

PICTORIAL

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*Policemen
Take the Air!
See page 8*



Police Aviation

POLICE AVIATION

A history



By Bryn Elliott

INTRODUCTION

As far as I am aware, this history of the varied methods by which the law enforcement forces of the world arrived in a position whereby, by the late 1990s, most of them have been able to undertake air patrols is the first attempted. The content is exhaustive as possible in the face of a degree of secrecy and a certain lack of inertia.

The meaning of the word "police" is, I recall from my training days over thirty years ago, the means by which governments endeavour to keep the peace. Although still valid in many parts of the world, this statement to fledgling British police was probably never intended to encompass the sheer diversity of modern law enforcement. Written in the days of Victoria, it was inward looking and took no account of the extensive para-military activity that now typifies policing across the world. For this reason the researching and compilation of this book has been complicated by the requirement to make arbitrary decisions about just which law enforcement bodies to include in the survey.

Instances of this can be clearly seen from the coverage of the United States of America [USA], the country where the ground swell of law enforcement aviation was, and is, most clearly to be seen. In the USA there are thousands of law enforcement units across the length and breadth of this massive country, some use aircraft. In addition to the hundreds of Police, Marshall and Sheriff units, each thrusting forward, individually and mutually, in the battle against law breakers, there are the large Federal organisations, most of which give the impression of having other, more pressing, duties to perform than law enforcement. The activities of such as the US Coast Guard, US Customs, Federal Bureau of Investigation [FBI] and Central Intelligence Agency [CIA] regularly encroach upon day to day law enforcement work - especially in the field of drugs. To avoid the obvious danger of becoming involved in the compilation a history of the 20th Century, within these pages, although not ignored, out of necessity these bodies do not receive their due acknowledgement. In the arbitrary task of choosing those law enforcement groups to include in detail anomalies abound. Whereas the FBI receives scant mention, the Gendarmerie in France, military regiments with important aviation support duties to civil police in that country receives a relatively extensive coverage.

Primarily this is a book about the development of police flying in the British Isles. Naturally any research based in the United Kingdom [UK] will result in a bias of material relating to those islands. Nonetheless I hope that there is sufficient mention of activity in other parts of the world to place this in its correct context.

I suspect that, no matter how even handed the research effort has been, it will soon be proven that some aspects of it can be shown in error. I still await, with some trepidation, the emergence of the story of some member of the French Gendarmerie being taken aloft in a

Mongolfier hot air balloon for law enforcement duties a full 150 years prior to the earliest date I present.

In the narrower field of British police aviation endeavour, the reader will gain the distinct impression that the London Metropolitan Police were, and remain, the primary force behind police flight. That is unfortunate, but it is also largely true. A certain tendency toward the London police is a reflection of the amount of material preserved about it. This police force is obliged by law to retain large sections of its archives in the Public Record Office at Kew, London, an onerous and time consuming task that does not afflict many others. The result is an unprecedented wealth of preserved material. In addition, the author was given extensive help by the archival staff of the Metropolitan Police during and after his service with that force. It is fortunate that subsequent research confirmed this force to be the primary user of police aviation in the UK throughout the last seventy years.

Basing the story around the events in the UK is perhaps less forgivable, especially in view of the fact that it is now quite clear that in many cases the British have lagged behind the rest of the world. Indeed they continue to do so. I defend this nationalistic stance only on the grounds that every story has to have a core theme. I accept that if this writing effort had fallen to an author from another nation, the chances are that the inadequate effort of the UK might easily be wholly ignored!

A large number of people from many nations have assisted me in the research for this project, fewer than might be expected are, or were, law enforcement officers. It is a pity that the men and women who work at the sharp end in the industry are less conscious of their traditions than they might be, but that is the nature of their generally youthful ranks. I can vouch from personal experience that once approaching the age group at which they might be expected to take a greater interest in the past of their chosen workplace they are retiring and taking an interest in another line of occupation. It is therefore the interests of very few and the knowledge of many outsiders that serve to place this story before you.

It became clear during the compilation of the text that in spite of the vast amount preserved, much of the early material had gone astray. Much was never recorded, more was deliberately destroyed as of no interest. Years later, many authors of general reports attempted to place their writings into a historical perspective with no accurate guidelines to follow on the subject. As a result many such efforts failed to place events in a correct historical perspective. All this might have been different had there been a reasonable attempt at preservation of the records at the time. As it is, the lack of accurate records has ensured that even this rendition suffers from a lack of reliable information.

In compiling this history of law enforcement flying, the prime vote of thanks must go to Richard Riding, the one-time editor of the London based, nostalgia biased, magazine "Aeroplane Monthly". Without his initial assistance and encouragement in the provision of suitable

illustrations for the Metropolitan Police Historical Collection, I may never have inquired into the deeper aspects of much faulty material that originally co-existed with the truth in the British police archives. Many of the earlier questions were answered by the fruits of his personal research. Beyond that, access was freely given to the archives of "Aeroplane" and "Flight".

The Metropolitan Police Historical Collection and its separate, but allied, archival service can also take their share of the credit - even where it was eventually possible to fault sections of the material. Across the world, a number of industrial concerns, museums and archive sources have been used in the compilation of this story - including some of the most unlikely candidates. To each of these are extended thanks for access, freely given, to their files.

A large number of individuals bear specific mention. They appear alphabetically for I feel that even if the material provided equates to one line or fifty pages, none is to be considered more worthy of thanks than another. Many of them you will meet in the pages that follow. Richard Almond, John P Arrabit, Gerry Attwell, Brian Austria-Tomkins, John Ball, John Bamford, Robert Bartlett, Mel Bennett, Jack Blair, Jim Boardman, Alan Bristow, Bernard Brown, Alan Bruce, John Bunker, Arthur Burland, Geoffrey Chamberlain, Frank Cheesman, George Chesworth, John Cross, Steve Darke, Peter Davis, Jack Dennett, James A DiGiovanna, Bruce Dix, Nigel Dunhill, Bill Duthoit, John Dwyer, Ken Earney, Mick Ellwood, Frank Esson, Malcolm Fillmore, Robin Gillis, Harry Godfrey, Jack & Phyllis Hamblin, Brett Harvey, Michael Haunschild, Ken Hayward, Eric Hill, John Hordern, Geoff Hyde-Fynn, Alex Imrie, Roger Jackson, John Keepe, Mike Klisky, Desmond Leach, Murdoch Macleod, John McKinney, Phillip Maer, John Mallelieu, David Mander, Peter Marson, Eric Myall, Saneaki Saito, Lydia Singh, John Mason, Peter Steinlechner, Jim McMahon, John Muir, Eric Myall, Michael Oakey, Dennis W O'Brien, Charles Oman, Jeremy Parkin, Paul Pearce, Ronald Potter, John Pringle, Trevor Prytherch, Mark Rand, Keith Renew, Jimmy Richardson, Roy Rodwell, Bob Ronge, G Rupprecht, Robert Ruprecht, Peter Solomonides, Bob Stevens, Peter Street, Ray Sturtivant, Maurice Taylor, David Tuckfield, Julian Verity, Kenneth Wallis, Charles Wastie, William T Wilkens, Peter Williams and, finally, Alan Wright.

To each I can only say a heartfelt 'thank you' for all of your time and trouble.

It has been a long road, but we finally got the story in folks!

Bryn Elliott
2004

CHAPTER ONE

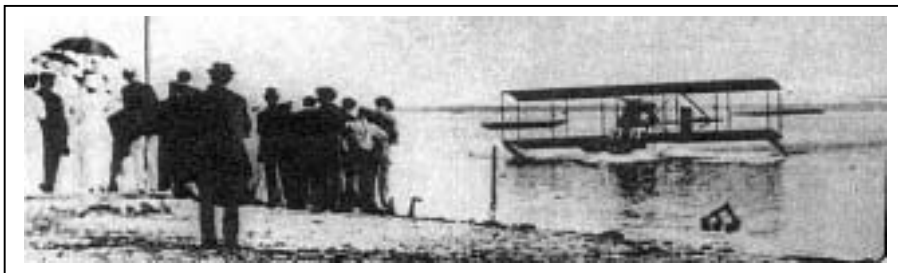
In the beginning

The official use of aerial observation, in a variety of forms, by British Police began on an experimental basis in the summer of 1921. Preceding this activity in the United Kingdom [UK] there were a number of instances of the police in other countries undertaking to use aviation in a law enforcement environment. Often, although generally disregarded by historians, these were successful experiments.

Contrary to popular opinion, law enforcement from the air is not a modern phenomenon and it does not equate solely to helicopters. It can be traced back to immediately prior to the Great War, within a decade of the first heavier than air flight taking place.

The first recorded use of aircraft on police duty took place in the southern United States in January 1914. The location for this historic event was Miami on the Atlantic coast of Florida.

For a few weeks in the early part of 1914, the white sand beach outside the Miami Royal Palms Hotel played host to one of two modified Curtiss Model F flying boats. The crafts were then in the ownership of Harold F McCormick of the Chicago based International Harvester Co. McCormick had decided to spare the aircraft and its two man crew the rigours of an Illinois winter and seek the opportunity to earn its keep flying tourists on trips around the bay from \$10 a trip. Charles C Witmer, McCormick's regular pilot, was accompanied on the railroad trip with the dismantled aircraft to Florida by mechanic George E A Hallett. The Curtiss was well appointed for the "joy ride" task, one of the features incorporated into the special order flying boat being the then extremely rare availability of four seats!



The aircraft had been plying its trade on the beach for a some time when the local police approached Witmer with a request for the use of his employer's aeroplane to pursue a jewel thief.

The theft of a quantity of precious jewellery from a hotel, we can only assume that it was the Royal Palms itself, was reported and during the investigations it became apparent that a member of the hotel staff, a porter, was unaccounted for. Enquiries led the police to believe that the missing man had boarded a steamer recently setting off east from Miami for Bermuda.

Witmer consulted with his distant employer and agreed to take two members of the police in pursuit of the ship. With shades of the

arrangements that had taken place a few years earlier in arranging the apprehension of the murderer Dr. Crippen aboard the SS Montrose in July 1910, a wireless message was sent to the ship and the captain agreed to heave too and await the arrival of the Curtiss.

Alighting alongside the ship, the senior detective boarded and quickly identified and apprehended the suspect. All four returned to Miami. In court the defence attempted to claim that the offshore arrest was unlawful, but wiser counsel ruled that this was not so as the ship was extended US territory.

McCormick's 100hp Curtiss failed to make the hoped for profit out of its trip to Florida. Shortly after the assistance rendered to the police the craft was again dismantled and sent north after it was discovered that in avoiding the Chicago winter all the metal fittings had suffered terminal salt water metal corrosion and required changing.

This incident was not the only early aeronautical law enforcement awakening prior to the outbreak of the Great War in Europe. Later in 1914, in New York, a serving officer in the Police Department [NYPD] by the name of Charles M Murphy, undertook a single handed attempt at the creation of a police air arm.

Known as "Mile a minute Murphy" by those aware of his successful feat of attaining that speed on a bicycle in the wake of a railroad train in 1899, in 1914 he was probably the only serving policeman in the world with a pilots licence. Undoubtedly enthusiastic, and apparently a competent flier of monoplanes. Unfortunately for Officer Murphy, in 1914 his strident publicity for an immediate start up of a police flying unit fell on deaf ears and, unsuccessful in his immediate aims, he appears to have faded from sight when, after the Great War, some progress was made.

Although he was not heard of again, it may have been a source of great pleasure to Murphy that the first long term police related operations set up where those created immediately after the Great War by the NYPD.

Law enforcement in the United States is very much a multi-agency operation, it is difficult to separate the police and sheriff's offices from such as the US Coast Guard, FBI, drug agencies and the military. They all have a part in the action. The greater portion of the task falls upon many small units, some being only formed by a handful of officers.

In modern times it has been estimated that there are at least 16,000 agencies undertaking the multitude of tasks that make up a policeman's job. This figure has been falling dramatically in recent years, which underlines the magnitude of the far greater numbers in the past. Faced with such a wide variety, we are unlikely to ever identify each and every early venture into law enforcement flying.

Immediately after the Great War the NYPD sought to set up a police air unit. Classed among the worlds least successful aeronautical ventures, it has been largely ignored even by its modern day successors.

Following a serious fire which had threatened to ignite a large quantity of stored TNT explosive in the city, in November 1918 Colonel Jefferson DeMont Thompson of the Aero Club of New York was appointed by the then Police Commissioner for New York, Richard Enright, to take charge of a special Aviation Section. Staffed almost wholly by part-timers at the weekends, this unit was to be a joint police and fire department enterprise given a primary aim of fire watching and secondary duties related to the policing of the rivers, harbour and bay area. Although a world leader, this reliance upon part-time staff led to this unit failing to serve the needs of the City of New York.

A few months after the initial announcement in New York it was stated that the aircraft, loaned ex-USN seaplanes, of the Aviation Section were to replace conventional waterborne patrol boats. The creation of this unit was not as wholehearted as the newspapers were led to believe, much of it remained a cosmetic exercise. Initially, there were no full time police staff, each of the members being ex-military assigned to the police reserves - equal to the "specials" in Britain's police - and, unpaid except for expenses and a free uniform. The most telling feature was that they, and their invaluable duties, were only regularly available out of the normal working week.

In May 1919 the NYPD operation co-operated with other elements of the land born police and the local sheriff to put on a public show for the local populace at the second Pan American Aeronautical Convention at Atlantic City Airport. Fifteen members of the NYPD air force appeared for the first time in public wearing their sky blue uniforms. Making use of the motor car driven by Alfred Perkins, the Atlantic County Sheriff, a spurious "car theft" scenario was enacted for the eager crowd. Taken by a car thief, actually one Richard Black a Deputy in the Atlantic City Vice Squad, the car was seen making off by the "distracted" Sheriff Perkins as he chatted with pilot Eddie Stinson. The latter was then little more than one of many "barn-stormer" display pilots, later he was to be well known as an aircraft manufacturer, some of whose products saw limited police use. The pair leaped aboard Stinson's aircraft and set off in pursuit. The NYPD crew joined in the mock chase, with Captain Horace Keane circling overhead as the passenger and observer of a pilot called Stehlin, transmitting suitable wireless messages to men on the ground to successfully intercept the fleeing stolen car.

Whilst on the face of it this event was little more than a display of razzmatazz to entertain the public, it was also intended to be a demonstration of the intended manner in which the NYPD sought to operate its flying. It serves to show that they had grasped an understanding that in the use of aircraft they also needed the facility of airborne wireless to maintain a suitable level of control.

The flying activities of the NYPD Reserve flyers regularly featured in the New York Times, but years were to pass before extensive details of this New York operation came to light in the British aeronautical press. In mid-June 1921, a date coinciding with the earliest British police use experiments with airships over Epsom and Ascot Races and the Hendon RAF Air Display, the NYPD Air Section consisted of Inspector Dwyer and a single patrolman of the regular police. Under them were a number of volunteer reservists under the titular head, Rodman

Wanamaker Jr. A number of well known private pilots of the day, including Eddie Stinson, remained closely involved with the operations and air displays put on by the air unit. At that time the police unit was reported to have three bases, Dykes Beach Park, Brooklyn, 82nd Street, North River and 130th Street and Hudson River. In addition the use of the USN landing ground at Fort Hamilton, Brooklyn, was available. Reports in 1922 stated that the principal hanger was located at Fort Hamilton, five landing places were available for regular police use. The type of "seaplane" initially used is unknown, but newspaper reports in the summer of 1922 claimed that there were "five fast airplanes" and 300 men assigned to the unit

The Air Section had created a "School of aviation" situated at 156 Greenwich Street, New York, under the command of Captain Brennan. Free evening instruction was given to the volunteers in a variety of aeronautical crafts including wireless, engineering and flying. The volunteers were required to pass the US Army physical and, when proficient, enrol in the Aviation Corps. At the time the school had the use of two seaplanes lent by the US Navy for practical instruction at Port Washington, Long Island. This pair was presumably additional to the examples available for flight instruction. Nonetheless the operation was very much "flying club" in nature.

Aside from Federal effort like that provided by the Coast Guard, then a body less involved in outright law enforcement than it is today, New York's efforts were far in advance of anything else in the United States.

The NYPD Reserve operation was not the only police and sheriff law enforcement aviation activity to take place in the USA during this period.

During the early years of the Great War, some time before Uncle Sam entered the bloody conflict in Europe, the San Francisco Police Department were flying a Martin TT [Tractor Trainer] bi-plane on patrols. All knowledge relating to this operation relies upon the interpretation of a single glass slide showing the aircraft with a police van on the San Francisco Marina, therefore the true extent of this operation is unknown.



The Martin two-seat trainer, one of only 25 built by the manufacturer, wore dual markings one set suggesting that it was operated by the Gates-Purcell Aircraft Co., and the other that it was designated as the SFPD Aerial Patrol Plane No.1. With the lack of information relating to

this illustration the immediate question enquires whether there was then a number 2!

