its infancy in the years before the Great War, but Marcel was attracted to it at a young age. He passed his pilot's test at Hendon, the cradle of British flying, in 1911 but at the age of sixteen he was too young to obtain his flying 'ticket' and had to wait until the following year. He subsequently became involved in aircraft manufacture at Hendon as well as becoming an instructor at the famous flying schools at the aerodrome. It was while he was a demonstrator and test pilot in the Grahame White Company at Hendon that his aircraft crashed into the ground from a height of fifty feet. The accident was nearly fatal and it was necessary to amputate one leg after tetanus set in. His subsequent recovery was regarded as something of a miracle by the medical profession. The customary wooden 'peg leg' was prescribed but Marcel found this too heavy and clumsy.

His brother Charles had inherited the mechanical ingenuity of his clockmaking family. He set out to help Marcel, making in the back of the family watchmaking premises an artificial leg of leather and aluminium which weighed only twenty-one pounds. Many crippled people asked Charles to make similar limbs with the result that before the end of the year, the two brothers formed the company Desoutter Brothers to manufacture artificial limbs. During the Great War the brothers — they were joined by other members of the family — profited from the experience of Marcel, the Desoutter leg becoming the prototype of thousands supplied by the Ministry of Pensions to disabled servicemen.

In the meantime, Marcel set out to do all the things he had been able to do before his accident including ski-ing, riding and in particular flying. He wanted to prove to the world that an artificial limb need not be a major disability. His aim was to return to aviation and, through his earlier misfortune, he was strong enough financially to strike out alone. His brother Charles on the other hand wanted to develop machine tools. In 1929 the two brothers went their different ways, although





Marcel Desoutter (left) at Hendon and another early aviator in the days before Marcel's accident (Mrs. Burningham, nee Desoutter)

Marcel Desoutter (left), family and pilot Paddy Flynn pose in front of a Desoutter I, circa 1930





Desoutter Bros did have an aviation involvement in the aircraft industry when the company's portable pneumatic tools were used in the building of the R.100 and R.101 airships. Indeed, within ten years every aircraft factory in Britain was to have a large number of Desoutter portable pneumatic and electric tools.

For some time Marcel had been examining the prospects for commercial aviation from all its aspects. Eventually he decided that what was wanted was a small cabin-type aircraft that would be cheap to build, buy and operate, and one that would come between the popular two-seat light aeroplane and the bigger commercial machines. When he was convinced that there was demand for such a type, he arranged to manufacture under licence the Dutch Koolhaven F.K.41. It was in fact a modified and improved form of the Dutch machine. It was also the first three-seater cabin monoplane to be produced in England. To facilitate quantity production, Marcel engaged another British aviation pioneer, G. H. Handasyde. A portion of the Air Ministry shed was acquired at Croydon for production. The works got under way in June 1929 and the following month, the first machine of the Desoutter Aircraft Company was exhibited at the International Aero Exhibition at Olympia.

The aircraft was moderately successful. Indeed, a large number of machines was ordered by National Flying Services for use as taxi and private hire, while several were exported. Unfortunately National Flying Services Ltd got into financial difficulties after the government withdrew support in 1931. The company lingered on until 1934 when it went into liquidation. Its failure also caused the collapse of the Desoutter Aircraft Company in 1932. It was a bitter pill for

Marcel to swallow and he returned to the profession he had developed from his earlier misfortune, becoming the Technical Consultant to the Artificial Limb Company at Queen Mary's Hospital, Roehampton.

Desoutter achieved his aim of getting back into aviation when he became Business Manager of Airports Ltd. Before the end of February 1934, he was also a director of the company. The understanding was that Desoutter would concentrate on the business side of the company while Jackaman would look after the technical side. Their office was still at Victoria and it was to be a long time before they would be at Gatwick. Jackaman did however arrange for a local man, Dudley Dalton, to join his father's business at Slough as a draughtsman. Dudley was a recently qualified young man who had grown up with the aerodrome and studied there as a Redwing engineering apprentice. He lived in the adjoining village of Lowfield Heath and would therefore be able to keep an eye on the aerodrome. In due course he would be able to assist with drawing maps when plans were developed.

Jackaman was convinced that the railway was the key to Gatwick's success and it was not surprising that he approached the Southern Railway about co-operation. He must have found it hard going because attitudes were different from those on the Great Western. It is not recorded whom he saw on the Southern but he explained his plans for a Paris service, also one to Ireland. Perhaps he was sticking his neck out when he guaranteed thirty first-class passengers



British Air Transport's stay at Gatwick in 1934 was even shorter than Redwing's (G Last)



a day to the railway. It was too early for the Southern to commit itself as it had just commissioned a report on air transport by consultants. Jackaman also continued to lobby the Air Ministry and Imperial Airways.

Whilst the Surrey Aero Club had not been taken into the new regime at Gatwick, Jackaman did allow British Air Transport Ltd to move to Gatwick in January from Addington near Croydon. In spite of the name, BAT was not an airline but a flying school. Jackaman was happy to have BAT as it gave his company some revenue. He knew however that BAT would not get in his way as the move was only temporary while BAT's new aerodrome at Redhill was being prepared.

At the beginning of 1934, Gatwick's potential as an airport was being brought to the attention of a different and rather select audience, the London Society. The speaker at the society's meeting on 19 January was Nigel Norman, a director of Airwork Ltd, the proprietors of Heston Airport in Middlesex. Norman was also a partner in the aeronautical consultants, Norman, Muntz & Dawbarn. The consultants had recently been examining airports in the south of England for the Southern Railway which was considering extending its activities to air transport. Sir Philip Sassoon, Under-Secretary of State for Air, presided.

Certainly Norman was very much aware of both Gatwick and Gravesend. He began his paper with a statement of the national airport situation as it then was. This was followed by the display of a map whereon was marked the aerodromes situated within twenty miles of the centre of London. But he also drew attention to both Gatwick and Gravesend which, although lying outside the area in question, he said were nevertheless worthy of consideration as suitable to serve the capital by virtue of geographical position and climatic advantages. Gatwick in particular was important, he said, as it had a main electrified railway station adjoining it. The frequent electric train service on that line made the question of transport to London itself a comparatively easy one. He was referring to the special racecourse station. Norman ended his talk with a suggestion that the society, having been instrumental in preserving green spaces in the city, should concern itself with the retention of suitable areas for airports. As if to support Norman's suggestion, the Air Ministry that month advised Airports Ltd of proposals to erect overhead high tension electricity cables of 11,000 voltage in the vicinity of the airport, the nearest point being less than a mile away. Perhaps surprisingly, the company had no objections.

In March 1934, the consultants presented their report to the Southern Railway. It was a lengthy and detailed document of 175 pages with diagrams and maps. Two pages were devoted to Gatwick. The report echoed but in more detail what Norman had said to the London Society. Gatwick's importance, it emphasised, was its position on the Paris side of London, outside the fog belt and south of the North Downs; and Imperial Airways was seriously considering it as an official alternative to Croydon during adverse weather conditions.

Access was the key to the airport's potential. The vast majority of airports in Britain and elsewhere were then reached by road but the report did not see its future development in this way because of the distance from London. Moreover, to improve access by road would be expensive and difficult. The key was the railway and the report noted that the airport's position immediately adjacent to the railway on which frequent electric trains on four lines

between London and Brighton and Worthing (and soon to Eastbourne) was most significant. If rail occupation permitted, it continued, electric trains could at best stop at the aerodrome 34 to 37 minutes after leaving Victoria or London Bridge.

The authors of the report had some reservations, however, about the use of the Gatwick Racecourse station for the airport. The station was then only used about sixteen days a year. The footbridge at the southern and airport end of the station was about 800 feet from the extreme north-east corner of the aerodrome. So a road connection would be necessary for any rail-air co-operation to be achieved. The station was then wholly uncovered and unstaffed except on race days.

The consultants considered that the distance between station and airport could be reduced by extending the existing platforms to the south. But for an ideal link to be formed a new station would be required some 700 vards south of the present station. Passengers from London would then go down under the railway and straight into the terminal building which could be located alongside the railway line. This would, the consultants pointed out, naturally involve considerable expense. Nevertheless they noted that the sidings on the west and aerodrome side of the railway were by that time almost unused and would therefore afford a good site for an up platform and if necessary, for a loop line. Longer landing runs were also envisaged, and these could be obtained by taking more of the adjoining farm land. The report was significant in that this was seemingly the first suggestion of linking a railway station with an airport terminal by means of an underground tunnel.

The basic theme of the report was that the Southern Railway should become involved in civil aviation if the inevitable loss of rail-to-air traffic was to be limited. At the same time, such action could compensate for the loss by controlling or acquiring a substantial interest in air services with co-ordinated rail facilities.

Later chapters spelt out where and how the railway might become involved. Two possible routes from Gatwick were suggested — The Channel Islands and the Isle of Wight. The advantages of air or rail-air over rail-boat travel were greater to the Channel Islands than on any other possible route in the Southern's territory and figures were produced to suggest that it would be possible to operate such an air service at rates little, if any, above those charged for first-class rail and saloon by Southern train and ship. Moreover, they emphasised, Gatwick had the greatest number of possible train connections of any aerodrome in the railway's territory. The authors also opined that stopping fast or semi-fast Brighton and Eastbourne trains could have a prejudicial effect on railway traffic. "But provided the air traffic was of sufficient value, we imagine that these difficulties might be faced". Detailed timings were even suggested on a Jersey service but they thought the route best be kept in reserve until such time as a really fast air service was started elsewhere. Nevertheless, Norman and his partners recommended an option on operating rights be obtained at Gatwick.

The other route, to the Isle of Wight, was also promising and the consultants believed it could enjoy a first-class railair service via Gatwick to Shanklin with a time of seventy to seventy-five minutes from Victoria compared with the three hours twenty-five minutes by train-boat-train. Detailed fares

were also suggested. It was interesting that a service to the Isle of Wight had been started the previous summer by Spartan Airlines from Heston which Norman and Muntz controlled as directors. In January 1934 a service from Heston to Jersey had been started by Jersey Airways.

The reaction to the report of the Southern Railway Board and, in particular, the railway's general manager, Herbert Walker whose influence on policy was considerable, is not recorded in the archives that survived enemy action on Waterloo Station in the war of 1939-45. Nevertheless it is known that Walker was not an enthusiast for air transport. Walker seemingly viewed the railway's air powers as something which might be used to deal with new airlines encroaching on railway traffic.

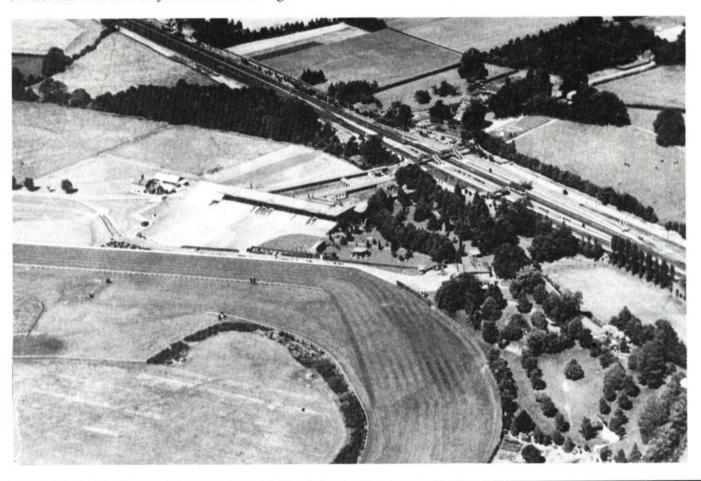
To a certain extent, the report of Norman, Muntz & Dawbarn was overtaken by an agreement between the four British mainline railways and Imperial Airways on joint action by the formation of a railway airline. Thus, in March 1934 Railway Air Services Ltd was formed but it was only a shell company whose function would in large part be to deal with competitors. The airline would normally be operated by Imperial Airways. There was to be a departure however from this philosophy with Spartan Air Lines which was financed. by Whitehall Securities. The airline was not operational in the winter of 1933/34 but there had been discussions between Whitehall Securities and the Southern Railway about a summer service to the Isle of Wight sponsored jointly by Whitehall and the railway but operated again by Spartan. This was to be given effect to on 1 May when Spartan was to operate a service for the Southern in the name of Railway Air Services and itself from Croydon to the Isle of Wight.

In the meantime, Jackaman was considering the development of Gatwick into an airport for scheduled services. On 16 February 1934 at an Extraordinary General Meeting of Airports Ltd, which was still a private company, the nominal capital was increased from £200 to £20,000 with the shares in units of £1. A month later Jackaman's vision came a step nearer when on 13 March, the Air Ministry issued Gatwick's first public licence, so permitting the airport to be used by commercial aircraft. Jackaman and Desoutter now began a process of improvements at Gatwick. The main task was to improve the airport's surface and drainage. They were both aware of the work that the En-Tout-Cas Company of Syston in Leicestershire had already done in levelling and surfacing work at various airports, although the company was better known to the public at large for its work on tennis courts. Desoutter already knew Ronald Brown who was in charge of the Aerodrome Construction Department of the company and he took the initiative by inviting Brown to Gatwick to see if the company would be able to deal with the drainage. Brown was himself a private pilot and he probably flew to Gatwick.

The drainage and levelling operations inevitably forced Jackaman and Desoutter to restrict flying activities at Gatwick. Nevertheless the instructional activities of BAT continued at Gatwick as Redhill was still being prepared.



Gatwick Racecourse viewed from the air before the aerodrome. Note the Racecourse station on the London/Brighton line. The 1958 airport station stands on this site.



Jackaman's assistant, L. P. Hirsh however wrote to the Air Ministry on 12 May to advise that aircraft were not being encouraged because of the drainage work. This was the first mention of Hirsh who did not however, seem to play any subsequent and significant part in the politics of Gatwick and the company. Another young man, he had served in the RAF from 1922 to 1929 and in Imperial Airways from 1930 to 1932. What was interesting about Hirsh's letter which was of course written on the printed paper of the company, was that 'Gatwick' in the heading was followed by the words 'London South'. The two men were clearly intent on developing Gatwick into a major airport.

The discouragement of flying activity at Gatwick did not stop two aircraft landing that summer. They were probably Spartan Cruisers which Spartan Air Lines was using for its Croydon/Isle of Wight service with the Southern Railway for Railway Air Services. The visits were not intentional and were due simply to weather conditions, the exact dates not being recorded. The main focus of Morris may have been Gatwick but his interest in Gravesend as London's airport to the east was also consuming some of his time and energy. Thus in September he was at Gravesend Aerodrome for the town's Prosperity Week. Indeed, Sir Philip Sassoon, the Under-Secretary of State at the Air Ministry, lent his support to the town when he arrived by air in a Leopard Moth from his home at Lympne. Morris wasted no opportunity to emphasise Gravesend's good meteorological record, adding that the airport had received several enquiries from Continental airlines. Thus was born in Jackaman's mind Gravesend, London East,

The developments at Gatwick did not pass unnoticed in the head office of Imperial Airways opposite Victoria Railway Station and coincidentally very close to Airports Ltd office at Victoria Coach Station. In a review of prospective competition on the European services, the airline's managing director reported to the board on 17 April. Detailing the Paris route, he revealed that Imperial Airways was carrying 68% of the traffic while Air France had 27% but Hillman's Airways only 5%. Other new enterprises were announcing their intended participation and, he wrote, they included Airports Ltd and the British Air Navigation Company. He admitted that no order had been traced for aircraft with any manufacturer, although rumour had credited Airports Ltd "with the intention of starting a regular service in the summer of 1934."

It was rumoured, he said, that the service would be run between Gatwick and Le Bourget every hour on the hour by fast aircraft of approximately 8-seater capacity, doing the journey in just over the hour. Woods Humphery may not have been unduly worried as there was then no British aircraft in production capable of operating such a service which would offer comfortable accommodation and

quietness combined with multi-engined power and consequent security from forced landing. There was, of course, the possibility that foreign machines were to be used which, he said, would explain why there was no information on orders placed. Woods Humphery was obviously a little concerned as it was rumoured, he noted, that fares would be equivalent to Hillman's Airways which had been operating to Paris from airports in Essex since the previous year. He also could not understand how special arrangements could be made with the Southern Railway as the latter had denied that special train services would be run for Airports Ltd or that Gatwick Station would be opened for them. Certainly by this time there was no commitment by the railway. Indeed, the Southern Railway was still formulating its aviation policy.

He also noted that Airports Ltd was reported to be prepared to spend upwards of £100,000 in equipping the airport with the necessary station, roads and buildings, and also for the provision of wireless, Customs, and meteorological services. "They have also been in negotiation with the Air Ministry for some months but we are unable to obtain from the Ministry information as to how far negotiations have proceeded or their anticipated ultimate scope". His conclusion was typical of established transport operators during the inter-war years — that Airports Ltd was probably more concerned to establish a good nuisance value than to build up a sound

commercial undertaking.

1934 was undoubtedly a very busy, perhaps intense year. To make Gatwick a success, Morris knew that apart from draining and enlarging it, he needed the co-operation of the Southern Railway to build an airport station, he needed the support of the Air Ministry, he needed the approval of the local authorities and he needed financial backing. He did not keep his problems to himself and shared them fully with Desoutter who soon proved to be just as dedicated to Gatwick and the company. The two men unfortunately did not completely see eye to eye, Desoutter looking upon Jackaman as a bit of a playboy with his occasional weekend trips to Le Touquet and such places. Certainly Morris partook in the King's Cup race on 13 July at Hatfield in his Monospar G-ABVP Peridot V. This however, was his last King's Cup. Whilst not wishing to pronounce a judgement on the character of either of the two men, it would undoubtedly be correct to describe them both as hard working. Their differences lay in their temperaments. Desoutter being very serious and intense whilst the younger Jackaman continued to pursue a more varied life. The differences were reflected in the way their staff and others found them. Jackaman was enthusiastic, a refreshing person to be with. Desoutter was a considerate man who always listened to what people had to say; but one had to think carefully about what one was going to say to him if one wanted to progress an idea.

#### 2. THE DESIGN PROBLEM

One problem which particularly concerned Morris was the design of the passenger terminal. He considered that conventional terminal buildings such as Croydon which had been described as only fit for a fifth-rate Balkan state, were inefficient and not suited to expansion of passenger traffic. Certainly he had received no guidance from the consultants earlier in the year. It was a problem to which he gave a lot of thought. It is believed that one idea he considered was building the terminal over the adjoining railway.

The result of his deliberations was ultimately the circular design which is a feature of the 1936 passenger terminal, now generally known as the Beehive. How this came about is intriguing. Morris was working late one night at his parents' Slough home when his father came into his study. 'Oh, for heaven's sake, go to bed', his father urged. 'You're just thinking in circles'. Instantly Morris reacted 'That's it, a circular terminal'.

Thus was born the world's first circular airport passenger terminal. The explanation of this evolution of the circular concept came to the author from Morris Jackaman's widow in 1981, less than a year after his death. It coincides with an explanation by William Courtenay in his autobiography, *Airman Friday*. According to Courtenay, Jackaman once told him how 'he came to devise this novel form of administrative block . . . He had sat up late, planning ideas for airport buildings one night when his father suggested he should retire to bed as he was evidently so tired that he was "only thinking in circles". The date of the conversation between father and son is not unfortunately known, but almost certainly it was in the summer of 1934 and not later than September.

The attempts by Morris to develop Gatwick coincided with changes in town planning legislation. Until 1933 planning laws had not been very effective in controlling building development. The Town & Country Planning Act of 1932 introduced some changes into the procedures including the necessity of obtaining the consent of the Minister of Health to the making of a planning scheme which moreover, had to be laid before Parliament before it could come into operation.

Certainly by September an application had been made by the representatives of Airports Ltd to the Dorking & Horley Rural District Council to include the aerodrome in a town planning scheme. The motive was to enable the local authority to control building adjacent to the aerodrome. It was a new situation for the Dorking & Horley R.D.C. which subsequently was obliged to ask the Air Ministry for details of any regulations about aerodromes and, in particular, the control of development on adjoining property.

The Air Ministry told the Dorking & Horley R.D.C. Surveyor F. E. Traviss, that no buildings or other obstructions should be erected within 500 yards of the perimeter of an aerodrome. The problem for the local authority was that the airport already existed and was in a good situation. Moreover, if the adjoining land was included in a town planning scheme, this could give rise to claims for compensation by property owners. As the town planning scheme would be prepared by Dorking & Horley R.D.C, any claims for compensation would be payable by the local authority. The compensation could be recovered as Betterment from the airport's owners, but even if the latter would provide an indemnity, Traviss had doubts as to its worth. Public knowledge of a town planning scheme could also lead to fictitious and premature schemes of development by owners of adjoining land.

Jackaman had continued to press his claims on Gatwick's suitability for development as a relief aerodrome for Croydon. Eventually the officials at the Air Ministry acknowledged that Gatwick was suitable. Indeed, the emergency landing grounds at Marden and Penshurst in Kent were both small and unsuitably placed and it was realised that Gatwick and Gravesend would be better — Gatwick would cater for aircraft arriving from Paris via Bexhill while Gravesend would cater for traffic from Germany and Holland which had entered British air space via the Thames Estuary. The result was an agreement between the Air Ministry and Airports Ltd.

The record of the date of the agreement has not survived but was probably in September. It gave Morris what he had so much sought, a more solid base on which to build. The agreement provided for an annual subsidy to Airports Ltd over a period of fifteen years at the end of which the Air Ministry could purchase the airport; and further development of Gatwick would be under the general supervision of the Air Ministry. In return for the Air Ministry payments, Airports Ltd would install night-flying equipment at both Gatwick and Gravesend. The contract stipulated that a terminal building should be completed at Gatwick by the end of October 1935 and that the airport should be ready for night flying by 1 November at the latest.

Morris quickly put his thoughts on the advantages of a circular terminal on to paper. Using the patent agents E. J. Cleveland & Co, a provisional specification was submitted to the Patent Office on 8 October 1934. Entitled 'Improvement relating to buildings particularly for Air Ports', the invention sought "to provide a building adapted to the particular requirements of traffic at airports with an enhanced efficiency in operation at the airport, and in which constructional economies are afforded".

Various advantages of a circular terminal were detailed. They included:—

- Certain risks to the movement of aircraft at airports would be obviated.
- More aircraft, and of different sizes, could be positioned near the terminal at a given time.
- A large frontage for the arrival and departure of aircraft would be obtained without the wastage of space on conventional buildings.

The application described the terminal. Functioning as the terminus (or station building), administrative offices and base of operations, for passenger or freight traffic, it would be "arranged as an island site on an aerodrome". The building itself would be polygonal or circular in form, "each side or length of frontage being sufficiently long so that space on to which it immediately fronts is sufficient for the aircraft to be dealt with".

"The building thus has what may be termed a continuous frontage and the ground appertaining to each side of it may be provided with appliances such as gangways, preferably of the telescopic sort, to extend radially for sheltered access to aircraft.

"It will be observed that by this arrangement the aircraft can come and go without being substantially impeded by other aircraft which may be parked opposite other sides of the building, and this not only ensures efficiency of operations with minimum delay, but also ensures to some extent at any rate that the aircraft will not for example, in running up their engines, disturb other aircraft in the rear, or annoy the passengers or personnel thereof.

"In order to give access to the building without risk of accident or delay of aircraft, the building has its exit and entrance by way of a subway or subways leading from within it to some convenient point outside the perimeter of the ground used by aircraft, leading to a railway station or other surface terminal".

The specification continued with detail of constructional advantages both in the construction itself and 'in the matter of internal convenience'. It then returned to the telescopic

gangways.

"The door in the wall (of the terminal) is connected by a telescopic and covered gangway which can be run out radially to the cabin door of the aircraft. The fact that the nose of the aircraft points somewhat outwards and away from the building may contribute to the general safety of personnel and as its tail is likewise pointing outwards, slipstream from it can be arranged not to affect the next aircraft in rear."

In the concluding paragraph, it noted that flood-lighting could be arranged "so that at choice any particular parking space may be lit up with fairly sharp definition, so that passengers will not have any tendency to go to the wrong aircraft, and need not even know of its presence at night".

Thus was born the circular terminal. It was to be nearly two years before such a building was completed and operational at Gatwick. Sadly success at Gatwick was to be short-lived, although it was not the fault of the circular design. The circular concept was subsequently lost to air transport for over twenty years. What is indisputable is that the concept owes its origin to Morris Jackaman in 1934, even the

telescopic passageways.

Jackaman had continued to pursue the Southern Railway to provide facilities for airline passengers at Gatwick when it was re-developed. What influence he had on the railway is not clear but the powers at Waterloo had, of course, read their consultants' report in March, in particular the section on Gatwick. Whatever the misgivings of the railway's general manager. Herbert Walker, about co-operating with a competing mode of transport that had already robbed the Southern of so much of its first-class traffic by train and ship to Paris, the railway did decide to provide a new station adjacent to the airport, although it was only prepared to provide platforms on the slow lines and stop one train an hour.

In the meantime, the Southern and two of the three other main line railways had gone into aviation in a big way. From 30 July to the end of September, the Southern and Great Western Railway had jointly sponsored a service between Birmingham and Cowes, Isle of Wight via Bristol and Southampton. The service was in the name of Railway Air Services with pilots and engineering staff seconded from Imperial Airways. The Great Western also sponsored a service between Plymouth and Liverpool while the London, Midland & Scottish Railway sponsored services between London (Croydon) and Glasgow via Birmingham, Manchester and Belfast and, for freight and mail only, between Manchester and the Isle of Man. The summer months of that year also saw several other new internal airline services. Most of them were seasonal, none were remunerative and few had the financial strength to provide sustained scheduled services that Jackaman needed for Gatwick if it was to be a success. Certainly Imperial Airways had no intention of splitting its operations between two London airports, although it was still interested in Gatwick as a relief aerodrome. Jackaman's

one hope could, therefore, only be Edward Hillman whose airline had continued its services from its Essex aerodrome to Paris and Glasgow.

But Hillman was playing hard to get. It was probably in an attempt to move him that Jackaman formed a private limited company at the beginning of October, London-Continental Air Lines Ltd. True, Jackaman held a commercial pilot's licence, but he was probably not envisaging actually forming and even piloting his own airline. The company formation gained a little publicity but no more. Jackaman may also have been using the company to move the Southern Railway. It is recorded that on 23 October he wrote to the railway about co-operation with his proposed airline. His letter was passed to the aviation committee of the railway's board which at its November meeting noted that the general manager considered that co-operation was being met by the building of a special station. Walker regarded this as sufficient for the time being. Clearly it was not going to be all clear sailing for Jackaman and Desoutter.

Nevertheless Jackaman was in contact with the Dutch manufacturer Anthony Fokker who was marketing the Douglas DC-2 aircraft in Europe. Thus on Saturday, 19 January 1935, a DC-2 was flown from Holland to Gravesend. It was piloted by KLM pilot K. D. Parmentier with Anthony Fokker as one of the passengers. After clearing customs, the aircraft went on to Gatwick where a meeting was held with Jackaman, the chairman of the Southern Railway, Sir Holland-Martin and Sir John Thornycroft who was a member of the railway's aviation committee and GPO officials. Afterwards, they all flew in the DC-2 southwards and over Brighton before returning. The activities were well reported in the press. The Sunday Pictorial correspondent wrote that he understood that an hourly service to Paris with four DC-2 machines was expected before long. He added that the DC-2s would have to be built in England if the service was to receive a subsidy.