On May 6, 1919 the police in Atlantic City, Wyoming, claimed the transmission of a wireless message from an unidentified "police" aircraft, this leading to the "prompt and successful pursuit of a motor car thief". Later the same month the police in Dayton, Ohio, claimed that they were the first to use an aeroplane for the transportation of a prisoner. Police Inspector Yendes flew over to Indianapolis in a machine piloted by Harry Walhon to collect embezzler Robert H Tamplin. Although it was a little different in form, the latter claim to a "first" was shaky in the face of the 1914 operation off Miami.

In spite of the ravages wreaked by the recent war, the greatest advances in police aviation took place on mainland Europe. It was two of the main elements of the Axis forces that sought the creation and expansion of police aviation as a means whereby they might retain aeronautical elements under government control into the enforced peace.

Both Germany and Austria, the latter formerly the Austro-Hungary of the war years, were faced with demands from the Allies which would seek to grind all military elements in their countries into the ground, and then demand reparations.

Although a few were taken as war booty to Britain and the United States, others to arm Holland, thousands of wartime aircraft were to be destroyed in both countries. At the end of the Great War Germany had possessed approximately 20,000 military aircraft of which some 2,400 were designated to be first line scout, reconnaissance and bomber types. Over 15,000 aircraft and twice that number of engines were to be surrendered and destroyed.

All military aircraft activity was supposed to cease in June 1919, with the signing of the Treaty of Versailles, the instrument under which the Allies laid down their requirements. The Germans were having nothing of this and kept back a number of aircraft to operate as mounts for the so called "Air Police". These machines were not types that would easily fit into the average layman's idea of civil aircraft. Types since identified include a range of single seat scouts, two seat reconnaissance aircraft and even heavy bombers.

The Treaty of Versailles was dogged by a number of errors, among which was a stipulation that only military aviation was specifically banned. The idea was that the later emergence of a new German Flying Corps would be precluded by this measure. The German's fought the idea, and lost. Fortunately for them though, there was sufficient confusion caused to enable them to "spirit" away a sizeable number of useful machines for later use with a reborn police air corps.

The position in Austria was similar to that in the land of its neighbouring former ally, the major differences only lay in numbers and aircraft types. When the German and Austrian authorities requested the Council of Ambassadors in Paris for permission to regularise their respective civil police aircraft arrangements in March 1920 the request was refused on

the grounds that such aircraft use was contrary to the terms of the Treaty. At that point it is clear that, publicly at least, police air operations ceased. There, a large section of the outside world fondly believed, the matter rested.

What in Britain would be regarded as "police duties" are in many European countries, specifically Belgium, France, Holland and Italy, the responsibility of military agencies. There is a long history of civil law enforcement in Europe relying on elements of the military police. Forces now firmly accepted in the public mind as carrying out civil police duties in the last two hundred years have, or had, their roots firmly in a military background. The Gendarmerie in France and Belgium, the latter better known under the Flemish name of Rijkswacht, and the Carabinieri of Italy are the best known examples.

The Italian nation fought the Great War on the same side as the French, British and Americans. Their theatre of war was primarily the Adriatic and Balkans, with reports of members of the military police, the Carabinieri, making accomplished scout pilots in the air war against the forces of the Austro-Hungarian alliance.

In the summer of 1919, members of the Italian civil police, an organisation under the guidance of the Ministry of the Interior, shunned the regular steamer voyage and made use of an seaplane. The flight was to fly the 20 miles from Naples on the mainland to the island of Capri during darkness in order to retain an element of surprise when undertaking a raid on an illegal gambling establishment. This event was preceded by the sending of an undercover detective who managed to trace the location of the gambling den on the island. This officers fears about the arrival of a posse of reinforcements on the public steamer service in daylight were circumvented by flying them to a remote part of the island. The police marched to the gambling house and arrested a number of people - including the Briton who had been running it.

An exact date for the commencement of police flying in France is not known. The fact that the history of the Gendarmerie dates back to Napoleonic times at least raises the possibility that some member of its ranks may have gone aloft in a military balloon and thereby created an undiscovered first for *la France*. Without confirmation of that vague possibility, the kudos of the first ever police flight remains firmly with the Americans in 1914.

In August 1920 the French flying school at Istres was the scene of a burglary in which the thieves got away with a number of items and a locked safe with 20,000 francs inside. Knowing that the safe was heavy as well as valuable, the commandant of the school instigated a thorough search of the burgled building and the surrounding area but found no sign of it or any other of the missing items. Still awaiting the arrival of the police, he sent up two aeroplanes to undertake an aerial search of the surrounding area. One of the pilots spotted a newly dug mound in the vicinity of the airfield and landed beside it. It was a matter of minutes before sufficient of the earth was removed to uncover the safe, still unopened and with its contents intact.

In the face of all this activity across the world, in Britain the pace of progress was somewhat slower. Before the war Britain had formulated a number of Acts of Parliament to control aviation. Generally, with low numbers then extant, aircraft were not individually registered like the pilots were, but regulations were created primarily to ensure that these aircraft were prohibited from flying near to certain areas. As a rule these were in the vicinity of military establishments, a requirement which succeeded in creating a massive no-go area along the River Thames that became a serious bar to progress north of Surrey and Kent!

Post war the aeroplane was a better understood machine and this bar to progress was largely dismantled and aircraft received identifying markings for the first time.

As the largest police force in the UK, the London Metropolitan Police was to be involved in the majority of the Government financed trials that were a feature throughout the development of police aviation in the British Isles. In addition to these overtly law enforcement orientated trials, a number of apparently disconnected official and commercial experiments over the years were to form the basis for equipment and methods now used by modern police air support units across the world.

During March 1919, in the London "Daily Mail", it was announced that the post of "Chief Constable" and other ranks in a new British Aerial Police was to be opened to young flying men with military experience. As envisaged this force was to work with the existing customs and police services under the direction of Major-General Sir F H Sykes the Controller of Civil Aviation. It was to be divided into two branches, the first of which was to be equipped with pursuit scouts and the second was to be a larger, ground based, body tasked with controlling the aerodromes. This force was also to have a distinctive uniform and based at a number of coastal aerodromes, where foreign visitors were to be required to land when entering UK airspace, in the accepted manner of the modern customs airfields.

Bearing in mind that many of the wartime restrictions and, more importantly, siege mentality state of mind were still evident at this time it is perhaps more understandable that the aims for this body were more military than normally associated with British police of this, or any other period. It was decreed that aviators who chose to ignore the directions of the aerial police, or strayed off the designated route issued at the customs airfield were to be punished. It was stated, in the most serious manner, that anyone who might so much as drop an orange in or around an arms factory, therefore create the danger of an explosion, either intentionally or accidentally. The scout aircraft to be issued to this force were to be armed with machine guns with tracer bullets, it being intended that they might warn off the wrongdoer with a burst of fire, or "do something drastic." The writer appears to have failed to grasp the simple fact that a burst of tracer fire falling to ground [or indeed the burning aircraft of the wrongdoer, set in a terminal dive to destruction] might have a drastic effect upon the average British street or arms factory.

Clearly the thinking behind the plans for the proposed force were distorted by the effects of the war and reflected an understandable unease at the stability of the peace. The majority of the duties envisaged were clearly in conflict with those previously assigned to the recently formed Royal Air Force [RAF] and might be expected to result in clashes between the two parties over the shrinking budgets that typify the post war years.

Predictably, in mid-August 1919, it was officially announced that the Secretary of State for Air, Major General, the Right Honourable J E B Seely, had reported that it was no longer considered that the expense of maintaining an Air Police Force would be justified at present. As often happened in the UK it had been decided that half measures would apply.

Prior to the Great War Authority had decided that, in spite of a lack of training, the main body of police would undertake the task of inspecting and regulating aerodromes - much in the manner of the modern day employees of the Civil Aviation Authority [CAA]. This pre-war legal requirement had included the banning of aircraft from over-flying sensitive sites such as armament factories, mainly those in the London area. These regulations were flouted by members of the German air force shortly afterwards! For many years permanently or temporarily licensed civil landing grounds were the direct responsibility of local police stations. This tangent from normal police duty was undertaken with a measure of success and few complaints. The task undertaken by the police was as a result of the early Air Navigation Act's being formulated and issued by the Home Office. The police, also beholden to the Home Office, became the natural supervisors of the regulatory edicts.

Although some aspects of aviation law remained within the area of responsibility of the police, most slowly devolved upon the Air Ministry and a new civil regulatory body.

Today police civil aviation involvement is largely confined to an authority to demand the production of flying documents for inspection after an incident and the provision of a cadre of faceless Special Branch officers to undertake a covert watch on comings and goings.

In July 1920 the then Commissioner of Police for the Metropolis, General the Rt. Hon. Sir Neville Macready Bt. GCMG. KCB. corresponded with executives of the Central Aircraft Company with regard to the possibility that a "police air arm" might be formed. The company had seized upon a brief but inaccurate newspaper story suggesting that police were about to require pilot training in pursuit of such an aim. Central Aircraft was a small company which produced a few aircraft at Kilburn and undertook training and passenger flights until going out of business in 1926. The negotiations were informal, with no conclusive outcome other than subsequent enquiries being made at the Air Ministry to ascertain the feasibility of aircraft use by police. One of Macready's senior police advisers, Deputy Commissioner Norman Kendal, stated that in his opinion any future police requirement in this field would be better served by either the Air Ministry or a larger commercial aeronautical concern like Messrs.

Handley Page. Insubstantial, these events at least corroborate other reports that the subject was being considered at that time.

The first experimental police flight in the UK is reputed to have taken place a little earlier. In the UK most of the early police air observation experiments centred on the annual Epsom and Ascot summer horse race meetings which take place to the south west of the Capital in May and June, a time of year not always blessed with reasonable flying weather. For reasons never adequately explained, beyond their undoubted popularity with the race-going public at large, none of the other meetings at these race courses drew such police attention, even experimentally.

Each event in the summer calendar required the attendance of large numbers of police, these being drawn from across the length and breadth of London to control an ever increasing volume of heavy motor traffic to roads designed for light local traffic and horses. The races at Ascot, situated close to the borders of three forces, required additional resources from the police of Surrey and Berkshire.

On Epsom Derby Day June 2, 1920 the Royal Air Force [RAF] are reputed to have provided an aircraft in which a police observer was taken aloft to view the traffic approaching the course. Both the aircraft and crew are unidentified. This, and a singular lack of reports in the columns of either the national daily newspapers or the aeronautical press, lead to serious doubt being levelled at the substance of this story.

According to some press reports of the event, there was one aeroplane at the Epsom racecourse in June 1920. An Airco DH4, a civil registered converted Great War bomber was contracted to fly photographic plates of the race north for inclusion in the following day's editions of the Leeds Mercury and Glasgow Daily Record. This aircraft, G-EAZS, had no known police connection.

It was said that the police aircraft was not equipped with wireless, the machine being required to land near the course to enable the reports from the observer to be passed to police on the ground. This was feasible as the centre of police operations was almost always centred near Tattenham Corner, close to open fields. A further boost to the substance of this story is that it bore many similarities to original reports relating to police operations in the area in the summer of 1923. The, now discredited, original story relating to the 1923 Derby suggested the type in use to be a Great War vintage Bristol Fighter. The use of such a machine in 1920 would be wholly in keeping.

A further complication to determining the truth about the 1920 Derby came from the Metropolitan Police Deputy Assistant Commissioner of A Department [DACA] at that time. DACA Sir Percy Laurie, stated in official papers drawn up in 1936 that he had arranged for an aeroplane flight for the police at the Derby in 1920. Was he mistaken in the exact year involved?

The combination of a brief interview with Norman Kendall, another senior figure with the Metropolitan Police, and some knowledge of the

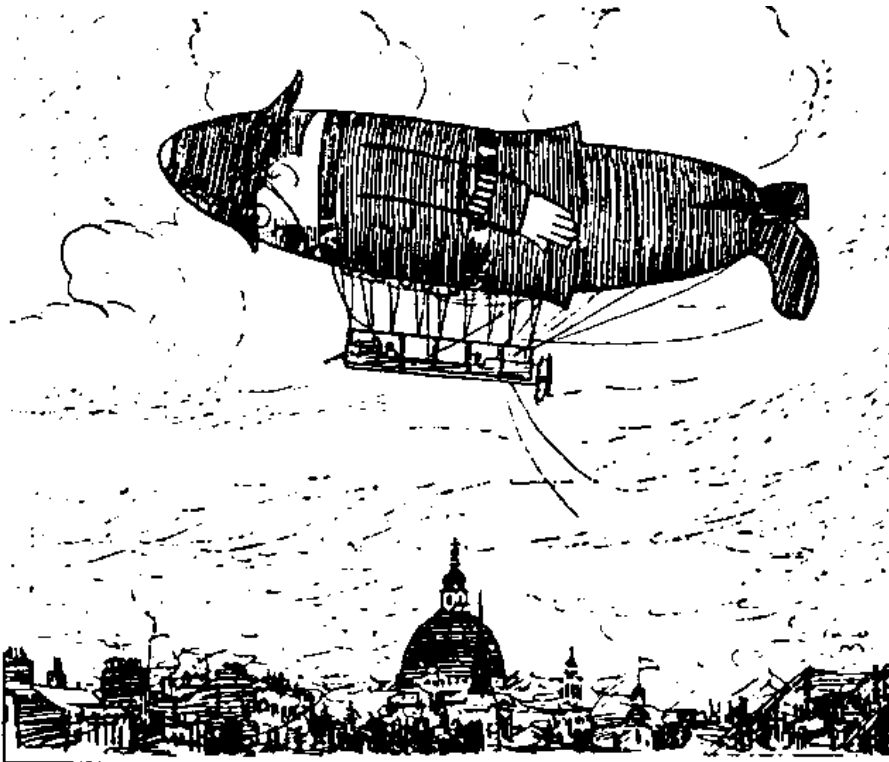
earlier meetings, resulted in an article appearing in the columns of "The Times" in October 1920. Correspondent Harry Harper, visualised that it was to be only a short while before police made extensive use of aviation to enable inspectors to fly to the scenes of out of town crimes. The proofs of the story were submitted to New Scotland Yard for comment prior to publication. It was not well received by Kendall. His own limited knowledge of flight related to the stick and string aircraft he was able to see in use rather than any possible future developments. He considered that any of the most senior ranks were unlikely to relish arrival at the scene of a crime chilled to the bone and suffering from exposure. Harper's suggestion that the police should actually own their own aircraft was likewise derided. What next? Perhaps the police should purchase their own railway train, complete with driver and fireman!

Harry Harper had not read the clear warning signs displayed by a police force that still had virtually no motor transport, other than those allotted to very senior officers, two decades after the arrival of the practical car. The chances of them taking up with aeroplanes in the even shorter time span since Kittyhawk was even less likely. Clearly the journalist disregarded all of Kendall's negative comments and published just the same.

In the event Harry Harper was closer to the truth than Norman Kendall and the Metropolitan Police did in fact take up with aircraft for traffic control nearly ten years before the first motor patrol using ground based vehicles was created.

A different Police Commissioner was in office the following year when the suitability of large military airships was explored. When launched in 1919, the Armstrong Whitworth built airship R33, and its sister craft R34, were the largest airships extant. Based on German Zeppelin designs, both of these 643 foot long airships were the result of military orders placed during the Great War. In January 1921, R33 was transferred from the military to take up a civil registration G-FAAG. The earlier military designation, R33, was destined to remain its common name throughout. The giant airships were a great embarrassment to the government of the day. Designed as bombers and too late for use in the war, they were deemed too large and expensive to retain for military service in a very run down peace-time environment that naively assumed there would be no further conflicts after the "war to end all wars". The hope was that these and other surplus military craft would find favour with a civil operator.

It fell to the DACA at Scotland Yard, Sir Percy Laurie, to arrange the details for the first fully documented police aircraft operation in Britain, an event that was wholly subsidised as a publicity exercise for the airship disposal plans. Under the headline "P.C. R33", the "Daily Mirror" subsequently reported that "..... for the first time in history Derby Traffic was controlled from the". Was it?

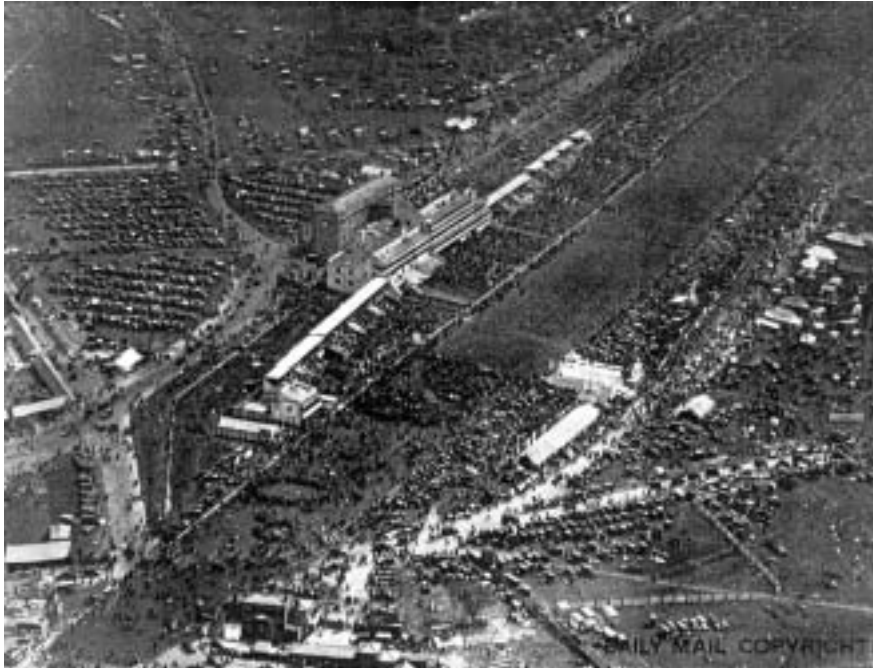


Dating from 1914 this 'Punch' image predicted the Epsom flights 7 years later

The great hydrogen filled airship was seen in the skies over Epsom on two of the race meeting days. Although relatively punctual and problem free on its first visit, on May 31, on the day that actually counted, Derby Day itself, the craft arrived very late due to strong headwinds encountered on its way from the government airship station at Cardington, Bedfordshire.

The R33 performed its police task successfully in the face of problems caused by less than perfect weather. The sheer bulk of the 1,950,000 cubic foot envelope proved extremely difficult to handle at low altitude. As was to be found in the decades to follow, airships of all types were not to present themselves as ideal "instant response" vehicles for efficient police service in anything but calm weather. In even the most favourable of wind conditions, they were to consistently prove to be sluggish in responding to both power output and helm.

The first use of the R33 was primarily an observation sortie. As this airship reproduced the layout of the German military bomber type it was based upon, accommodation was severely restricted. The airship was fitted with a number of underslung cars, most of which contained large propulsion engines and propellers. An exception was the forward control car which featured the conning position, a radio room and an engine. The restricted size of the main control car was such that there was precious little room for police interlopers. Observed traffic flow information was passed by Major Fox on board the airship to the ground by wireless morse telegraph. The compact radio room was situated at the rear of the control room and forward of the engine room.



Epsom from the air in 1921

Beneath the

In the main grandstand on the racecourse a "police office" was set up in a cubby hole to house the Marconi equipment to receive the information from the airship and send it out to some of the 1,800 police officers assigned to alleviate traffic congestion and control traffic. The equipment was as advanced as any of the period, although it was used in a static form in 1921, mobility for police uses was on its way.

The police not the only body with an interest in wireless. That year, 1921, was the first occasion ever to have its result - a win for "Humorist" - transmitted live immediately after the race, via a public broadcast wireless set up on the course.

The air over the race-course was particularly busy that day. In addition to the airship, police had obtained the services of the RAF to provide air-to-ground photographs of the traffic conditions for later analysis. As well as the aircraft allotted to this task the de Havilland Aircraft Company at Stag Lane had used "a number" of aircraft for traffic spotting. Any police involvement in the latter arrangement was unlikely. The prime task of these commercially backed flights was the taking of a number of excellent photographs which eventually found their way into the extensive files of "Aerofilms Ltd.," with a secondary purpose as a public relations exercise for de Havilland. It was easy to demonstrate the positive economy of two seat small aeroplanes in comparison with the giant multi-crew airship used by the police. As the use and ownership of aircraft widened over the years, their presence in the skies was seen as a serious problem in the vicinity of Epsom and Ascot on race days. The extent of this problem quickly led to the Air Ministry imposing controls, primarily to curb air advertising. In most instances the police were responsible for prosecutions - regardless of their

general lack of individual expertise. Air related prosecutions were few, and rarely crowned by success in the courts.

The newly flown airship R36, G-FAAF, even larger than the R33 with a gas capacity of 2,101,000 cubic feet, performed further duties for the police over the Ascot Races on June 14, 1921. Again this sortie was intended by the government as a means of creating interest in off-loading the airships into private hands. In comparison with the R33, the R36 was a far better proposition for the police duty in that it featured better accommodation. Modified to provide greater passenger space, the rear of the control car included a roomy section able to take some two dozen passengers in addition to the crew of 37, it was hoped that many more influential people would be in a position to push for the sale of the craft.

The sortie over the Ascot Races involved representatives of the three police forces adjoining the course, Surrey, Berkshire and London. Among the police observers sent aloft in the R36 were two senior Metropolitan Police officers from Scotland Yard; Assistant Commissioner Mr. Frank Elliott and Superintendent Arthur Ernest Bassom of the traffic department.

The R36 operation was formulated under similar constraints as those affecting the R33. The well-equipped airship base at Cardington was not used for this flight and R36 operated from a different airship station on this occasion, Pulham on the Suffolk coast. The day started well, but operating from this remote site, the subsequent operation was ultimately to be very taxing on crew and passengers alike.

Reports on the flight vary with the source. Some stories even tend to disagree with each other about the basic details. Some state that the day started at 0600hr, with the serving of breakfast at Pulham, but clearly neglect to account for the time taken to get to the remote east coast site. For approximately 20 members of the national press and an unknown number of men in the police observation team, boarding entailed a tiring climb up temporary ladders installed in the Pulham mooring mast at 0700hrs. The craft was loaded by scheduled cast-off time of 0730hrs and set off towards the west. R36 made good progress and arrived in the area of Staines by 1030am. At a leisurely 50mph, the cruising speed of the airship, traffic patrolling was neither frantic nor riveting for the passengers.



Shortly after lunch at midday, the 672 foot long craft set off south east for an appointment over the airport at Croydon, Surrey. The largely positive reports of many of the national news reporters, each facing a daily deadline, were bundled together and para-dropped onto the airport. Retrieved they were then taken to the news rooms of the national papers in Fleet Street for inclusion in the following days newspaper reports.

After 6 hours of precise time keeping by the flight crew, most of the authors of those early news reports had been lulled into an assumption that the flight would continue to meet its published 11 hour flight schedule and looked forward to returning to Suffolk at 1830hrs. The inexorable will of the weather ensured that all the fine words parachuted down upon Croydon at noon had turned into untruths by tea-time.



The parachute floating down on Croydon

The larg

The craft undertook a somewhat meandering return trip to the vicinity of Ascot and took up traffic observation duties as the crowds started to leave for home at 1600hrs. All this airborne time was beginning to tax the passengers. The situation was exacerbated by a general [and quite understandable] ban on tobacco smoking.

As the R36 headed east at the end of its working day, it found itself dogged by an adverse wind and unable to meet the pre-planned schedule. It was not until 2230hrs, four hours late, that the airship

finally docked at the Pulham mast and the weary passengers could finally make their way down the ladders after the 15 hour flight.

In spite of the fact that the majority of the news reports were incorrect, and of some assistance to the government cause, the truth got out and further harmed the few slender chances of disposing of the giant craft into civil ownership.

One important group that might assumed to have a major interest in proceedings remained quiet. The police - for whom the operation was ostensibly laid on - never made public its feelings on the advisability of using airships for traffic control work. They were hampered in expressing opinions by the spectre of a very strict Discipline Code.

Not greatly pressed by deadlines, the fullest reports on the traffic patrol flight undertaken by R36 were to appear in magazines published up to a week after the event, afforded the luxury of a full overview of the operation from end to end. These stories resulted in a differing opinion being expressed by reporters from the aeronautical magazines "Aeroplane" and "Flight". Both agreed the flight was boring but, whereas the reporter from "Flight" stated quite categorically that the crew of the airship had seen to his every wish, ensuring that he was well fed - in fact over-fed - on the trip; the "Aeroplane" gentleman was quite horrified by the thoughtlessness of the whole set up. The lack of refreshment, particularly food, allied to the extreme boredom adversely slanted the whole of his report. This type of negative reporting was the trademark of the then editor of the magazine, C G Grey. His contrary attitude to all aspects of aviation [particularly police aviation] appeared regularly in the pages under his editorial command. It was a strange attitude for a magazine expected to further the aims and aspirations of flying.

The R33 was brought back for a further attempt at traffic patrolling duties for the Metropolitan Police on the occasion of the annual Royal Air Force Pageant at RAF Hendon on July 21. An additional feature of the day was the appearance of the craft as part of the display, after it had undertaken the first part of its traffic control duties. At one time it was to be seen to be dramatically nosing its way through great clouds of smoke set off to simulate bombing missions by diminutive RAF aircraft, and later during other flying acts, found gyrating with participating aircraft at height.

Unfortunately the government's heavy subsidy of the three traffic control flights failed to stimulate any commercial interest, in spite of their relative success from the police viewpoint. The weather dogging two of the series, high costs and poor handling experienced aboard all three craft, ensured that the airships were not to see further use in the role. That November both R33 and R34 were placed in storage, joining R36 which had suffered damage in an accident shortly after the Ascot flight. The latter never re-appeared in the skies again. The R33 enjoyed a brief period of further military use later in the decade, prior to finally being broken up. The forward section of the control car from this airship is maintained as a museum exhibit with the RAF Museum, Hendon, North London.

The 1923 Derby Day Races, held on Wednesday June 6, marked the first fully documented Metropolitan Police use of a fixed wing aircraft on traffic duties.

For many years it was believed that a wireless equipped RAF Bristol F2B Fighter bi-plane undertook the trial. Eventually it was found that it was a large and unwieldy single engine civil transport called the Vickers Type 61 Vulcan employed to fly the police over the Epsom Downs.

The Vulcan bi-plane was an unsuccessful type offering a fully enclosed cabin accommodation to its 6-9 passengers. This was a rare luxury for the period, unfortunately this very attribute was little use in the observation role. The police officers inside the cabin were hemmed in by relatively small windows and a forest of struts and wires linking the bi-plane wings.

The 360hp Rolls Royce Eagle engine was insufficient power for the bulk of the Vulcan, leaving it under-powered and incapable of carrying its designed load of passengers to its intended destination, France. Less than a dozen Vulcan's were built, most of the purchasers sending them back to the manufacturer after a brief acquaintance. The blue and silver Vulcan the police used, G-EBBL, had originally served as the type prototype prior to service with Instone Airline Ltd. It first flew in early May 1922, was quickly tested, certified and delivered to the airline at Croydon. Carrying the name "City of Antwerp", it flew a number of return services on the Croydon - Paris route before it ran out of fuel and crashed near Tonbridge six weeks later. It was so badly damaged that it was returned to Vickers for repair. By the time it returned to Croydon in 1923 Instone's had withdrawn the other Vulcan's from service.

Clearly incapable of meeting its airline specification load, for police purposes connected with the 1923 Derby Day the Vulcan was capable of an adequate performance.

The head of B2 Traffic Department at Scotland Yard, 58 years old Superintendent Bassom, was taken aloft along with two police wireless operators and their equipment by Donald Robins the Instone pilot. The police team were in constant touch with Percy Laurie who was in charge of the control room at Epsom. Although it was not a primary player in the operation, Marconi made available the unique Marconi wireless car that was still undertaking experiments with message transmission on the move.

Superintendent Bassom, in charge of the Traffic Department from its 1921 formation, and his small team were in touch with the operators of the wireless sets fitted to the handful of Crossley Tenders normally operated by the first Serious Crime Squad later nicknamed "The Flying Squad".

Previously in service with the RAF, the newly acquired and Marconi wireless telegraphy [W/T] equipped vehicles, although often referred to as cars, were substantial lorries, some with metal bodies but others with a typical goods vehicle canvas tilt body. Both types were fitted with cumbersome folding aerial arrays on the roof. When erected, this

feature considerably increased the height of the vehicles, reducing overall mobility. The Epsom operation was undertaken in a static mode, with despatch riders undertaking to re-transmit instructions to traffic affected road junctions. These motor vehicles were the first clear indication of the use of motor vehicles by operational policemen in London. "Flying Squad" they may have been in their time, but the Crossley Tender was a real sluggard. All things are relative.



Crossley Tender

The aerial component of this operation, the Vulcan, suffered from the aforementioned poor observer visibility and a mediocre wireless performance. The pilot was placed high up and above the wings, giving him good all round vision, albeit restricted downwards. Blessed with a maximum speed of only about 105mph, sluggish and restricted in its banking capabilities, it was a type never designed for observation within the confines of the Epsom Racecourse. Bassom, it was said, was air sick. It was also rumoured that he thought the effort a failure.

Whether or not this event was indeed an additional flight to that mentioned by Laurie in later years or not we may never know. It is certain that he was involved in activities surrounding both the mythical 1920 and the actual 1923 flights. Perhaps the 1920 flight did take

place, perhaps this made use of a Bristol Fighter, this leading to the type erroneously being ascribed to the 1923 flight at a later date

The Metropolitan Police Commissioner's Annual Report for the year 1923 spoke highly of the trial's success. The fact that it was never repeated suggests quite the opposite. It is probable that the chosen type, the Vickers Vulcan, was the main mistake. As a failed airliner it is likely that it was offered at an attractive rate by Instone, much in the same manner as the police use of the airships. If a better type had been used in 1923 it is probable that the police would have stayed with fixed wing observation.

Prompted by a visit to the Derby, where he had witnessed the Vulcan aircraft circling above, Viscount Curzon tabled a question in Parliament on June 12, 1923. He enquired of the Parliamentary Secretary to the Transport Minister whether consideration had been given to the taking of aerial photographs of traffic flows in the Metropolitan Police area in order to identify trouble spots. The reply was to the effect that these were not required, the police already undertook such surveys from ground level to produce the same information.

A supplementary question, relating to the possible use by police of surplus photographic prints produced by the RAF in training was also brushed aside. The specific flight in 1921 to produce just such material was neatly side-stepped or, more likely, forgotten. Ten years later the police undertook photography specifically to provide just that information. As a result of this, and other, occasions where free access to military material might have been arranged, in early September 1931 Scotland Yard were enquiring of "Aerofilms", the commercial supplier, with a view to obtaining some photographs of the London area at the considerable cost, for the period, of 2gns [£2.10p] each. It is known that the separate City of London Police undertook business with the company two years earlier for a photo-mosaic of their "Square Mile" of territory. On the grounds of cost, the large scale acquisition of similar material for the whole of the MPD was out of the question.

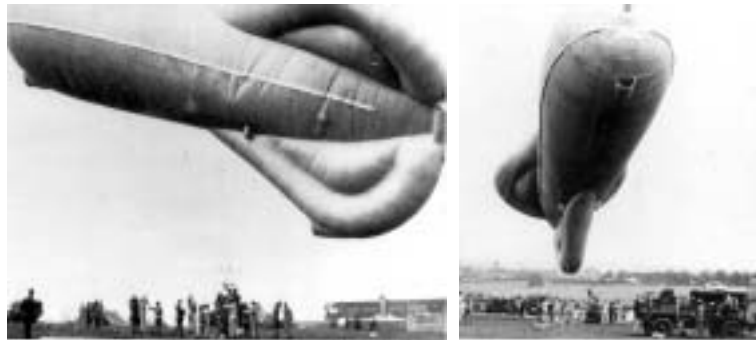
The Derby flights attracted the attention of other foreign police forces. In August 1923 there was a semi-official enquiry from Inspector (1st. Class) E W Beekman of the Rotterdam Municipality Police into British police aviators. Beekman's personal letter was treated with more than a little suspicion. In those unenlightened days the simplest of enquiries into the workings of police aviation, especially by a foreigner, tended to evoke a response which resumed the worst of motives. In this instance a brief reply was sent via Rotterdam Police Headquarters, a move undoubtedly intended to embarrass the officer.

Having flirted with airships in 1921, on June 4, 1924 a moored military gas filled "kite" observation balloon [another vestige of the Great War] was tried at Epsom. Serviced by a sizeable number of military personnel, the balloon was anchored to a military ground support vehicle parked within the race course over Buckles Gap, about half a mile from the grandstand. Destined to remain in army service for another ten years, it afforded a limited field of vision to the observer, who was then able to transmit to the ground via a clear telephone link. The resulting traffic control sightings for the police operation were

passed on by the now usual combination of Crossley Tender mounted W/T and despatch rider. The main observer, carried aloft in the relatively small wickerwork basket slung beneath the gas envelope, was again Arthur Bassom of the Traffic Department. It seems unlikely that he ventured up in the basket of the kite balloon alone, but no other party has ever been mentioned in relation to the flight.

The Commissioner for the Metropolis at that period was Brigadier General Sir William Horwood, GBE, KCB, DSO, a gentleman with army connections which would have extended to the free acquisition of the kite balloon from the military. Predictably, as with previous experiments, the Commissioner's Annual Report declared the experiment a success. Again rumour places doubt upon this as a correct assessment. The view from the basket was severely hampered by poor weather and the necessity of a fixed position. Even in good weather it is doubtful that the observer would have been able to clearly observe traffic flow all around the many roads feeding onto Epsom Downs from all points of the compass. As it was a light mist severely curtailed distant vision. To make matters worse, Bassom is again said to have been airsick.

In 1925 the local police chief requested the return of the kite balloon to Epsom. His request was denied and there was no aerial observation over the racecourse. In this and subsequent years the police relied upon the increasing reliability of the W/T in the Crossley Tenders, allied to an ex-army field telephone system and the despatch riders.