Flight also reported the DC-2 visit. It referred to London & Continental Air Lines as being formed and which might acquire four DC-2s but with British engines. The Paris service might start in June. Perhaps Jackaman's strategy was now working because at the beginning of February the Daily Express reported that he was talking about an hourly highspeed service to Paris to Hillman's son who had taken over the management of the company upon the death of his father at the end of 1934. Hillman Junior was subsequently removed by his directors which may have confused the planning of any transfer to Gatwick, but it was not forgotten. Hillman and Jackaman may not have had any further contact but it is interesting that they both much later settled in Australia within twenty miles of one another, but seemingly without realising it.

The drainage works continued through the winter. The airport licence was renewed by the Air Ministry on 1 February 1935 for another twelve months but difficulties with the local authority continued. The Air Ministry was now even more committed to supporting Airports Ltd and on 20 February Mealing attended a meeting of the Dorking & Horley R.D.C.'s Town Planning Committee. Mealing did not find the council helpful as the councillors and officials continued to ask the Air Ministry to indemnify the local authority against any claims for compensation from adjoining landowners. According to the council's minutes of the meeting, the committee disapproved the terminal 'but

approved it in principle'. It was also decided to hold a special committee meeting upon receipt of full details from Airports Ltd.

Mealing subsequently recorded his impressions of the meeting in a note to George Pepler, the Chief Town Planning Inspector at the Ministry of Housing. He was quite blunt. The council, he wrote, was anything but helpful and they were quite convinced that it was very kind of them to permit Jackaman to establish an aerodrome at Gatwick which would be of no benefit to them; they could see no reason why they should contribute to any cost in scheduling the country to keep it open.

The adjourned meeting of the committee was duly reconvened on 4 March when it was recommended that an Interim Development Certificate be issued to Airports Ltd which had re-submitted its application, but subject to certain conditions. They were that any proposed buildings or erections must receive the approval of the council or the Air Ministry on appeal; Airports Ltd to be solely responsible for the maintenance of the safe use of the aerodrome under Air Ministry regulations; and in the event of a claim for compensation as a result of the establishment of the aerodrome, Airports Ltd to be directly and solely responsible while the Air Ministry would idemnify the council against all such claims in the event of the default of the company.

The Town Planning Committee also stipulated conditions on the terminal's construction:— the roof should be of non-

 inflammable material; bricks or hollow burnt clay blocks should be substituted for breeze blocks; and there should be a satisfactory sewage disposal scheme. Three days later a report of the Town Planning Committee was considered at a full meeting of the Dorking & Horley R.D.C. at the Constitutional Hall, Horley. The report was accepted. Moreover, the urgency of the situation was appreciated in that the chairman of the meeting was authorised to seal an agreement between the council, Airports Ltd and the Air Ministry, while an Interim Development Certificate was ordered to be issued with the conditions suggested by the committee.

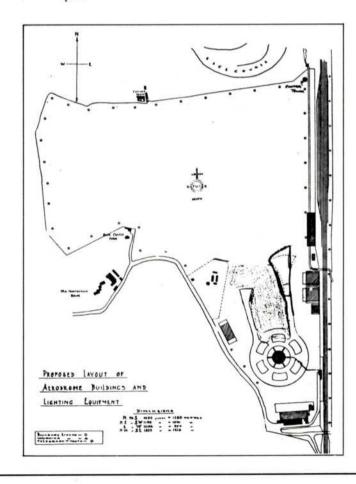
Town Planning did not affect new buildings on railway property. Thus negotiations between Airports Ltd and the Southern Railway had continued without the local authority dimension. There was a price however for Airports Ltd. The railway demanded a £3,000 contribution to the cost of the new station. Jackaman and Desoutter had little choice but to sign a contract on 16 March with the railway. It also stipulated that Airports Ltd would pay 50% of the cost of making up the road and footpaths to the station and the fences; and 50% for maintaining these items. Little time was wasted and at the beginning of April, work started on the new station.

Exactly when Morris Jackaman first came into contact with the man who became architect of the terminal is not known



Two layout proposals in the Air Ministry's file illustrate the original hexagonal concept and the first circular plan





but it was probably at the beginning of 1935. Morris had been looking for an architect to interpret his ideas. It was probably in 1934 that he came into contact with a Mrs Arnold who had an interior design business in Berkeley Street, Reens-Arta Ltd. It soon became evident however, that Mrs Arnold was out of her depth, although she did not disappear from the scene.

It is believed that contact was subsequently made between Jackaman and a young man, Frank Hoar, who about four years earlier had qualified as an architect at University College's Bartlett School of Architecture. As a draughtsman he was very gifted but he was also very imaginative, contributing cartoons as Acanthus to Punch, The Evening Standard and others. He worked in the London County Council's planning department.

When Hoar began to appreciate the challenge of Jackaman's circular concept, he contacted two other young men — they were all in their late twenties — with whom he had been friends at the Bartlett School of Architecture. One was Bill Lovett who was then working in the City of London's planning department. The third young man was the most important, Alan Marlow.

Alan Marlow was born in 1907. He had lived with his family at Plumstead South East London. He attended school in Bembridge, Isle of Wight, where his drawing skills soon pointed to a professional course. He was at the Bartlett School of Architecture from 1926 to 1932. His first work after qualifying was with a fashionable young architect, Raymond McGrath, with an office in Conduit Street. This

gave Alan about two years of work albeit intermittent, but this included some of the interior of the BBC's new Broadcasting House where McGrath was co-ordinating architect. In 1933 Alan received a commission to prepare drawings for an art gallery in Bond Street. On that strength he set up a practice in Mortimer Street and later at 26 Langham Street where he carried out various unexciting jobs on houses and a laundry.

The challenge of an airport particularly appealed to the three young men and they decided to meet it, forming the partnership, Hoar, Marlow & Lovett at Alan's offices in Langham Street. They set out to develop Jackaman's circular concept which included a specification that the building should be low, both in appearance and reality, and white for easy recognition from the air. They all considered that they had been very lucky to have got the Gatwick commission as they were not established in this field whereas others were, such as Norman, Muntz & Dawbarn, Indeed, they were delighted and very excited with their success as work for young architects was not abundant at this time. The principal architect was Alan Marlow who was assisted and supported by a part time assistant, a part time secretary and a temporary, but full time, draughtsman. Frank Hoar often assisted in the evenings and Bill Lovett to a lesser extent. Little time was wasted, although the drawings were a difficult exercise in draughtmanship because of the constant use of compasses as the building was round. Indeed, the first drawing was hexagonal but by 6 June the first circular drawing was completed.

#### 3. AIRPORTS LTD: PRIVATE TO PUBLIC

Meanwhile, Jackaman and Desoutter had continued in their search for finance. With their contacts, it would seemingly not be difficult to obtain the support they needed. Prospective investors could not however, be blind to the facts air transport was only expanding with the support of subsidies. In the case of the airlines, the international services of Imperial Airways were supported by government subsidies, while airports were owned and financed by the Air Ministry or local authorities. All airports were a strain for their owners and showed little sign of breaking even. Not surprisingly none of the people wooed were prepared to invest in a venture whose long term reward was very uncertain.

The two young men realised they had little alternative but to form a new and public Airports Ltd, at the same time liquidating the original and private company. They would require, however, a board of directors of repute. By the spring of 1935, Jackaman and Desoutter had directors lined up. They were Viscount Goschen who was to be chairman, Air Marshal Sir John Higgins, Sir Felix Pole and Sir Samuel Wilson, while both Jackaman and Desoutter were to be Joint

Managing Directors.

The four non-executive directors were indeed all of some stature although none wanted any responsibilities or worries. Goschen, a director of Westminster Bank, had been a Viceroy of India. Sir John Higgins, a director of Armstrong-Whitworth Aircraft, had earlier been a Flight Commander in the Royal Flying Corps. From 1926 to 1930 he was Air Member for Supply and Research on the Air Council. Sir Felix Pole, chairman of AEI Ltd since 1929, had previously been the General Manager of the Great Western Railway where he had been anxious that his railway should be the first into the air upon obtaining the necessary powers from Parliament. Sir Samuel Wilson was a director of Elders & Fyffes Ltd and had been a Brigadier General in the war.

The fact that there were to be two managing directors. Jackaman and Desoutter, was interesting. Desoutter's elevation was almost certainly the price that Jackaman had had to pay for control of Gravesend. The appointments were to be for five years at salaries of £1,250 each.

Little remained now for the private Airports Ltd but to enter into a contract for the building of the new terminal. The builder was to be A. Jackaman & Sons Ltd of Slough. It was, of course, the Jackaman family business. There was nothing wrong with this arrangement, although in the end, it aggravated a difficult situation. The reason for the continued involvement of the family was that Morris' father had already put a lot of capital into Gatwick, beginning in 1933 with its original purchase from Redwing. He now felt he would like to get some of the money back. Later, the family considered that this was a mistake. A contract was duly signed between the old Airports Ltd and A. Jackaman & Sons Ltd providing for the construction of the terminal, a subway linking it to the station and other works at cost plus ten per cent, estimated at £42,000.

On 24 May 1935 the old company was wound up, Jackman and Desoutter declaring that its debts would be paid within twelve months. One wonders if they had any doubts since the debts totalled £14,000. A week later on 30 May, the public company, Airports Ltd, was incorporated 'to carry on the business as owners, lessees or managers of airports, aerodromes, seadromes and aerial stations of all kinds and in particular (a) to acquire Gatwick (London South) and

Gravesend (London East) airports together with the equipment and buildings thereon and to develop them for commercial and inland traffic; (b) to acquire the benefits of payments to be made by the Air Ministry for a period of fifteen years in consideration of the installation of nightflying equipment at the two airports; to acquire the benefit of an agreement made with the Southern Railway to build a station at Gatwick; and to create a 'Martello' type terminal at Gatwick. The cost of acquiring the two airports and agreements was noted as £108,138 payable as to £78,138 in cash and £30,000 in ordinary shares. At the same time, S. A. Gordon was appointed as company secretary.

The prospectus was very detailed. It began with a preamble that the increase in air traffic and in the size and speed of aircraft during the past few years had created an urgent need for improved and augmented terminal facilities for London. "Extensive enquiries have disclosed the fact that there are no sites available in the vicinity of London on the main Continental air corridors possessing the outstanding

advantages of Gatwick and Gravesend".

"Modern airports require ample area, level surface, freedom from fog and from obstructions such as hills and up to date facilities for the handling of aircraft, passengers, mails and goods. Gatwick and Gravesend when developed by the company will fulfil these requirements to a marked degree. In addition they will have access to the heart of London".

Meteorological records were quoted to indicate that for every hundred occasions of fog at Croydon, there were only thirty-five occasions at Gravesend and sixty-five at Gatwick. It claimed that airlines were then using Gravesend when weather conditions were unfavourable while the use of Gatwick would avoid both the London fog area and the 'difficult Surrey Hills' (the North Downs).

The Southern Railway's station building at Gatwick was mentioned and that it would be connected by a short subway with the yet to be built terminal. "Thus air passengers will be undercover from the time they leave Victoria Station until they arrive at their destination by air". Gatwick will be reached from Victoria in approximately the same time as Croydon is now reached by road and the journey will not be subject to road traffic delays. The slightly longer time at present taken in travelling between Gravesend and London is more than made up by the saving in flying time on the

The shorter distance of Gatwick and Gravesend for destinations such as Paris, Amsterdam and Berlin as compared to Croydon was emphasised. "Their use will enable a marked saving in time to be made on present Continental air service schedules and, in addition to a saving of total journey time, will permit operating companies to effect substantial economies in the present expenditure on petrol, oil, engine overhaul costs and other running expenses".

The acreage of Gatwick was stated as 93 but it was stated that a further 99 acres were being acquired. The old company had already purchased the land of Hunts Green Farm but not the farmhouse which from 1931 to 1933 had been the offices and clubroom of the Surrey Aero Club. The entire farm had been purchased in 1930 by cotton millionaire Sir James Reynolds for his daughter Delphine when she took up flying. She had allowed the club to use the sixteenth century farmhouse. She continued to visit Gatwick in 1934. When she sold the farm to the company in April 1935, the farmhouse and buildings were excluded to the regret of

Jackaman and Desoutter. She also secured 'flying rights' at Gatwick. The buildings were to remain in her ownership for twenty years.

Gravesend was 153 acres and it was noted that it had been equipped with a terminal building containing dining room, lounge and six bedrooms at a total expenditure of approximately £10,000. There was also a customs building with a strongroom for bonded store, a factory rented by the Percival Aircraft Company and a hangar of 10,000 square feet of which part was let to the Gravesend School of Flying and to private owners. The Dutch airline KLM was stated to be interested in making more use of Gravesend because of its good meteorological conditions; the airline had offered to guarantee a minimum number of landings if night flying equipment was installed.

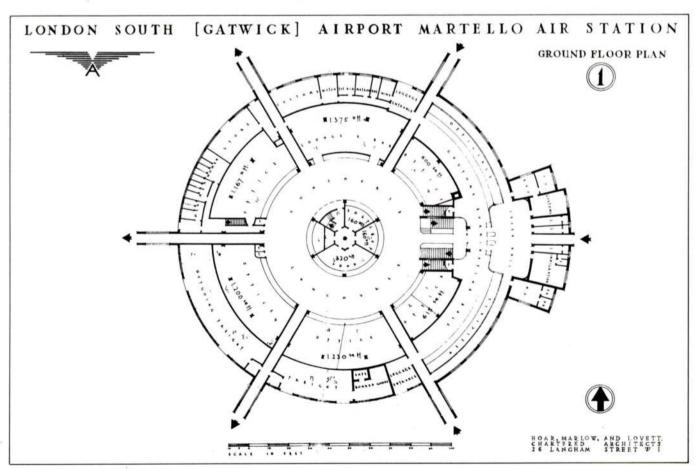
The prospectus also revealed how Jackaman and Desoutter anticipated revenue to be generated. The revenue sources would be: landing and housing fees from the airlines and others; ients from hangars on lease to manufacturers; sale of petrol, oil etc; payments by the Air Ministry for the night flying equipment; fees payable as consultants on the design and layout of airports; restaurant profits; and rents for offices in the terminal buildings.

As for profits, it was noted that estimates of revenue and expenditure had been prepared. "Taking a conservative view of prospects, the directors feel confident that after a reasonable period for development, net earnings will be sufficient to provide a satisfactory return on the capital employed. Moreover, from their experience of transport and their knowledge of pending developments in aviation, the directors anticipate substantial annual increases in revenue".

It has already been noted that the sale of Gatwick and Gravesend by the first Airports Ltd to the new company was satisfied by the issue of 120,000 ordinary shares of five shillings each. The flotation was of 840,000 ordinary shares. The share capital authorised was £275,000 of which £240,000 was to be issued. The public was still mesmerised by air transport and between 1 June and 27 July 1935, the 840,000 shares were quickly taken up. The Times commented that the enterprise had "yet to prove its ability to earn satisfactory profits, but it starts with the advantage of a strong board of directors". Who were the shareholders in the new Airports Ltd? They were, in all probability, a complete cross-section of those members of the public who were prepared to make a small investment in an industry that was associated with growth and glamour. Indeed, they were probably just like the shareholders of Hillman's Airways who had eagerly invested in the airline when it went public six months earlier. No record survives of Airports Ltd shareholders, but the Hillman list included a corn merchant in Devon, a Post Office clerk, a beer retailer in Poplar, an author, a hospital matron, several clergymen, medical practitioners, an RAF pilot, a bus driver in Tooting Junction, a farmer, a newsagent and a bank clerk, to name but a few of the 1,500 plus. One shareholder in Airports Ltd was Stanley Wild, a Southern Railway clerk in the Commercial Advertising Department. Both he and his father each bought shares to the value of £5.00. There was also at least one institutional shareholder, a large assurance company.



The final drawing of the ground floor by Hoar, Marlow and Lovett



Desoutter played a large part in persuading people in the City to support the company. His style was quite extraordinary — he would sometimes walk out on a prospective financier, dismissing his offer as too small. Jackaman was often with Desoutter and he found this approach rather worrying but it usually worked to produce a larger offer.

Little time was wasted between the completion of the drawings and the beginning of the building work at Gatwick. Indeed, there was some urgency if the airport was to be fully operational by 1 November 1935. Consequently work started in June, the same month as the drawings were completed. The first task was to mark the centrepoint of the building on the site. The planning issue was still not resolved however. On 19 June the D & H RDC Surveyor reported that the draft agreement between the council and Airports Ltd had been sent to the latter who was now requesting a further meeting. This was duly held at the Council Russeldene office in Horley when the protection of both the land for the airport and the surrounding land was discussed. The local authority representatives were prepared to assist Airports Ltd but still only if the company would indemnify it against any compensation claims.

The reaction of Airports Ltd was to drop its request, saying it would encounter the problem as and when it happened. It was all too much for the local authority and on 1 July the D & H RDC Planning Officer went to the Ministry of Health office in London where he saw Pepler. The Ministry official was not unsympathetic. He did not see a problem in protecting the airport land. Nor was he worried about the surrounding land with the exception of a piece owned by the Racecourse Company. He thought it would be absurd not to protect the latter as the problem would not raise its head until buildings began to appear, in which case it would be expensive. Pepler reported to Mealing on the latest stage in the saga with his suggestion to the Council that Airports Ltd and the Racecourse Company come to an agreement.

The issue was still not resolved in the minds of the local authority officials. Thus on 4 July at the full council meeting in Horley after considering the Town Planning Committee's special report, the elected representatives — acting no doubt on the advice of their officials — decided "to formally disapprove the (airport) plans under section 10 (of the 1932 Act) and to invite the solicitors to Airports Ltd to discuss with the Clerk the matter of the indemnity being one of the conditions in the IDC". Accordingly a meeting was held four days later with the solicitors but nothing was resolved.

The record of the meeting on 4 July did not however reveal that the plans for the buildings were in fact approved! Not surprisingly one of the journalists attending the meeting misunderstood the complex situation. Thus the *Caterham Weekly Press* on 5 July reported that the council would only grant an ID Order on condition that Airports Ltd provided an indemnity.

Jackaman and Desoutter were almost at the stage of closing the airport for the completion of the building works when they received a letter from the Air Ministry about a complaint from the Secretary of the National League of Airmen that a pilot, L. Fontes of Caversham, had landed at Gatwick at about 15.20 on Sunday 29 June, in a Leopard Moth G-ACMN. The complaint was that he had been charged seven shillings (35p), although there was no notice about landing fees. The explanation was that the notice had been accidentally removed by contractors working on the airport.

The airport was finally closed to all types of aircraft on 6 July, the closure being announced to pilots in the Air Ministry's Notice to Airmen No. 83. But not everybody adhered to the landing restriction. Jackaman was moved to write to the Air Ministry on 25 July, complaining about the number of pilots still landing. It was fast becoming a serious inconvenience to the men working on the aerodrome, he wrote; labouring men were not used to aircraft and became nervous when light aircraft missed them by only a few feet on landing. The pilots gave various excuses, he continued, such as picking up passengers, making adjustments to aircraft and not understanding the closure warning sign which was a red square panel with yellow diagonal cross stripes.

The Air Ministry responded by broadcasts from its broadcasting station at Borough Hill on 27 and 28 July. Nevertheless the same L. Fontes who had just complained about the absence of a landing fee notice, landed at Gatwick at 19.45 on 29 July in a Moth Major G-ACYD. His defence was that the warning signal was difficult to see and he had not understood the radio signal.

With the continued frustration of the planning issue, lackaman and Desoutter instructed their company's solicitor, Clifford Turner, to remind the Dorking & Horley Rural District Council of the facts and lack of options. After obtaining the opinion of a leading town planning barrister, Trustam Eve, the solicitors addressed a letter on 10 July to the local authority, reminding it that the "main part of our client's property was used as an aerodrome for several years prior to 1930 (the date of Gatwick's licensing by the Air Ministry) and as the first resolution passed by your Council's predecessors in title (the Reigate Rural District Council) to town plan the area in which our client's land is situate, was dated 20 April 1932, there can be no question that use by our clients of this land as an aerodrome is an 'existing use' within the meaning of the Town & Country Planning Act 1932 and that your council's consent is not required".

Nevertheless the council's consent was still required for the terminal and hangars to comply with building by-laws and building conditions. Accordingly the authors of the letter requested formal consent, although they told the council that they could not see how they could refuse as they had issued an ID Order on 7 March 1935 to the original Airports Ltd. The letter also pointed out that Airports Ltd had a contract with the Air Ministry "to erect and have an aerodrome ready for night flying not later than 1 November 1935 and a contract with the contractors for buildings to be completed by the end of October 1935". It was therefore absolutely necessary, if they were to comply with the contracts, that work should be put in hand at once. In conclusion, it noted, there was only one outstanding material point between the two sides — the indemnification by Airports Ltd against some unknown and unascertainable liabilities which the council thinks it may become liable for if the buildings of Airports Ltd are used as an aerodrome.

The letter from the solicitors was considered by the local authority, first by the Town Planning Committee on 17 July. The council officers felt that it was still not certain that Trustam Eve's opinion would be upheld by a court of law. They consequently considered Airports Ltd should appeal to the Minister of Health in order to get an official ruling as to whether Airports Ltd would be liable for compensation and,

if so, in what form the council should be indemnified against any claims by Airports Ltd.

The full council considered the Town Planning's deliberations the following day in Dorking. In spite of the apparent disapproval of the plans, the council chairman John Crewdson reported that modified plans had in fact been recommended for approval under the building by-laws, the outstanding point being the question of indemnity. After a long discussion, it was resolved that erection of the buildings on the airport land purchased since April 1932 be approved but with the rider that the use of those additional lands for use as aerodrome was not sanctioned. It was also agreed the lands adjoining the aerodrome should be zoned as residential or agricultural.

In spite of the protracted planning discussions, Jackaman and Desoutter pursued the development of the airport with vigour, although when they realised that the contract date could not be met is not known. Certainly Jackaman's father's company did its utmost to accelerate the work. Staff and materials were readily available and not expensive. A narrow gauge railway was installed to facilitate movement of materials, in particular the concrete, while a night shift was introduced

The building work on the terminal was carried out almost entirely by A. Jackaman & Sons Ltd but it was the architects who introduced Collins & Mason as consulting engineers for the reinforced concrete. Collins was a professor at University College and it was he who concluded that the basement of the building should be approximately four inches of reinforced concrete. The steelwork in the terminal was provided by structural engineers A. J. Main & Co. Ltd of Glasgow, whose main work was the design, fabrication and erection of the three hangars. The largest hangar was for the

airline and had two clear spans of 150 feet, each with a depth of 100 feet from front to back and a clear height of twenty feet. Another hangar, thirty feet high with a span of 150 feet, was to be for repairs and overhauls while a third but smaller hangar would be a lock-up for private owners with accommodation for about twenty aircraft.

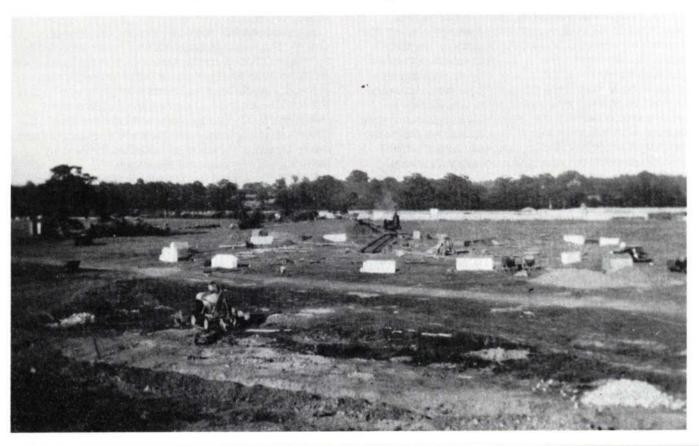
The centre portion of the terminal building was built of reinforced concrete, the floors being supported on two reinforced concrete ring beams, each supported at six points on the circumference. The remainder of the building was steel framed with brick in-filling to allow for future expansion. The roofs were of reinforced concrete with hollow tile while the partitions were hollow tile and breeze.

The building graduated from one storey at the outside to four in the centre. On the ground floor the outer circle was to be devoted to Customs, stores and freight departments. The next circle was to be offices while the inner concentric space, apart from the central block, was to be the assembly hall. The floor above was to be devoted to administrative offices and a restaurant and balcony overlooking the airport. In the glassencased office at the apex of the building was to be the control point of the airport. *The Aeroplane* weekly magazine and competitor of *Flight* likened the building to a flattened wedding cake, although this was not intended as a criticism.

There were seven points of access to the building, three to be used as exits and three as entrances while the seventh was virtually occupied by the subway entrance. The access points were all in the form of radial corridors which would extend outwards when the aircraft was in position by means of a moveable covered way, run out from the building on



Concreting work in progress. Note the narrow guage railway (D. Dalton)



tracks set flush with the concrete, and providing shelter for passengers all the way from the terminal to the aircraft. ARTA (Mrs Arnold) Ltd was responsible for the interior design and furnishings of the restaurant. The building would be heated by low-pressure hot water from anthracite boilers in conjunction with a plenum system of ventilation which would provide the principal rooms with heated air.

Apart from the electricity required for the lighting, Airports Ltd was also considering the installation of an oil-powered engine, probably to heat the terminal. The officials at the Sussex Electricity Company were aware of this. Evidently they considered that the engine should be powered by electricity because on 8 August, Viscount Elibank, the chairman of electricity company, wrote to the Permanent Secretary at the Air Ministry, suggesting that the use of oil would be a 'retrograde step in any of our aerodromes today'. Elibank was told that the Air Ministry could not interfere.

Nor could the Air Ministry advise Airports Ltd which electrical company to use for the lighting equipment. In the event, two companies were used. Chance Brothers & Co of Smethwick would provide three weather-protected floodlights of six kilowatt, while GEC would supply and install the boundary lights, wind indicator, the beacon, obstruction lights, cable and switch gear. In the case of Gravesend, GEC was proving all the night landing equipment.

The general state of progress at Gatwick at the beginning of August was revealed at Airports Ltd's statutory meeting on 12 August. This was the meeting of shareholders which had to be held within three months of the formation of a company to discuss matters arising out of that formation. Viscount Goschen presided at the meeting when it was revealed that installation of the lights at Gravesend should be completed within ten weeks. We know that work on the terminal building at Gatwick had already commenced but the meeting also revealed that work on the hangar had also started, while the levelling and clearing were proceeding. The contractor's work also included the diversion of the Mole which ran from south to north along the eastern edge of the aerodrome and close to the railway. This involved digging a straight course close to the railway embankment. According to Goschen, this was almost complete as was the new railway station. Goschen also reported that negotiations were at a very advanced stage with an important airline for the use of Gatwick which he called London South Airport while negotiations were proceeding satisfactorily with several smaller air transport concerns.

The airline was Hillman's Airways which had expanded its London services that summer to include Le Zoute, Brussels and Antwerp. As if to confirm Goschen's statement, the airline which was now financed by merchant bankers, Erlangers, announced a few days later that it would be moving from Essex Airport at Abridge to Gatwick as soon as the terminal facilities were ready. Goschen also referred to negotiations with several smaller air transport concerns. One was undoubtedly Penshurst-based Air Travel Ltd.

Apart from the Air Ministry and Ministry of Health, another department of state was becoming aware of Gatwick and its potential — the Post Office. That summer the Air Mail Panel which had been formed in 1934 to monitor and report on air mail developments, received a report from its adviser. There was at the Post Office some concern to see better facilities for the movement of mails from the City to Croydon Airport. The report on Gatwick noted that the developments

at Gatwick appeared to a "a step in the right direction for overcoming some of the difficulties of communications between the City and airports by fast electric trains".