There was an understandable aversion to the police owning and operating unwieldy kite balloon's. The problems associated in training and maintaining police manpower for a once or twice a year operation were far too many. The effects of weather and the, not fully appreciated, dangers of the hydrogen filling the gas bag were further factors. The continued service life of this type of observation balloon was in any case limited, long replaced by aircraft, it was finally withdrawn from British Army service before 1939.

Superintendent Bassom never retired. Having joined the police as a constable in 1886 he did his very best to stay in the job he so loved. Although able to retire with a full 25-year pension in 1912 he had remained in post. Fellow senior officers held his unequalled knowledge of transportation, his knowledge of London was described as "encyclopaedic", in such esteem that they readily granted him promotion to the rank of Chief Constable in 1925. This was in order that he could thwart compulsory retirement for his rank at the age of

60. Like many others of his ilk, he was a typical workaholic, he failed to defeat the final arbiter of the passage of time.

He died, probably through overworking, in January 1926. he was probably one of the few truly indispensable police figures of his time. his knowledge of traffic management and the layout of the streets of Metropolitan London ensured that his opinion carried great weight at Scotland Yard. Fortunately, before his death, he managed to pass some of his knowledge to police and civil staff in his department.

For a few years the police in Britain effectively turned their backs upon the further active development of police aviation, temporarily leaving further progress to the police in other countries.

Even as this meagre activity had been taking place in the UK a blind eye was being cast in the direction of Germany and Austria. Flying in the face of an edict from the Allies through the Treaty of Versailles, the German police were continuing to fly their war surplus aircraft. Although exact figures are unavailable, there were large numbers of aircraft from the former German Air Corps saved from the bonfires of destruction in 1919.

According to surviving figures, and in spite of an unknown number of crashes in the ensuing five years of peace, in January 1924 the German police had three Flugzeuge, or air squadrons, operating up to 27 machines of Great War vintage. The types employed included the Albatross CIII, Halbestadt CV and LVG CV two seat types, supplemented by nine Albatross DIII and Fokker DVII fighters and two giant Friedrichshafen GIII bombers. The German Police model air arm had, it appears, taken the theme of the abortive British Aerial Police to heart - even to the extent that the large multi-engine bombers were included. The Germans were also involved in air traffic control matters. In a typically Teutonic manner their police involvement in this area was wholehearted when compared with the short lived British version.

The prime reason for the continued existence of the German police air unit lay in the secrecy surrounding it. With most areas of German aviation prohibited by other nations, the police unit became one of the ruses employed to ensure that a civil core for a future Luftwaffe was in being. The other, more extensive, ruses included the undertaking of pilot training in foreign countries, glider schools and the Lufthansa airline. In 1933 the most of the pretence was finally dropped and the world was introduced to a Luftwaffe born from a number of the police units, flying clubs and glider schools. Increasingly equipped with second line military types, a number of the police units remained in the original role and survived into the war years.

Whereas the hierarchy of the British police were clearly taking a rest from exploiting the possibilities of aviation in 1926, one young and far from influential officer in the County of Lancashire was quietly making use of its speed to suit his own ends.

Like his father before him, twenty year old Francis McKenna was a member of the small Blackpool City police force. In 1926 Frank was detailed to travel to the Isle of Man to collect a prisoner. He was not

well pleased as this instruction coincided with the holding of a major FA Cup-tie at the Bloomfield Road ground of the local Blackpool Town Football Club.

Unable to stall the move for a day to overcome a mighty inconvenience, Frank took a deep breath and took himself to Squires Gate the modest flying field that then served Blackpool as an airport, as it does now. In an unprecedented move for a British policeman, Frank flew across the Irish Sea the sixty or so miles to the Isle of Man, collected his man and returned to the mainland in record time. The prisoner was safely tucked away in the Blackpool cells long before the important 2.30pm kick off. Unfortunately he was spotted at the match by an inspector who was well aware that by rights the young officer should be standing at the deck rail of a steamer heading slowly westward.

Fortunately no one in the police had foreseen the possibility that anyone would choose to travel by air in such a manner, so the only point of contention was the cost of the exercise. It was eventually acknowledged that the cost of his return journey by air was less than that of a return sea voyage and overnight stay on the island.

In later years Frank McKenna left the police and joined the RAF to fly as an engineer in Lancaster bombers. As a Squadron Leader, he was sent off after VE Day on a successful mission to trace members of the Nazi Gestapo accused of killing British prisoners of war. He finally returned to the Blackpool Police in sufficient time to ensure that he could collect his police pension, due in 1949.

On Christmas Eve, December 24, 1927 there had been some unseasonable thefts of petrol and supplies in and around Camooweal, in the west of Queensland, Australia. This out of hours shopping activity culminated in the theft of a car. The police were called in and the last known direction of the stolen car reported. A QANTAS aircraft, probably one of the four seat DH50As then operated by the airline, was ordered from Cloncurry, Queensland. Powered by a single 230hp Siddeley Puma engine, the de Havilland DH50 was a bi-plane four seat type of 1923 vintage. Nine examples of a slightly longer, more spacious model, the DH50A was ordered for service with QANTAS. The first machine G-EBIW/G-AUER appeared with the airline at Cloncurry late in 1924. From May 1928 it provided the first Australian "Flying Doctor" service. QANTAS was an airline destined to grow to national carrier status, but in 1927 it was a small State of Queensland airline.

Back in Camooweal, some three hours after the request went out, the aircraft arrived piloted by Capt. Arthur H Affleck, picked up the local police sergeant and the car owner and set course for Headingly Station. The trio flew the 100 miles to arrive in the afternoon. At this point, the armed Affleck, the sergeant and the car owner hired a car and left the aircraft, setting off into an unfamiliar landscape to pursue the thieves.

The trio eventually apprehended four fugitives with the missing car at Lake Nash in Northern Territory. When the identity of the location was discovered the four had to be released as it was out of the Queensland Police Jurisdiction. Having at least retrieved the car, the four were left

to their own devices as the pursuers set off back to neighbouring Queensland. Fortunately the nearest water lay inside Queensland and, in seeking the chance to drink, the thieves were duly arrested the following day. Although the pursuing aircraft was not used in the actual arrest of this party of car thieves, and was eclipsed in that it took place long after similar efforts on other continents, it remains a first such event recorded in Australasia.

Coincidentally, in a similar, transportation, type of police usage, during February 1928 Sir William Horwood, in the year of his retirement, discussed with Imperial Airways the chartering of aircraft as a means of conveying Criminal Investigation Department [CID] officers to important British provincial crime cases. In that period calling in "the man from the 'Yard'" was a common addition to the investigative manpower of the other forces in the UK. The idea of aircraft charters was not long lived; suggestions that costs would be about eight times that of rail travel effectively quashed the proposal in being "unduly extravagant". One of the types offered by Imperial Airways was the DH50.

Operating at a very low key, the part time NYPD flying operations continued throughout the 1920s. Some small changes had taken place by 1924. According to the New York Times in August of that year, the forty-eight members then enrolled had given up their light blue uniform and were now equipped with a garb of dark blue, similar to that worn by the regular police. Under the leadership of Inspector General Charles H McKinney, the patrol area for this force was bounded by Norton's Point, Sandy Hook and Staten Island, with the flying base at the southernmost point of this area, Fort Hamilton.

The assistance of Admiral Plunkett, USN, had allowed the police reservists to make use of four aircraft at the weekends, pilots of the Naval Reserve under Captain Henrahan, USN, also being allocated. In spite of these resources, the primary aim of this unit remained that of instruction rather than specific law enforcement operations. In the Times report it was claimed that the first ever instance of an errant aviator being prosecuted for low flying took place on Saturday July 26, 1924. This claim, if true, suggests that this aviation unit was extremely laid back - one such case in 5 years! Because many are unaware of the police flying activity in New York from 1918, a state of affairs led by a reticence to place great store by a part-time unpaid formation, there remain conflicting claims for the first police air operation in the USA. This state of affairs was clearly exacerbated by a clear lack of results.

At the end of the 1920s, an increasing sense of annoyance was expressed at continual nuisance caused by reckless and incompetent flyers. These barnstorming aviators were treating the population of the *Big Apple* as a captive audience to whom they could show off at will. Eight deaths and twenty one injuries had been caused. Faced with complaints from the people of New York, the hierarchy in the NYPD were clearly unhappy with the casual service rendered by the existing part time air service in the city, presumably their restricted hours of availability only exacerbated the situation.

The Police Commissioner proposed making the registration of aircraft with the Police Department mandatory, but many pointed out that this

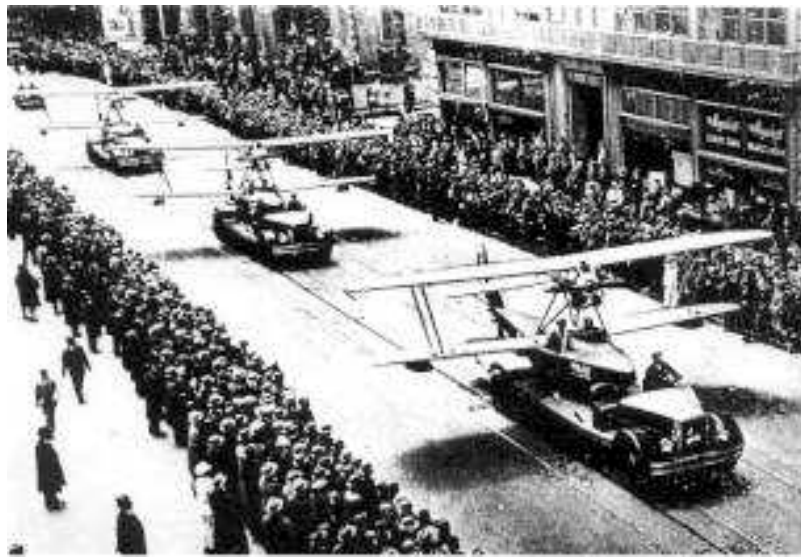
would be unworkable with aircraft travelling so fast that they would be virtually unobservable, travelling in and out of his police area in a matter of minutes. Beyond the police reserve aircraft, other aircraft were already in ad-hoc use in New York. Early in 1930 an unmarked machine believed to have been a Loening, was used by a party of regular police officers in a protracted search and detain operation involving a tug steaming south from Connecticut to the Cape Cod Canal, New York. The captain of this vessel was arrested by the amphibian in the calm waters of the Cape Cod Canal, the first time this was said to have occurred in the history of NYPD flying.

As if the previous, well publicised, unit had never existed, on October 24, 1929 the Police Commissioner of the NYPD, Grover Whalen, unilaterally created what was believed to be "the first police air service in the world". The disregard of its forebear can only be explained by acknowledging a deep rooted dislike of unpaid police reserves by regular officers. It also neatly ignored the situation in mainland Europe.

The new creation did not become fully operational until March 28 the following year. The new NYPD Air Service Division was initially staffed by 12 pilots and 24 mechanics, it being laid down that fully qualified regular police officers would undertake all major tasks. The strength of the unit remained fairly constant at this level for many years.

The first aircraft were three single engine Savoia-Marchetti S-56 flying boats, these supplemented by a single Loening Commuter of similar specification. Each of the flying boat aircraft was built in New York State and reflected current USN and Coast Guard thinking of the time. All was not water-borne however, New York did operate a single Fleet two-seat bi-plane.

The unit base was the Glenn H Curtiss Airport at North Beach. As a publicity exercise to present them to local tax payers, the three S-56 were paraded through the city on the backs of lorries in June 1930. The arrival of this unit was hailed as an immediate success and the majority of free air shows ceased immediately. There remained a widespread problem with rogue elements of aviation in the United States. Most of it was set for solution at the door of the State and Federal legislature, but many areas were still lagging behind. As was already clear, in the meantime it was the police that were presented with finding day to day solutions.



The other long time US claimant to the creation of the first police air unit was the office of the Los Angeles County Sheriff, California. The original Sheriff's Aero Squadron, was initially formed on September 27, 1926 when the first five volunteer pilots were sworn in as Deputy Air Sheriff's by Sheriff William I. Traeger at Aero Corporation Airport in Los Angeles. The oath of deputy sheriff was administered to Paul E. Richter, Jr., W. Jack Frye, Monte Edwards, Walter A. Hamilton and Lee Wiley, following an inspection of their aircraft and equipment by the sheriff. After the ceremony, the newly deputised Air Sheriff's along with Sheriff Traeger, took-off in formation with the *Alexander Eagle-rock*, the Sheriff's official plane in the lead. The flight executed several maneuvers demonstrating how they expected to pursue and apprehend fugitives with the aid of other deputies pursuing in automobiles and on horseback.

In the Autumn of 1929, The Secretary, Aviation Section, Commonwealth Club of California, wrote to the Air Ministry in London inquiring into information about the arrangements in Britain "as regards Air Police". Seeking an authoritative answer, the enquiry crossed Whitehall and found its way to the Metropolitan Police at New Scotland Yard. The request fell upon the desk of the B2 Traffic department aviation expert for a reply. Sidney J Chamberlain DFC, a 33 year old ex-RNAS and RAF Great War bomber pilot, had been working with the police traffic department on a variety of air projects in the decade since the war as one of the protégé's of the late Chief Constable Bassom. Employed in a civilian capacity, Chamberlain's duties included involvement in the aerodrome licensing scheme, various airline experiments flying aircraft from the River Thames at Westminster, London, and a variety of often ill thought out aerial advertising schemes. It was he that had been given the task of sending the embarrassing reply to the Rotterdam police inspector in 1923. Sidney Chamberlain was destined to take a leading role in British police aviation over the next thirty years.

Chamberlain's dealings with the Californian matter resulted in correspondence ensuing between himself and the Air Ministry, enabling the latter to formulate a suitable reply. Disregarding the inclination towards secrecy, the moribund state of British police aviation at that time can have resulted in little useful information passing to the US West Coast.

At that stage the existing LACS operation was expanded - apparently aided by enquiries such as the one to London. The Sheriff, Eugene Biscailuz, ordered the creation of an "Aero Detail" to seek to enforce a new California Air Navigation Act. Claude E Morgan, a former wartime flyer and a Major in the United States Aviation Reserve Corps, as well as Deputy Sheriff, was assigned the task of putting this idea with form into operation. There had been no similar venture attempted before by a US Sheriff's Office and there were to be no funds available. Fortunately he managed to find several aircraft owning civilians willing to assist him in his task, he was to become the first Captain of the Sheriff's Airplane Detail. Originally intended to investigate thefts and other crimes connected with the air industry, this small band expanded its duties to include occasionally undertaking flights in support of

search and rescue needs. What Morgan had been set to form was not new, except perhaps for a Sheriff's Office in California, it was just a variation on the New York operations commenced in 1918.

Where the new Los Angeles operation differed was in that it worked far more efficiently, a factor that aided its medium term longevity. Operations undertaken included search and rescue in the extensive area the Sheriff's Department was responsible for. It was just such a mission, damage reporting when over-flying an earthquake which devastated parts of Long Beach during March 1933, that led to the initial arrangement being placed on a more substantive footing. In June 1933, whilst still a volunteer based operation, it was given a greater degree of permanence by the creation of a core unit consisting of 25 aircraft designated "The Sheriff's Aero Squadron". This unit had regular Sheriff's officers assigned to it. The group continued to grow until at one time it could call upon some 100 private pilots, a feat that was not too difficult to achieve in an area blessed with more than 500 registered aircraft flying from 55 pre-war airfields.

In the same period the City of Los Angeles Police, devoid of its own air unit, recruited members of the Women's Air Reserve [WAR] as auxiliary police officers. This, like its New York forebear, was very much a part-time voluntary effort and exhibited many of the drawbacks eventually accepted as causing the demise of the East Coast operation.

A WAR member, Mary Charles, arranged with the Chief of Police James E Davis for five fellow members to be taken on as honorary aero policewomen around 1931. Presented with police badges and identity cards the five were allowed to use the Police Academy shooting ranges for target practice. On Sundays, the WAR enjoyed the use of three Fleet aircraft for a variety of exercises primarily designed to train them for improved flying skills and emergency procedures that might stand them in good stead in time of war. History has not recorded any direct involvement by them in police air support related activities.

On July 11, 1929 the British Aeronautical magazine "Flight" announced that the French Prefect of Police, M Chiappe, had stated that an "Air Police Force" would be formed. This development created a great deal of media interest until it was realised that this apparent further European lead in police aeronautics was not all it seemed. It transpired that M Chiappe's announcement was intended to convey the formation of a squad of wireless air waves snoopers tasked with the detection of persistent secret messages being sent on the short wavelength. In the light of the war a decade later, this appears to have been a well founded form of paranoia, later associated in the USA with McCarthyism. In spite of the impression given by the title, it was not police aviation.

It is unlikely that the same can be said of a projected police air arm in Argentina. In October 1930 this police unit, centred upon the capital Buenos Aires, was announced but little is known of its size, equipment or longevity.

Throughout the majority of the 1920s in the UK the Essex based Marconi Company had striven to improve its products, the natural

successors of the equipment pioneered by the man who invented the equipment. The company continued the research of speech transmission with the intention of marketing a useable system for civil and military use as soon as practicable. Whereas police experiments with aircraft were largely dormant, a number of police employees were directly involved with the efforts of Marconi. Efforts that were to eventually produce equipment useful to the police.

One such police employee was Harold Charles Kenworthy, a man who was to police wireless what Bassom had reputedly been to roads. Initially on loan from the Marconi Company, it was he who had coaxed the Metropolitan Police into the efficient use of wireless, setting up initial static equipment in New Scotland Yard and then working "hands on" with the conversion of the Crossley Tenders. By 1929 he had become a civil employee of the police. He formed the prime link between the police force and his previous employer during the early trials, his past connection with them leading to a number of free loans of equipment.

Harold Kenworthy was invited to witness the demonstration of an early version of airborne facsimile transmission [FAX] equipment at Croydon and Chelmsford. On September 18, 1930, a select gathering of police and military arrived at Croydon, south of London, to inspect the trial aircraft. At this period Marconi had the use of an ex-military Bristol F2B Fighter G-EBIO at Croydon for a variety of trial installations. Owned by the Aircraft Disposal Company, the Bristol was their Croydon based demonstrator aircraft when not undertaking trials for Marconi equipment. Most of the visitors were allowed to provide their own illustration or script on specially treated paper for the crew of the Bristol to transmit. The business at Croydon finalised, Marconi then transported the viewing party by rail to Headquarters at Broomfield, Chelmsford, Essex, to witness the quality of the subsequent airborne FAX transmission.

Based on the wireless telegraph and the special paper, the image was "read" by a tuning fork arrangement. Kenworthy chose to give the flight crew a simple drawing of one of the Crossley Tenders with the words "The police van as seen in London & other places" beneath it.



Though crude, the equipment worked very well, and the airborne Bristol transmitted the selection of prepared images across the southern and eastern parts of suburban London, almost 40 miles to Chelmsford. An almost perfect example of Kenworthy's image was picked up. The only distortion being to the upper portion of the picture. Bearing in mind that this was 1930 it was a truly remarkable feat.

A similar trial facsimile transmission was shown to officials at New Scotland Yard. This being set up to send photographs within the building. The great cost, £2,000 even then, tempered any positive reaction to the equipment. It is an historic fact that Marconi never did develop their FAX equipment very far, presumably due to the war as well as the cost. No company files survive and, the only surviving written reference to the airborne test is a brief mention, the treated paper image and the received picture, in a police file. The rest was left to post war technology and the needs of the Japanese people.

CHAPTER TWO

The Thirties

There never was to be any substantial British lead in the advancement of police aircraft use at this or any other period in time. The possibility of the UK re-examining the uses of aerial observation was not completely forgotten in the late 1920s, but even the most promising moves came to naught. As the 1920s closed the Metropolitan Police Commissioner was General the Right Honourable the Viscount Byng of Vimy, GCB, GCMG, MVO, LL. D. This Commissioner was approaching the end of his tenure by the time he wrote that he was in contact with "someone quite well known in the aviation field", with a view to further advance police aviation in London by the creation of some form of police aviation section. Unfortunately, like so many ideas of this period, this scheme was abandoned and the true identity of the mystery figure was never made known.

In complete contrast, the 1930s Metropolitan Police, London, was perceived to be a very air minded police force, a state of affairs reinforced by the fact that in the early part of the decade the Commissioner of Police for the Metropolis, replacing Byng, was the former Marshall of the Royal Air Force,



The Lord Trenchard GCB, DSO, DCI, LL. D.

The Lord Trenchard served as the head of the London police from 1931 to 1935, bringing about many changes including a request that some of his previous RAF aides should be brought in to assist him at New Scotland Yard.

He is remembered for his period in the police service mainly for a status based upon his prior activity in the RAF. As yet another military man, it is doubtful that he ever understood the majority of the policemen serving under him, for theirs was an occupation typified by individuality rather than the general concept of mass obedience and action in the military.

A major change Trenchard did bring with him was to bring about a brief change in the fortunes of police aviation in the United Kingdom - this being primarily served by the ability of his status to attract the aeronautical equivalent of the complimentary ticket.

Late in 1931 another of the then still quite plentiful aircraft companies sent a representative to raise a glimmer of interest in the gloomy corridors of New Scotland Yard. Miss Joan Page of the Redwing Aircraft Co. Ltd., came with a suggestion that a (Metropolitan) Police Flying Club might be set up using facilities already available to the proposer. The timing of the visit was badly judged. Newly in office, and still finding his footing, although enthusiastic, Trenchard considered that any moves on his part to propose that junior officers spend some of their lesser earnings on flying would not be politic. This view was reinforced by the then current cuts in police pay brought about in response to the dire state of the business economy.

The proposal brought to the police hierarchy by Miss Page was in itself quite affordable. Based on 1,500 members, each paying 6d (2.5p) weekly, it was projected that members would be able to gain a pilots licence for only £5.10s.0d each, the equivalent of a constable's weekly wage. Redwing Aircraft, a small company from Croydon, south of London, built a few light training aeroplanes of their own design before fading from view.

Someone in the same field, possibly Miss Page of Redwing again, led five constables stationed on the "D" Division in Central London to propose an almost identical scheme to senior officers in November 1931. Among the additional aspects included in this new version was a claimed bonus whereby, in a period when the use of motor vehicles remained a relative novelty, police might gain a greater number of trained road vehicle drivers at no cost to the exchequer.

With the flying club idea now being proposed from the "shop floor" as it were, the Commissioner and other senior ranks at Scotland Yard felt themselves able to fully investigate the possibilities of this Metropolitan Police Flying and Motor Club. It was a drawn out process, but popular, it being claimed that more than 3,000 officers and civil staff had declared support by August 1935.

The primary obstacle highlighted was that it was unlikely that the Air Ministry would provide the £25 subsidy for trained police reserve

pilots, as they did civil flying clubs. The money was designed to create a body of trained pilots that might be called upon in time of war. At that stage there was a strong, but ultimately flawed, belief that police officers would not be called up to serve in the RAF in case of war. Without such a subsidy it was thought that the membership and flight cost figures quoted would no longer be adequate. Primarily due to this factor the enquiry fizzled out in November 1937.

The Redwing proposals were not in themselves defective, and readily found favour in other areas, with other groups. The employees of the predecessor of London Transport, The London General Omnibus Company [LGOC] were presented with a similar deal based upon 6d [2.5p] a week in 1931. In this case they set up a highly successful LGOC Flying Club at Broxbourne Airfield, Nazeing, Essex, initially with a Redwing aircraft. Party assisted by the RAF subsidy the bus company employees, some one thousand members, were able to learn to fly for 20% of the usual cost.

It was the emergence of the Cierva Autogyro as a viable demonstration of rotary wing supported flight, the autogyro, that again brought the police in London to the forefront of police aviation development.

The key figure in the perfection of rotary wing flight was the Spaniard Juan de la Cierva. The machine that he invented and patented as the Autogyro was then known as a gyroplane. Influenced by Cierva's patent name we now know it as the autogyro. Often assumed by laymen to be a form of helicopter, it was in many ways just one highly important stage in the development of the ultimate - vertical take-off and landing and hovering.

In this type of machine, the lifting rotor, the visible hallmark of the vertical lift helicopter, is un-powered. In the autogyro, lift is generated by the freely windmilling rotor as an engine powers a conventional propeller to drive it through the air. Even in its developed form, later examples could not perform all the manoeuvres associated with its cousin the helicopter. A vertical "jump" take off was eventually achieved, and a vertical landing was reasonably easy. There was no ability to hover, without the availability of a powered directional control, such as a tail rotor, the type required the maintenance of a measure of forward speed, at least 25mph, to enable the pilot to retain control at all times. One area where the autogyro was to excel in comparison with the helicopter was safety. In its heyday it was claimed that the technology offered the safest form of air travel. Minor accidents have occurred with this form of air travel, but generally the claim has never been seriously disputed. The common point of mechanical failure of both types lay in the loss of the main rotor, whereas the helicopter might fail on numerous addition areas such as engines, gearbox and tail rotor.

The Cierva Company originated in Spain with early examples of the concept being built there from 1920. The major advances in rotor technology that were to prove the viability of the concept were developed in his home country. It had proven relatively simple to design a craft with vertical lift but, fitted with rigid rotors, these

designs did not work efficiently in forward flight. As they rotate under horizontal motion the rotor blades travel at different speeds and need different angles of attack when advancing or retreating in the rotor arc. In his design of 1922 Cierva was the first to allow the rotor blades to flap freely and therefore naturally find their optimum angle of attack throughout.

In seeking a wider market for his craft, in 1925, Cierva moved to set up his business in Britain. The Cierva Company remained small and primarily based at a grass airstrip at Hanworth, west of London. This airfield was known by a variety of names, including Feltham and The London Air Park. It still exists as open space.

Cierva did not seek to manufacture his own aircraft in quantity at Hanworth, most were to be built elsewhere, many under licence by the giant Avro Aircraft. The whole concept of this pre-helicopter design was new and evolving, as a result the Hanworth site housed the main activities of the company, design, development and the Cierva Autogyro Flying School.

Sensing that the time and the product were right for an onslaught on the yet to be defined police market, Cierva sent details of the performance of his patented Autogyro to the Criminal Investigation Department [CID] at New Scotland Yard in 1931. Although the CID were not themselves impressed, their rejection did not stop the correspondence reaching another section, this group quickly showing interest. The B, Traffic, Department corresponded with the Cierva factory and this led to the employment of a Cierva C.19 Mark IV Autogyro for traffic control duties at the 1932 Derby Day Races.

The Cierva C19 Mark IV was a low wing, single engine, two seat machine with a 34 foot, freewheeling rotor which featured the articulated blades. The 105hp Armstrong Siddeley Genet radial engine was capable of taking the autogyro to a maximum speed of 105mph, although the types ability to almost hover at a speed of 25mph was of far greater value in police patrol. The position of the observer's cockpit was the prime drawback of the design. Whereas the pilot enjoyed a relatively clear all round view from the rear seat, the observer did not. The forward position was surrounded by four thick pillars supporting the rotor assembly and further hemmed in by the presence of a substantial wing directly below this cockpit space. In this model the wing was an integral part of the design's ability to fly. The type could fly slowly with little difficulty, but vision was restricted to the front and rear quarters. The use of airborne cameras -and therefore wider use by police - was to be held back until the arrival of an improved, wingless, model in 1934. In spite of these restrictions, many only apparent in retrospect, the C19 offered excellent prospects for police air observation.

The Traffic Department may have picked up the lead from Cierva, but it was to be Trenchard who set the wheels turning and became the force behind all the subsequent experiments. On February 16th. 1932 he wrote to an assistant commissioner:-

"I would like you to go into the possibilities of sending up an officer as observer in one of these [autogyro] machines for traffic control

purposes. Not, I think, on the occasion of the Royal Air Force Display at Hendon, as it might get in the way of the aeroplanes taking part in the very complicated manoeuvres that take place ... I think the experiment might be tried well away from the racecourse at Epsom, during Derby week in order to find out what use could be made of these machines from the traffic control point of view"

The two seat autogyro was crewed by a pair of police employees. Acting as pilot was to be Flight Lieutenant Ralph Eric Herbert Allen, AMIAE, MIAeE, RAFO, a 40 year old active pilot in the Reserve since 1928, and employed by the police as Assistant Engineer to the Receiver. By the terms of a Cierva proposal of April 8, Allen was originally intended to act as observer to the manufacturers pilot. With him elevated to the flying the autogyro, it fell to Sidney Chamberlain of B2 to take over the observer role. It was Sidney who had first correctly highlighted the possibility that Cierva might be persuaded to loan the C19 as an advertising ploy. It was timely given advice.

Allen took up the flying task with very few hours on the type - merely a short course of instruction which had included half an hour dual instruction in another C19 mark IV, G-ABUC, on May 29. This was only the second experience he had of the new generation of flying machine. The previous December he had briefly flown in one of them as a passenger. This sparse type introduction of what was undoubtedly a major diversification in flying skills indicates both the high quality of Allen as a pilot and of the less stringent requirements of the time. After two days of flying, G-ABUD, the machine loaned for the Derby Day flying, he was in command of the valuable machine and operating it for lengthy periods over the Epsom Downs.

As predicted by Sidney Chamberlain, the Cierva chosen for this historic flight was loaned to the police without charge. Although used for a significant number of hours, with training, familiarisation and operational time accrued, the only assessment made was to cover insurance and for the hire of the Marconi Wireless Telegraph Co., wireless used by the observer. Marconi only charged £10 for the hire of their wireless set, they again saw themselves reaping other marketing benefit from the police use. The same, less understandable, lack of financial return beset the General Post Office [GPO] and the Air Ministry. Neither made charges for licensing and approving the new equipment. In spite of the considerable saving made, there were still a few in New Scotland Yard who disputed the cost and advisability of the insurance premium charged for underwriting the well being of Allen and Chamberlain.



Chamberlain [left] and Allen



The heavy wireless in use, two substantial valve filled boxes with a weight of a little over 65 lbs., required a special Certificate of Airworthiness [CoA] for low flying and over-loading. With the modified Marconi AD22 and SP3 man portable sets installed in the forward cockpit area, Chamberlain was able to pass and receive speech transmissions. It is believed that he rarely chose to operate morse, although a number of other police employees did. This early set featured a reduced transmission range, a characteristic intended to diminish the likelihood of interference over any great distances. Expecting that the signals would be poor, it was arranged that the

autogyro would transmit to its own special Radio Telephony [R/T] van, another freely provided facility from Marconi. This veteran of many voice transmission experiments was suitably placed beside the police Crossley Tenders on the Epsom turf. The results of the transmission were then to be passed on to the officers in the police vehicles and sent off to road control points by means of the dispatch riders or by morse to other wireless receivers by the stronger, clearer, transmissions of Wireless Telegraphy [W/T].

Unfortunately, on the day practice proved that far from being instant, speech transmissions under operational conditions were somewhat slower than the morse transmissions of experts. In addition it was found that in spite of the elaborate precautions, the speech transmissions were indeed interfering with the signals from the ground based W/T sets. The problem was quickly overcome, but not before the operators had managed to produce a range of moans about "new fangled things".

The autogyro was intended to cover a two hour period during which the crowd assembled, followed by a similar period as the race-goers left after the last race of the day. Arriving at Croydon at just before 1045hrs, after a short flight from Hanworth, it waited an hour before starting operations at 1140hrs because of slight mist.

In line with the "well clear" suggestion made by Trenchard, the crew planned to patrol a 17 miles elliptical course around the Downs with the major portion to the north, or London, side. In practice this ellipse was reduced to 12 miles; the novel new type of machine proving far more nimble than the planning had allowed for. Still, it was not possible to approach close to the racecourse either before or during the races, the nearest pass being about one mile south of the Grandstand. Sightings by the observer were recorded in coloured ink on a number of maps. To assist the subsequent debriefing, these maps were changed every fifteen minutes. A variety of messages were sent off reporting traffic conditions in the mist shrouded approaches.

Chamberlain became air sick at about 1250hrs. This debilitation grew so bad that the machine had to return to Croydon to let the observer recover during an early refuelling break. This unavoidable incident caused them to miss providing air cover to the arrival of the Royal Party attending the course. With Chamberlain still unwell after the completion of the refuelling, the remaining 20 minutes observation of the morning session was undertaken by Mr. Whistlecroft, the resident engineer from the Marconi station at Croydon.

The police observer had recovered from his unexplained bout of sickness by 1640hrs, the take-off time for the evening session. The autogyro was on station near Epsom at 1700hrs as the first of the race-goers started to make an early exit to avoid the worst of the subsequent traffic jams. Within half an hour the main body of the homeward bound crowds had brought the road to a virtual halt. After an intensive period of traffic spotting, and regardless of the still busy roadways, the police machine was forced to return to Croydon by a

diminishing fuel supply. After a little over two hours aloft, they landed at 1845hrs.

Some newspapers excelled themselves in a penchant for adventurous reporting of this historic first operational use of the autogyro in police work. A series of fanciful descriptions appeared in print as the more adventurous reporters let rip with their imaginations. The "Evening Standard" on June 1 saw fit to report that the autogyro was fitted with a giant "spy glass" in its floor. This fantastic device was fitted to enable the crew to focus upon an equally outsize rendition of the Royal coat of arms adorning the roof of the King's car. This apparition disregarded the existing problems that were already being created by the weight penalties associated with the carriage of the wireless. Such a large glass lens would have weighed hundreds of pounds. It and the roof markings were pure imagination.

Other newspapers reported graphically upon a period of excitement supposedly entering the proceedings towards the end of the day. The report claimed that the customary presence of a large number of the gypsy fraternity erupted into violence between rival factions at the close of the racing. The crew of the police machine were able to alert ground based units to the fighting, and an old fashioned baton charge by mounted and foot officers quickly quelled the disturbance and affected a number of arrests. Whether this skirmish reached the levels of riot reported subsequently reported is debatable, the whole incident certainly received no attention whatsoever in Chamberlain's subsequent report on the flight.