The airport's situation was noted, particularly that it would be outside of the London fog belt and enjoyed thirty per cent less fog than Croydon. Its larger size was noted, twenty-five acres more than Croydon. Thus, Gatwick had longer runs than any other British airport. It would have a unique blind flying landing system. All buildings would be away from the main landing area. Its distance from London was twentyseven miles, but the journey time by electric train from Victoria would be no longer than that by road to Croydon. Moreover, the Southern Kailway was stated to be prepared to improve the 35/40 minute journey when traffic justified it. The new terminal was explained with emphasis on the fact that passengers would be under cover from when they left London until they reached the aircraft. As for airmails, space would be set aside, although the author of the report did not seem to have any knowledge of likely services.

lackaman and Desoutter still had their offices at Victoria Coach Station while architect Alan Marlow had his office in Langham Street in London. Frequent visits were made to Gatwick by all three men, especially the first two, to monitor the work; sometimes they went by train, sometimes by car. There was also progress in the expansion of the airport. Negotiations to acquire a further ninety-nine acres had been mentioned in the prospectus. The area was an almost squareshaped field to the immediate west of the original aerodrome; and was sold by Col Raymond Webber to Airports Ltd on 20 September. Jackaman and Desoutter would also have been encouraged by a visit to the aerodrome by Wing Commander Measures, the Superintendent of Railway Air Services. On 30 September the new airport station was opened with platforms on the slow lines, although initially it bore the title Tinsley Green.

Jackaman was still intent on patenting his terminal concept. This would probably not have been considered by the Patent Office but for the moving parts of the building. On 8 October 1935 he deposited the complete specification although it would be several months before he would know if it would be accepted. At the beginning of September, Jackaman's family business completed another stage in the airport's redevelopment — the Mole was diverted to its new course. Several of the labourers celebrated the event by throwing their foreman into the stream.

What Jackaman and Desoutter made of a letter published in *Flight* at the end of September is not known. It bore the pseudonym Festina Lente and questioned the establishment of airports so far from the centre of London as Gatwick and Gravesend. Gatwick may perhaps become a terminus for some airlines, thus relieving traffic congestion, the writer noted; but the rapid train transport must be very frequent, maybe every ten minutes. The air company should legislate for quicker transport from city centre to city centre but that would not be attained, the writer concluded, by moving farther from London.

The contractors, A. Jackaman & Sons Ltd, adapted the consulting engineer's successful design for the basement of the terminal building for use in the reinforced concrete construction of the subway linking the terminal building to the railway station. This did not prove successful as the tunnel started to leak. After all traditional constructional methods to cure this had failed, the architects who were

designing the linings and showcases in the tunnel, decided to try waterproofed fibre board on treated timber framing with drains on both sides behind the framing to take the water to sumps with automatically operated pumps. This did prove successful.

It was probably because of the changed status of Airports Ltd that a new contract was negotiated with the Air Ministry. Certainly there was no hope of the building work being finished by the end of October. The reaction of the Air Ministry officials to the delay is not recorded but they probably realised that they had been unrealistic in expecting the work to be done in such a short time. Jackaman and Desoutter could also blame the planning confusion while they were in any case experiencing difficulties with the clay soil, especially when it rained. They might have tried to blame the old Airports Ltd in whose name the first contract was signed but they probably did not think that it would fool the officials as the changeover had been too recent for it to escape the notice that the men at the helm of both companies were the same.

The new contract which was very similar to the first one was signed on 1 October 1935. It provided for an annual payment by the Air Ministry to the company of £885 for a period of seven years, thereafter of £800 for a period of eight years, the money to be paid quarterly. In return Airports Ltd would keep Gatwick open at all times, day and night. Specific equipment was detailed in the contract, in particular night landing equipment and obstruction lights on the railway embankment. Other equipment the company would have to provide included a fire tender, hangarage for four large modern aircraft, a wind indicator, signal mortars, a land telephone line and teleprinter link to Croydon; and accommodation for Customs staff and facilities. The contract also specified that the surface had to be kept in good order —

and not by grazing sheep! In common with other government contracts, Airports Ltd would ensure that building contractors paid staff at rates that did not compare unfavourably with the trade in the district. The contract recognised the importance of the railway to the contract, although the Southern was not party to it — Airports Ltd would use its best endeavours to 'provide and secure proper railway facilities for passengers and luggage'. There was an escape clause for Airports Ltd to enable it to dispose of Gatwick, although three months would have to be given to the Air Ministry. During that period the Ministry would be entitled to buy the airport on the basis of a willing buyer and seller.

There were other encouraging developments. In October, agreement was reached between Airports Ltd and the Southern Railway on the number of trains to be stopped at the new station, although it was not as many as Jackaman and Desoutter would have liked. But they would have been encouraged by mention of Gatwick in the Daily Herald on 2 October which emphasised that an enormous saving of time would be effected by bringing airline passengers from London by rail instead of by road. Probably the most exciting development was the merger of Hillman's Airways with United Airways and Spartan Airlines. United was owned jointly by Whitehall Securities and Jersey Airways. It had only been formed a few months earlier and had been operating a network of seasonal services based on Blackpool including a service to Heston. Spartan had continued its service in conjunction with the Southern Railway but in 1935 from Heston.



The River Mole after its diversion



#### 4. THE FIRST BRITISH AIRWAYS

The merged airline bore the title Allied British Airways Ltd, although before the end of the month its name was changed to the more appropriate British Airways Ltd. The managing director of the airline was Major McCrindle who had occupied the same office in Hillman's Airways. Hillman's had been operating more London services than the other two airlines and it was not, therefore, surprising that the new airline adopted McCrindle's plan to move to Gatwick. McCrindle was a lawyer by profession but he had first been attracted to aviation in the Great War when he had flown in the RFC.

Another encouragement was that in November an understanding was reached between Airports Ltd on the one hand and the Ministry of Health and Air Ministry on the planning problem. Future planning applications would be advised to Airports Ltd by the local authority. Consequently Jackaman and Desoutter were prepared for Airports Ltd to enter into an agreement with the Dorking & Horley R.D.C. whereby the company would pay compensation to land owners provided they were consulted in each case. At the council's December meeting, it was agreed to ask Airports Ltd to submit a draft agreement along these lines.

In spite of all the planning discussions, work had continued at Gatwick. This included the laying down of a concrete apron and taxi-ways but the work had not progressed as fast as it had been hoped for. The biggest problem was the mud and water which were due to the clay nature of the soil, hidden springs and the adjoining streams. When it rained, Gatwick was a sea of mud. It was not very pleasant for the building workers who were mainly Irish and lived in huts on the edge of the airport. The delays were also expensive for Airports Ltd, being on the basis of cost plus ten per cent, an expression which became something of a joke in the Desoutter household.

In the New Year both aviation and national newspapers began to take more interest in the re-developing airport. At the end of January, *Flight* in an airports feature noted that a revolutionary theory of design was being tried out at Gatwick. After describing the layout of the terminal, it concluded that it was far too early to judge whether the building would become the regular model for the major airports of the future, although the circular pattern certainly represented a substantial advance towards the solution of some of the requirements of airport design.

As the building works progressed, so too did the planning negotiations. Airports Ltd submitted a draft agreement to the local council which was considered by its Town Planning Committee on 19 February 1936. The committee advised acceptance of the agreement with some revisions, at the same time recommending that certain land be designated for airport use on which no buildings above a certain height could be built. The recommendations were endorsed a month later at the full council meeting in Dorking on 5 March.

By the middle of February the basic framework of the building was complete and workmen were laying the parquet flooring and beginning the interior decorations. Indeed the staff of Airports Ltd would have been heartened by a report in the *Daily Telegraph* on 18 February about the progress. The writer described the Martello Air Station as a miniature city which would minister to every comfort and convenience; there was nothing to compare with it at any other airport in the world. Other workmen were laying cables for the airport's



Mud and water were very much in evidence in the 1935/36 winter while the ground was being prepared (D. Dalton)







January 1936 from the ground and from the air. Construction of the circular terminal building already well advanced.





floodlights. In March Jackaman, Desoutter and the staff of Airports Ltd quit the Victoria offices to move into the terminal.

At the end of March *Flight* published a photograph of the new building. The report noted that the interior of the building was still being fitted out but it was expected to be all complete for a May opening. In April one of the Radio Officers with British Airways was sent to Gatwick to investigate the availability of digs for the crews. When he saw the airport, he did not think it was anywhere near ready with a lot of mud and concrete mixers much in evidence. Indeed, a photograph taken from a Surrey Flying Services Cessna at the end of April and published in *The Aeroplane*, illustrated the concern of the Radio Officer and clearly indicated the old, meandering course of the Mole.

Agreement was also reached with Air Travel Ltd of Penshurst to transfer to Gatwick. In spite of its name, the company was not an airline. It had been formed in 1932 at Penshurst in Kent by F. J. Holmes who had started in aviation before the Great War, subsequently serving in the Royal Naval Air Service. After the war he was one of the pioneers of the air circus. Air Travel Ltd continued the circus tradition, offering displays in various parts of the country but at Penshurst, Holmes concentrated on repairs and overhauls. Chief pilot of the company was A. N. Kingwell, a contemporary of the owner with a similar background. They would have needed little encouragement to move from Penshurst which, as an emergency landing ground and very little else, was away from the centre of aviation. The repair and overhaul side of the business was moreover expanding.

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Putting the finishing touches to the guard rail on the steps from the tunnel to the terminal



Other activities included the hire of aircraft and the sole manufacturing agency for Avro Avians. The company boasted its activities were 'approved by the Air Ministry'.

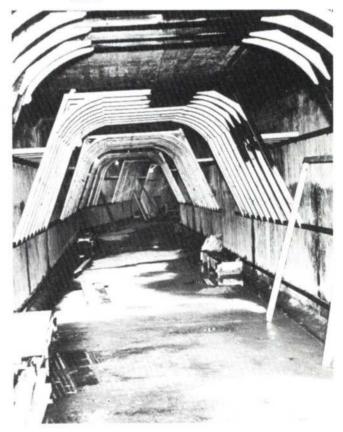
The redevelopment of Gatwick generated the formation of another user, Messrs Air Touring. This was a partnership of two pilots, C. G. Alington and E. D. Spratt, who decided to try their hand at the charter business. They almost certainly chose Gatwick because it was a new market and because Spratt lived nearby at Ifield. Two aircraft were to be purchased, a Falcon Major and a Short Scion.

Apart from the principal architect, Alan Marlow, his partners Frank Hoar and Bill Lovett did not have much involvement at Gatwick. They did of course have full-time professional work which was not related to Gatwick and airports. Nevertheless Frank Hoar was interested enough to contribute a long article, *Procedure & Planning for a Municipal Airport*, to the weekly trade journal, *The Builder*. The article was published in four instalments from 11 April to 8 May.

Perhaps surprisingly he did not trumpet very loudly about Gatwick and he certainly did not mention his involvement. Nevertheless in the first part of the article, he did say that the 'field' and buildings at such an airport as Gatwick are recognised as the last word to date in airport design. Later in discussing drainage of the soil, he mentioned that "the Mole which at one time meandered across what is now the landing field, has been removed to one side of the landing ground, the moisture from which drains into it." Little did he or any of them realise what course the Mole would later take. In the second part of the article, he mentioned the subway



The water problem was still evident while work was progressing on the foot tunnel



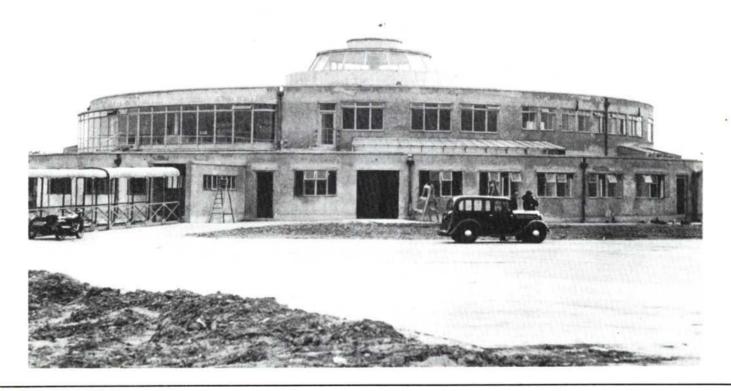




The interior of the terminal ready for the finishing touches ("Topical" Press Agency Ltd)

Terminal exterior in early spring 1936. The partially completed telescopic canopy is clearly visible





between the airport and railway station and that there had been interest in the provision of showcases for display of the wares of the London stores. He later returned to the soil. Great care should be taken, he said, in clearing the field. "The topsoil should not be buried with the subsoil wherever mounds have to be levelled or hollows filled in. The topsoil should be removed and set aside and, after levelling should be evenly distributed over the area . . . existing turf should not be disturbed if possible as it usually takes a year for a commencement towards the raising of a really tough turf".

By the early Spring of 1936, Jackaman and Desoutter knew that the terminal and other buildings could be ready before the end of May. They were both determined to maximise publicity for the redeveloped airport. A date was fixed, Saturday, 6 June 1936, for the official opening. With their contacts it was not surprising that before the end of April they were able to secure the services of the Secretary of State for Air, Viscount Swinton. Always an enthusiast for aviation, the Minister was happy to lend support for air transport at a time when his work was increasingly dominated by military considerations with the accelerating re-armament programme. At the same time, Airports Ltd and British Airways Ltd jointly commissioned the aviation journalist and publicist, William Courtenay to arrange an air show for the opening. Courtenay was selected for the task as he had already organised successful displays at Hillman's first aerodrome near Romford in 1932 and at Liverpool in 1933 - at the latter, Morris Jackaman had won the arrival competition in his Monospar from Heston. In addition Courtenay had served under Major McCrindle in the RAF in the Palestine Brigade.

Courtenay drew up a varied programme of both civil and military displays. He suggested to the Air Ministry that there should be a squadron drill of Bristol Bulldogs, Furies or Gloucester Gauntlets together with a display by the Fairey Battle. Courtenay's request was a little late for the Ministry officials who did not want to disrupt training programmes, and, in any case, did not want to exhibit any of the fighter prototypes. Courtenay also wanted to exhibit the Comet which two years earlier had acquired celebrity in the England/Australia race. The Ministry had no objection but in the event it could not be got ready in time. Airports Ltd director, Air Marshal Sir John Higgins helped Courtenay prepare the guest list for the luncheon — over 600.

At the beginning of May, the new Gatwick was almost ready for occupation. Indeed, the finishing touches were still being put to the terminal and hangars when the first two tenants, Air Travel Ltd and Air Touring, moved in. Apart from its normal repair and maintenance work, Air Travel was also entrusted with looking after visiting aircraft, in particular refuelling and engine start-up. The Air Ministry officials were



The Air Travel hangar



now happy about the new arrangements in general and one of them, F. W. Hancock, recorded on 11 May that the airport could be considered satisfactory for operation of commercial air services in all weather conditions, day and night. The airport had several novel features, he noted, but he seemed more concerned that "it will afford an alternative landing place for aircraft normally bound for Croydon when the latter is enveloped in fog or low cloud."

The airport still needed a licence, however, to re-open. The following morning, Tuesday, British Airways advised Jackaman that it was proposed to start services to Paris and Scandinavia the following Sunday! Jackaman immediately telephoned the Ministry where he spoke to a Mrs Chalk, requesting her to send a representative later in the week with a view to issuing a licence for all types of aircraft as from 17 May. He admitted that work was not complete but he believed there would be runs of over 1,000 yards in every direction, although one or two small areas would have to be boarded off.

Major Mealing duly inspected the facilities on the Thursday. He was happy with what he saw, although there were four areas which he considered, while not dangerous, should be improved. On Friday, 15 May 1936, the Air Ministry sent a telegram to Airports Ltd at Gatwick that the airport licence would be restored from 17 May 1936 until 31 January 1937. A copy of the telegram was sent to the Chief Constable of the Surrey Police at Guildford. On a more sombre note, Airports Ltd approached the local hospital, the Horley & District Cottage Hospital, to enquire if 'it would

agree to be responsible for accidents in connection with the aerodrome'. Although the hospital had only sixteen beds, the request was agreed to at a meeting of its management committee on 21 May.

The contract between Airports Ltd and British Airways for the use of Gatwick was signed the same day, 15 May, that the Ministry sent the telegram restoring the licence. There was no sign of haste in it, however, and it was very detailed and conditional. It consisted basically of the licence to use the airport, the lease of hangar and outbuildings, lease of land for petrol station and lease of traffic office in the terminal building. The contract was for twenty-one years, the airline having the right to break at the fifth, seventh, and fourteenth year upon six months' notice. Each of the four sections was itself very detailed. Thus the airport licence provided for the payment by the airline of £1,350 a year as landing fees for aircraft operating within a radius of 120 miles and up to a total maximum aggregate weight of 26 million lbs. British Airways, upon giving six months' notice, would be able to terminate the lease if the airport licence was revoked by the Air Ministry or if the airport became waterlogged and unfit for use for a period of six consecutive weeks in any one year.



Passengers boarding the first scheduled service from Gatwick to Paris at 13.30 on Sunday 17 May 1936. The aircraft, a D.H.86, G-ACZP, was painted in British Airways livery but was chartered from Jersey Airways (Mrs. Reeves, nee Desoutter)



The latter clause was conditional upon both Heston and Croydon not being waterlogged at the same time.

The hangar lease was also detailed and provided for annual payment of £1,770 for lease of the main hangar, workshop and stores, garages and administrative offices while the petrol filling station rental was £150. Finally, the traffic office and store in the terminal building required the airline to pay £330 a year.

The staff and equipment of British Airways moved into Gatwick from their temporary base at Heston during the weekend of 16/17 May. As if to prove the point, a photograph was subsequently published in *The Aeroplane* of a group of staff at Gatwick in front of an ex-Hillman D.H.86. The Staff included Assistant Air Superintendent Van Oppen who had earlier been a pilot on the Spartan service to the Isle of Wight, a number of pilots including the celebrated R. H. McIntosh, Traffic Superintendent H. R. Higgins and other traffic officials. The dimensions of the re-developed airport were 730 yards North to South, 750 NE to SW, 1,060 East to West and 960 yards SE to NW.

Perhaps it was as well that the transfer took place over the weekend. There were no arrivals or departures on Sunday mornings in May, the Scandinavian service not operating on the Sabbath. Most of the airline's domestic services had by this time been axed while the Isle of Wight service was to start a week later which left just the Paris service. The airline's timetable, however, had been adjusted to fit in with the hourly semi-fast trains. The first service of British Airways was consequently re-scheduled to leave the new London airport at 13.30 and reach the French capital one hour and thirty-five minutes later. At last Gatwick was an international airport. Indeed, its restaurant was to be managed by a renowned Italian restauranteur from the West End, M. Novelli.

That first service was operated by D.H.86 G-ACZP under the command of Captain T. G. Thomlinson, a former Hillman pilot in his mid-thirties. He was accompanied by a radio officer, Alan Wood, also from Hillman. The actual departure was five minutes late but that was not surprising with all the officials and photographers in attendance. Paris was duly reached at 15.15, ten minutes late. The D.H.86 was not however of British Airways as the airline was experiencing a shortage of aircraft on account of delivery delays and difficulties with the new D.H.86A, in particular its electric variable pitch propeller. The D.H.86 on the first service belonged to Jersey Airways and was one of two chartered from the airline which was still using the beach as the airport in Jersey. British Airways was also using four Fokker F.XII aircraft which it had recently acquired from Crilly Airways which had been planning to operate a service to Portugal. This had been frustrated by the Spanish government but British Airways was hoping to operate the service, although the Fokker aircraft were not considered suitable. Some of the Crilly staff were also taken on by British Airways.

The public timetable detailed the recommended train being the 12.28 departure from Victoria. This train was scheduled to reach Gatwick forty-two minutes later to give passengers just twenty minutes to mount the stairs of the footbridge, cross to the up platform, descend into and traverse the foot tunnel, ascend the steps into the terminal and complete passport and other formalities before leaving the terminal through a telescopic passageway to gain the stairs to the aircraft. The newspapers, however, did not give the airport's

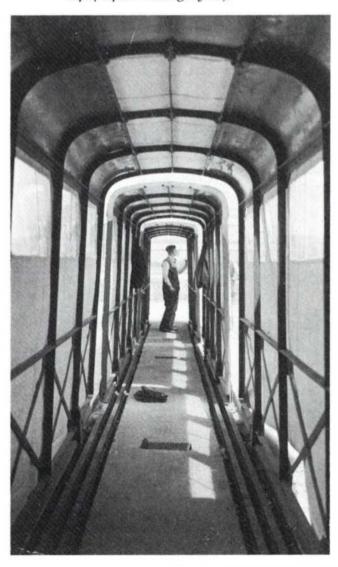
new services the kind of attention British Airways and Airports Ltd were probably looking for. Perhaps that was not surprising in view of the haste with which the airline had transferred its services. Most newspapers, whether national or local, chose to ignore the event and only the *News Chronicle* sent a photographer to record the first arrival and departure, although no story or photographs were published.

The aircraft returned from Paris with the 18.40 service. In the meantime, the first inbound service from Paris, the 14.40, arrived at 16.15, its passengers including the American film star Miriam Hopkins. For inbound services, twenty-four minutes were allowed at Gatwick to complete immigration and Customs formalities. On Sundays there were just two services to Paris, the second being at 17.30. Mondays to Saturdays gave three services in each direction between the two capitals — from Gatwick at 10.30, 13.30 (14.30 on Saturdays) and 17.30, from Le Bourget at 09.40, 14.40 and 18.40. The services were operated by D.H.86 and Fokker XII aircraft.

The fare between the two cities was £4-5s-0d (£4.25p) single which included first-class rail travel from Victoria.



Interior of the telescopic passageway giving covered access to the aircraft steps ("Topical" Press Agency Ltd)



There were three types of return ticket, the day and weekend being the cheaper at £6 while the 60-day ticket was the dearer at £7-12s-6d (£7.62½p). By contrast the Imperial Airways and Air France fares were a little higher. In fact, British Airways had just increased its fares before the move to Gatwick as a result of pressure from the French government which was responding to the demands of Air France, while Imperial Airways had reduced its fares. But none of the airlines were carrying economic loads on the route which the two larger and state-sponsored airlines treated very much as a shop window.

The Scandinavian service was inaugurated from Gatwick the following day, Monday 18 May. With a train departure from Victoria at 08.00, the flight left Gatwick at 09.00 to reach the first port of call, Amsterdam, at 11.20 local time (the scheduled flight time was two hours, the discrepancy of twenty minutes being due to different time zones). The Dutch capital was followed by Hamburg and Copenhagen, reaching Malmo in Sweden at 15.35, just over six and half hours after leaving Gatwick.

The single fares on this service were £5-10s-0d (£5.50p) to Amsterdam, £8-15s-0d (£8.75p) to Hamburg, £12 to Copenhagen and £13 to Malmo. 60-day return fares were also available as were fares between intermediate points, there being no restrictions on picking up and setting down passengers in intermediate countries. This service also had to face competition, although as the Royal Mail carrier, British Airways had a considerable advantage. The competition came from British Continental Airways which operated a similar service from Croydon. The British Airways service to

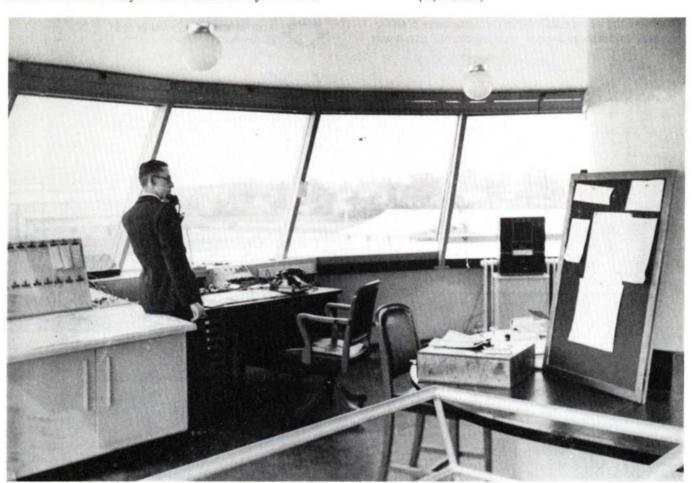
Scandinavia was operated by D.H.86 aircraft daily except Sunday. The inward service was due at Gatwick at 15.15.

The control room in the terminal building was in the charge of the Chief Control Officer, Bill Simmonds and his assistant St. John. They were assisted by the recently recruited young Eric Tucker and Dudley Dalton who had been a general technical assistant with the builders at the airport. There was no radio equipment initially and no Air Ministry staff, the only communications equipment being a teleprinter and direct telephone link with Croydon which were provided by Airports Ltd at the company's expense. It must have therefore been rather galling when the Air Ministry announced that the airport would soon be radio-controlled from Heston, the reason being that Croydon had too much traffic to deal with already.

The British Airways aircraft on the international services from Gatwick were all fitted with both wireless transmission (ie morse) and radio telephony equipment, although most of the communications with control points was by the former. At first the communications between aircraft and the Gatwick control office were cumbersome. For a departure, the Gatwick control staff of Airports Ltd advised Croydon Airport on the teleprinter of the flight detail, thereby requesting clearance. For an arrival, an aircraft from say Paris would lower its aerial when it reached the English coast to ask Croydon by morse for the weather situation at Gatwick, at the



Airports Ltd. Control Officer in the control room of the terminal, May 1936 (C. Jackaman)



same time seeking clearance for arrival. The Air Ministry staff at Croydon then contacted Gatwick on the land line telephone or teleprinter. By this time the aircraft was about fifteen minutes from Gatwick.

The equipment on the aircraft required of course maintenance and supervision. This brought in Marconi instructor Stanley Heath from Croydon at the beginning. Lodging in the Red Lion Hotel in Lowfield Heath, his weekly wage was £3-10s-0d (£3.50p) but he could receive another £1 flying pay as he often had to check out repairs and modifications.

The operating procedures for aircraft landing and take-off were soon evolved. Basically they required pilots to make a left hand circuit before landing on the grass area and then to approach the terminal building by the concrete taxi-way furthest from the railway. Conversely departing aircraft were to taxi along the concrete strip near the railway to reach the take-off area.

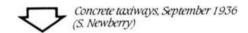
There was one more service of British Airways to transfer to Gatwick — the Isle of Wight. The service had been operated from Heston in the summer of 1935 and through to the end of the year when it was closed down. The service was not economic and showed little sign of breaking even. British Airways and the Southern Railway had continued to jointly finance the service, partly to gain experience but also to discourage Portsmouth, Southsea & Isle of Wight Aviation which in 1934 and 1935 had operated a service from Heston. In fact, the latter airline did not repeat the Heston service in 1936 as part of a settlement which released it from the railway booking ban.

Certainly British Airways had doubts about continuing the service, but the view prevailed that the advantages both for the airline and railway were of 'such importance' that it was decided to give the new terminal a trial. There was a change however in that the four Spartan cruisers were no longer available, their place being taken by two D.H.84s. The route was to Ryde, a distance of 53 miles, and on to Cowes, a mere eight miles.

The service was inaugurated from Gatwick on Monday 25 May. The fare to the island which included first class rail travel from Victoria was £1-10s-0d (£1.50p) single, £2-10s-0d (£2.50p) ordinary return and £2 mid-week return. There was also a day excursion of £1-13s-0d (£1.65p). The first service was at 08.55 with arrival at Ryde Airport at 09.35 and Cowes Aerodrome at 09.45. Two other services were operated on weekdays, on Mondays at 10.25 and 19.00, the schedules differing slightly on the other days. At weekends the pattern was similar, but from 4 July the frequency rose to eight per day on Saturdays. Between 25 May and the end of the month, sixty-one passengers were carried on the service.

It was interesting that the airline issued a timetable pamphlet for the service. This was in the name of Spartan Air Lines whose name appeared in capitals with 'Incorporated in British Airways Ltd' in brackets in small letters. There was no reference to the association with the Southern Railway apart from a little note at the end of the route description that luggage could be sent in advance while tickets were interavailable between rail and air, "advantages which only apply to the railway associated air routes". Smoking was not permitted on the aircraft.

The Dorking & Horley Rural District Council was also





directly involved at Gatwick as local authorities were responsible for the control of infectious diseases in their area. Hence the council's Medical Officer, Dr Ive, had responsibilities as Gatwick was now a point of entry into the country. There was other work including the medical examination of aliens for which the Ministry of Health was responsible. Dr Ive explained to the council's meeting on 28 May that it was the practice of the Ministry to appoint the medical officer of the local authority as the medical inspector. Consequently he had been approached by the Ministry to make an appointment at Gatwick. The council's formal approval was therefore required and was given.

The Medical Officer was probably unaware of the health of one of the Managing Directors of Airports Ltd, Morris lackaman. Morris had worried greatly about the delays in completing the airport while his opposite number, Marcel Desoutter, blamed him and his family for the mounting expenses which Airports Ltd would have to meet. Morris felt that Desoutter was organising the board of the company against him. Certainly by the end of May Desoutter was at

the helm of the company.

The incident that marked the transition of power was seemingly over Jackaman's proposal to erect a mast in Lowfield Heath to act as an obstruction light for arriving aircraft. It would be near the church and to the same height as the church tower but Desoutter considered that if an arriving aircraft approached too low at less than a hundred feet and

came too close to the obstruction light, there was a chance of hitting the steeple. Desoutter suggested that an obstruction light be placed on the steeple but Jackaman thought it farfetched as no one in their senses would circle the airport at that height. Jackaman also advanced two good reasons for not putting an obstruction light on the church steeple — it would require a ladder on it to facilitate servicing while the church authorities would have objections.

Jackaman signed his last letter to the Air Ministry on 26 May—it was about the problem. Thereafter it was Desoutter who originated and signed the letters. But it was not the end of the story. Nearly six months later Stanley Heath who was lodging in the Red Lion Hotel in Lowfield Heath, was awakened by the noise of a Fokker aircraft arriving back in the early hours. Stanley considered the aircraft was too low and too close to the church. He contacted the airport control. The result was the erection of another mast and obstruction light in addition to the one in the corner of the churchyard.

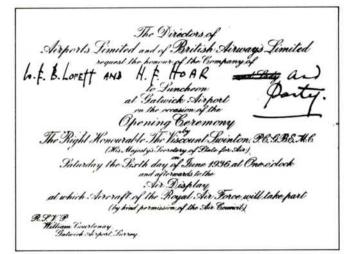
As the big day approached, Morris Jackaman and the staff at Airports Ltd would all have been encouraged by a major article in the *Daily Telegraph* on the day before the official opening of the new Gatwick. The unnamed author of the article claimed that not only did Gatwick enjoy the advantages inherent in its geographic location but also that it was one of the most interesting of such establishments in the world and certainly one of the best equipped.

### 5. THE BIG OPENING

Gatwick's big day came on Saturday, 6 June 1936 when the Secretary of State for Air would declare the airport officially open. Everything was organised in a grand style and, as *The Aeroplane* subsequently remarked, everybody who ever had anything to do with aviation was among the guests, distinguished or otherwise. Most of the guests including a number of high officials of the Air Ministry, Air Council, ambassadors and foreign air attachés, assembled at 11.20 at platform 15 of Victoria Station to board the 'Gatwick Airport Special' train which left London twenty minutes later.



An invitation to the opening ceremony, 6 June 1936, in the presence of Viscount Swinton, Secretary of State for Air, addressed to the Architects.



The guests included the celebrated flyers Jim Mollison and his wife Amy Johnson, the racing driver Sir Malcolm Campbell who lived quite close to Gatwick, Flt Lt Tommy Rose, the Chief of the Air Staff of the Royal Air Force Sir Edward Ellington, Marshal of the RAF Sir John Salmond, the Mayor of Reigate, the Chairman of Dorking & Horley Rural District Council John Crewdson who had earlier been involved with planning discussions, and the Duke of Northumberland. Sir Henry Maybury whose committee was investigating the problems of the internal air lines was also there as was the Director-General of the Post Office, Sir Frederick Williamson, Sir Alan Cobham and many others.

The public travelled on the normal trains, purchasing combined excursion and admission tickets at 4s-10d (24p) each. In the meantime, the gates had opened at Gatwick at 11.00 to admit the public into the enclosures at prices of 1s-3d (6p) or 5s-0d (25p). One of the immediate attractions was joyriding on aircraft of British Airways Ltd. From midday one hundred private owners were due to arrive from various parts of the British Isles and the Continent, the first touching down at 12.04 and the last at 12.30. These arrivals were taking part in a competition which was judged by Airports Ltd Director, Sir John Higgins. The winner, R. E. L. Beere in a Puss Moth, was the pilot whose arrival was nearest to the sealed time. He received the Gatwick Cup and £15.

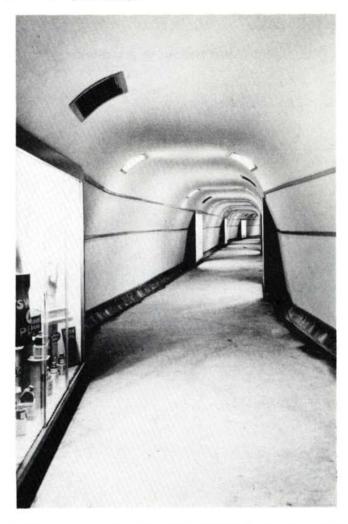
The special train with the 200 guests arrived at the airport station at 12.16. The guests inspected the station before passing to the terminal by way of the subway which looked very bright but was wanting in the prestige advertisements of West End shops — the only advertiser was the Stapley family

who were left to display the products of their five shops in Horley in the illuminated showcases. An inspection of the terminal, hangars and other features followed. The guests inevitably included a number of journalists and aviation correspondents of whom one was a young man, Peter Masefield, representing *The Aeroplane* — he was destined to play a major role in the airport's post-war history.

Lord Swinton was not among the guests on the train, having been in Perth the previous day to open the town's new municipal airport. In fact the municipality had gracefully altered the opening day from Saturday to Friday to facilitate Swinton's appearance at Gatwick. Perth's terminal had been designed by Graham Dawbarn while the engineers and aeronautical consultants had been Norman & Dawbarn. He arrived by air, having been flown from York that morning in the Air Council's D.H.89. The Minister was received by Viscount Goschen as Chairman of Airports Ltd and his fellow directors, the directors of British Airways Ltd and of the Southern Railway and the Director-General of Civil Aviation, Sir Francis Shelmerdine. After briefly inspecting the new buildings, the hosts and their guests retired for lunch in the Air Travel hangar. Lunch was followed by toasts and speeches. Viscount Goschen commenced with a royal toast to



The completed tunnel linking the railway station and terminal building. The showcase is visible on the left (S. Newberry)



His Majesty, followed by one to the Air Minister when he noted that the duties of Cabinet ministers had become much more onerous since the invention of the telephone, the aeroplane adding to the burden; he also mentioned the satisfaction which was felt by Airports Ltd in securing efficient co-operation from the Southern Railway.

Lord Swinton replied to the toast, saying that from time to time rather unintelligent people asked him when an airport was going to be established in the middle of London. The answer, he said, was when everyone was so air-minded and unaesthetic that every tree in Hyde Park could be cut down. Gatwick, he continued, was one of the alternatives to a central London airport, and, with the co-operation of the Southern Railway, everything had been so well arranged that the air passenger would hardly know when he had left the Ritz and when he had arrived at the Meurice. He looked forward with confidence to Gatwick's future as an airport as traffic was increasing and there would be plenty of business. The Martello Tower had first been divided to repel Continental invasion but now, he said, by the practical genius



Guests at the opening ceremony inspecting the terminal (Flight International) of Mr Jackaman, it had been turned to the purpose of attracting Continental invasion; the Southern Railway was taking an essential part in the enterprise and both partners were to be congratulated. No doubt his words warmed Jackaman who was now feeling very uncomfortable working with Marcel Desoutter, his equal as Joint Managing Director; but Swinton probably did not know of the tension between the two men.

The toasts were concluded by Mr D. L. Roberts, Chairman of British Airways Ltd proposing "The Visitors"; he also referred to the participation of the Southern Railway, while the chairman of the railway responded. The guests then moved to their special enclosure whereupon the Minister moved across to the dais on the edge of the landing area to make another brief speech, at the same time declaring the airport open. Simultaneously Flt Lt Gerald Hill descended by parachute from a Swallow monoplane with a message of goodwill to the Minister, whereupon the flags of all the nations served by British Airways were unfurled from the masts in front of the 'guests' enclosure. The 'message from the sky' was in fact a poem 'Ode to Lord Swinton' which had just been written by Courtenay to mark Swinton's appointment in May as Honorary Air Commodore to 608 (North Riding) Squadron of the Auxiliary Air Force.



#### ODE TO LORD SWINTON

Lord of the air o'er Surrey's gentle hills The breezes waft this greeting from afar From altitudes in heaven's highest blue Where pleasing lies the view From whence I come. Far down the whitened tyre-trod route Spans now demurest Down and pasture green Leading alike to shadowed vale and to the sea By vonder coast. These have I seen And from their bourne Wafted on winds untrammelled The county's greeting bring With these the multitudes about thee gathered This day at Gatwick Now shall a fairer fame bestride this vale The circle of the post that bears the rider home At Gatwick's Course hard by A greater Circle be The course a nobler run And Gatwick's Circle to the airman be The homeward way begun. Pray take my Lord our Greetings then From Surrey folk around thee gathered And from that far domain to bounds a stranger From whence my wings have made me ranger Our measure full of thanks this day and more Thy pilots greet their new Air Commodore.

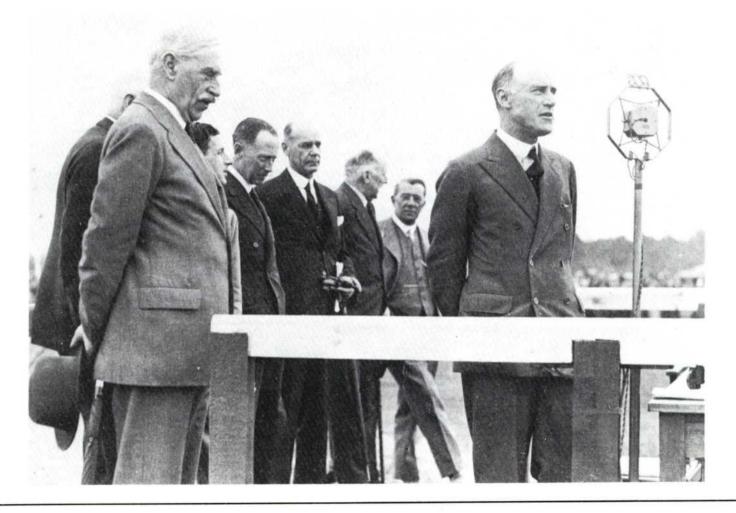
Capt Jimmy Jeffs who had supervised ATC at Croydon for many years, was in charge of flying activities and had his work cut out to get things going after a start delayed by the official ceremonies over-running but by skilful rearrangement of items he soon caught up with schedule. He could not however, stop the arrival of several light aircraft from flying clubs in the south of England. The pilots brought messages of good-will from the club presidents. It was all very confusing to the general public but William Courtenay's microphone commentary made it very comprehensible. Indeed, *Flight* commented that he appeared to be doing the work of six people in the intervals between announcements.

The flying displays included a demonstration by R. A. C. Brie of the C.30 Autogiro, the first public appearance of the British Aircraft Manufacturing Company's Double Eagle monoplane in the charge of John Rogers, Crazy Flying by Flt Lt Gerald Hill in the Swallow, the new Hillson Praga cabin monoplane and the Miles Falcon in which Tommy Rose had just set up a record to Cape Town, while F. G. Miles showed off the Miles Witney-Straight monoplane.

The high point of the display was provided by Gloster Gauntlets of 19 Squadron from Duxford. The *Flight* journalist was full of praise for them in his report. Their flight aerobatics had been seen in public more than once, he wrote, but the



Viscount Swinton declares the new airport open, surrounded by officials from the Air Ministry, Airports Ltd, Southern Railway and British Airways (Flight International)



performance was so pluperfect that it could never pall; from the moment the three Gauntlets, tied together by short beflagged cords, first came whining earthward from 3,000ft. until they muttered in to land, cords still intact, their show was a sheer joy to watch. The finest manoeuvre of all, he continued, was the upward flight roll, the three machines rolling as one about the axis of the leader as they rocketed almost vertically skyward. With equal facility they half-rolled off the top of a loop, wing tips never more than three or four feet apart. The whole thing, he concluded, was a superb exhibition of interaction between mind and matter. Neither *Flight* nor *The Aeroplane* reported that the pilots had earlier enjoyed the luncheon with the guests; but perhaps the wine had given them a little extra confidence.

There were more flying displays but Flight opined that what brought most of the crowd to Gatwick was Clem Sohn's attempt at human flight. This took place late in the afternoon after the young American had been driven around the enclosures, wearing his wings and equipment. The demonstration was promoted by the Daily Express which had hired a D.H. 84 of the Croydon charter airline, Air Commerce, to take him up to a height of 10,000 feet for the descent. Sohn had already given 500 parachute displays at meetings in the United States and had subsequently developed a technique whereby with wings attached to his arms, his fall from an aircraft would be checked by extending his arms and, at the same time, prolonged to permit simple turning exercises until stalling speed was reached; 'power dives' could then be made to gather more speed for further manoeuvres. He had made 150 demonstrations of 'birdlike flight' and the organisers did not therefore anticipate any difficulties.

The demonstration did not go to plan and, as *The Times* reported, could have been fatal. The problem was caused by low cloud which prevented Sohn ascending to his usual height. He consequently made his jump from 5,000 feet. Unfortunately he did not shut his wings until about 1,000 feet when he attempted to open his parachute which became entangled with his wing equipment. With barely 300 feet to go — or five seconds — he released his emergency parachute. Hampered by the folds of the entangled canopy, Sohn became involved in his wings as he landed, breaking an arm in the process.

The incident was of course, witnessed by the 30,000 spectators including Lord Beaverbrook, the proprietor of the *Daily Express* which had brought Sohn to Britain. The reaction of young British Airways Radio Officer, Alan Wood, was probably typical. It frightened the life out of him as he thought Sohn had killed himself. The American was taken off to Horley Cottage Hospital, but not before a car had carried him around the arena in a sort of lap of triumph to show the multitudes that he was very much in the land of the living, although he was in some pain; Sohn was less successful a year later when he met his maker in a landing at Vincennes in France. There was another casualty at Gatwick a little later when the RAF Flight Leader of the Gauntlets put up his arm to signal to his companions and promptly had it dislocated by the slipstream.

During the displays, British Airways aircraft were seen to arrive and depart. Alan Wood had been on the service from Malmo which had been due at Gatwick at 15.15 with Captain Gill in D.H.86 G-ADEC but the crew had been told to arrive back soon after 14.00. Consequently they had left Malmo an

hour early at 07.40 that morning, called at Copenhagen where some Dutch passengers joined, proceeded direct to Amsterdam as there was no one booked to set down or join at Hamburg and arrived at Gatwick at 14.05. Other British Airways flights from the Isle of Wight and Paris were also to be seen arriving and departing. The last event after the flying displays was an exhibition of a Bell's asbestos suit in the mock-up of a burning aircraft after which British Airways resumed its joyriding activities until dusk approached.

British Airways was certainly very confident and optimistic about the future. The airline published an eighty page booklet which was distributed during the day. Its opening pages included an introductory note by Lord Swinton congratulating Airports Ltd for providing an all-weather airport at Gatwick. This was followed by a more detailed acclaim by the Director-General of Civil Aviation, Sir Francis Shelmerdine who described the completion of the airport and the transfer thereto of British Airways as a great step forward in the progress of British civil aviation; he predicted that London's needs would eventually demand a ring of airports around the metropolis. Gatwick would play an important part in that development and its many desirable features could well become the model for others to copy. He concluded that British Airways would find distinct advantages in using an airport with the kind of facilities Gatwick possessed.

Inevitably the events of the day received many glowing reports in the press, both at home and abroad, even if they tended to focus on Clem Sohn's accident. Gatwick's future was now surely assured and it would come in time to take its place alongside Croydon and Le Bourget as an airport of international status. Who amongst the visits on that happy day could have foreseen that Gatwick's glory was to be very short-lived? Even the perceptive Air Minister could not have had doubts. There were also reports of the new airport in the foreign press but the enquiry from Germany's Institute for Luftfahrt about the detailed layout at Gatwick was not replied to at the Air Ministry where the officials were very much aware of Germany's military expansion.

The difficulties that were ultimately to cost the new airport its scheduled services may not have been obvious in the month following the official opening, although some of the new residents did notice that when it rained, the clay tended to cling to the wheels of the heavier aircraft. Indeed, Air Superintendent Lynch Blosse was puzzled one day when he was having a drink with Capt Flowerday and Marconi Operator Stanley Heath at *The Greyhound* Public House, the airport's 'local', which was just across the bridge on the other side of the railway. One local proceeded to lecture the airline men on the unsuitability of Gatwick, citing his friend's adjoining farm which often became waterlogged when it rained. One of the airline men replied that the airport had been drained but the locals retorted that it would not help because there were hidden streams.

At the end of May only one D.H.86A had been received by British Airways at Gatwick. Of the other six on order, only two had received their Certificates of Airworthiness. Nevertheless the airline was able to introduce the D.H.86A onto the Scandinavian service on 16 June. The shortage of aircraft was also delaying the introduction of a night mail service to Scandinavia for which the original target had been 1 June but the delay was also due to difficulties with the Swedish authorities and opposition from the German airline, Deutsche Luft Hansa. The night mail service was to be part of

the subsidy arrangement with the Air Ministry, eventually operating through to Stockholm.

Perhaps it was as well for Jackaman that the mail service had not started as the night landing lights were still not operational at the beginning of June. Indeed, they did not receive their first test until 12 June. Earlier that day there was another development for Morris Jackaman. He met for the first time the young lady, Cherry Davies, whom he would later marry.

The day service of British Airways was also to operate to the Swedish capital but this was not possible until the new civil airport at Stockholm was completed. The new airport was quite impressive. It was literally hewn out of solid rock which enabled four concrete runways to be laid out — they were then quite a rarity in Europe. On 1 July the first British Airways aircraft went through to Stockholm. It was not however a new D.H.86A but an ex-Hillman D.H.86 G-ADEC in the charge of Nigel Pelly and Radio Officer Alan Wood. With a departure from Gatwick at 09.10 and stops at Amsterdam, Hamburg, Copenhagen and Malmo, Stockholm was reached at 18.07. After a night stop, the aircraft and crew left Stockholm at 08.12 to arrive back at Gatwick at 17.56.

In the meantime, the aircraft position was no easier and some of the Fokker F.XII machines were pushed back onto the Paris service. As the Fokker aircraft had come from Crilly Airways, it might have been expected that these Crilly pilots and radio officers who had been taken on by British Airways would have been pleased to operate them. For reasons that are not obvious, there were occasions when the Crilly crews did not turn up for their rostered flying duty. There was

normally some kind of standby crew but on one occasion it was necessary for Marconi representative Stanley Heath to take a service to Paris as the Radio Officer on a F.XII. There was nearly a problem on one flight when the radio fused but the day was saved when a passenger was able to provide a hairpin. The passenger was Lady Londonderry, the wife of the former Air Minister in the government. The West End enjoyed a tea party on the story. On 27 July the D.H.86A aircraft were introduced onto the Paris Service.

The night mail problem was eventually resolved by an interim arrangement whereby British Airways would operate a service five nights a week to Cologne and Hanover where the Swedish airline A.B. Aerotransport would take over. A number of survey flights were made on the route, one of the first being by Captain Pelly on 3 July with Air Superintendent Lynch Blosse in a D.H.86 G-ADEC. The inaugural service on 27 July was operated by G-ADEB with Capt Flowerday and Lynch Blosse at the controls and K. J. Bayliss as Radio Officer. The mail was first brought from the Head Post Office at King Edward Street in London EC1 to London Bridge Station by road, thence by the 21.00 train to Gatwick. Take-off was at 22.00 with a load of 202 kilos of mail. On the same day, the D.H.86A was introduced onto the Paris service.

The day before the night mail service was officially inaugurated, the four Fokker F.XII aircraft had all left Gatwick



British Airways Fokker F.XII in the summer of 1936 (London News Agency)



with an ultimate destination of Spain. It was not that the Spanish authorities had relented, although the airline claimed it was a survey flight. Ten days earlier, civil war had started in Spain and both sides were anxious to acquire aircraft for military use. With more D.H.86A machines in use and no sign of profitability for the airline, it was not surprising that British Airways should have considered disposing of its Fokkers to Spain.

The suggestion that the airline might dispose of its Fokkers to Spain came about as a result of a private charter on 21 July of one of the British Airways D.H.89s which had been inherited from a predecessor company. The charter which was by journalists including Louis Delapree of *Paris Soir* and H. R. Knickerbocker of *International News of America* left Gatwick early in the morning in the charge of Capt R. H. McIntosh and Flight Engineer Riley. The flight stopped at Biarritz in France for lunch and also to pick up Sefton Delmer of the *Daily Express*. The party then flew on to Gammonal airfield near Burgos in northern Spain where General Mola of the Nationalist side had recently established headquarters.

The journalists were intent on reporting the war but there was a problem of censorship. This was circumvented when they persuaded Mola that they could give more news of the Nationalist progress in the war by phoning official reports to their offices from Biarritz. McIntosh of course was the pilot who flew the official reports each day to France but he also took uncensored reports which he then telephoned through to the newspapers.

After about a week, an armed guard met McIntosh when he returned to Spain, escorting him to General Mola. He need not have worried — Mola simply wanted to know who owned the aircraft he was flying. Replying 'British Airways', McIntosh explained that the airline had been trying to get a licence to Spain for a service that would ultimately go through to South America. Mola also asked if the airline had any large aircraft available for purchase. McIntosh was careful to say that British Airways might sell the four Fokkers at Gatwick if Mola could help with a licence when the Nationalists secured power in Spain.

On his next journey to Biarritz, McIntosh also attempted to ring the British Airways office in London but could not get through and rang the airline in Paris instead. He told the B.A. manager Dudley Taylor of Mola's interest. Dudley Taylor may not have been a man of high integrity because he suggested that he and McIntosh cut British Airways out by buying and re-selling to Mola privately. McIntosh, always hard-working and honest, refused, opining that the business should be done through their employer, whereupon Taylor telephoned Gatwick to tell Managing Director Major McCrindle that Mola's army had offered £60,000 for the four aircraft. Shortly afterwards McCrindle received a call from James Rawes & Co, the airline's agent in Lisbon, that the Marques de Rivas had offered £38,000 for the same aircraft.

From his office at Victoria, McCrindle checked if the Air Ministry had any objection to the sale but the officials considered it a purely commercial transaction. He also checked with the Foreign Office who did not approve as they wanted to pursue a neutral stance but were unable to prevent McCrindle accepting the Rawes offer.

McIntosh sent McCrindle an itinerary for the journey to Spain. Two of the Fokkers would have to refuel at Jersey as they had only seven hours endurance but the other two with fourteen hours could fly direct to an airfield in northern Spain. At all costs they were to avoid France for obvious reasons

On 28 July the four Fokkers left Gatwick at midday. G-ADZI was flown by Captain E. G. L. Robinson with Radio Officer Alan Wood while the others were piloted by Captains J. B. W. Pugh, A. L. T. Naish and D. G. King. There was also another Radio Officer, an engineer and some spares. They eventually reached Bordeaux at 16.30, probably not having enough fuel to reach Spain. After staying overnight in a hotel, the pilots were preparing the aircraft when an order was received by the local police stopping their departure. Dudley Taylor, angry at being baulked, had informed the French whose government was also trying to stop military exports to Spain.

With the way now barred by armed police, the aircraft were returned to the hangar. They were held up for four days, during which time several newspapers carried stories on their plight. The French Le Figaro named the pilots but also reported their claim that they had no intention of going to Spain and that their papers were in order. Eventually the French released the aircraft after receiving a promise by the British that they would not be sold to the Spanish. They departed from Bordeaux at 09.30 on 2 August, escorted by French fighters to ensure they returned to England, although they soon lost their escort in the clouds. They arrived back in England at Portsmouth Airport at 13.30 the same day, continuing to Gatwick after refuelling. Lynch Blosse was subsequently quoted by the *Daily Express* as saying that everything would have been alright but for interfering busybodies. It was not the end of the story. Hardly had they landed when McCrindle received a call from a Republican representative with an offer for the aircraft; but he declined it.

Normal airport activities had continued at both Gatwick and Croydon throughout the drama but British Airways was not the only company involved in this kind of activity. Indeed, Air Travel Ltd at Gatwick was re-conditioning aircraft and engines for Spain while there was even more activity of this nature at Croydon.

Meanwhile, the British Airways pilots who had been in Spain returned to their normal flying duties, but so too did the Fokkers. Thus, G-ADZH was on the 10.30 service to Paris on 5 August, the Radio Officer being Alan Wood, returning to Gatwick in the afternoon. The quest by the Spanish for the Fokkers continued, however, and on 10 August a Polish arms dealer, Stefan Czarniecki, who was staying at the Jules Hotel in Jermyn Street, London, approached the British Airways chairman W. D. Roberts. The dealer made an offer from one, C. Morawski of West Export, a mining firm in Danzig, Poland, of £33,000 plus £450 for spares. Czarniecki claimed that the aircraft were to be used purely for commercial purposes from a base at Katowice and produced a written statement to that effect to reassure Roberts.

A deal was made and on 13 August four Polish pilots arrived at Gatwick to test the aircraft before departure two days later. In the meantime the engineers at Gatwick had fitted the Fokkers with extra fuel tanks. The pilots made a great show of planning their route to Poland, spreading maps over the office floor. McIntosh and McCrindle noticed however that their take-offs on 15 August were very erratic. This was not surprising since they were all fighter pilots and, as one of them confided to McCrindle the night before, none of them had flown multi-engined aircraft. The departure had not however been a secret and earlier that morning the *Daily* 

Express had reported their imminent "hop-off for Spain". The Air Ministry was reported to be considering what steps could be taken to prohibit the trade.

The Fokkers did not depart in the direction of Germany but towards the Channel Islands and so to South West Europe. At about 18.00, two of the F.XIIs were seen climbing high over Parme airfield at Biarritz to gain altitude before reaching the Pyrenees. Soon after G-ADZI reappeared low and tried to land at the airfield. After the third unsuccessful attempt, the aircraft stalled, turned over and crashed into the garden of an English resident, Reginald Wright. The pilot, Count Kazimieri Lazocki, was killed instantly and the aircraft was burnt out.

One Englishman at the Wright residence that weekend was Morris Jackaman but he was not involved in any trade with the Spanish. He was visiting to see his girlfriend Cherry who was staying with the Wrights who were family friends. Morris had flown out from Gatwick in his Monospar G-ABVP, although by this time he had been pushed out of any power and was feeling very uncomfortable, rarely appearing at Gatwick, although he was still ostensibly Joint Managing Director of Airports Ltd.