The long overdue re-birth of police flying interest in the UK in 1932 was not confined to the Metropolitan Police. A few days after the Epsom Races, on June 18, the small, 224 man, Leicestershire Police briefly acquired the use of a de Havilland Moth from Ratcliffe, the private airfield owned by Mr. Lindsay Everard MP. This effected the first recorded UK use of an aircraft for crime detection rather than traffic control.

The Chief Constable of the County of Leicestershire, 42 year old Captain Cecil E Lynch-Blosse, was a member of the local Leicestershire Flying Club. It was therefore relatively easy for Superintendent W C Rigby to approach them and obtain the use of an aircraft on loan when the need unexpectedly arose that day. Lynch-Blosse was a man with extensive personal experience of flying, leading to numerous experiments in police flying and a consequent wish that he remained in touch with all aspects of police aviation during his tenure of the post [1928-49]. The area was policed by two forces, the City of Leicester and the County of Leicester. Both were small, each with around 250 men in comparison with the 20,000 men with the Metropolitan Police. Although often having to make do with the crumbs from the larger force's table, Lynch-Blosse's enthusiasm often placed his force in the forefront of technology.

On this occasion, open countryside between Hinckley and Desford was searched from the air by this borrowed aircraft after two men were disturbed breaking into a factory at Earl Shilton. Although the other was never seen by the crew of the Moth, one of the men was

arrested after running out of woodland whilst the circling aircraft was present. He was subsequently sentenced to 21 months hard labour for the factory breaking, a salutary lesson for such a foolhardy dash. The use of the aircraft was not proclaimed as the principal reason for the arrest by the police, however it was not a point missed by the press and the incident received a good measure of immediate publicity. Leicester cannot lay claim to any first use in the detection of crime other than in the UK, across the globe there were many prior examples.

For example, two months earlier in New South Wales, Australia, on April 16, 1932 the local police employed two men, Littlejohn and McKeachnie, to go aloft in a similar Moth aircraft on crime detection duties. On this occasion the search for the fugitive, flown over the Moorebank area to the west of Bankstown, failed to result in any arrests. It may have been a first on that continent - although it seems unlikely - but it was overshadowed by many other incidents.

Back in Britain, on the same day as the Leicester search and arrest, National Flying Services [NFS], a commercial neighbour of Cierva's at Hanworth, wrote to New Scotland Yard informing them of a forthcoming visit by the German airship "Graf Zeppelin" to Hanworth. The visit was scheduled to take place on Saturday and Sunday, July 2 and 3. NFS offered the police free use of an autogyro to assist them in traffic and crowd control at what was fully expected to be a very popular event. The police were initially interested, but when it became clear that the machine was not being offered with a wireless installed (undoubtedly due to cost and airworthiness considerations) the loan was declined. The traffic control operation was left wholly to ground units who dealt admirably with the event.

The scheduled day of arrival for the giant airship, the Saturday, was made up of aircraft displays of a conventional kind, displays primarily designed to entertain the thousands making up the waiting crowds, a number of whom were to be employed in handling the craft.

Accompanied by the equally interesting Junkers G.38 "flying wing" airliner, the giant airship arrived overhead the west London airfield late in the afternoon. Following an over flight and short journey towards Brooklands it returned to take on passengers. Although the giant airship settled over Hanworth with no difficulty in good weather it displayed the innate problem of all airships in requiring a handling party of some 200 Middlesex Rover Scouts, and others, to grasp the handling ropes and steady and anchor it for what was only a short stay.

After changing passengers, the airship left Hanworth for a cruise around England, paying a first visit to the newly-opened Municipal aerodrome at Portsmouth. The rest of the cruise included a flight up the east coast toward Scotland during the Saturday night, and returning to Hanworth via Edinburgh, Glasgow, Liverpool and the Severn Estuary the following day. After a London sightseeing trip "Graf Zeppelin" returned to Hanworth to again change passengers before finally setting off on its return to Germany on the Sunday evening.

A few years later, NFS submitted another unsuccessful proposal to the Metropolitan Police. On this later occasion it was proposed that the company might train police officers as pilots. Along with a number of other similar proposals put forward over the decades, this was investigated by the police at some length. Although an acceptable option in many other countries, each such proposal was rejected on the assumption that any police officer so trained was liable to leave the service for the considerably enhanced pilots remuneration elsewhere.

Ignored since the use of the R33 airship in 1921, in June 1932, the vehicles and crowds attending the annual Royal Air Force air display at Hendon were afforded the assistance of a fixed wing aircraft on traffic control duty. On this occasion the means by which this crowd observation was arranged was placed in the hands of the event hosts, the RAF. Among the display stars at the show were 2 Squadron, a Manston, Kent, based army co-operation unit equipped with the Armstrong Whitworth Atlas bi-plane. One of these aircraft was detached and, flown by Flt. Lt. William Eyles Knowlden, tasked with the traffic task. As the Atlas was a substantial two seat type it might have been expected that Knowlden might have relied upon an observer to operate the wireless. Chamberlain specifically stated in a later report that the Atlas was flown solo by Knowlden, this therefore indicating that the pilot undertook both tasks.

A repeat of the RAF traffic reporting sortie over the traffic approaching Hendon was scheduled for the 1933 event. On this occasion it was proposed to include a police observer but some unforeseen official difficulty arose and the RAF again undertook the whole task. After flying from 1300hrs to 1500hrs in difficult conditions the aircraft was instructed to return to Northolt as the main flying programme was starting. The hapless pilot got lost and was forced to make an unscheduled landing prior to again, successfully, setting off for Northolt. The whole affair served to confirm a widespread RAF opinion that the traffic flight was not a necessary adjunct to the Hendon display.

Alerted by a combination of the brief Leicester experience and mindful of the Derby traffic operations to the possibilities afforded to police by the autogyro formula, West Sussex Constabulary mooted the idea of using the rotor-craft in the deterrence of crime as opposed to traffic. Nothing came of this proposal in the small southern county force, it was too advanced a concept for the planners of the time and money remained scarce. In line with the dismissive attitude of the London CID a year earlier, even the active air units were facing great difficulties in widening aircraft use to the crime arena.

Traffic observation duties remained firmly in vogue. The previous success of the Cierva used by the police at the Epsom Derby ensured its return on May 31, 1933. Another Cierva C.19 mark IV, this time G-ABUF, undertook the task with the same crew of Allen and Chamberlain.



The Derby Day traffic was circled from 1125hrs until 1305hrs as the crowds gathered for the event. On this occasion it was possible to survey and guard the Royal Route prior to the scheduled return to Croydon for refuelling. The second, afternoon, flight was a short affair taken at 1450hrs, prior to a refuel at Croydon, the taking of tea and making preparations for the important evening flight over the crowd dispersal. The evening flight was delayed until 1715hrs in the light of the previous years experience, of an early take-off and a shortening fuel state at a critical stage of the crowd dispersal. Although the area around the course soon became clear, the patrol area of the machine widened to compensate until it finally allowed the Cierva to return to a landing at 1855hrs.

The police in the adjoining County of Surrey were also affected by the traffic problems dogging the Epsom Races. Like the Metropolitan Police they were also tasked with undertaking similar duties in relation to the Races at Ascot. The R36 airship flight a dozen years earlier had been a joint experiment over Ascot, but they were now leaving Epsom flights to the police in London, as they undertook their own aircraft trials aimed at serving them in their duties relative to roads approaching Ascot.

The contractor chosen to assist them with these trials was the Brooklands School of Flying, a civil flying school operating a number of light aircraft out of Brooklands airfield. The prime pilot for these sorties was one of the company director's Flt. Lt. Duncan Davis. At first the police undertook a bandit car chase trial using a de Havilland Puss Moth high wing monoplane tracking a car on roads near Egham. According to observers attending from other police forces this was a far from representative trial in that the aircraft was not equipped with a wireless, or any other messaging system. The aircraft of the Brooklands fleet were small and, unlike the Cierva, unable to

accommodate a heavy wireless. The climax of the trial, a foregone conclusion, was arranged prior to the flight.

It fell to an Ascot race meeting falling on June 14, 1933 to host a first operational trial for Surrey police. The event was covered by using a Brooklands de Havilland Moth flown by Duncan Davis with an unidentified police sergeant acting as observer. In order to resolve the criticism about the lack of communication, the aircraft carried a number of weighted message bags for dropping notes relating to the sergeant's observations to those on the ground. Three control posts, each with police motorcyclists and Boy Scout runners, were set up along the Sunningdale-Egham main road, as contact points. The aircraft could pass messages to those on the ground well enough, but no similar method of passing clear instructions to those in the air was evolved until wireless was light enough to allow such light aircraft to undertake the duty. The trial went well enough, but it was severely hampered by the chosen method of message transmission and as far as can be ascertained it was never repeated operationally. Surrey Constabulary continued to undertake experimentation with aircraft into 1934. Unfortunately surviving records fail to identify the type of aircraft operated or of the duration of these operations.

In October 1933, Reginald Brie, the test pilot and flying manager for Cierva was taken to court for dangerous flying in one of the company autogyro's. It had been Brie who had introduced the police pilot Allen to flying the autogyro the previous year. History was to prove that his continued association with the police was to go well beyond the Cierva product into the helicopter age so that the case in 1933 was somewhat of an embarrassment.

A policeman had reported the autogyro for flying at 50 feet above the Kingston bypass as it undertook a steep angle landing approach into Hook airfield. Presented with the policeman's story the Bench at Kingston Petty Sessions found against the pilot and fined £5 with 5s [£5.25p] costs. Brie appealed against the decision. To the relief of both pilot and the future security of the autogyro and its designer the appeal was allowed and the decision reversed at Surrey Quarter Sessions. Costs were awarded. The higher court was convinced that the manoeuvre, specifically applicable to the flight characteristics of the autogyro concept, presented no danger. The policeman was right in his initial action, but so were pilot and craft!

Aided by the Cierva company the ranks of the press were again undertaking voyages into fantasy related to the future of the autogyro and police flight. Still a novel form of transport, fanciful ideas were constantly being put forward, many in the mould of the 1932 "spy glass" affair. For police use it was envisaged that the ability of the type to almost hover would enable rotary wing police to actively direct traffic on the roads below. Variations on this theme envisaged police in full uniform perched upon telegraph poles directing aeroplanes as if they were motor cars. Futuristic cinema movies of the day, duly assisted by loose terminology at Cierva company briefings, further inspired reporters to believe it was actually feasible for a policeman to physically take an active part in all of these strange traffic control duties.

Early in November 1933 the Cierva Company invited interested parties, including police, to view their new model C30 Autogyro. This model was a far cleaner design, but was still a typical example of 1930s aeronautical technology, metal tubing covered in painted canvas behind a noisy radial engine only slightly more powerful than the C19. At last the large and intrusive auxiliary wing was deleted, thereby holding out the promise of a far superior view for the observer. Technically the C30 was an entirely new machine, the featuring of attitude control by the use of a tilting rotor head allowed the deletion of the main wings and was another stage in the quest for the true helicopter. The C30 still did not feature a vertical lift capability, but development continued.

The type had been flying for most of the year in prototype form and the November show was the first available opportunity for displaying a machine more clearly representative of the finished product. The impending availability of the C30 for the 1934 flying season showed clear promise. The exhibited C30, G-ACKA, was shown to the police on November 2, some days prior to public and press demonstrations held on November 8 and 15.

On the eve of adopting the C30, on Friday February 9, 1934, the Scotland Yard pilot, Flt. Lt. Ralph Allen was knocked down in a street accident with a motor vehicle whilst crossing Whitehall near New Scotland Yard, London. The police engineer died of his injuries in the Westminster Hospital the following Sunday. The Metropolitan Police were suddenly without a pilot.

In spite of the setback represented by Allen's death, the Derby Day operation went ahead with Reginald Brie acting as pilot on June 6. The new autogyro had yet to enter full production, it was to be produced as the Avro Type 671, therefore the Epsom operation employed a Cierva pre-production airframe. The Derby task was operated by Cierva C30P, G-ACIN, which mainly featured a different undercarriage set up in comparison with the full production examples.



To enable the autogyro to be fitted out with the Marconi W/T and R/T equipment in time for use on Derby Day, Brie took it to the Marconi office at Croydon on June 5, returning to Hanworth the same day. The next day a little over five hours flying was undertaken in the Derby Day task. The ground unit remained static, although proposals for speech transmissions on the move were to the fore.

Notwithstanding the excellent work undertaken by Kenworthy, in December 1933 Trenchard had expressed an opinion that the Metropolitan Police was tardy in its exploitation of wireless equipment. In an effort to redress the situation Chief Inspector Kenneth B Best was appointed to improve matters. Best was one of "Trenchard's Men", members of the military [or Royal Navy in Best's case] brought into high ranking positions without any prior police connection or training. Although those working directly with these imports were little affected, there was a deep feeling of distrust of the system [and Trenchard] which allowed these men to be brought in

over the heads of others with long police service. This narrow viewpoint was taken regardless of any technical ability that the interlopers undoubtedly possessed.

On July 12, 1934 it fell to the police in Leicestershire to undertake the first full public demonstration of the possibilities offered by the creation of a viable mobile R/T system.

At Desford, a few miles to the west of Leicester, the Marconi Co., set up a well attended trial involving both the Leicester City and County forces, the latter being the realistic potential customer of the two. In line with his ideals, it was an occasion set up by the forward thinking Chief Constable, Lynch-Blosse.

The Leicestershire Aero Club hosted the event and entertained the audience with the assistance of external loudspeakers designed to relay the proceedings of the trial. This provision was set back by an unfortunate accident. With signals already affected by severe interference from a nearby thunderstorm, a saloon car unfortunately reversed into the 20 foot tall collapsible wireless mast serving the loudspeaker system on the airfield. The mast was able to demonstrate excellent folding properties and the signal was temporarily lost! Marconi procured the services of a de Havilland Fox Moth from Surrey Flying Services for the day and Lynch-Blosse supplied a Riley four seat saloon motor car. Marconi equipped both the aircraft and the motor car with wireless equipment, both these suffering far less from the vagaries of weather and passing traffic.

The chosen Fox Moth, a 1932 five seat development of the two seat Tiger Moth bi-plane, was G-ABUT, the winner of the 1932 King's Cup Air Race prior to its sale to the current Croydon based user. Although the pilot remained outside in a then conventional arrangement the passengers were comfortably housed in a fully enclosed cabin forward of his cockpit position and behind the single 120hp Gipsy engine. In spite of its greater load carrying capacity this larger machine, one of the first "airliners", retained a similar performance to its smaller forebear.

The Fox Moth was crewed by Mr. C A Woods, pilot, a photographer, Roy Winn from the Leicester Aero Club and a Marconi engineer. The Riley car, waiting off the airfield in the Welford Road, was crewed by Chief Constable Lynch-Blosse, Mr. Oswald J B Cole, the Chief Constable of the 'City police from 1929-1955, and a driver.

The spurious story woven around the trial was set in motion at 1400hrs. An incident, reported as a "£30,000 bank robbery at Banbury [Oxfordshire]" was reported to Desford. Further information stated that the robbers were reported as escaping in another Riley car which had been conveniently marked with an eighteen inch square of white sheet affixed to the roof. The choice of car is not surprising, at this period all cars of Leicestershire Police cars were of this marquee.

Quite understandable in these, the early days of the craft of vehicle detection, the need for ensuring that the vehicle was clearly marked was an

unnecessary precaution After only twenty-five minutes airborne, the Fox Moth, flying at 600 - 800 feet altitude, managed to find the target motor vehicle as it was travelling along the Lutterworth Road. Instructions were passed to the ground unit to effect a successful interception.

In retrospect, a certain amount of disdain might be cast upon this stage managed interception trial. The marking of the target vehicle, its lack of speed and the failure of the "bandits" to either travel at high speed or to exchange getaway vehicles in the manner normal for this type of criminal activity, were clearly matters of fabrication. Taking into consideration the newness of this whole field of endeavour, the trial of radio telephony on the move was very successful.

Unfortunately an element of farce entered the proceedings, just as they were reaching a climax. Immediately after the interception, both cars set off back toward the airfield at Desford. The route was blocked by a particularly large white cow, a beast which resolutely refused to give way to the forces of the law in their mechanical transport. Even the accompanying herdsman was unable to make any progress with the bovine. The Fox Moth, still airborne, came to the rescue with advice on the availability of an open farm gate nearby. The cow thus removed, the Riley's and their occupants proceeded onward to the airfield.

It was this small incident which unfortunately soured aeronautical press reporting of the demonstration in the weekly magazine "Aeroplane". Far from restraining itself and maintaining objective reporting on the technical aspects of the trial, the magazine took the opportunity to make a joke of the cow saga, comments which tainted an otherwise serious news item. This treatment clearly enraged Lynch-Blosse sufficiently to write a protest to the Editor of the magazine, a letter which appeared in the following weeks edition. This was probably the first, and last, time a British Chief Constable wrote in an official capacity to any aeronautical publication. Sections of the letter bear reproduction, if only to illustrate the depth of his belief in police flying:-

"The Aeroplane for July 18 contains an account of some experiments in which I am interested. I am not concerned as a rule with Press accounts of my work, but I take the extreme liberty of questioning the fairness of the comments in a technical paper dealing with flying.