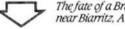
The other Fokker, G-ADZK, piloted by Czarkowski-Gajewski, had also turned back and crash-landed on Lagord airfield near La Rochelle, smashing its undercarriage, engine nacelles and port wing and becoming a total write-off. The third Fokker, G-ADZJ which was piloted by Kazimierz Ziembinski, landed at Bordeaux where it was impounded by the authorities. Only G-ADZH, succeeded in crossing the Pyrenees to land, albeit heavily, in the grounds of a sanatorium at Baranain between Pamplona and Vitoria.

During the coming and going of the Fokkers, the services had continued to operate in and out of Gatwick. Private aircraft on occasion landed at Gatwick to pick up passengers

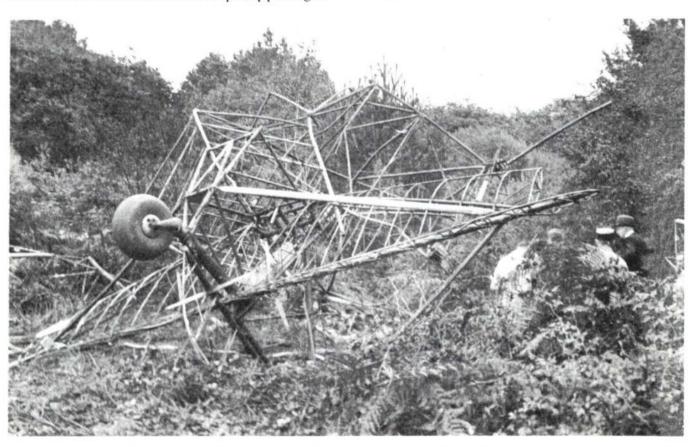
off British Airways flights. The transfer arrangements on 11 August were not however to the liking of one passenger, Mr L. Murphy of Chiswick, who landed from Paris in the afternoon. By prior arrangement, he would be met and collected by a Monospar aircraft G-AEAT of Aerial Sites Ltd.

There were in fact, several complaints — the absence of a marshal to guide the Monospar to a parking point, the rudeness of the Airports Ltd commissionaire who refused to let the pilot meet his passenger in the Customs and the lack of any assistance to start the aircraft, thus necessitating Murphy himself swinging the prop. The landing charges were also queried but the greatest criticism was that the control tower gave him the white light to depart while another aircraft was landing. All of the complaints were satisfactorily explained or contested, but Murphy was still arguing with Airports Ltd four months later.

During the night following the Murphy incident, there was a fatal accident on a British Airways service. Although no passengers were involved, it was not to be the only fatal accident to befall the airline that year. The night mail to Germany on 11 August departed with one of the original Hillman D.H.86 aircraft, G-ADEB in the charge of Captain Charles Gill and Radio Officer Bayliss. The aircraft turned round at Hanover to return via Cologne in the early hours of 12 August. The weather was bad — windy and wet due to a cloudburst in the Rhineland. The aircraft overshot the Rhine and while descending through cloud preparatory to what the



The fate of a British Airways Fokker F.XII near Biarritz, August 1936 (C. Jackaman)



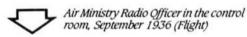
crew thought was a landing, it hit mountains at Altenkirchen, about thirty miles from Cologne. The Radio Officer was killed outright while the pilot died a week later in hospital. The mails were lost in the fire that destroyed the aircraft.

The crash was due to incorrect radio bearings from the ground staff at Cologne who were largely to blame, although this was not clear in the enquiry. The British Airways pilots and radio officers believed that the Cologne radio bearings had been reciprocal. On 14 August, the D.H.86A was introduced onto the service. The night service also brought about changes in the emergency cover arrangements at Gatwick. The contract between Airports Ltd and the Air Ministry placed an obligation on the former to provide certain basic services. With the establishment of the night mail service. British Airways agreed to man the fire tender and ambulance at night. During bad weather and conditions of poor visibility, a searchlight was placed on the fire engine. lock Cadenhead or another airline man would then drive the tender along the concrete taxi-way followed by the aircraft which in the case of the D.H.86 and D.H.86A lacked powerful lighting.

Eventually the Marconi wireless equipment was installed at Gatwick and ready for use in August. This brought in Air Ministry radio operators such as Fever who was in charge, and Henry Haddon. But arriving aircraft still had to contact Croydon on morse to obtain approval to switch to the

Gatwick frequency, although at night Gatwick could be contacted direct. It was not an ideal arrangement but the Air Ministry pleaded that the air waves were already congested. Nevertheless the radio development gave Desoutter confidence to publish a pamphlet which proclaimed Gatwick's advantages. Not surprisingly the provision of radio communications was one of them as were the night landing facilities, the length of the runs which by then were as much as 1,300 yards, the geographic position out of the fog area, the railway connection, the lock-up hangars for private owners and the comparative spaciousness of the terminal. Whoever first applied the Martello label to the building is not known, but the pamphlet unashamedly used the term when it noted that "the Martello Air Station and all the main hangars are situated in what is virtually an annexe, thus permitting the unrestricted movement of aircraft to and from the various buildings and leaving the main part of the airport completely free for flying operations".

The pamphlet detailed the aircraft housing and landing fees. Housing fees were based on time and space occupied. Thus 300 sq. ft. cost as little as 2s.-6d. (12½p) for twenty-four hours and £2-5s.-0d. (£2.25p) per month while 12,000 sq. ft. cost £3-10s.-0d. (£3.50p) and £56-5s.0d. (£56.25p) per





month. Landing fees were based on weight — from 2s.-6d. (12 1/p) for 1,200 lbs. to £2-5s.-0d. (£2.25p) for 30,000 lbs. Night landings were a standard 6s.-0d. (30p).

The pamphlet also included the rules for aircraft using the airport. These were similar to those already advised in the *Notice to Airmen* at the beginning of July. They included:

- At least half a left-hand circuit must be made before landing.
- (2) Landings must be made directly into the wind; when there is no wind, landings must be made from east to west.
- (3) On landing, aircraft are requested to approach the terminal building by taxi-ing along the shorter western taxi-way where they will be further directed by the control staff.
- (4) Pilots should report to the control officer on arrival and prior to departure in order that particulars of load, destination, etc, may be recorded.
- (5) Departing aircraft are requested to taxi on the landing area by way of the longer eastern taxi-way and there to await permission to take off which is given by a white light directed at the aircraft from the control tower.
- (6) When a panel bearing red and white vertical bars is displayed on the control tower parapet, aircraft must not leave the hangars without reference to the control officer. Customs facilities were available from 09.00 to 18.00 or by arrangement.

As if to remind everybody that the racecourse was still adjacent to the airport, the last rule was a request that pilots avoid flying over the racecourse. In fact, Gatwick's name was more consistently in the national and local press, albeit on

the sport pages, on account of the occasional race meetings. It reached the front page of the *Daily Express* on 29 August when it was reported that the Gatwick stewards had interviewed the trainer of the horse which had won the August Handicap, a two mile race with a prize of £400, after finishing a race unplaced a week earlier. The trainer's explanation was that blinkers were tried on the horse in the successful race!

The operating regulations did not permit aircraft to use the concrete apron and taxi-ways as a runway but in August British Airways pilots began to do that since they considered that in certain conditions of light northerly winds, it was too dangerous to delay take-off until on the grass area, the distance from there to the boundary being insufficient to guarantee safety. When the practice started, Lynch Blosse, the airline's superintendent, dressed the pilot down but the latter resisted until he convinced Lynch Blosse that he was right. Several letters were exchanged by Lynch Blosse with Airports Ltd which in turn contacted the Air Ministry. Eventually the practice was regularised by the Air Ministry later in the year.

August also witnessed the absorption of Croydon based British Continental Airways by the larger British Airways. It was not an easy merger and was not completed immediately. The most significant development was that BCA withdrew its Scandinavian service on 1 August which was the official date



The unsuccessful 'London East Airport, Gravesend', operated by Airports Ltd whose corporate identity is clearly visible on the vehicles (J. Gordon)



of the absorption. At the same time, BCA's other Continental services continued at Croydon until the end of the month. The merger also brought BCA's South American plans to British Airways — they had been favoured by the Air Ministry in preference to the proposals of other interests.

By August Desoutter knew that Gravesend was not going to be a financial success for Airports Ltd. Indeed, at the beginning of the month, the Air Ministry told him bluntly that the airport would not be known as 'London East Airport, Gravesend' and would continue as 'Gravesend (Chalk) Airport'. At the end of August Desoutter wrote to the Air Ministry that he was taking steps to dispose of Gravesend in view of the appreciation of land values. The Air Ministry payment for keeping the airport open did not cover the cost of maintaining the airport. Whether Desoutter received any attractive offers is not clear but eventually the Air Ministry offered to buy the airport. The offer was declined as it was less than the original cost of the land. Gravesend Town Council subsequently considered purchasing it but in the event took no action.

In spite of the crash in Cologne and a feeling by some of the British Airways crew that both the D.H.86 and D.H.86A were not ideal aircraft, *The Aeroplane* was to write in glowing terms about the night service in its issue of 2 September. The general spirit of the crews was excellent, it proclaimed. The writer's evidence was personal — he had met and flown with the crews. Moreover, BA was using the best and latest equipment available, the new D.H.86As having a vacuum pump for the Sperry directional gyro and artificial horizon which removed the danger of freezing. In addition, the new aircraft had a small cabin behind the second pilot's seat for the wireless equipment with a small table for maps etc which was a great improvement on the map-on-lap.

The report in fact, belied the attitude of British Airways towards the D.H.86A. The aircraft had not been supplied to

the specification of the airline's order. According to McCrindle, the aircraft lacked the refinement in the form of variable pitch airscrews which it was hoped would have considerably enhanced the performance. Consequently the aircraft were slower than had been required by the airline. The D.H.86A were equipped with the Lorenz system but the crews had not been trained to use it.

The Air Ministry's airports official F. W. Hancock made another visit to Gatwick on 5 September 1936. Desoutter was not overjoyed with Hancock, although the official was happy with the use of the concrete taxi-way as a runway. The bombshell for Desoutter was that he would have to obtain permission to erect the transmitter for the Lorenz Blind Landing system and also obtain an operating licence from the GPO; and there would probably be restrictions on its use due to inadequate landing runs.

An order for the Lorenz system was duly placed by Desoutter that month. The description "Blind-landing" was somewhat misleading. Certainly in the 1930s an absolutely blind landing system was very rare and, in what was commonly called a blind landing, it was usually possible to see the ground from a height of ten to fifteen feet. The system gave both visual and aural indications to the pilot. A transmitting apparatus at the end of the landing run at an airport propagated an ultra short wavelength ray. The pilot on entering the 'field' of the ray, even forty miles away, was warned by his instruments whether he was right or left of the direct path, while his height, shown approximately by the altimeter, would give him some indication of his distance from the airport. At two miles from the airport boundary.

The Lorenz system was quite common in Europe in 1936, being in use at the airports of more than half a dozen capitals and other cities, but in England it was only used at Heston, although at the time of the Air Ministry official's visit to Gatwick, it had just been decided to install it at Croydon.

#### 6. OPERATING DIFFICULTIES

The second accident to the night mail was on the night of 9 September. The service left Gatwick at 22.00 in the charge of Captain E. G. Robinson, a First Officer and Radio Officer Alan Wood in D.H.86A G-ADYJ. They arrived over fogshrouded Cologne in the early hours of 10 September. It was a ground fog which they did not enter until they descended to 600 feet. A KLM DC-2 from Amsterdam was given clearance to land first but after three abortive landings the Dutch diverted to Frankfurt. The British Airways aircraft did not have the fuel to divert to Frankfurt which was over an hour away. On the third attempt the D.H.86A crashed from a height of about sixty feet. The undercarriage collapsed but there were no serious injuries. The emergency services had some difficulty in finding the aircraft in the fog. The mails were retrieved and eventually went forward on a Lufthansa service.

For British Airways the night mail was not exactly a total success. It could have been better for the Post Office. In the first months of the service, the through service to Scandinavia rarely operated to schedule. The fault however was not at the British end. It was usually due to the late running of the connecting ABA flight between Hanover and Scandinavia. Indeed between the beginning of the service in July and 12 September, there were only two late departures from London. On 11 August the service was twenty-four minutes late due to the late running of the train with the mails from London Bridge, although arrival in Hanover was only ten minutes late. On 12 September the outward service was ten minutes late arriving in Cologne due to engine trouble before departure. Other delays on the outward service were due to weather but were mostly small.

On the inward service, some of the services were nearly an hour late due to the late running of the ABA connection from Scandinavia. In addition the service diverted to Croydon on 30 July due to weather at Gatwick. On 28 August the aircraft landed at Lympne at 05.13 but the Southern Railway would not forward the mails to London until the 09.45 train from Sandling Junction. Other delays were due to weather. In spite of the difficulties, scheduled deliveries of mail were normally secured on the outward service in Denmark, Norway and Finland. Even when the ABA aircraft was late, the mails still secured a twenty-four hours or more acceleration over surface transport.

After the accident at Cologne, the crew rested some hours before flying on to Hanover in another D.H.86A G-ADYF, arriving at 20.35 the same day, 11 September. They returned in the early hours from Hanover at 01.25 and Cologne at 03.25. Due to weather they diverted to Croydon landing at 06.15, eventually reaching Gatwick at 07.35. On his return to Gatwick, Alan Wood, feeling a little unwell, went to his doctor who promptly told him he had concussion. He was admitted to Horley Cottage Hospital. A few nights later he was joined by more crew members from the night mail!

The night mail had left Gatwick at about 22.09 on a fine but slightly misty night of 15 September, this time in G-ADYF with Captain W. F. Anderson, the chief pilot of British Airways who had held the same office with Hillman's and in an earlier decade had served in the RFC and RAF. Also on board the D.H.86A were First Officer Dudley Scorgie, Radio Officer John Jackson and Flight Engineer David Slack. Several people including Anderson's wife of two months witnessed the departure of the aircraft which was seen to turn through 180 degrees immediately after taking off, lose

height and hit a tree on Rowlev Farm. Fire broke out immediately. The rescue duties may not have been the responsibility of Airports Ltd at night but the company's Fire Officer, Frank Woodman, immediately took the ambulance towards the crash which he could see burning through the darkness and the trees. Unfortunately he could not get right through to the crash scene because of various obstructions. Leaving the ambulance by the side of the road, he continued on foot. In the meantime, four residents of Rowley Farm arrived on the scene and endeavoured to get the crew out. It was too late for Anderson and Slack, but Scorgie and Jackson were obviously alive, although the condition of the latter was critical. The two were taken to Horley Cottage Hospital by Frank Woodman in the only immediately available transport which was a horsebox. Some of the mail perished but part of it was saved and sent on to Scandinavia by the day service. The Post Office later adjusted the account with the airline, deducting £69 for the 12 August and £52 for the 15 September crash.

The Radio Officer was placed in a bed next to Alan Wood in the hospital while Scorgie was also accommodated. John Jackson, only 21 years old, died about half an hour later, but the First Officer who had been in the accident in Cologne with Alan Wood, eventually recovered. Next day the hospital discharged those who were not too ill including Wood, for fear of more crashes, but Clem Sohn was still not ready to leave. The official explanation of the accident was that the Radio Officer may have accidentally interposed his left foot, which became caught between the second pilot's rudder bar and fire extinguisher which was a fixture on the floor of the cockpit. The result would have been that the movement of the rudder controls would have been obstructed to an extent that caused the pilot to lose control. It was not conclusive and the monthly *Popular Flying* did not accept the explanation.

Desoutter with the mounting financial problems of Airports Ltd, was becoming a worried man. Indeed, his staff were not finding him easy to deal with. Frank Woodman saw Desoutter in his office next day, but instead of complimenting him on his rescue work, demanded to know how the ambulance had been damaged and left in a ditch. Frank replied that some of the damage was done when they touched a farm gate in their haste to get to the crash, causing a small crack in the wing of the vehicle; but he could not explain the ditch. S. A. Gordon, the Airports Ltd Secretary, was also present and asked Frank who would pay for the damage, to which he replied, the insurance. At this Desoutter lost his temper and said he could finish with Airports Ltd at the end of the week — Frank had been with the company since 1934.

Later that day Frank Woodman called at Lynch Blosse in his office in the terminal. The airline's Air Superintendent was very grateful to him for his rescue work and said he could join the airline's payroll next day. Inevitably the newspapers thrived on the story of the crash, but it was the kind of publicity that neither British Airways nor Airports Ltd wanted. Three nights later the service was cancelled for the first time due to weather conditions.

The third accident to the night mail put the airline in a dilemma. Consequently McCrindle called at the Post Office headquarters in London to see D. O. Lumley of the Postal Services department on the day after the accident at Gatwick. McCrindle told Lumley that the company's doubts about the suitability of the D.H.86A for night services had been

increased by the third accident. He claimed that the D.H.86A had been found to be unusually unstable in flight, although the pilots were ready to carry on with the night service in those aircraft. But he and his fellow directors would have considerable qualms about this.

The problem, he continued, was that no alternative British civil aircraft could be obtained, although it could be eased if the Air Ministry could loan certain types of military aircraft. As to the possibility of suspension of the service, Lumley told McCrindle that the Post Office would not insist on continuance if British Airways could increase capacity on the day service to Stockholm. The Air Ministry would have to be consulted however, and later that day McCrindle saw Major Galpin when it was agreed that the night service would continue temporarily with the older D.H.86s. At the same time, the Air Ministry would ascertain if suitable military machines could be obtained. On a different note, a Brighton resident, A. L. Gray, scribbled a note to the Air Ministry about the dangerous obstructions at the airport as he was passing Gatwick on a train. "Clearly the homicidal maniac who designed this place has done his work well . . . When I am tired of life and wish to avoid the appearance of suicide, I will try to make a flight to Gatwick where there is a chance of fog". The letter was placed on the Ministry's Gatwick file.

The Isle of Wight service of British Airways was in many ways an anachronism. By 1936 it did not equate with the airline's image of scheduled international services. Moreover it was still losing money. From the beginning of the summer service in May until the beginning of October, 2,964 passengers were carried between Gatwick and the island, to give receipts of £2,964. The service cost the Southern Railway and airline £4,264.

The service had little chance of achieving viability. The stage lengths were too short in spite of the water crossing while the passenger traffic was too seasonal. The D.H.84 aircraft only carried eight passengers although they were not always trippers and holidaymakers. Sometimes the latter included honeymoon couples such as the young Vic Richards of Croydon and his bride who on Sunday, 20 September took the 10.25 flight to Ryde in D.H.84 G-ACNG. The aircraft was not full, although most of the passengers were holidaymakers. Vic and his wife had travelled by train from East Croydon to the airport station, where they had descended into the tunnel to gain the terminal before checking-in their luggage. They returned from the island at 15.30 on 23 September in the same D.H.84 in the charge of a young Captain Williams who, they observed, made great play in donning a pair of chamois gloves on arrival at Gatwick twenty-five minutes later.

There were no other airlines on the Isle of Wight route from London that year, no one trying to fill the vacuum at Heston after the withdrawal of Portsmouth, Southsea and Isle of Wight Aviation. Consequently there was no need for the Southern Railway to continue to support the Gatwick Service which was withdrawn on 3 October. The service was never to re-open, the partnership between the railway and airline being dissolved the following year.

Desoutter was now becoming even more worried about Gatwick and Airports Ltd — the company would eventually have to face its shareholders, although its administration was strengthened in September with the appointment of an accountant, Raymond Graebe. Desoutter obtained another interview at the Air Ministry with the Deputy Director of Civil

Aviation. They discussed a range of topics on 28 September including the possibility of the Lorenz System which was being installed at Gatwick, having to be removed if it interfered with Croydon's Lorenz which was also in the process of being installed.

The question of Gravesend was again raised. Desoutter suggested that Airports Ltd might want to reconsider its decision to try to dispose of it if an RAF Volunteer Reserve training school were to be established and if the Air Ministry would be prepared to make a bigger payment for keeping Gravesend open as a civil airport. Desoutter claimed that the existing Air Ministry payment was largely taken up in paying for the teleprinter, leaving only about £200 a year for the maintenance of the airport.

The board of the company met on 5 October when the critical financial position was discussed. This time it was decided that the chairman would try to influence the Air Ministry. On 20 October Viscount Goschen approached the Secretary of State, Viscount Swinton, but he was rebuffed and told that the company was already receiving a substantial sum from the Ministry.

If Desoutter had become a little embittered, it was nothing to how lackaman felt. His health had deteriorated throughout the summer and he attended his office less and less. Eventually his doctor told him to take a complete rest by going away from Gatwick. By chance Sir Felix Pole, Airports Ltd director and chairman of Associated Electrical Industries, was about to go to America on business and he invited Morris to join him. Pole was very much aware of the strained relations between the two Managing Directors and his sympathies were with Morris. They left for New York in Mid-October but it was not a successful rest for Morris who was ill on the ship. Even after they arrived, the anxiety did not go away and Morris was obliged to spend some time in hospital for his ulcers to be attended to. Morris had hoped that Pole would stand up for him when they returned. They arrived back in England on 11 November but sadly Pole's support did not materialise. Morris consequently felt obliged to resign. It was a sad day when Morris Jackaman had to leave the airport he had purchased three years earlier with such great visions of developing; and the company he had created to develop Gatwick and Gravesend. It was to be many years before his vision was to be realised.

All was not lost however for Morris. The Air Ministry still held him in high respect and when his health had recovered, he was asked in 1937 if he would be the Air Ministry's Civil Aviation Representative in East Africa which was an important point on the Empire Air Mail service of Imperial Airways. He was delighted when approached by Sir Francis Shelmerdine, the Director-General of Civil Aviation, although he was asked to wait until the litigation between his father's company and Airports Ltd was concluded. He took office in Nairobi at the beginning of 1938. On 1 July 1938 Morris and the young lady he had first met two years earlier, were married by the British Consul in Alexandria. During the war Morris had a distinguished career, mainly in Transport Command in the Far East. He nearly became involved in civil aviation again after the war but in a different continent, Australia. When the Australian Government began to try to formulate a civil aviation policy in favour of a state-owned airline, Morris and the celebrated Australian pioneer, P. G. Taylor, sold the Catalina Flying Boats which they had been planning to operate to Lord Howe Island, a small volcanic

island four hundred miles north east of Sydney. Morris subsequently took up farming near Sydney. His final business venture proved successful. He died on 26 November 1980, just fifty years after Gatwick received its first aerodrome licence.

In the meantime, the activities at Gatwick continued. The day service to Stockholm had not experienced the same kind of difficulties as the night. Nevertheless in September it had to be curtailed at Malmo due to adverse weather. Certainly the service was not particularly attractive for passengers outside of the summer as the heating arrangements in the D.H.86 left much to be desired. The new Stockholm airport was moreover not yet fully equipped. It was therefore not very surprising when the Air Ministry and Post Office endorsed the withdrawal of the Malmo/Stockholm section for the winter.

Two weeks after the September crash of the D.H.86A at Gatwick, the Air Ministry instructed its Aeroplane & Armament Experimental Establishment at Martlesham to carry out Certificate of Airworthiness trials on G-ADYH of British Airways and to investigate the handling qualities of the aircraft. The pilots had been particularly critical of YH. Indeed, there was a suggestion to the Ministry by the airline that the D.H.86A should never have been given a Certificate of Airworthiness.

The D.H.86A was given a thorough trial at Martlesham by the A & AEE. The findings were not very pleasing for de Havilland, the manufacturer. There was particular criticism of the controls — their lack of harmony, delay in response and consequent difficulty in co-ordination. Perhaps the aircraft should not have been given a C of A?

The D.H.86 and D.H.86A aircraft of Imperial Airways were also included in the investigations. It was then decided that all the aircraft should be placed in two categories; those such as YH which were clearly unsafe and on which no further flying would be permitted; and those which could expect to fly safely provided:—

- a) no flying at night
- b) the spring loading was removed from the elevators
- c) passengers would not be carried unless the pilot had at least 50 hours experience of the D.H.86.

British Airways could not wait for the completion of the tests which they knew would support their criticisms. Without waiting for government sanction, they ordered four Lockheed Electras for delivery in March for the Scandinavian service. They also considered purchasing two second-hand Fokkers from KLM.

A & AEE pilots did subsequently visit Gatwick and Croydon. It sounded the death knell for the British Airways D.H.86As which were withdrawn from the Paris and Malmo services on 31 October and grounded. The airline's aircraft problem was now even more acute. Once again it was necessary to charter two D.H.86 aircraft from Jersey Airways. Foreign purchases would have to be sanctioned by the Air Ministry — there was no alternative. Thus on 2 November Captain Mustard took off at 09.00 in Jersey Airways D.H.86 G-ACZP to Amsterdam with engineers and crew to collect one of two Fokker F.XII machines from KLM. The flight across the North Sea took an hour and fifty minutes. Half an hour after arriving at the Dutch capital, Captain Flowerday, the second pilot and Alan Wood were ready to leave with G-AEOS! It took them longer coming back as the Fokker was

slower and flying against the prevailing wind. They reached Gatwick at 14.00. On 7 November the Fokkers were in service on the night mail. On 9 November the Lille service which had formerly been operated by British Continental Airways from Croydon, was inaugurated from Gatwick.

In sanctioning the purchase of foreign aircraft, the Air Ministry had appreciated that British Airways had an acute aircraft situation. The Ministry officials also realised that the use of foreign aircraft would invoke criticism in Parliament and elsewhere. It came on 18 November in a written question in the House of Commons from the Nottinghamshire Labour MP, Frederick Bellenger. He asked the Under-Secretary of State for Air whether the approval of his Department had been given for the use by British Airways of American machines on the service to Scandinavia; and whether the agreement with the company under which a subsidy was granted on condition that British machines would be used, would be varied. The question was further amplified by Isle of Wight MP Peter MacDonald and Robert Perkins.

In his reply Sir Philip Sassoon explained that the D.H.86A machines had been found to be unsuitable for the night service and had been withdrawn. No suitable British aircraft was immediately available while the demands of the RAF Expansion Programme made it impossible to loan military aircraft. The explanation was perfectly correct and reasonable but further comments indicated that some MPs were still not happy.

The airline had one other major problem associated with the aircraft — major repairs and engine overhauls. Although British Airways had the exclusive use of a hangar at Gatwick, major repairs and engine overhauls were carried out in hangars temporarily rented on Eastleigh Aerodrome, Southampton. This was unsatisfactory as the accommodation was inadequate while it was inconvenient and expensive to have the major repair shops situated over 50 miles from the company's main operational base. The problem was considered at the airline's board meeting in London on 3 November when a variety of options were offered. The decision was good news for Gatwick — it was decided to proceed with a detailed study for the erection of a new main workshop building at the east side of the existing service hangars at the airport.

The use of Fokker aircraft was not expected to produce any operating difficulties at Gatwick as several of the crews had had experience of them. It was not to be! The night mail was returning to Gatwick before daybreak on 19 November. The aircraft was one of the two Fokkers recently acquired, G-AEOT, and was in the charge of Captains Hattersley and Brenden Kemp with Flight Engineer G. R. Blowers and Radio Officer C. G. Wheeler. The aircraft was about four miles south of Gatwick in not very good weather conditions, having already circled the airport which was of course floodlit in accordance with the Air Ministry contract. The radio operator at Gatwick was in wireless contact with the aircraft which was due to land at 03.40.

The aircraft was unfortunately too low when it made its final approach. The Radio Officer saw the trees of Tilgate Forest just below the aircraft and called to the pilot who had just asked the Flight Engineer for the position of the landing switch. The pilot, Arthur Hattersley, a veteran of the RFC and later an instructor at the RAF's Central Flying School, had never made a complete return trip on the night service and was not experienced on the Fokker F.XII. KLM pilots were

not allowed to take full charge of one of these aircraft until they had completed at least fifty hours as a co-pilot. Why were two pilots with so little experience of these machines allowed to go on the night service together?

The answer was that they were rostered together at their own request. They were both ex-BCA men and the merger had still not been completed. The BCA pilots were not very happy about Gatwick and were not often rostered on the night service which in some eyes had a certain glamour. It was therefore a sort of appeasement to put them on the service together. Unfortunately, the Fokker crashed into trees on the summit of a ridge.

Jock Cadenhead who was normally in charge of aircraft loading at Gatwick was alerted to the accident. He jumped on his bike and went off in the general direction of the crash. He soon came across a British Airways van which was also looking for the crash. He led the way but it was some time before they found the aircraft. By this time the two pilots were dead but the other two crew members survived.

The repercussions from the accident were immediate. Next day an early day motion — a Parliamentary device for letting off steam — was submitted in the House of Commons by six Members of Parliament that no night services to or from Gatwick should be permitted until the Lorenz system of blind landings was available. Certainly, the Lorenz system could have helped prevent the tragedy but the equipment at Gatwick had only just been installed by STC and was not yet fully operational. In any case, the Fokkers were not fitted with the Lorenz system. Just before the accident the Air Ministry was about to recommend to the GPO that a licence for the use of the Lorenz should be granted, albeit for test purposes only. The temporary licence was granted at the end of the month whilst at the same time the Southern Railway agreed to take down telegraph poles which would be in the way of the beacon, although Airports Ltd had to pay the railway £1,200. Certainly there had been a lot of confusion about the installation to get the approval of two government departments.

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## 7. MERGER PROBLEMS

Not surprisingly the accident aggravated the situation with the BCA people generally and particularly the crews. The owners and managers of British Continental did not consider Gatwick was properly equipped for night flying. They also considered that the technical management of British Airways was weak. The crews were unhappy about having to move from Croydon to Gatwick while the crashes only served to rub salt into the wound. The BCA Managers had been trying to supplant the British Airways management and McCrindle in particular whom they greatly disliked. They even wanted to change the name of the airline! Their attempts to influence public opinion and politicians were not very successful, although a number of hostile questions had been asked in Parliament by Conservative back benchers such as Robert Perkins who had been briefed by them. Certainly they failed to arouse any sympathy at the Air Ministry.

The pilots may have felt that they had some justifiable grievances such as the rates of flying pay. It all came to a head at a meeting on 23 November at Croydon where BCA still had an office but no flying operations. In addition to the staff, Sir Percy McKinnon, the BCA Chairman and a leading member of Lloyds Shipping, and Clive Pearson were present to explain the position. Clive Pearson was the new chairman of British Airways who had taken office two days before the Fokker crash. The nominee of Whitehall Securities, he was probably brought into the airline to strengthen its management, W. D. R. Roberts becoming Vice-Chairman.

McKinnon did not however explain the merger situation to his staff, leaving it to Pearson to tell them that those who wished to remain with British Airways would be welcomed and would receive equal consideration in all respects. But he said he appreciated that some of them might prefer to follow

the action of the BCA directors which was to withdraw. There were subsequent national press reports of the meeting and the pilots' grievance of pay and flying hours with the possibility of strike action.

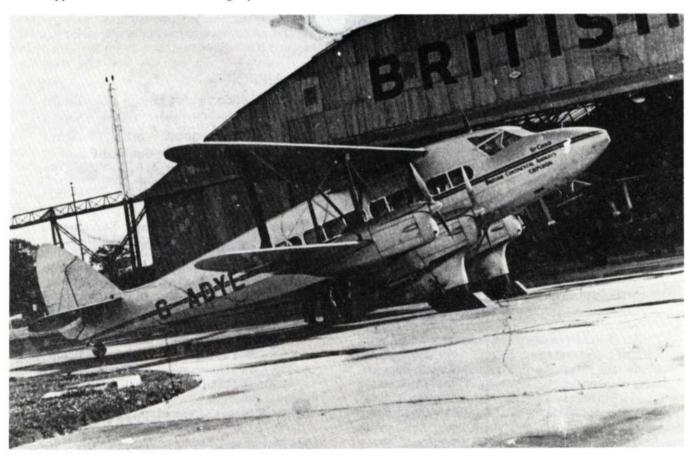
Pearson discussed the problem with the Director-General of Civil Aviation the following day. Pearson told Shelmerdine that the Board of British Airways did not consider it necessary to move to Croydon but would do so if the Ministry considered it necessary although the airline had a long term contract with Airports Ltd.

One of the BCA First Officers telephoned Van Oppen, the Assistant Air Superintendent at Gatwick, on 24 November to say he was available for duty while another reported for duty the following day. Others said they were willing to fly but preferred to wait until the differences had been resolved. A sharp letter was sent on 24 November to British Airways by the Secretary of BCA, S. B. C. Bushell at Croydon, accusing the larger airline of issuing an ultimatum. It fell to the BA Secretary, D. S. S. MacDowall to reply the following day when he denied an ultimatum; but it was essential, he wrote, that heads of departments should know whether members of their staff were available to carry out the daily routine work of the company. It was therefore felt forty-eight hours was a reasonable time, although he was prepared to extend it until the following morning. By this time, he continued, it must be assumed that any former BCA staff who did not report for duty, did not desire to remain with British Airways.

MacDowall's letter did not have the desired effect and few



One of the BCA D.H.86 aircraft at Gatwick after the merger



of the BCA staff reported at Gatwick. McCrindle followed up with a letter to the BCA staff at Croydon. This was quite to the point — any BCA staff who did not report for duty at Gatwick by 09.00 Monday, 30 November would be considered as having indicated the desire not to continue in employment with British Airways.

A reply by nine of the staff was sent the same day, not to the Managing Director of British Airways, but to the new chairman, Clive Pearson. They said that they were disappointed that there had been no recognition of their grievances at the Croydon meeting; and that they could not remain with British Airways unless they were assured of an investigation of their "complaints and the evils they see will be made".

BCA Secretary, S. B. C. Bushell who was one of the nine signatories, also wrote to Clive Pearson on 28 November about McCrindle's letter. He claimed that no BCA staff member had absented himself from duty since the Croydon meeting. He would therefore disregard McCrindle's letter. But Clive Pearson was not moved by this and replied on 30 November that he was not prepared to give the assurance requested and would not disregard McCrindle's letter.

To the new British Airways chairman and to McCrindle, the issue was seemingly very trivial, especially as British Airways had never wanted to take over BCA. It was even more surprising that the airline was prepared to assimilate the BCA staff and take on board their directors. The general manager of BCA, J. R. Bryans, particularly disliked McCrindle and on 1 December wrote to Major Galpin, the Deputy Director of Civil Aviation at the Air Ministry, with a list of six complaints about British Airways. There was nothing new in the list, but this time the Air Ministry did react, and agreed to inspect the airport, albeit at a time to suit the officials.

On 2 December there was more criticism of Gatwick in the House of Commons. It was Robert Perkins again who asked the Under-Secretary of State for Air, Sir Philip Sassoon, if there was an adequate meteorological organisation for a night service at Gatwick and whether there were any trained meteorological observers at Gatwick. Sassoon replied that Gatwick was connected directly by teleprinter line with the meteorological station at Croydon from which it regularly received weather forecasts and reports required by scheduled services, whether by day or night. There were, he continued, no trained meteorological observers at Gatwick, but as part of a general scheme for improving meteorological facilities, two officers would be posted as soon as they could be trained.

Another Conservative backbencher, W. L. Everard, followed hard on Perkins, asking if the Minister was aware that there was a strong feeling amongst pilots that aerodromes, from which regular air lines start at night, should have the finest equipment it was possible to have. Sassoon replied that it was perfectly adequate for night flying. Asked by Everard if he had not had any communication from any association of pilots to show that Gatwick was not in any way satisfactory, Sassoon asserted that the pilots at Gatwick considered the existing arrangements to be eminently suitable. This was not quite true as, by this time, several of the crews had grave reservations about Gatwick and felt that they were taking their lives in their hands when they landed at or took off from the airport.

There was moreover some disquiet about Gatwick by British Airways. A memorandum to the board on 8 December reviewed the airline's commitments at Gatwick. The context was the proposed erection of workshop buildings at Gatwick which had been considered at the November board meeting. It was now possible to estimate the cost of the main structures at £20,000. They would include the main repair shops, an engine overhaul shop, auxiliary shops for instruments, wireless equipment, propellers etc, offices, stores, engine test bench and a separate building for canteen and mess rooms.

The doubts about Gatwick were several, however. The most important one was the airport's surface — it had still to be proved if the airport would remain fit for use by larger types of aircraft during the wetter winter months. There was serious doubt whether adequate surface drainage had been provided to prevent a recurrence of the waterlogging experienced during the construction period the previous winter. It was also felt by the airline that the airport required considerable extension to render it suitable for the safe use of the Lorenz equipment or for the operation of larger and faster landing aircraft under all conditions.

There was also the criticism of the airport's owners. "A lack of confidence exists in the ability of Airports Ltd to develop Gatwick into a first class airport. Their administration is far from efficient and their financial resources are inadequate. Without satisfactory guarantees that the airport can and will be suitably enlarged, the additional commitments by British Airways should be on a minimum basis". Some of this criticism was unfair but the fact was that Airports Ltd had just raised a loan on the assets at Gatwick and Gravesend. There were also only limited meteorological and wireless facilities at Gatwick. The Air Ministry agreement and Airports Ltd's undertaking that up-to-date equipment and services would be provided, were "essential features in considering Gatwick Airport as a permanent base for this Company".

There was one criticism which British Airways and Airports Ltd shared — the Southern Railway. The airline was in no doubt that the success of Gatwick as an airport was dependent to a large degree on railway transport facilities. But it considered the train service was still inadequate, although if some of the Eastbourne fast trains were stopped, the airline's needs would be satisfied. The Southern Railway had been duly approached and, in discussions with Airports Ltd, the operating officials produced an enormous chart to show that two or three minutes' stop at Gatwick would greatly disrupt the service. They did however, eventually agree to stopping one Eastbourne train. The flight crews were only too well aware of the railway problem. They also had to bear in mind the times of the trains from Gatwick to Victoria. On one occasion when a D.H.86 was coming from Paris into a head wind, the crew was told to spin the flight out so as to connect with a later train. The result was a flight of 2 hrs 45 mins!

The most depressing news for Desoutter was the financial results of Airports Ltd for the first year to 30 September 1936. These were published in December 1936 and revealed a loss of £8,000. Inevitably considerable disappointment was expressed at the company's annual general meeting a few days later. Some embarrassing questions were also asked about the claim by Jackaman's father's firm over the building contract. The meeting also consolidated Desoutter's position at the helm of the company by making him sole Managing Director.

In November the British Airways management team at Gatwick was strengthened by the appointment of Alan Campbell-Orde as Operations Manager. A shy but very positive man, he had seen service in the Royal Naval Air Service in the Great War and was a pilot on the first civil airline service between London and Paris in 1919. Prior to his appointment at Gatwick, he had been Chief Test Pilot for some years on Armstrong-Whitworth Aircraft. One of the first changes he initiated was to curtail the staffing of the emergency vehicles at night — the responsibility went back to Airports Ltd.

Some of the British Airways team at Gatwick were absent in December. It was not that the new régime was making changes in personnel. The operations and engineering staff needed to familiarise themselves with the Lockheed aircraft which had been ordered if they were to go into operaton in the spring. Consequently Lynch Blosse, Captain Bill Lancaster and three members of the engineering management, J. T. Bailey, 'Doc' Dockerill and Bill Gribble, left Southampton in mid-October for New York. From New York they flew to Los Angeles where they visited the Lockheed works at Burbank. They received detailed instructions, returning with the airline's first machine in January. By the time they would be back at Gatwick, there would be several changes, however."

Desoutter had found negotiations with the Southern Railway generally frustrating. Airports Ltd had boasted that passengers would be under cover from the moment they left Victoria until they arrived at the airport in Europe. The footbridge which had to be traversed by passengers arriving by train from London in order to reach the up platform for the stairs down to the underground tunnel to the terminal, was not under cover. On a wet and rainy day, it was not appreciated by passengers. Representations were made to the railway and eventually a canopy was placed above the footbridge. Relations between the airline and railway were not aided when the Radio Officer of an arriving aircraft delayed or forgot to pull in his aerial with the result that the lead weight at the end of it came into contact with the third rail of the railway which carried the electric current. Not surprisingly it caused considerable disruption to railway services. McCrindle made the Radio Officer write a letter of apology to the Chairman of the Southern Railway.

The airline's board soon decided to go ahead with the installation of workshop facilities at Gatwick. It was a decision that was ultimately to be regretted. In the meantime, the Air Ministry's representative Hancock was again sent to Gatwick, this time partly in response to the complaints by the BCA people. His brief was to check the limits of the landing area; to report on obstructions in line of the Lorenz approach; and to consider the layout of the airport so as to comply with the full standard regulations. His visit on 15 January 1937 did not, however, provide the indictment Bryans had been expecting.

In his report, Hancock noted the constraints on Gatwick at the time, in particular, that it would be difficult to enlarge the landing area. It was impossible to the east since the Mole had already been diverted along a new channel close to the railway embankment, to the north was the racecourse while to the west lay pasture land which was not really needed as adequate North/South and NW/SE runs would be available as soon as Hunt's Green Farm could be demolished — it was still owned by Delphine Reynolds, but by this time she rarely visited it and had to all intents and purposes given up flying.

It may have been Desoutter but more likely it was a BCA man who had earlier briefed W. E. Johns, the creator of Biggles and editor of the monthly *Popular Flying*. The result in the January issue of the journal was an indictment of the Air Ministry. He began his article by asking 'who is trying to crab Gatwick, and why?' The question is pure conceit, he wrote. "We know the answer. There is talk of a question being asked in the House of Commons about Gatwick. Here are some of the questions I should ask were I given the opportunity which I most certainly will not be. Why were Airports Ltd told that they could not have wireless at Gatwick? Who asked the Post Office not to grant Gatwick a licence? Who discovered that no wavelength was available? Who brought the sal volatile when it was learned that Gatwick was using wireless without Air Ministry permission and without a Post Office licence? How much sleep did certain people lose when Gatwick told them that it would hold them responsible for any fatal accident that occurred? Who then discovered that there was a wavelength after all? Who then tried to stop Gatwick using Lorenz equipment because Croydon had decided to adopt it? Who shortcircuited a Question in the House about lack of night-flying equipment at Gatwick? Was it short-circuited because it was discovered that Gatwick's equipment was more up-to-date than Croydon's. Who — but I think that is enough to go on with".

Some of the points had, of course, been overtaken by events while others were erroneous. Nevertheless the question by Johns served to illustrate the muddled thinking at the Air Ministry. Little attention was now being paid by the world to Gatwick, although the airport was in the view of the camera for a few weeks that winter. But it was a different type of camera to the ones that had recorded the opening scenes the previous spring. It was the cameras of an American company, Atlantic Films which was making the film "Thunder in the City". The stars were Edward G. Robinson, Nigel Bruce and Constance Collier with support from Ralph Richardson and Cyril Raymond. Directed by Marion Gering, it was a comedy about an American publicist who helped a penniless Duke to float a company to promote magnalite.

The staff at Gatwick were pleased to have the diversion of the film makers. Indeed, both British Airways Ltd and Airports Ltd co-operated to the full, positioning D.H.86 and D.H.84 aircraft to the camera's requirements. The loaders were particularly appreciative of the £1 they received every time they moved the steps away from the aircraft. They normally received a wage of £2-10s-0d (£2.50p) a week but one day they were involved in three re-takes of a sequence in the film. Desoutter's son, Dennis, particularly enjoyed the excitement of driving filmstar Robinson to and from the airport. Atlantic Films was followed at the beginning of 1937 by another film company which was making one of the first of the Old Mother Riley series, Old Mother Riley Goes to Paris. It involved one of the stars parachuting into a nearby mushroom farm. The film was not very well made but it proved to be a financial success in Britain.

The accident to the Fokker in November had also aggravated the aircraft situation of British Airways. Once again, it had to look overseas for a reliable aircraft for the night service. The German Ju52 was identified as being suitable. The airline's contacts with the Swedish airline ABA had led enquiries in that direction. The Swedish airline was





British Airways D.H.84 used on the Isle of Wight service, featured in the making of "Thunder over the City" in 1936 (Atlantic Films)



Edward G. Robinson, Nigel Bruce and a British Airways official on the set of "Thunder over the City" discussing the positioning of a D.H.86 (Pauline Reeves)



prepared to sell two of its Ju52s but the sale was slightly delayed by the Swedish government's caution lest it should be seen to be compromising its traditional neutrality. The Swedish diplomats were, of course, aware of the international furore that the British Airways Fokker incident had caused the previous summer. ABA was required to obtain an export licence to legitimise the sale, hence the enquiry on 29 December by the Swedish Legation in London to the Foreign Office. Three days later, the question was passed to the Deputy Director of Civil Aviation at the Air Ministry.

The sale of the two Ju52s was quickly cleared, the first arriving at Gatwick in January. Because of the international policy of non-intervention, the Swedes had imposed a condition that delivery of the aircraft should take place in Britain. This was desirable for British Airways in any case as the airline probably had no one qualified to operate the aircraft. The Swedish pilots who brought the aircraft did not return immediately to their country and gave the British pilots appropriate instruction on the Ju52.

Gatwick was not forgotten in another quarter. The Maybury report on internal air traffic was presented to Parliament and published as a government paper in January. Paragraph 111 of the report noted that Gatwick relied entirely upon the Southern Railway for communications to London. The arrangements for passengers are convenient and accessibility is as good as that of any other London airport, it noted. The report also reminded the reader that both Gatwick and Gravesend served as relief aerodromes to Croydon under a fifteen year agreement between the Air Ministry and Airports Ltd.

Nor was Gatwick forgotten by the architectural world. In December it had been announced that an exhibition "Airports and Airways" would be held at the Royal Institute of British Architects in Portland Place, London. Airports Ltd and British Airways contributed a model of the Gatwick terminal although hope of the Martello tower as the answer to airport problems was fading. The exhibition was opened on 19 February by Lord Swinton and although the exhibition was booked to appear in several provincial towns over the next eighteen months, it was too late for Gatwick. Since its opening the terminal had not been copied elsewhere. The dozen or so enquiries received at Alan Marlow's office had not proved fruitful, although sites were inspected, some in such unlikely places as Pontypool. Alan's partners did not have to be called on again.

In spite of the reservations about Gatwick by British Airways, there had been no suggestion that the airline should go elsewhere. But that was exactly what the airline did do on 7 February 1937 when its operational base was transferred to Croydon. Why? Indeed the airline had just announced a special service to Paris during the Easter holiday period with emphasis on the attractiveness of the simple rail air transfer at Gatwick.





Display model of the new terminal building and airfield at the 'Airports and Airways' exhibition at the Royal Institute of British Architects

#### 8. A STICKY PATCH

The reason for the move of British Airways to Croydon was simple. The airport had become water-logged following heavy rains. Indeed, the staff had noticed in January that when aircraft took off, it reminded one of a flying-boat! What exactly went wrong? The whole of the airport had in fact stood up remarkably well to the coming and going of the aircraft, few though they were, until the beginning of February when following very above average heavy rains, parts of the airport became soggy. The heavy rains coincided with the training of pilots on the first of the two Ju52s the airline had ordered for the night mail. This involved a large number of landings with the result that a considerable area of the east side of the airport became damaged. This area had only been prepared and sewn with grass the previous September. Deep ruts were formed where the aircraft landed and a lot of grass was torn out with the inevitable result that the ground was rendered unfit for use.

The wet weather had caused other difficulties at Gatwick. The pedestrian subway was often flooded to the depth of about twelve inches. The mails were normally taken this way to the terminal. The staff had eased this problem by a little improvisation. A wooden pontoon was made to float the mails over the water. The hangar had also been affected and

the boilerhouse was often under water to the extent that the attendant started wearing waders.

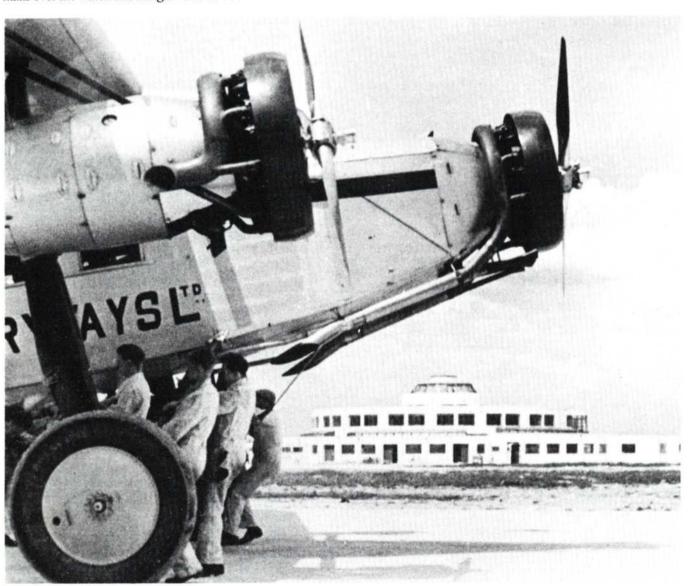
Desoutter, not surprisingly, was rather shaken that the airport should have become unusable. At the same time, several military aerodromes had experienced the same difficulty that winter. It would continue to recur as long as the authorities, both civil and military, did not consider the necessity of concrete runways. The lesson would take quite a while to grasp.

In the case of Gatwick, superficial surface damage should have been expected on newly seeded areas. The grass had not had time to develop a root structure — indeed, a period of three years as a rule was required before a grass surface at an airport would become sufficiently 'load bearing' in wet conditions to be reasonably satisfactory.

The position was worse when the surface was examined. It was discovered that a number of pipe drains installed by En-Tout-Cas and some Mole drains had broken and collapsed with the result that not only was drainage on



Pulling a British Airways Fokker out of the mud at Gatwick (P. Hayes)



that part of the airport seriously impeded, but that to some extent the rest of the airport's drainage was affected. The drain damage had been largely caused by a 27-ton roller which En-Tout-Cas had used in the course of levelling and sowing operations.

There was one other factor contributing to the water-logging. There was an old well in the area of the damage which at some time in the past had merely been covered over with barbed wire and filled up with earth. It had been noticed that the problem area was often very wet which was hardly surprising since the well appeared to be fed from a spring and was over-flowing on to the surrounding ground. The difficulties had also been aggravated by the insufficient area at the end of the concrete taxi-way with the result that arriving and departing aircraft were always going over the same piece of ground.

Inevitably the press had a heyday over Gatwick's troubles. But a *Flight* journalist was rather unkind when he reported that "Gatwick was a trifle humid, although we didn't altogether believe the story of a man with a wheelbarrow who while taking the chance to do a spot of water-lily planting, suddenly sank and was only retrieved with difficulty". The En-Tout-Cas Company admitted responsibility for the damage caused by the roller and set about rectifying the drainage. The company also carried out a soil stabilisation scheme on the areas at the end of the

concrete strips.

With the loss of British Airways, possibly for ever, Desoutter realised only too well that the income from the other tenants would be insufficient to keep Gatwick going. The problem was discussed at a board meeting with the result that Desoutter and director Air Marshal Sir John Higgins called on Galpin at the Air Ministry on 9 March. They were quite blunt — financial assistance was required if Gatwick was to keep going! They told Galpin that the board meeting had decided that a recommendation would be made to shareholders to dispose of Gatwick unless the grant was increased by the Air Ministry.

They blamed the first Airports Ltd for negotiating an uneconomic contract while the expenses in preparing the airport, especially the buildings, were much higher than had been anticipated; and they had also had two wet winters to contend with. Higgins outlined the improvements that were believed to be necessary if Gatwick was to be successful. They included concrete runways in a number of directions, each one hundred feet wide. Moreover the company would need about £10,000 a year for about five years if both Gatwick and Gravesend were to be kept open. It was an inconclusive meeting, the official arguing that grass runways should be able to stand up to heavy traffic!

Desoutter now knew that he had to improve the economics of the two airports. A few weeks after British Airways moved to Croydon, he met an old friend, Flt Lt H. M. Schofield who had been a pilot in the Schneider Trophy races. Schofield was the general manager of General Aircraft Ltd at Feltham and was then running one of the new RAF Volunteer Reserve Schools which had been established to accelerate the training of air crews. The two men discussed the financial aspects of running an Elementary & Reserve Flying Training School. Schofield was able to give information relating to the requirements for running such an establishment and how to make an application. Desoutter had already suggested such activity at Gravesend but without

success. With the new insight, he wasted no time and at the beginning of March submitted an application for schools at both of his airports.

It was just as well that Desoutter was looking to the future because on 23 March Major McCrindle advised the Air Ministry that six months' notice of quitting Gatwick was to be given to Airports Ltd. This was in accordance with the contract which had a clause that if the airport was waterlogged and unserviceable for six consecutive weeks in any year, such action was permissible. Notice was duly given to Airports Ltd but the airline could do nothing about moving its hangars and maintenance facilities to Croydon which was getting even more cramped. That month the first two Electras arrived at Gatwick from Southampton following shipment across the Atlantic. They had been assembled at Southampton Airport in the workshops that the airline was about to vacate. At Gatwick the Electras found no difficulty in taking off into the wind from the eastern taxi strip, hardly touching the grass. At the end of March, the news that the government had endorsed the selection of British Airways to operate a subsidised service to South America was too late for Gatwick - indeed, thirty years would elapse before the airport would witness regular scheduled services to that area. Within a few days of the airline's departure, it was decided at Airports Ltd to economise by switching off all the neon beacon, obstruction lights and boundary lights at night. Gordon advised the Air Ministry accordingly, adding that the lights would be switched on when required by arriving aircraft. By this time, Airports Ltd had received £632 in payments from the Air Ministry — fortunately for the company, no deductions were made for the period when Gatwick had been water-logged.

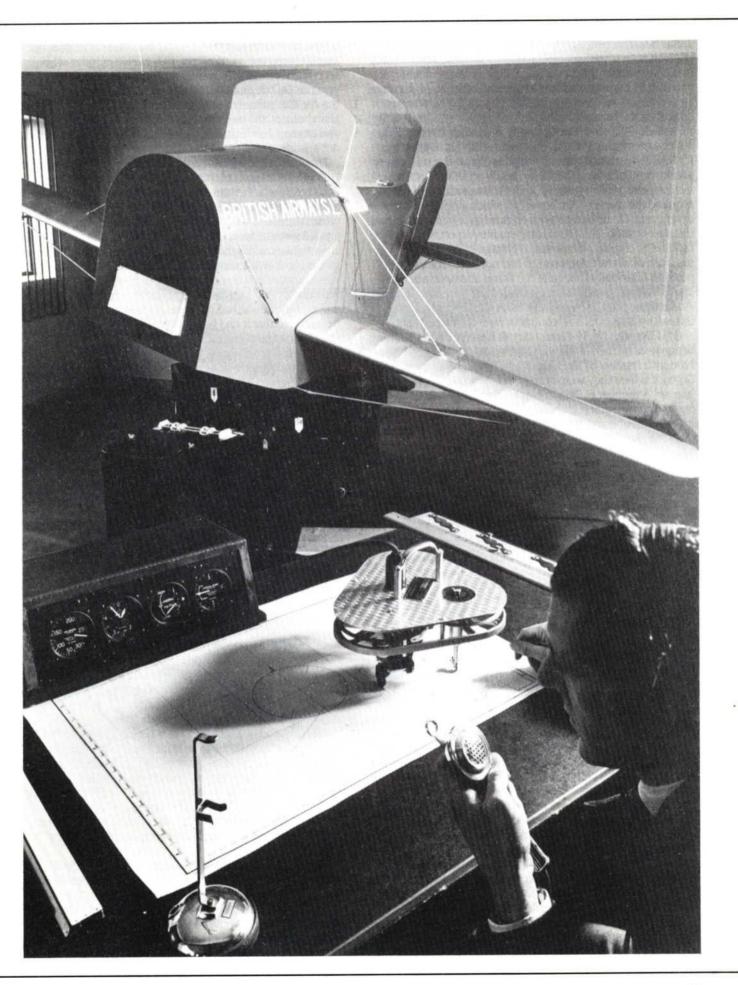
It was all a bitter blow for Desoutter but he was a man of perseverance. The repair work on the drainage had proceeded well that, at the beginning of April, he was able to tell Major Mealing that the surface at Gatwick was fit again for use by all aircraft. In response to his request, Mealing visited the airport on 28 April. In his report, he noted that the surface still left much to be desired, but there was no need to consider the suspension or withdrawal of the airport licence.