"In the first place, for reasons which are here immaterial, it was necessary to put this demonstration into the small space of time, hence the "white roof". I, and those enthusiastic members of the Leicestershire Aero Club who support me, are perfectly satisfied that with a little more spare time we could have found the car in question in an area of one hundred square miles without identification other than we knew the car.

"The important part of the demonstration, however, was could the aeroplane find the car, direct the patrol car so as to intercept it? This was demonstrated entirely to my satisfaction and I am convinced that once contact was established the fugitive car could have no chance of escape from radio equipped cars.

"May we go one step further and eliminate bandits? There are at the moment other uses both for aeroplanes and motor cars, but you

cannot for instance, demonstrate civil disturbance when aerial co-operation would, without a doubt, be useful. The bandit is a convenient form of demonstration. Our object is to draw attention to the fact that a new form of both transport and communication is available and that the police should not wait to investigate the possibilities of either until their hands are forced.

"In short, an experimental flying squad would in a few years be in a position to say either that the air is no use to the police (improbable in the extreme), or that the uses are such and such, and for once the police would be ahead of the criminal.

"One further word, if it can successfully be shown that, given identification, the aeroplane can be of use, surely it is up to some other authority to provide the means of identification, though I do not suggest that the moment is actually ripe.

"My sole object is to be allowed to find out in what way the air can be of service to me in my work. In this search I ask for your support and confidence.

"[Signed] C E Lynch-Blosse, Chief Constable.

Leicester"

Lynche-Blosse was not a fully trained, "streetwise" policeman. His background of an upbringing in "silver spoon" surroundings had projected him, at the age of 20, into the Indian Police in 1910 as an immediate, but worthy, Superintendent. After military service in the Great War he had returned to India in the post of Deputy Commissioner of Police in Bombay. He was still under the age of 30. His return to the United Kingdom at the end of his contract after not that many years had seen him treated in a similar, privileged, mannered. Probably, any conventional police person, more exposed to the idiosyncrasies of the British aeronautical press, would have let the matter of the cow go unchallenged.

The Leicester operation was a worthy extension of work Marconi engineers had been undertaking for many years. The forthcoming extended autogyro trials undertaken in the Metropolis later in 1934 included similar efforts to prove the worth of mobile R/T. In the event wide-spread use of speech transmission by police, primarily in area patrol cars, was to be held back until after the Second World War and the morse key held sway.

Leicestershire were not the only small force to aspire to a greater part in the development of police aviation in the British Isles. From February 1934 in the north west, Lancashire the Liverpool City and Southport police forces joined together to undertake training of ordinary beat police officers in aeronautics at Speke Airport.

As has been pointed out, since the Great War British police were tasked with many aeronautical duties for which they were untrained. Recognising that it was not easy for a non-flying officer to judge the height of an aeroplane from the ground, Liverpool and Southport teamed up with a local flying club to train as many as possible.

Early in February 1934 members of the 2,260 man strong Liverpool Police received instruction in aeronautics in groups of around 80. These were then sent off in smaller groups of around 25 men to take

turns to go up in a Merseyside based Airspeed AS4 Ferry three engine airliner of Midland & Scottish Air Ferries.



It was intended that, in the small groups, some 500 officers would be flown in the Airspeed and other types of the Liverpool and District Aero Club. The Chairman of the flying club Major R H Thornton, MC, was the catalyst in arranging for this potentially expensive instruction. Whether, in terms of numbers instructed, it proceeded as far as intended remains unclear. The need for some thirty or so flights to meet the initial requirement appears to have represented an excessive financial burden on the police, airline and flying club.

Officers on the other side of England, in Hull, Yorkshire, were not initially so lucky. When the local Police Watch Committee were invited to send officers for flight instruction by the Hull Aero Club the offer was declined. Although it was generally considered that air police were to be the future, the chief constable decided that it was too early for his men to join such an advanced band of policemen. The decision to make that advance was not finally made by a different chief constable until the passage of a further sixty years, in 1996.

The first known involvement of the police with the National Safety First Association, a group with a primary aim of making everyone in the population air minded, took place at Heston Aerodrome early in May 1934. Police from London were joined by men from other forces in viewing a flying display. Among the chief constables involved were those from Brighton, Canterbury and Worcester.

Taking up the challenge presented by this desire to inform, Leicester Aero Club provided some of the aircraft flying in the Air Safety Display held at Braunstone Aerodrome, Leicester, on May 3, 1935. Coinciding with national Silver Jubilee celebrations for the King and Queen, the display commenced with the firing of a Verrey light from the control tower. The intention of instructing of chief constables from the Midlands area included police of all ranks, in the intricacies of identification, height judgement and dangerous flying.



Flight Lt. P Stringer, an instructor with the aero club, Messrs. E A Underwood and H P Lavender each gave displays illustrating varying aspects of flight and emergency landings. Instructional "air experience" flights were arranged for police in a number of the aircraft present. Those known to have been present include a de Havilland DH60T Moth, G-ABRF, one of three club machines used, The Honourable Lindsay Everard's DH85 Leopard Moth, G-ACKM "The Leicester Fox III", piloted on the day by Lt. C W Phillips, a Cierva Autogiro, believed to have been G-ACIN, and a Crilly Airlines airliner.

CHAPTER THREE

The idea spreads

The Metropolitan Police decided that it would be useful to undertake a more extensive autogyro trial in the late summer of 1934. The consequent horse trading that led to the operation resulted in the RAF supplying a pilot and hangarage and, in return, receiving use of the machine for their own purposes.

The pilot selected for the task, 29 years old Flt. Lt. Richard Rupert Nash undertook an 80 minute conversion course under the supervision of Reginald Brie on August 12 and 13, just in time for the commencement of the seven week police trial on August 15. As an Air Ministry employee, Nash was scheduled to retain the post of police pilot only for the scheduled duration of the operation. It has not been possible to ascertain whether he flew later sorties for the police. He is was certainly available, remaining posted to the Hendon based 24 Squadron until promoted in April 1937. Rupert Nash went on to undertake flying at the Central Flying School and, as a test pilot, Farnborough before operational flying in the war. He retired in 1954.

The extended autogyro trials cost around £300 for the two months. The autogyro used was the pre-production C-30P G-ACIN, the machine used by Brie and Chamberlain over the 1934 Derby Day flight.

The new trials were publicly launched with demonstrations for senior police officers on August 15. Brie undertook the piloting for the launch ceremony, among others, flying the Assistant Commissioner for Traffic H Alker Tripp. After the public face of the operation was duly presented to the press corps, Nash and his observers were able to take their places for the job in hand. Throughout this particular phase there were seven police observers; Kenneth B Best, Butterfield, Carmichael, Sidney Chamberlain, Hooper, R P Minchin and Wynn Williams. As always, Sidney Chamberlain undertook the lions share of the duties. His recorded duties in September amounted to five hours 30 minutes, Carmichael was the next highest with one hour forty-five minutes.

For once the observers, Chamberlain and Carmichael, were able to take high quality air-to-ground photographs, some impressive photographs being duly passed on to Fleet Street for use over the next few days and weeks as part of a high profile publicity effort.

A variety of traffic and crime experiments were undertaken in the allotted weeks. On the crime front, two flights were set aside to investigate the feasibility of the aircraft following a known car from Hendon to Central London. The first attempt, on Tuesday August 21, was so successful that on the following Friday it was repeated to ensure that it was not a fluke!



A variation was tried the following Tuesday. The Cierva set off to find a specially marked motor car in the London traffic. Special markings - a small white cross on the roof - targeted the car within half a hour. Even when contact was deliberately broken off, the vehicle was quickly found again. As the results of this trial were locked away unseen for decades, the manner of this test was to re-emerge some 22 years later as a new generation of police fliers sought to experiment anew. To use an apt old saying, through a lack of information the wheel was again re-invented.

Less success was enjoyed in two other trials relating to motor vehicles. Experiments showed it was possible to read vehicle number plates from around 150 feet. Identification of the identity of individual vehicles by manufacturers was somewhat more difficult than expected. The observer on the second flight trial was transport expert Chief Inspector [Captain] R P Minchin, another Trenchard import. He found to his surprise that whilst there were a number of easy subjects, the Rolls-Royce for instance, he was unable to discern the differences between large numbers of some of the more popular makes and models. He specifically mentioned that larger models of the Austin, Wolseley and Sunbeam left him puzzled.

One area in which the autogyro excelled was the inspection of enclosed premises - police jargon for anything with a wall of fence around it - and searching open spaces. Not many of these aspects were tried out in anything but trials. It is worth noting how early it became clear that slow flying aircraft could undertake searches alone and with little effort. It was to be decades before the British police applied science to the findings and quantified what was, in 1934, merely obvious!

From September 4, tests were started with a further modified Marconi wireless set, the first of these being conducted at Croydon and lead to the first use of police air support at a public meeting where an outbreak of disorder was expected to take place.



Continued live trials of the improved wireless were timed to coincide with large rival meetings held within hailing distance of each other by the Communists and the Fascists at Hyde Park on September 9. The situation surrounding the twin meetings was tense, the senior police officers being so certain of trouble that 7,000 of its 20,000 officers were deployed to the location

Messrs. Philco, then a well known name in the field of wireless, loaned a Talbot car equipped with R/T to the police. The car was stationed in Hyde Park. On this occasion it fell to Chief Inspector Best to act as the observer and R/T operator in the autogyro. Best, at one time Lt Cdr K B Best RN, had been appointed to the police as a wireless expert in 1933.

The Cierva C-30P took off from Hendon at 1545hrs a setoff to the south to Hyde Park, where it arrived some fifteen minutes later. Unfortunately the R/T in the aircraft was immediately found to be incapable of receiving messages from the ground. Believing that his own signals were reaching the Philco Talbot satisfactorily, Best remained over the area and transmitted the results of his observations. Only later did he discover that only two messages succeeded in heard by the car crew. An immediate return to Hendon in order to sort out the problem would have been an onerous option. In those days not only did the aerial have to be hauled in (lengths varied between 55 and 65 feet at that time), but the machine would have been missing from the area for at least 30 minutes. The flying crew thought that they were doing quite well in transmitting and the object of their attentions, the Communist and Fascist crowds, were equally unaware that the communications were not working. As far as they were concerned, any violence or untoward actions would result in an instant report being transmitted from the "spy in the sky" to the police on the ground.

At 1735hrs the autogyro returned to Hendon for refuelling. During the period on the ground the R/T fault was confirmed, identified and rectified by Best. At 1830hrs the machine set off back to Hyde Park. This time the quality of the transmissions were superb. Those on the ground clearly believed in the power of air observation and the day concluded with few incidents. Over the course of the day only eighteen people had been arrested.

The equipment remained temperamental and the quality of the results obtained with R/T continued to be erratic. Further trials with the Philco car near Hyde Park some days later were called off after the wireless set in the car suffered a total failure. The wireless sets remained tricky to maintain and operate, a special school being set up. The subject was so complex that the more advanced police trainees, usually 50 to each course, would spend 6 to 8 months in training. In November 1935 Best re-located the two year old Wireless Training School from Inner London to Trenchard's Police College at Hendon.

The Cierva the police were using became a regular sight over London, but not everyone was wholly impressed by its presence. A certain amount of antagonism could be expected from criminal elements - these were largely without a public voice - but the press and some members of Parliament were also against the flights.

The flight of a single engine and novel type of machine flying over a built up area was indeed not without its dangers, particularly in the event of an engine failure. Engine failure in the 1930s was endemic, and even the novel rotor could offer few guarantees of a safe alighting within the crowded urban landscape. Held to be a singularly safe mode of transport by its backers, a claim proven in retrospect but difficult to make at the time. Aware of the attendant problems, there were a number of calls for a "multi-engine" autogyro's from senior officers at Scotland Yard. As far as I am aware, such a craft was never projected, let alone built.

The services of Cierva's C-30 were extended to include use as an aerial mail carrier by the General Post Office [GPO]. The GPO were interested

in exploring the problems associated with using the type to fly important mails from the roof of the then new Mount Pleasant postal sorting office in Farringdon Road, Finsbury to the main London Airport then situated at Croydon.

The trial was not popular, attracting a large body of influential detractors. In keeping with their lack of support for the airship flight a dozen years earlier, the editorial staff of "Aeroplane" were in the forefront of the protesters. The preliminary "touch and go" trials undertaken by Brie into the site seemed ridiculous to many. The magazine tarred both the police and postal operations with the same phrases " publicity craving official folly". In the face of widespread criticism, the postal scheme folded, leaving the police scheme to continue in a slightly enhanced form in comparison with earlier years.



Chamberlain with camera. Oxford Street, London 1934

Uses additional to the annual races at Epsom included other major public events including the Football Association Cup Final. The individual machines used for particular events are difficult to isolate, other than from photographic evidence. The latter suggests that another of the pre-production Cierva C-30Ps, G-ACIO, was used over the 1935 Cup Final tie between West Bromwich Albion and Sheffield Wednesday at Wembley.

Following the late 1934 trials the hierarchy at Scotland Yard seriously considered the purchase of their own police autogyro. The preferred "twin engine Safety model" was not available, but other than that the Cierva C-30A fully met the police requirement at a price of £1,100. It was the cost that delayed the purchase, many technical and operational details relating to its operation being investigated. It was considered that police officers should be trained as pilots, but appreciated that it would be a difficult task to arrange from within the police. In a compromise, it was decided that it would be sufficient if the observers were fully conversant with the topography of Metropolitan London. Keeping the machine at Hendon placed it conveniently close to the Metropolitan Police College (the Trenchard "improvement" for the introduction of an

officer class to policing), and handy for the RAF also. The latter was the key to the viability of the whole scheme. Placing the machine with the RAF would increase the chances of a reciprocal loan arrangement resulting in the free supply of a trained pilot for police activities.

In the period three different methods of pilotage were explored. By chance the three included variations from England, Scotland and Wales. In England, for the London flying it was intended that the pilot employed would be an officer, like Nash, attached to the "Hendon Station Flight", possibly intending to allocate the task to an officer from 24 Squadron, the principal communications flight, which was at Hendon throughout this period. It was considered that the projected heavy police use might eventually require an additional pilot be attached to RAF Hendon.

In Scotland a slightly different answer to the thorny question of pilotage was attempted. A lack of information clouds the exact details of the manner in which Sir Percy Sillitoe, the Chief Constable of Glasgow from 1931 to 1943, employed a civilian pilot to fly a projected aircraft for his force. All that is known is that, like the London police, the intention to purchase an aircraft was never realised. Similarly, there is a dearth of detail surrounding the reported intention to use a Cierva C-30 at the England v Scotland International football match at Hampden Park, Glasgow. Scheduled for April 6, 1935, I have been unable to trace any confirming post match news reports of the presence of the police machine. In February of the same year Sillitoe successfully approached members of the Glasgow Corporation General Finance Committee to gain authorisation for his men to make use of aircraft when distance and urgency required.

The third pilotage option was briefly investigated in Wales. Two decades after a similar first in the USA, Police Constable Joseph Lock of the Glamorgan Constabulary is reputed to be the first UK police officer to serve as a pilot on law enforcement duties. The venue for this officer's brief appearance in the limelight was over a July 1934 protest march against "Means Test" measures brought in for [or perhaps more against] the unemployed. Nothing is known of the aircraft used.

The British police were not the only law enforcement group interested in the capabilities of the autogyro. In 1934 the French Liore-et-Olivier company took out a licence to build Cierva C30A Autogiro machines for the home market. Part of this agreement was that four such machines would be bought in from the British production lines of the Avro Aircraft Co. In 1934 two were exported from Britain to France. On November 23, 1934, whilst the XIVth Salon de l'Aeronautique was being held in Paris, the French pilot Roger Lepreux undertook a spectacular landing of the second French Cierva to be delivered on the Champs Elysees, in front of the Grand Palais. This second French Cierva, constructors number [c/n] 776 F-AOHZ, was then still bearing its British registration of G-ACYC.

With the type in limited use by the police in England and Scotland there was, understandably, a certain amount of press speculation to the effect that the French police might take up with the autogyro in the role of traffic spotter. The type entered service with the French military from 1935 but no trace has been found confirming police or GN use in the period.

The Gendarmerie Air Wing had its roots in the formation of the independent French Air Force [Armee de l'Air] in 1934. Being part of the army, which itself spawned the air force, the Gendarmerie was tasked with airfield security, a police role not dissimilar to that undertaken by the military police and the RAF Regiment in the United Kingdom.

During January and August 1935 there were reports of "Pilotes Policiers", air police, under the Surete Nationale, being greatly enlarged in France. Far from being an announcement of an intention to set up a Gallic corps of police aviators, this was merely notice of an increase in the number of administrators of aeronautical laws.

Prior to this expansion, much of the Pilotes Policiers task had been concerned with prosecuting aviators flying over forbidden areas - in particular the new fortifications of the much vaunted Maginot Line of defences along the border with Germany. The January announcement stated that first in the queue should be trained pilots, although there was still no intention to acquire aircraft. After the summer of 1935 there were calls for the creation of a twelve aircraft police fleet for the Paris area. Nothing happened.