The Post Office had continued to function in the terminal after the airline's move to Croydon but obviously at a much reduced rate of activity, not that it had ever been busy. It was not therefore very surprising when it was closed on 1 July. A week later an official enquiry was directed by the GPO about the future of Gatwick. Nor surprisingly the reply was that the Air Ministry was unable to advise on the likelihood of operating companies making regular use of Gatwick.

It was not all gloom in the terminal, however, and 1937 saw the establishment of a social club for staff and local residents interested in aviation. The normal annual subscription was £1-1s (£1.05p) but airport staff were admitted for 12s-6d (52½p). Located on the northern side of the building beneath the restaurant, a pleasant atmosphere was obtained in the bar. Not surprisingly the management committee consisted of the catering manager, Novelli, Desoutter and Gordon together with the recently arrived Flt Lt Arthur Bennett who had just become the Chief Instructor of the flying school.

British Airways Link Trainer installed in the terminal in 1938 (British Airways)





The financial position of Airports Ltd inevitably continued to deteriorate. The claim of £46,000 by the Jackaman Company was hanging over the company, but, to avoid prolonged litigation, this was settled out of court. Airports Ltd agreed to pay the company £9,238 plus 14,000 ordinary shares. At the same time, the Southern Railway agreed to release £6,000 of securities jointly held with the company.

Desoutter was eventually successful with his application for RAF flying schools at both airports. By July he was able to predict that the schools would be ready on 1 October. To facilitate the provision of the school at Gatwick, Airports Ltd acquired the assets of Air Travel Ltd which employed about seventy staff in its hangar with engine bay, rigging shop, and metalwork shop. This would also enable Airports Ltd to offer facilities to civilian operators and engage in the sale and purchase of aircraft. Airports Ltd had not been in a strong position financially to acquire Air Travel and open a school, but its bankers, Westminster, provided the necessary loans. At the same time, Airports Ltd's bank overdraft rose to an unhealthy £48,000. The contracts were for three years.

On 1 October, No 19 Elementary & Reserve Flying Training School was opened at Gatwick and No 20 at Gravesend. This brought a number of Tiger Moth and Hawker Hart aircraft to Gatwick where they were housed in the former Air Travel hangar. A number of buildings were constructed to house the pupils and staff along with their equipment. The buildings included an operational block, a parachute store and machine-gun butts. The Tiger Moths were used for basic training of the RAFVR pilots while Harts and Audaxes were used for advance training. Most of the flying took place at weekends. At the same time, Airports Ltd discontinued charging landing fees to private owners. It was felt that the company would benefit directly from such visits which it had not previously.

Desoutter did however, receive another blow when he learnt that the government was to take over Heston which was owned by Airwork Ltd and develop it into London's second airport. There was now no chance of British Airways returning to Gatwick as it was announced the airline would be going to Heston when it was ready. Nevertheless in November 1937 British Airways opened a training school for

pilots at Gatwick.

The BA school was housed in the terminal building while its equipment included two Fokker F.V.III aircraft that had been acquired from KLM towards the end of 1936. Under the direction of the former Chief Flying Instructor of Air Service Training Ltd, A. R. O. McMillan, the school was set up to train newcomers to the airline in navigation and blind flying techniques, also providing refresher and advance courses for the more senior pilots. Part of the equipment used was a Link Trainer fitted with Lorenz equipment. Lectures were also given in the school on a range of subjects which included undercarriage retraction, constant speed propellers and exhaust gas analyses. Engineers and radio officers also received instruction in the school. A little colour was added to the scene by the engineer in charge of the Link Trainer often coming to work on horseback. The school had, in fact, been planned for some time and was originally intended primarily for the proposed South American service, especially as there was a shortage of qualified pilots and navigators.

Gatwick was to be mentioned in the newspapers in November when two companies had their annual general meetings. On 19 November the annual report of Airports Ltd for the year to 30 September 1937 was made available. The report related the events of the past twelve months, while the accounts revealed gross revenue of £13,000 and an operating profit of £4,700, but £3,400 was special income — probably the Air Ministry payments. Unfortunately for the shareholders, the profit was offset by management expenses and interest, leaving a net loss of £2,400 and increasing the debit balance to £10,900.

Four days later witnessed the annual general meeting of Hillman's Airways Ltd. While Hillman's had given way to British Airways in 1935, the original company had continued as a holding company. As Hillman's was a public company, which British Airways was not, the proceedings at the annual meeting were exposed to the world. One of the shareholders asked the chairman, Sir Alexander Harris, if the ground at Gatwick was suitable for the landing of aircraft; and was it not under water and very unsuitable. Harris replied a little uncertainly that he thought Gatwick had been dropped and that the airline had not been operating there lately. But he admitted that it had been a terrible disappointment. Gatwick had been expected to be the airport of the future, he concluded.

The annual report of Airports Ltd was presented to its shareholders on 29 November. There may have been some criticism at the first AGM but it was very pronounced this time. The shareholders were obviously disappointed at the absence of a dividend for the second year running. Viscount Goschen presided at the meeting with dignity and decorum but when the resolution to adopt the report was put to the meeting, it was lost on a show of hands. It was then that the chairman proposed the formation of a special committee of three shareholders. After the election of three members, the resolution was passed. The three shareholders were A. R. Malcolm, Hoblyn who as a stockbroker had been involved in the original flotation of the company, H. Gooding who had been Managing Director of Gravesend Aviation Ltd when the company and airport were acquired by Airports Ltd.

Gatwick was just not figuring in the planning at the Air Ministry for better civil airports for London. Indeed, the officials were now also seriously considering a new airport for services to Europe at Lullingstone in Kent. Desoutter did not give up and in December he reminded the Air Ministry that Gatwick still existed and that its surface had remained in good condition that winter; and it was being used by an RAFVR school and the British Airways School of Navigation.

Desoutter submitted proposals to the Air Ministry which included concrete runways in three directions. The cost, he claimed, would be a little as £4m whereas a new London airport would cost as much as £4m. The plans were also published in the national press following the appointment by Airports Ltd of the public relations consultant Gavin Stavey. Surrey County Council would construct a big new road to the south of Gatwick which would enable the airport to be extended. But it was to no avail, the officials would not be caught again and the plans went back on to Desoutter's shelves.

Desoutter may have been disappointed at the lack of interest by the Air Ministry in Gatwick but he probably was less worried now about the financial position of Airports Ltd. In February the company was confident enough to promote its Secretary to a new post of Manager & Secretary. It was not by way of celebration but on 17 March 1938 Gordon organised a St. Patrick's Day dance in the terminal building.

An enjoyable evening was had by the 150 guests who included many of the RAFVR pupils.

Gatwick was again mentioned in another government publication, the Cadman Committee report, at the beginning of March. The committee under the chairmanship of Lord Cadman, the chairman of the Anglo-Iranian Oil Company, had been established at the end of 1937 following persistent criticism of the Air Ministry's civil aviation policy and Imperial Airways by certain MPs in the House of Commons. With wide terms of reference, evidence was submitted by a number of individuals and organisations including Desoutter. The committee's report was published at the beginning of March 1938 but it also mentioned criticisms that had been made of the Airports Ltd prospectus which had detailed the contracts with the Air Ministry. The arrangement was defended however by the authors of the report who noted

that it was a statutory requirement that a prospectus should state the dates of every material contract. The report concluded that the availability of Gatwick and Gravesend had enabled the Ministry to establish Volunteer Reserve Centres without incurring any capital costs on land and buildings. What Desoutter made of another conclusion of the Cadman publication is not known. The Maybury Committee had considered that a unifying control of London airports was not yet necessary but Cadman opined that a London Airports Committee should be established from representatives of the various interests to ensure co-ordination of facilities.



St. Patrick's Day Dance, 17 March 1938 (D Linton)



#### 9. THE TIDE TURNS

The departure of the British Airways engineering facilities and staff to Heston on 29 May was yet another blow against Airports Ltd and Gatwick. The airline had not long departed when Airports Ltd accountant Raymond Graebe received a telephone call at his office one Sunday morning. It was Myles Wyatt, managing director of Airwork Ltd. Wyatt wanted to know if there was any spare hangar accommodation at Gatwick which his company needed in conjunction with an Air Ministry contract for the newly formed Civil Repair Organisation. A contract was eventually signed between Airwork General Trading Company Ltd and Airports Ltd for use of the hangar vacated by the airline.

The hangar was fitted out for work on Whitley bombers. This involved the digging of three special pits in the hangar floor so that the mid-ventral turret could be fitted to the bombers. The modifications which commenced at Heston with the fitting of navigational aids, had by this time grown to include the fitting of wireless sets, flare shutes and the three gun turrets. A small team of workers moved from Heston to Gatwick in order to undertake this work where they were joined by locally recruited staff. In the meantime the work of the two schools at Gatwick and Gravesend had continued to expand. Between them they had a total of forty aircraft and twenty instructors.

Gatwick was again in the news on 25 June 1938 when the Daily Express sponsored an air show which was well attended. The displays had a strong international flavour and included fly-passes by a number of modern aircraft such as a Luft Hansa Focke-Wulf Condor, a Savoia Marchetti of Sabena and a British Airways Lockheed Electra. There was also a display of early aircraft including a Blériot XI, Sopwith Pup and a 1910 Deperdussin, the latter flown by R. O. Shuttleworth. The RAF contributed displays of Furies by No 43(F) Squadron from Biggin Hill and of Hurricanes by No 3(F) Squadron from Kenley.

Desoutter was again heartened when the Air Ministry funded the erection of a second hangar for Airwork which was needed for its CRO work. The building work began in September. Another gain in September was when Airports Ltd was awarded a contract to train Direct Entry Officers at the flying school it ran for the military. This brought another sixteen aircraft and eleven instructors to Gatwick.

Equally welcome in the autumn was the arrival at Gatwick of Southern Motors & Aircraft from Hamsey Green and the Insurance Flying Club from Hanworth. The two shared the lock-up hangar. Soon after arrival, the name of the former was changed to Southern Aircraft Ltd. Under the direction of J. E. Coxon, the company offered repair and maintenance facilities and rebuilt a number of aircraft.

With so much flying activity at Gatwick, it was not surprising that there should have been some complaints from residents. In fact, in July Airports Ltd had written to the Dorking, Horley & Reigate Rural District Council that the RAFVR work for the Ministry necessitated daily flying in directions mainly governed by the wind. Undue low flying creating a danger should be reported to the police, it advised. The council's Planning Committee noted that a letter of complaint about low flying had been received from a Lowfield Heath resident.

It was not surprising that the increased activities at Gatwick enabled Airports Ltd to improve its financial position. Indeed, for the financial year ending 30 September 1938 there was an operating profit of £39,694. There was

still a debit balance of £10,877 on the balance sheet and there was a bank overdraft of £30,429 but the future looked much brighter. The AGM was on 19 December 1938 but it presented no difficulties for Desoutter when the report of the shareholders' committee was read.

There was a certain irony when the good news was published at the beginning of 1939. Several airports and military aerodromes had been waterlogged due to heavy winter rains. Heston and Croydon both had some difficulties while Gatwick remained open. W. E. Johns in *Popular Flying* was quick to remind his readers of the anti-Gatwick propaganda that had been spread about two years earlier when "all sorts of jokes were cracked about the new seaplane base". The truth was, he continued, that owing to abnormal rainfall on the new aerodrome, there was in fact a soft patch which made take-off and landing risky for the heavy Junkers equipment British Airways was using.

"However, as a result of this insidious propaganda, amplified by people who should have known better, a general impression was created that Airports Ltd was as good as dead. The 25p shares sagged to a few pence, to the alarm of quite a few of our readers who had invested their money in the concern. To restore their confidence we (and we alone) advised them to forget their troubles and keep their faith in Gatwick . . ."

Air Touring had continued at Gatwick through all the airport's difficulties. It was simply not affected and there was no reason why it should have been. The charter and taxi side of the business never really developed substantially, although in December there was a long-distance flight when the Falcon was flown to Kenya. When a contract with the Air Ministry was obtained for Army Searchlight Co-operation flights, this activity soon became the most important part of the business.

As Europe drifted helplessly towards war in 1939, so the activities at Gatwick increased in intensity. Indeed, it was perhaps surprising that there were so few flying accidents. In May a Hawker Hart, taking off from Gatwick, succeeded in colliding with a Gipsy Moth of the Redhill Flying Club. The pilot of the Moth, a girl member of the Civil Air Guard and the instructor, J. J. (Paddy) Flynn, were killed.

If business in the restaurant in the terminal building had been quiet in 1936, it was now booming. Nevertheless Airports Ltd placed advertisements in the aviation press. It boasted 'full catering at all times'.

"Second only to the pleasure of flying is the pleasure of eating, with the important proviso that the cuisine and surroundings must be right. Hence the Gatwick Restaurant where M. Novelli provides a cuisine second to nothing in the West End from early morning until no one else is hungry — with a free view of the aviation thrown in for those who dine.

"Or for a peckish soul, there is a snack bar which contrives to serve something as sustaining as a full meal in the time it takes a waiter to take down your order. So there is no excuse for anyone taking the air with anything but a well-lined stomach and a happy frame of mind".

The advertisement also reminded the reader that the airport was the ideal headquarters for the private owner,

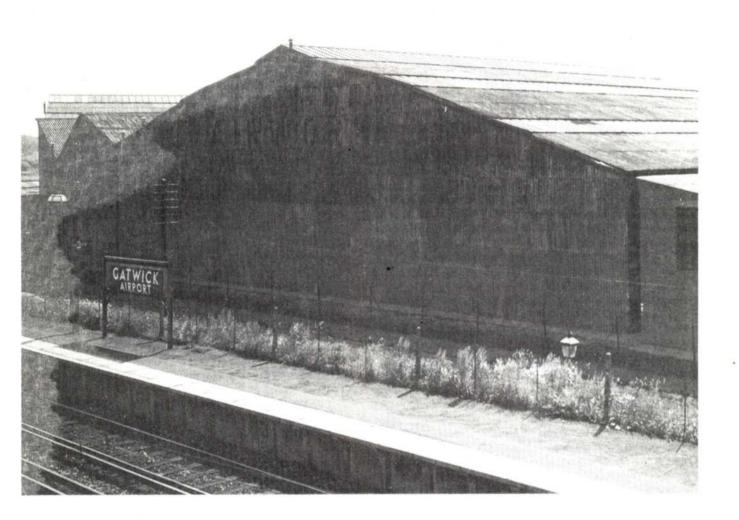
airline or charter operation. "No landing fees for private owners — restaurant — snack bar — customs facilities — social amenities — housing — maintenance — repairs — and every comfort that modern man can look for", it boasted. The rental for a lock-up hangar was £25 or £30 a year.

It was not surprising that Airports Ltd achieved a trading profit of £66,413 for the twelve months ending 30 September 1939 with a net profit of £55,826. The shareholders did not complain when a dividend of 6% was recommended. But by the time of the AGM, most of the shareholders had other things to think about.

With the invasion of Poland by Germany on 1 September 1939, war became inevitable. Britain responded the same day by calling up all reservists. At the same time a number of the Elementary & Reserve Flying Training Schools ceased to operate, among them Gatwick's. The school was closed and the aircraft, instructors and ground crews transferred to No 1 E & RFTS at Fairoaks near Woking.



Airwork's second hangar viewed from the railway



#### 10. THE MILITARY ARRIVE

The declaration of war on Germany by Britain and France made it inevitable that civil airports would come under the control of the military. Thus on 6 September the terminal. landing area and buildings just vacated by the school were requisitioned by RAF Kenley. The terminal, became the Station Headquarters for the RAF, although Desoutter and his staff retained offices there.

One of the first actions by the RAF at Gatwick was to remove a number of obstruction lights and their supporting pylons which had not long been erected at the insistence of the Air Ministry. There was, however, little activity at Gatwick between the beginning of the war and the end of the year. The main purpose of the RAF control was to have an alternative landing ground for Kenley which was being expanded. Control of both aerodromes was by No 11 Group Fighter Command.

Scheduled air services both within the British Isles and to international destinations were suspended on the outbreak of war but several that were deemed essential were subsequently resumed. As Croydon was also under the control of Kenley and was in fact temporarily housing Kenley's squadrons, the resumed services operated from Heston. Before the war, British Airways and Imperial Airways were working closely together following the government's decision to merge them. The war immediately brought the airlines even closer together when their headquarters were evacuated to Bristol. On 1 November 1939 the two airlines were merged together by Act of Parliament, the resultant airline to be known as British Overseas Airways Corporation, although it would not legally exist until 1 April 1940.

By December 1939 there were only two international British services operating from Heston — a twice weekly service to Egypt and a twice daily service jointly with Air France to Paris. But Heston was not ideal for BOAC. The RAF had borrowed the big hangar for a special flight but refused to give it up when required by the airline, thus forcing BOAC to keep most of its large aircraft in the open. Not only was day-to-day maintenance for the airline difficult but major overhauls were impossible. The alternatives of Whitchurch near Bristol and Exeter were quite unsuitable.

The answer was Gatwick. Who thought of it first and how is not recorded. Nevertheless on 1 December 1939, British Airways Managing Director Ronald McCrindle and Operations Manager Campbell-Orde inspected both Gatwick and Shoreham near Brighton with a view to moving operations to a different airport south of London. Both men had been appointed to high office in the new public corporation airline.

Shoreham was the least favoured of the two airports — the dimensions were on the small side for modern aircraft while hangar accommodation was quite inadequate. McCrindle considered it should be retained only as a 'funk hole' in bad weather conditions. There were obviously reservations about Gatwick after the fiasco in 1937 but McCrindle noted that the airport was standing up to recent rains. In a note to Viscount Runciman, the Director-General designate of BOAC, McCrindle recorded that they had seen no signs of flooding — indeed, when he drove his car across the airport, there was no tendency for the wheels to sink in anywhere. The size of Gatwick would be just about adequate while there were more hangars. Other advantages were that Gatwick would have the advantage of good train communications both with London

and Shoreham; the railway service would also permit staff living up and down the line, while a great many of them would be able to return to their homes in Croydon.

Campbell-Orde concurred with McCrindle but in a separate note he opined that Gatwick was still unsuitable for night operation or in really bad visibility. There would also be a big job to re-install radio equipment and calibrate what the airline would require.

The two men concluded that Gatwick had advantages over Shoreham under three headings — operations, maintenance and overhaul. Exeter and Whitchurch were even less desirable but both men considered that Heston was the preferred airport, although McCrindle was worried the airline would not get any security of tenure there.

There was also a report by the British Airways Engineer, C. T. S. Capel, who also must have been at the inspection. He noted that the RAF commander, who had originated a scheme for Gatwick as an alternative to Croydon in case of the latter being untenable, had been transferred away. The new commanding officer believed that the plan might be abandoned.

The inspection was followed by a meeting four days later in London between Sir Francis Shelmerdine, still in charge of civil aviation at the Air Ministry and Viscount Runciman when it was agreed that the remaining land plane services would be transferred to Gatwick. There was one proviso—that the RAF should put Gatwick at the disposal of civil aviation and give up possession of all hangar accommodation. There was just one problem — only the airport and not the buildings had been requisitioned.

Nevertheless the decision had been taken and the wheels of bureaucracy began to move for the airline's transfer from Heston, although in February, No 92 Squadron arrived from Croydon to set up a training section. There was an encouraging portent in the new year — Gatwick remained open when many aerodromes in England were unserviceable due to snow. A meeting was held at Gatwick on 10 February 1940 between the principal parties including Air Vice-Marshal Nicholl of Fighter Command HQ, Group Captain Moore and Squadron Leader Pritchard of 11 Group Fighter Command and Squadron Leader Bushell of 92 Squadron; and Campbell-Orde and Ivor McClure of the Ministry. The transfer process was not however helped when Group Captain Moore claimed he had not been told about it and refused to share the airport which he claimed he needed for training. Compromise was afforded by Campbell-Orde when he said the two squadrons would still be able to use Gatwick for night-flying practice.

Desoutter was also at the meeting after which he had a private word with the Air Ministry representative. He claimed that Gatwick was costing him £6,000 a year to run. On 26 February there was a bigger meeting at Gatwick between representatives of Customs & Excise, Immigration, Security Police, the Meteorology Office, the Air Ministry, Airports Ltd, BOAC and Air France which was also still operating between Heston and Paris. The RAF was not represented although Fighter Command had agreed to be present. Those present thought that the airport would make an excellent base for civil operations and that the airline operations should be transferred as soon as possible.

The meeting considered that alterations to the terminal building would be necessary before any regular service could be started from the airport. The situation regarding the airfield lighting was reconsidered and it was decided that the lights, removed by the RAF, would be re-installed. All the main buildings and hangars would be needed. Even the machine-gun butts were earmarked for conversion to additional toilet facilities. At the end of February, No 92 Squadron returned to Croydon, although the final day's training to convert from Blenheims to Spitfires had to be abandoned in order to prevent interference with a race meeting! The racecourse did not however, function for long and subsequently came under the control of the military. Indeed, a quantity of land to the west, north west and north was to be requisitioned during the war.

It soon became evident that Airwork was not going to relinquish its hangars of which one had earlier been used by British Airways. Nevertheless Desoutter must have been cheered that his airport was again to be used by civil aviation. He was not pleased when he received advance notice to quit his offices in the main building. This was the result of an official in the Air Ministry noting that Desoutter's speech indicated a foreign origin while Gordon had a Dublin accent. Desoutter protested, citing the names of all the companies that Airports Ltd had contracts with. It was to no avail and he was told that his company must go by 6 May. Moreover, the Director of Civil Aviation would still not be in absolute control of Gatwick — BOAC would be required to quit at only twenty-four hours' notice if the airport was required by the RAF as a satellite again.

The transfer was not handled in conditions of top security. News of the plan appeared in *The Aeroplane* on 22 March. The Under-Secretary of State for Air, Captain Harold Balfour MP, knew nothing about it until he read of the plans in an evening newspaper at the end of April! Balfour had earlier been a director of British Airways.

By the beginning of May, the transfer was well under way with the arrival of one hundred and five BOAC engineering staff. Work on alterations to the terminal was well in hand and a target date for the services from Gatwick was 1 June. A former Imperial Airways Ensign aircraft and two British Airways Ju52 machines arrived for overhaul. On 12 May a military guard arrived at the airport in readiness for Gatwick's new status. Problems began when the maintenance staff was forced to use the facilities in the terminal due to work on the new canteen being incomplete. This in turn resulted in delays to the work being carried out on the terminal including improvements to Customs and Immigration facilities.

The airline was also planning to operate a Lisbon service with Frobisher aircraft which had already began trials from Heston. It was not to be — the airline considered that it would not be right to have passengers passing through a terminal building that did not meet the higher standards associated with a prestigious route!

The deteriorating military position in France also aggravated the transfer — on 26 May several Bristol Blenheim bombers of 18 Squadron arrived at Gatwick after withdrawal from France; these were followed by Blenheims of No 57 Squadron the following day. They were accompanied by a unit of Royal Engineers. The Paris service was still operating from Heston but any hope of its transfer to Gatwick was removed when the French capital fell to Germany on 15 June. By 9 August it was finally accepted that the land plane services could not be operated from Gatwick. At the end of the month, 204 RAF personnel were at

Gatwick while Airports Ltd had over 200, Southern Aircraft about 250 and Airwork over 200. BOAC still had 35 staff.

There was an item of humour with all the changes. The RAF had taken over furniture from Airports Ltd in the terminal. This in turn was acquired by the Air Ministry's Civil Aviation Department for BOAC. At the end of the day, several shortages were noted. Long lists were exchanged between the Air Ministry and RAF but eventually good sense triumphed over bureaucracy when the Ministry wrote off the deficiencies — nearly £200.

During the Battle of Britain, no Squadrons operated from Gatwick, although a number of aircraft landed to refuel. The airport had its moments of excitement, but no concerted attacks were made on it. A number of bombs struck the airport without causing damage or injury. Several German aircraft were brought down on or in the vicinity of Gatwick. Early in September No 26 Squadron arrived. This was the first of a long line of Army Co-operation Squadrons to be based at the airport.

Desoutter and his colleagues did eventually move out of their offices in the terminal. At first they occupied the administrative block adjoining the large hangar which British Airways had originally used but eventually they were advised that both they and the works would have to leave Gatwick in spite of their expanding activities. Who took the final decision and why is not known but leave they all did. The works went to Winkfield near Windsor in Berkshire while the offices went to a house, Hazelwick, in Oldfield Road, Horley which conveniently was next door but one to the new house into which Desoutter had moved just before the war.

The military occupation brought other changes to the terminal. One was a prison cell for when it was necessary to enforce discipline while there was a library for the new occupants, a sick quarters and a hairdresser. A visitor to RAF Gatwick in June 1941 was the Under-Secretary of State for Air. The Link Trainer of British Airways had of course, left the terminal building in 1938 when the airline moved to Heston, but the RAF introduced their own installation for pilot instruction into the same building.

Airwork Ltd and Southern Aircraft continued undisturbed at Gatwick as did the military occupation. The airport was certainly busy throughout the war, although it did not acquire the mystique of some of the nearby fighter stations. Many of the Squadrons to use Gatwick were Army Co-operation including some Canadians although in 1943 the station came under Fighter Command and Kenley again. Desoutter did not, however, lose sight of the airport he had been expelled from. Thus in 1943 he commissioned the same consultants, Norman and Dawbarn who ten years earlier had examined Gatwick and other airports for the Southern Railway. The remit was to examine Gatwick's potential as an international airport in a post-war situation.

The consultants had made several studies since the railway exercise as well as designing several airport buildings. In their 1943 report, they observed that it was no longer possible to think of London only as a unit on its own — it had to be considered as a part of the British Isles. Long distance air travel was established which meant very large landing grounds would have to be provided. "One of the main problems is whether a Trans-Atlantic landing ground can and should be provided reasonably adjacent to London in addition to those serving shorter journeys; or whether major

landing-grounds should be placed in positions selected primarily or entirely on air considerations in relation to existing physical features and developments, even though such propositions might be relatively inaccessible from major centres of population".

The consultants considered that London would need more than one airport. Each airport should be ideally placed so as to serve its own part of the world without crossing the city. Thus, the airport serving southern Europe and Africa should be south or south east of the city. They concluded that the future needs of air transport for London would be reasonably satisfied by Fairlop (in Essex) to the east, Gatwick to the south and a Greater Heston or Greater Heathrow to the west with 'the intriguing possibility of an in-city airport at the Isle of Dogs'.

Three schemes for Gatwick were considered. A small or 'local' one was based on the airport, more-or-less as it was at the time. A 'Commercial' scheme would involve diversion of the Brighton Road, the culverting of the Mole and a comprehensive system of drainage. Some houses would disappear while the Racecourse Station would become the main airport station but rebuilt above the railway. There would also be surfaced parallel runways at right angles to one another and two subsidiary diagonal runways. The Trans-Atlantic scheme was similar except that one runway would be longer at 4,000 yards.

The report was received by Airports Ltd in September. Desoutter wasted little time in submitting it to the Air Ministry and on 20 October obtained an interview with one of the officials, T. F. Bird. Desoutter was quite blunt — he admitted that as an airport before the war, Gatwick had not been a success. Moreover, the company would not attempt to run it as a commercial airport after the war, nor would it expect a government subsidy. He therefore, asked if the Air Ministry would be interested in buying it after the war; the alternative would be to dispose of it. Bird was unable to give any indication but that was not surprising as the Ministry was considering various sites for airport development after the war.

Desoutter was naturally delighted that the consultants endorsed his vision of Gatwick. He did not allow the lack of encouragement from the Air Ministry to discourage him and he sought to achieve maximum publicity for the consultants' plans. Thus he sent copies of the report to the Southern Railway, Ministry of War Transport, BOAC and the trade press. He wrote at the beginning of November to McCrindle who was Assistant Director-General at the airline. The theme of his letter was that there were fewer sites that possessed so many advantages for development. For Continental traffic, it was on the right side of London, while the surrounding land was flat and mainly open fields, so reducing the amount of sterilisation of property. There was also the railway.

The same trains had continued to call at Gatwick after the outbreak of war in accordance with the original agreement between the Southern Railway and Airports Ltd. It was not until 1943 that it was agreed that they might cease on the understanding that they would be reinstated as soon as required after the war. There were, however, a lot of staff in Airwork and Southern Aircraft who used the railway to commute from as far away as Brighton. Consequently the Ministry of Aircraft Production persuaded the railway to continue to stop nine semi-fast trains.

Desoutter was pleased with the publicity given to the

Norman & Dawbarn plan by the trade press. Detailed reports were published in Flight at the end of November and in the December issue of Aeronautics, although the censor delayed mention of it by the weekly Modern Transport until January. With the submission of the plan to the Ministry, inevitably there had to be more reports and inspections. The first report was on 24 November by W. S. Hampton of the Air Ministry's Airfield Board. This was quite favourable to Gatwick, although its development as a major airport with services to North America was rejected because of the lack of suitable approaches. The main problem for the airport's development for European services was considered to be drainage, in particular the disposal of storm water. Nevertheless it was concluded that it would make a satisfactory airport, especially as it appeared to be the only site to the south of London within a radius of thirty miles.

Another visit took place on 22 December, this time by Hancock who had made several inspections before the war. He was escorted by Desoutter, but concluded that a full engineer's report would first be necessary before a decision; but he was not hostile to Gatwick. On 21 March, Desoutter was again at the Air Ministry's offices in Adastral House, this time with Dawbarn who had done much of the work on the report. Nigel Norman had not been involved in the study as he had enlisted in the RAF and had been killed in a flying accident in May 1943; but the firm had continued. Once again Desoutter could get no guidance from the Ministry.

Various Squadrons were at Gatwick in 1944 while the M.A.P. work continued. In the Spring and on 6 June itself. there were some activities associated with the invasion of Europe. There was some semblance of scheduled services in October when a Communications Squadron of the Supreme Headquarters Allied Expeditionary Force arrived to operate services with Ansons and other aircraft to Buc, Northolt and the Bentley Priory airstrip. In February 1945 the UK Detachment of No 85 Group Communication Squadron arrived from Northolt to operate services to various aerodromes on the Continent. That last winter of the war did not augur too well for Gatwick's future — the officials at the Air Ministry were aware that the airport had been unserviceable for fifty-four days due to waterlogging and other factors. Moreover, the Ministry decided that a new airport at Heathrow would replace Croydon as London's airport. Worse, Desoutter was told that the Ministry were unlikely to have any interest in Gatwick.

As the end of the war approached, the discussions on Gatwick's future resumed. By this time it was known that the European services of BOAC and domestic services would be operated by a new and separate airline, British European Airways which would be largely controlled by the railways. At a meeting of the airport committee of the various interests involved in the new airline on 23 February, it was noted that more than one airport would be required for the London area. It would be desirable for the domestic and European services to operate from the second airport. Equally desirable, both airports should be served by the railway, especially the European airport, as peaks in traffic would be too high for road transport. Inevitably the meeting concluded that Gatwick was the answer, although it would be conditional on the railway's ability to service it and on runways. McCrindle was also at the meeting and he undertook to ascertain from the Ministry if there would be adequate land for the runways.

The Ministry seemed unable to decide on the site for the second airport. Consequently Viscount Knollys, the Chairman of BOAC since 1943, attempted to apply some pressure when he wrote to William Hildred, the Director of Civil Aviation at the Air Ministry at the end of February, telling him that the railway group desired to pinpoint the second airport; and that the preference was for Gatwick, provided the train frequency was adequate.

McCrindle met Hildred on 1 March to discuss a number of points. One was Gatwick but Hildred said he understood that none of the operators was interested in that airport and he had therefore informed Desoutter that he was at liberty to dispose of the land. A hurried discussion then took place between Hildred and one of his officials upon which it was agreed that Desoutter would be asked unofficially to hold his hand. The official would inspect Gatwick and ask the Southern Railway if it could provide a service to meet BEA's requirements. Two weeks later McCrindle again wrote to Hildred, reminding him that all were agreed that the train service to Gatwick was the only practical way of handling peak traffic.

McCrindle may have been enthusiastic about Gatwick for BEA which was yet to be formed but one of his officials was less than enthusiastic about BOAC using it. In an internal memorandum in March, he noted its bad record that winter, while concrete runways would prove an extremely expensive proposition because of the clay subsoil; but the drainage problem would involve considerable conservancy work on several miles of the Mole. The official concluded that Gatwick was not to be recommended for regular operations with DC-3 aircraft. As if to reinforce the opinion, Lord Swinton, who had opened the new Gatwick in 1936 and who since 1944 had been Minister for Civil Aviation, presided over a meeting in April about London's airports. Gatwick was explicitly rejected, even in the short term!

Desoutter must again have wondered when his vision would be realised. With the end of the European war in May and in September in the East, Gatwick was quite busy with units returning from overseas. But soon, he knew, it would grow quiet. Consequently he wrote to the Ministry at the end of October. Perhaps the change of government would change things. He did not have long to wait to be told by the new Ministry for Civil Aviation that developing Gatwick would be too expensive while there were other sites in London with better possibilities. By this time Desoutter had been allowed to move his offices back to the terminal, although not to the original rooms. The works also returned from Winkfield occupying the small hangar that before the war had been the private owners' lock-up. The sub-contracting work was soon completed. Desoutter did not turn his back on the skilled workforce and made a brave attempt to diversify by turning the works over to the manufacture of household equipment.

This new activity continued through 1946. The company's accountant was sent to the bigger stores in London in an attempt to get orders but the post-war economy was not conducive to the enterprise and the works were closed at the beginning of 1947, the plant being disposed of by auction in August. Airwork had been more fortunate. It was still carrying out overhauls on Liberators and repairs on Wellingtons. A number of the latter were modified at Gatwick to carry passengers while contracts were received from the Ministry of Supply for the refurbishing of DC-3s. By the end of 1946, Airwork was beginning to return to peacetime conditions, a large percentage of the work being on civil aircraft. This included contracts for the conversion of military DC-3s for use by various airlines including KLM and BOAC. Airwork was also obliged to diversify but it remained at Gatwick for some years. Southern Aircraft also re-entered the civil market as well as diversifying into rebuilding road transport vehicles for the Ministry of Supply.

# 11. THE AIRLINES RETURN

In the meantime, the RAF had left Gatwick in September 1946. Desoutter was again even more concerned about the future. Once again he went to a conference at the Ministry. Ever resourceful, he suggested Gatwick would make an eminently suitable base for air taxi and charter companies. Desoutter was delighted when the Ministry of Civil Aviation endorsed his view. He subsequently contacted the operators who were not affected by the nationalisation of the pre-war airlines which resulted in the formation in October of BEA but without railway involvement. In the meantime the Southern Railway agreed to restore practically all the weekday services calling at Gatwick from 7 October.

Desoutter was heartened by the response from the charter operators which was soon more than sufficient to fill all the office accommodation in the terminal and the available hangar space. The Ministry of Civil Aviation appointed an airport manager Jack Gordon who by coincidence was the son of the Manager and Secretary of Airports Ltd. At the same time airport police were attached to the airport, although at first they had only armbands to indicate their status.

The companies that decided to operate from Gatwick included Bond Air Services Ltd, Hornton Airways, Union Air Services Ltd and Ciro's Aviation Ltd. They were all formed in 1946 and by the end of the year were more-or-less established at Gatwick. Bond was one of the most successful and started operations that year using a Percival Proctor and an Auster. Ciro's was formed in December and was owned by the club of that name in London. The airline operated two D.H.89 and three DC-3 aircraft on charters to Africa and to the casinos at Le Touquet. Hornton started operations that year with one Percival Proctor. To facilitate the new activities, the Ministry arranged for Customs and Immigration facilities to be available again. Airports Ltd subsequently redecorated the interior of the terminal and restored the restaurant facilities. Another encouragement was the transfer to Gatwick of the Ministry of Civil Aviation's fleet of seven aircraft which were used for testing applicants for the pilot's B licence and the testing of airport facilities.

The new airlines expanded their activities in 1947. They were joined by others including Trans-Continental Air Services, the Windmill Theatre Transport Company, Air Freight, Payloads and Hunting Air Travel, the latter having moved from Luton. The new airlines would have flourished more but for restrictions that year on foreign travel. Perhaps it was as well because in August the surface had deteriorated again to the extent that it was necessary to restrict operations to aircraft of not more than 10,500 lbs. all-up weight.

The future of Gatwick was still unclear. The Ministry was however reconsidering acquiring Gatwick for use as a secondary airport and expressed this viewpoint at a meeting at the end of May with the Ministry for Town & Country Planning which was planning a new town at nearby Crawley. Not surprisingly the officials of the latter Ministry were not sympathetic. The following months the Ministry of Civil Aviation prepared a memorandum on the basis that it might be desirable to develop Gatwick in five to ten years time but the Ministry of Town & Country Planning officials remained strongly opposed. At about this time Desoutter and Graebe visited the Chief Executive of the Crawley New Town Corporation, Lt Col Turner. Points of view were exchanged but Turner subsequently contacted the Ministry to obtain an undertaking that the airport would only be developed as a

charter base and would never become a major airport with international scheduled services! With mounting opposition, the Ministry's London Area Airports Committee decided to drop Gatwick from its plans.

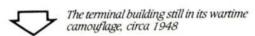
The news of the Ministry decision was conveyed to Desoutter at a meeting in February 1948. Moreover the airport would be de-requisitioned in a year to eighteen months. Nevertheless aircraft movements increased considerably in 1948. There was also the return of the Isle of Wight service when Croydon-based Air Enterprises Ltd started summer services to the island in July with its new Rapides.

A major event which gave the airport some publicity was the Royal Aero Club's guest weekend on 29 June which brought twenty-six aircraft from seven countries. The visitors were entertained to lunch in the terminal before departing to London.

Another major event was the *Daily Express* Air Pageant on 10 July when some 70,000 people watched what was described as one of the best flying displays since the pre-war Hendon days. In addition to military displays, there was a flypast of civil airlines which included an Avro Tudor IV belonging to British South American Airways. The airline was however firmly entrenched at Heathrow with BOAC and had no interest in Gatwick. A delayed parachute drop was given by Gwynne Johns who in 1938 had performed a similar act but there was no attempt at human flight. The Berlin airlift which introduced civil operators in August also brought more activity to Gatwick, although most of its airlines formed alliances with companies operating from other airports.

Desoutter again took the initiative and published an attractive twenty page booklet to extol the virtues of his airport. The coloured cover carried an outline map of Southern England and Northern France. The only points on the map were London and Gatwick with a railway track linking the two points. From Gatwick eleven lines radiated across the Channel to indicate air routes. The words on the cover were simple — "Gatwick Airport — the Quickest Way is the Rail Airway" and "Closest to London in Travelling Times" and "Closest to Continent in Flying Time".

The booklet detailed the facilities — Air Traffic Control, the various radio communications — Meteorological Forecast and other services — that might attract operators. Passenger





amenities were detailed — the list now included a Royal Aero Club lounge for members. It was obviously aimed at other charter operators as it stated that scheduled services would never fulfil the needs of all air travellers "seeking odd destinations at odd times". The answer was of course Gatwick with its "modern terminal building, planned and built to meet the needs of large scale passenger traffic with full Customs, technical facilities and unusually good amenities . . ." The booklet was accompanied by a number of photographs which were especially taken for the publication.

In November the news for Airports Ltd was most alarming — the airport would be de-requisitioned in September 1949. This would mean that Gatwick Racecourse and other adjoining lands which had been requisitioned would revert to their owners, making the airport too small for air taxi and charter companies. Worse, the Ministry would remove all their telecommunication, wireless, control and other services including Customs. Consequently the shareholders were told at the annual general meeting at the end of November that there would be serious if not insuperable difficulties in the way of operating Gatwick after its release by the Ministry.

The charter activities continued much as before in 1949. There was another *Daily Express* Air Pageant on 23 July which attracted even more spectators, although it did not live up to its expectations. The political developments continued. It appeared to be the end for Gatwick when it was stated in Parliament at the beginning of March that Stansted would be developed as the diversionary airport for London. Desoutter



Desoutter's 1948 Gatwick Airport booklet



"The Quickest Way is the Rail Air Way"

soon acquired a new ally from someone who had been in charge of long-term planning at the Ministry of Civil Aviation from 1946 to 1948. It was Peter Masefield who in 1936 had reported on the opening of Gatwick. From the beginning of 1949, Mr Masefield was with British European Airways. On 18 March he addressed a letter to Le Maitre, the Controller of Ground Services at the Ministry. Several letters were exchanged between the airline and the Ministry.

The airline's approach was that Gatwick would be better as a diversionary and secondary airport because of its rail link and location south of London. Masefield's position in the meantime was strengthened when he became Deputy in April and then Chief Executive of BEA in October 1949. Eventually a meeting was held between the Ministries and Crawley Development Corporation in December to discuss yet again the proposal that Gatwick should serve as an alternative for Heathrow. It was not surprising that before the end of the year it was decided to defer de-requisition until 1 February 1950. Subsequently, the de-requisition was deferred indefinitely. The change in policy did not however affect the de-requisition of Gravesend which Airports Ltd still owned but which Desoutter had long lost interest in.

In January the Ministry of Civil Aviation's London Area Airport Committee considered Gatwick. The recommendation was that the airport should be developed as the alternative to Heathrow. The recommendation was accepted at the highest level, although submission to the Cabinet Civil Aviation Committee had to be deferred until after the general election in February. After the election it was duly considered by the Cabinet but Treasury approval was only obtained in May after lengthy explanations.

In the meantime, opposition from the Ministry of Town & Country Planning continued, although the officials were a little mollified by the prospect of the ultimate closure of Croydon Airport. Inevitably, there were more inspections of the airport by the Ministry of Civil Aviation. The summer was quite busy with charter traffic but there was also a scheduled service — it was by BEA to Alderney. The airline had been keeping up the pressure on the Ministry and the service was intended as an indication of its faith. In July the airline's annual report for 1949/50 was published.

One paragraph did not meet with the approval of the Ministry. It read:

"To ease some of the airport congestion which must occur during the next few years, discussions have been going forward with Ministry of Civil Aviation with the object of securing Gatwick as a second London Terminal Airport. Use of Gatwick would not only cut the flying time on services flying south of London but would also avoid waiting time in the London zone, as well as providing a rapid means of communication with Central London by the electrified main line railway. There are hopes that Gatwick may be used for all Channel Islands services in the summer of 1952".

Desoutter was now much happier about the future, although traffic was not so great in 1951. There was another Royal Aero Club Rally in July but a more important event in September was the arrival of the BEA Helicopter Experimental Unit from Peterborough where experimental mail and passenger services had been operated. The unit, led by Wing Commander R. A. C. Brie who had been flying at Gatwick's opening in 1936, was equipped with three Sikorsky S-51 and two Bell 47

helicopters. Subsequently an experimental service was operated from Heathrow to Birmingham. The unit was also involved in instrument flying and improvements to blind-flying aids and the evaluation of navigational and approach aids. The head office of BEA Helicopters Ltd, was for many years based in the Beehive.

Progress was slower on the political level with the continued arguments between the two Ministries. Eventually the new Ministry of Local Government & Planning withdrew objections after an assurance was given that the airport approach paths would not be over Crawley. The Ministry of Transport was also involved in the discussions because of the need to divert the main London/Brighton road. Desoutter was disappointed at the delays but he was used to this by now. Indeed, the shareholders were told in December that he was satisfied that matters had to be allowed to take their course and that it would not be desirable or proper to press the Government to hasten its decision. Gravesend had been much simpler when in 1951 a lease was taken on the airport by Essex Aero Ltd for a period of 7 years.

The activities continued into 1952 while the political discussions were just as intense. On 29 March a meeting of Ministers of Civil Aviation, of Transport and of the Treasury agreed on an easterly diversion of the Brighton Road. Desoutter was still in touch with the Ministry but on 13 April his death removed one of the visionaries of the airport. But now the wheels of bureaucracy were moving faster. In June the case was presented to the Cabinet Home Affairs Committee for the development of Gatwick as an alternative to Heathrow. The following month the committee approved the proposals. On 30 July the Minister of Transport & Civil Aviation, Alan Lennox-Boyd, announced the government's decision.

There was the inevitable protest from local residents. The local authorities who had not been properly consulted, were very critical and pressed for a public enquiry. There was also an objection from an unexpected quarter - the Railway Executive. The railway officials considered that the easterly end of the runway would be dangerously near the Brighton railway line. The objection was withdrawn when the Ministry moved the proposed two runways westwards and swung them five degrees anti-clockwise. In addition the proposed diversion of the Brighton Road was changed to a route around the eastern boundary of the airport and beneath the proposed terminal building and adjacent to the railway.

There was an encouraging development for Airports Ltd in 1953 when two more airlines opened services from Gatwick Jersey Airlines to Alderney and Silver City Airways with a car ferry service to Le Touquet. In July the government published a White Paper to explain its policy. It stated that Gatwick's principal purpose would be to receive aircraft diverted from Heathrow in bad weather. It would also be a terminal for some short-distance services and charter operations. The concluding sentence of the paper was that development of Gatwick would be a sound investment for the future prosperity of the country.

With mounting opposition, the government agreed to hold a public enquiry. This was held in March 1954 in Horley. The Inspector reported to the Minister that a case had been established that Gatwick was a suitable base for an airport. Another White Paper was published which stated that Gatwick would be developed as a second main civil airport to serve London — the concept of the airport was gradually

changing towards the visions of Jackaman and Desoutter. In June 1955 the Cabinet authorised the employment of consulting engineers for design work, Messrs Frederick Snow & Partners being asked to prepare a plan. The architects Yorke, Rosenberg & Mardall were appointed while a road construction contract was awarded to Tarmac Civil Engineering Ltd. Agreement was reached with Airports Ltd on compensation of £350,000. At the end of 1955 demolition work started.

The plan for the airport was not dissimilar to that of Norman & Dawbarn in 1943 with a new station and terminal built over the old Racecourse Station. But it did mean that the original passenger terminal would be obsolete and cut off from the main operational area of the airport. There was however no suggestion that the building should be removed. On 31 March 1956 the airport was closed to permit the construction work to begin. The terminal building soon had several empty offices, although BEA's helicopter office remained there as its operations were not affected by the building work.



The staff of BEA Helicopters in 1954, viewed from the Beehive



#### 12. THE VISIONS REALISED

The airport was re-opened on 30 May 1958, the official opening by the Queen following on Monday, 9 June 1958. The new airport had several significant and some novel features which in a way were a repetition of developments two decades earlier. It was the first airport anywhere to include a main line railway station immediately beneath the terminal and immediate access to a trunk road which also went beneath the terminal building. It was the first airport in the country to have a pier leading from the main building to the aircraft stands to enable passengers to reach the aircraft without going out into the open. It was the second airport in the world to have an instrument landing system (ILS) in two directions. It had a concrete runway which was specially darkened to contrast with the runway markings and to reduce the frequency of renewals. It was the first civil runway anywhere to have centreline runway lighting and the first runway to have an inset landing 'mat' of lighting, fast taxiway turn-offs and centreline taxiway lighting. At last the visions of Jackaman and Desoutter were to be realised -Gatwick was an international airport. Meanwhile the 1936 terminal continued in use as offices for a variety of companies including some airlines.

The subsequent development of Gatwick did not bring the expected traffic to the airport for some years and it was to be some time before it was to be a major star in the international airport league. During the ensuing years the 1958 terminal, runway and facilities were substantially enlarged and developed. Jackaman and Desoutter would however have been pleased that the circular concept in airport terminals was applied again in various parts of the world from the late 1950s. It was not until 1983 however that the design was

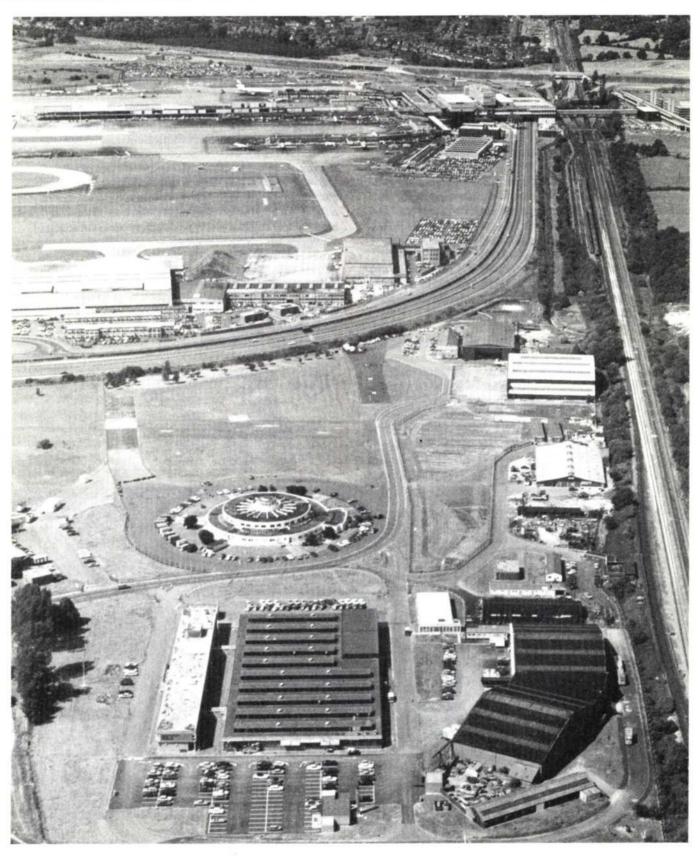
repeated in the British Isles. It was at Gatwick! It was bigger than the pre-war terminal which was not surprising as it was intended primarily for a wide-bodied aircraft. At the same time it was designated only as a satellite building in that passengers still passed through the main terminal first. To reach the satellite which was nearly a quarter of a mile away, passengers boarded an unmanned train! This was the Westinghouse Rapid Transit System. Its significance was that it was the first application of the system outside the USA. By this time Gatwick was the second most important airport in the British Isles and the fourth busiest international airport in the world. Jackaman and Desoutter would also have been pleased that their original terminal was still being used by airlines such as British Caledonian, albeit as offices, fifty years after its opening and just 2 years before the completion of Gatwick's new North Terminal.

In 1986 their visions were recalled on the eve of the privatisation of the British Airports Authority when on 11 June Gatwick Airport Director Guy Bell addressed members of the Croydon Airport Society and Sussex Industrial Archaeology Society about that first terminal in 1936. By this time, Gatwick was the third busiest international airport in the world.



Beehive architect Alan Marlow (extreme left) with (left to right) Angela Jackaman, Raymond Graebe, Cherry Jackaman, Alan Wood and Sir Peter Masefield, together in June 1986 to mark the 50th anniversary of the opening of Gatwick's first terminal building (A. Timbrell)







This 1976 aerial photograph of Gatwick successfully captures the old and new. Note the 1936 terminal has been cut off from the main airport by the 1958 development. (Alan Timbrell).

### **APPENDIX**

#### Bibliography

The information used in this book has come mainly from two sources: — the people who were involved in Gatwick's history and archives. A list of those who have so willingly given information would be rather long and I can therefore only hope that my informants will forgive me if I do not name them, although some names are mentioned in the introduction. Nevertheless, the source of some of the personalised information will be obvious to some readers.

The archives are various, the principal ones being those of the Air Ministry in the Public Record Office at Kew. Other archives include British Airways Ltd, Imperial Airways and BOAC in the RAF Museum at Hendon, the Dorking, Horley and Reigate Rural District Council in the Surrey Record Office at Kingston, the Post Office in London and Airports Ltd in the Companies Registration Office, London.

Contemporary publications in the form of periodicals such as *The Aeroplane* and *Flight* in the libraries of the CAA and Royal Aeronautical Society have been very useful as have daily and local weekly newspapers which were consulted in the British Library at Colindale; similarly architectural journals in the library of the Royal Institute of British Architects in London.

Useful information was also obtained from articles by Gerald Howson about the Spanish Civil War in the 1979 issue of *Air Enthusiast*; and by Alec Lumsden about the D.H.86 aircraft in the April 1984 issue of *Aeroplane Monthly*. I have also quoted from William Courtenay's *Airman Friday* (Hutchinson, 1937).

# THE AUTHOR

John King was born fifteen years after Gatwick was first licensed as an aerodrome. After studying history at school, he worked for British Rail for five years. After joining British European Airways in 1969, John became increasingly interested in civil aviation history. In 1980, his first book, "Golden Gatwick: Fifty Years of Aviation", was published. In 1982 John branched out into local history, writing an outline history of the district, Grove Park, in S.E. London where he has lived since 1954. The first print quickly sold out and the following year "Grove Park in the Great War" was published.

Mr King has had several articles published in a variety of railway and aviation journals. For the past five years he has been the editor of the Croydon Airport Society's journal. A member of the Chartered Institute of Transport, John also holds a Diploma in Archives & Records Management. Mr King can be contacted by writing to The Ringway Centre, Baring Road, London SE12 ODS.

# THE SUSSEX INDUSTRIAL ARCHAEOLOGY SOCIETY

The Sussex Industrial Archaeology Society was founded by a group of enthusiasts in 1967 to study and record the industrial history of the county of Sussex. Since then its membership and activities have expanded greatly. It has been involved in the restoration of important industrial buildings such as Batemans Mill, Burwash, Piddinghoe pottery kiln, the Coultershaw water pump and Ifield Mill, Crawley. It advises local authorities and individuals on the preservation and restoration of buildings and machinery. Each year a programme of visits to places of interest is arranged and lectures held on subjects in the field of industrial archaeology. It promotes recording and research and since 1970 has issued regularly a substantial journal Sussex Industrial History to provide for the publication of definitive articles on the history of industry in the region. Quarterly newsletters keep the membership informed about news and events. Further information is available from the Secretary, R. G. Martin, 42 Falmer Avenue, Saltdean, Brighton BN2 8FG who is also responsible for sales of publications.