It is worth noting that the modern successors of the pre-war Surete, the Police Nationale, still operate no aircraft of their own in France. All law enforcement flying is undertaken by the military based Gendarmerie or the government agency, Security Civile.

As the Germans "came out" with a new Luftwaffe partly based upon former police air units, the situation relating to the police flyers in Austria remained clouded in mystery. As outlined in chapter 1, after the turmoil of the Great War, Austria and its aircraft industry were sidelined, treated as an insignificant left over from the defeated Austro-Hungarian Empire, by potential foreign buyers. Further progress in furthering aeronautics in the country remained severely hampered by a perception that products were those of a backwater industry. There were very few export successes. The home market was only able to support a few new aircraft annually, so few it seems that most appeared to be those subsequently identified as making their way into the police air section.

Included in the then modern section of the police air fleet in the late 1930s was the 1925 vintage Udet U-12A Flamingo, an aerobatic light bi-plane from a short lived company formed by Ernst Udet the famous Great War pilot. By 1929 the company had been taken over by Phoenix. Beyond this were two examples of designs from the Flugzeugbau Hopfner company in Vienna. The first, the HS8 of 1929, was a

conventional light monoplane with a parasol wing layout. The other, the HV-15, represented the most interesting aircraft type known to have served in the Bundes Polizei fleet. This Hopfner, OE-POH, was a sleek twin-engine cabin monoplane, which resembled the early models of the Avro Anson, a type of which is was a contemporary. Unfortunately, Theo. Hopfner's company, the first to produce an aircraft in Austria after the war, failed in the mid-1930's after he had designed this, his 15th aircraft. The later designs were taken over by Hirtenberg Patronen in Lower Austria and Hopfner took up the post of Director of the aircraft department with them.

In the face of a range of similar types produced by the great powers, and an impending war, the Austrian aircraft industry remained unable to make a significant headway. An independent Austria was to merge with the Nazi war machine from 1938 and suffered the dire consequences of that move. The fate of the police operation became shrouded by the clouds of war and substantive police operations only re-emerged after the war in 1955.

The influence of Trenchard in Metropolitan Police aerial aspirations remained considerable. He took a natural interest in negotiations, arranging for numerous SECRET letters to be sent to the Air Ministry from 1934 through to mid-1935. At least one meeting was arranged with Sir Hugh Dowding (in his position as head of Air Defence of Great Britain) regarding use of the, yet to be acquired, police autogyro's in war conditions - at night, perhaps on internal security or black-out patrols. Although the scenario never came to pass, it was agreed that should the Metropolitan Police buy its autogyro it could be used for police operations undertaken within ten miles of Charing Cross - an area somewhat smaller than the whole of the Metropolitan police District [MPD].

Part of this liaison with the military included arrangements for the autogyro to operate in conjunction with the Annual Air Exercises of the Air Defence of Great Britain in July 1935, but at the last moment the police pulled out. The reason given was that Dowding considered that operations over London in an autogyro at night could be fraught with danger. The cancelling letter suggested that police might try in the following years exercises. In spite of the stated intention, the police did not again apply. Trenchard handed over the post of Commissioner to Air Vice-Marshal Sir Philip Game GCB, GCVO in November 1935, a change which appears to have led to the final move away from the intended acquisition of a police autogyro.

One of the smallest UK police forces, with only around three dozen men on its strength, Reigate Borough, situated in Surrey, south of London, became the first to set up its own air unit from August 3, 1935. To enable this to be possible on the most slender of budgets, the Chief Constable, William Henry Beacher, had to employ novel means. He had been hailed as an innovator since he first took over his post in 1930, an attribute

which many put down to sheer showmanship rather than serious development.

The number of new working practices introduced by Beacher, including an early form of neighbourhood watch, eventually succeeded in creating an air of boredom in the ranks of the press, resulting in a number of noteworthy ideas receiving scant coverage. A mobile patrol was set up under the Reigate Borough Special Constabulary in 1932. Under the leadership of Sir Malcolm Campbell, the world famous racing driver, this group used a number of motor vehicles including motor cycles and expensive high powered motor cars in the Bentley mould to transport members around the small police area. Not without reason, there were those who pointed out that the set up was elitist. It was certainly staffed by a large proportion of the middle class and far out-numbered the regular officer strength.

When, in 1936, Beacher arranged for the extension of the principle behind the mobile patrol into the formation of an Air Section a large part of the national newspaper Fleet Street press corps was ignoring any news from Reigate. Only the local and aeronautical press corps carried the story-line.



Beacher's Air Section operation was based upon an existing flying club based nearby. The Redhill Flying School consisted of a commercial flying training and aircraft hire arm and over sixty individual members based in the nearby Ham House Country Club. The flying school occupied part of a 300 acre estate near the town of Redhill from November 1934. British Air Transport, the operators of the school, had been driven out of the aerodrome at Croydon in 1930. Croydon was declared the London Terminal airport and unable to support the activities of the defunct Henderson School of Flying. In 1935 the renamed and re-located flying school possessed four DH60 Gipsy Moth's, a DH83 Fox Moth and one

Cierva C30A Autogiro. A DH Puss Moth and a Miles Hawk were also on call for normal training with the commercial organisation, these being made available by private members.

Not unexpectedly, in view of their readiness to hire out their aircraft and their similar standing to those already in the Reigate Special Constabulary mobile section, a number of the members were aircraft owning pilots amenable to the chief constable's approaches. At least twelve of their combined number enrolled in the Reigate Special Constabulary and made available to the police a similar number of aircraft, these ostensibly being made available to the regular officers in support of their day to day duties. No evidence survives upon the thorny matter of reimbursement of flying costs, it would be uncharacteristic if all the costs associated with the police arrangement were chargeable to the local rate-payers.

The Reigate scheme was officially launched at Redhill aerodrome on August 3, 1935. The pilots who had consented to become involved in the scheme brought together nine machines for the ceremony. In addition to four DH Gipsy Moth's, a Fox Moth and a Cierva Autogiro from the flying school, a member supplied an Avro bi-plane. The composition of aircraft types available to the police scheme varied over the coming months and years of its operation. The most unusual type to be noted in use was the Blackburn Segrave, G-ABFR, a type which, powered by a pair of Meteor engines, was in use a year later.

Malcolm Campbell missed the official launch ceremony as he continued the pursue the raising of the world land speed records with conspicuous success. Chief Constable Beacher was very evident, accompanied by a dozen of his regular officers. Of the volunteer flyers, a number received instant high rank within the new formation. R F Bulstrode, the Chief Instructor and prime autogyro pilot for the flying club, was made the unit inspector. Two other pilots, Maurice Houdret and E H Freshfield MA, became sergeants. As each of the posts was unpaid it mattered little.

The members of the Air Section met again for the Annual Dinner and Dance held in conjunction with the mobile section each year. This event was followed up by a combined rally at Redhill on Saturday June 13, 1936. It was all very jolly, but even the local press interest had waned somewhat by then.

Much has been made of the worth of the Reigate Police flying operation - and Beacher's part in it. This Redhill Flying Club operation was presented as an operation that Chief Constable Beacher and Sir Malcolm Campbell developed themselves. There is a suggestion that there might be more than a passing connection between the operations conducted by Reigate and the Los Angeles County Sheriff.

Campbell undertook frequent visits to the USA during 1931-35 in pursuit of the world land speed record. It is likely that other US police forces had

readily copied the LA model and the 1918 New York scheme to some degree and that it was widespread.

From the available evidence it is clear that the scheme had little, if any, effect upon day to day policing. Surviving members of the small regular force cannot remember any instance when they were able to call upon the facility. Clearly it appears that, in spite of the longevity of the stories surrounding it, the arrangement served only to promote public awareness of the Reigate Borough police, Chief Constable Beacher and some members of the flying club. In that it was undoubtedly wholly successful.

In police terms, it was not a busy area. Even today, more than half a century later, Reigate has little need for calling in readily available police air support. The likelihood of them requiring a similar facility with a relatively long lead time in availability is equally low. It is most unlikely they ever undertook a single operation on their own behalf until it was closed down by the start of the Second World War. Suggestions that former pilots of the unit fought and died in the Battle of Britain are insupportable. We simply do not know enough identities of those concerned to trace their subsequent careers.

Eventually the police force in Reigate Borough succumbed to the progress of history and was amalgamated with larger forces. Today the area once taken by Beacher's men is split between Surrey and the Metropolitan Police.

The first recorded instance of a UK police air unit undertaking the prosecution of other flyers was over the Derby meeting on Wednesday May 27, 1936. Four defendants were summonsed by the Metropolitan Police to face low-flying offences at Epsom Magistrates Court on September 3. The accused were Aerial Sites Ltd., Air Publicity Ltd., and their respective pilots, Frederick Freeman and William Woodward. Each of the two companies had employed an aircraft towing banners over Epsom Racecourse without Air Ministry authorisation.

The police air crew involved were Max J Bingham-Stoker, pilot, and Sidney Chamberlain, observer. The police crew were cross examined by the defence. Bingham-Stoker agreed that the height at which the police machine was flying was safe, and that the two aircraft which were the subject of the summons were at a similar height. The lack of Air Ministry authorisation for either of the banner towing flights was successfully pushed into the background by the defence calling in a pair of aeronautical "big guns" as character and technical witnesses. Tom Campbell, well known as a McRobertson Race pilot, had been present on the ground at Epsom and Captain Henry Schofield, a one time Schneider Trophy pilot, was allowed to express an opinion although not actually present. Both assisted in mounting an effective destruction of the police case and led to the case being dismissed.

The 1936 Derby flight was also interesting in that it provided the only known instance of actual police involvement by aircraft assigned to the

Reigate Borough operation. Although absolutely nothing to do with the Borough police operation, the autogyro used by the Metropolitan Police was the Cierva C30A Autogiro, G-ACWZ, operated by the Redhill Flying Club and allotted to their Special Constabulary operations. It might even be that the pilot on that occasion, Max Bingham-Stoker, was one of the members of the special constabulary.

When the "direct take-off" Cierva C30 mark III, G-ACWF, was demonstrated on Hounslow Heath on July 23, 1936, most of the hierarchy in the Metropolitan Police neglected to attend. This model of the Cierva represented the next stage of the quest for the helicopter. A new clutching arrangement for the rotor allowed the autogyro to leap into the air without the need for a long ground run. In spite of the importance of this development in aeronautical history and the recently advanced ideas about purchase, it was left to Assistant Commissioner Major J F Ferguson (later Sir John Ferguson, Chief Constable of Kent and one of Trenchard's specially imported Air Ministry aides at Scotland Yard) to report back on the days events. It was Ferguson who had undertaken the drafting of the majority of Trenchard's SECRET correspondence with the Air Ministry on the air defence issues. After the departure of the great man, interest was clearly waning.

The development of this ability to "jump" into the air did not place the Cierva design into the helicopter class. Having thus leaped skyward by some 20 feet the pre-spun rotor still required the main power-plant to convert it to forward motion and then to propel it through the air to maintain air speed.

Assisted by the Cierva designs, others were about to overcome the additional problems associated with converting the simple freely flapping rotor into a powered form capable of automatically compensating for the different angles of attack required for altered positions in rotor arc - cyclic pitch.

As Metropolitan Police interest fell away, other senior officers in the county police retained a level of interest they were unable to sustain financially. The Chief Constable of Leicestershire (Lynch-Blosse) continued to keep himself abreast of all developments in police flying. In September 1936, when the Metropolitan Police started to plan a renewed trial following a car into and around Central London, he was soon in touch with the London team. The result of this contact was that when Lynch-Blosse next visited the capital he became the "target" for the autogyro search crew.

On October 3, the Cierva then used by the Metropolitan Police was sent aloft to look for Lynch-Blosse' car. There were no special markings applied to the car, the only assistance was the supply of a rough route and a description of the vehicle - "a black Rover with a sun roof". This description did little to assist the searchers, Lynch-Blosse was well known for always driving a dark blue, 14 h.p. Riley. Fortunately the two cars were similar.

At 1145hrs, not long after the car left St. Albans for the south, in the vicinity of the Hatfield by-pass, from a height of 100-150 feet the police air unit found the car and directed in an intercepting ground unit. It had been easy, even though the traffic and the target had created some problems during the search and intercept. Lynch-Blosse had instructed his driver to do his best to make a "chase" of the event. After realising that his vehicle had been spotted by the Cierva crew, the chief constables attempts to duck into side streets and put on speed were all to no avail.

The exercise with Lynch-Blosse was merely a preamble to the real business of the month. The following day, October 4 1936, the Cierva Autogiro was on duty over the East End of London as part of a massive police presence guarding the right to march of about 3,000 of Oswald Mosley's Blackshirt Fascists. Set against the Fascists was a mixed gathering of left wing activists and minority communities, primarily Jews. Some 7,000 police, including virtually the whole of the Metropolitan Police Mounted Branch, were embroiled in street fighting in and around Cable Street, Bethnal Green.

As in Germany, the British Fascists had long made the Jews and other immigrant nationalities the political scapegoats for the ills befalling the population in the years of depression between the wars. Blackshirt groups held regular, and often violent, meetings in cities, towns and villages of Britain in the years leading up to the outbreak of war in 1939. Vociferously opposed by the Communists and younger Jews, the occasional clashes between the two sides in London's East End and elsewhere were more in the class of "spectator sport" than occasions where large groups of either party met in battle. The October march by the Fascists was routed through a Jewish quarter of Bethnal Green, a move calculated to draw a violent reaction.

In many ways the events of October 4 were merely a continuation of the skirmishes at Hyde Park in 1934. Already in 1936 there had been clashes in Central London and the East End, open fighting had taken place between Fascist and Jew - the latter ably supported by Communists. The primary problem foreseen for October 4 was that member's of the Ex-serviceman's Anti-Fascist Association wished to march and demonstrate against the activities of General Franco in Spain and Moseley in Britain. The area in which this was to take place was predictably the same as that chosen for the march by the Moseley supporters. Trying to be even handed and sensible, the police pointed out that as far as they were aware Moseley had applied to march in the area first, and that they had already agreed to it before the second group made their own opposing application. This was not a situation where such tolerant rhetoric held sway. Faced by intransigence, the police were obliged to ban the rival march. The authorities fully realised that this action was highly unlikely to solve the problem and brought in large numbers of officers - and the autogyro - to control the expected trouble.

When the Anti-Fascist elements started publicising arrangements for their march and meeting to take place at an alternative site - Trafalgar Square in Westminster - it appeared that the threatened clashes might be averted. At the last moment the original venue was cancelled and potential demonstrators were re-directed to meet at Aldgate in the East End at 1400hrs.

Although some observers claim that many of them were spectators to the days events, estimates claimed that 100,000 people were drawn out of their homes to line the streets of Bethnal Green. Many of the side streets were barricaded against the passage of the marchers, parties of the police undertaking the task of removing these makeshift barriers before the arrival of the Blackshirt gangs. The Fascist march was finally abandoned after a series of flare ups and running battles - including that in Cable Street - this outcome resulting in most left wing politicians claiming that the views of the left had prevailed over the evil of the right.

The "Cable Street Riot", which actually occupied a fair number of the streets of Bethnal Green beyond that it was credited to, was probably an event somewhat less important than history, fuelled by political needs, has cared to remember it. In comparison with some of the post-war disturbances in London (again almost all political in nature) the disturbances of October 1936 can be adjudged small fry. The dire expectations of the police hierarchy at the time, and the tension evident in the crowds, resulted in the highly unusual provision of air observation and a place in East London folk lore. No records of the precise part that the police air unit took in this momentous event have survived.

In 1936, International Airships Ltd., offered the London police free use of an Enterprise type non-rigid airship for use over the forthcoming Coronation of a new King. Following the death of George V in January 1936, the Prince of Wales was to be proclaimed Edward VIII but gave up his crown in December the same year. George VI was eventually crowned in May 1937.

The craft on offer was owned by the Good Year Zeppelin Corporation, an offshoot of the motor tyre manufacturer. Good Year had manufactured its first safe helium filled airship in 1925 and was to go on to build an unequalled total of around three hundred in a period spanning over sixty years. At Scotland Yard the recipient of the letter making the offer was Captain R P Minchin. Taking up the generous offer Minchin telephoned the company and explored the feasibility of the offer. He quickly came to the conclusion that operationally the offer was ideal, but substantial drawbacks quickly presented themselves. The main problem was that the craft proposed was not yet in the United Kingdom - in fact it failed to make it until after even the delayed Coronation. Having missed its initial publicity venue the airship was then offered for use at the somewhat less prestigious event of the Derby Day at Epsom, less than a month later. The sting in the tail of this further offer was that it was offered free, but only on the understanding that the police would agree to enter into a contract for other future events.

The services rendered by the tried and tested Cierva machines over the previous five years brought about a refusal of the airship offer. It may be that the manoeuvrability problems experienced during the 1921 trials were still fresh in some minds, but it is more likely that rejection was based wholly as a reaction to the attempt to introduce constraints.

The Cierva C30A Autogyro was not perfect, it did however hold out the promise of a known compromise between the ideal and available technology. The speed range of 25 - 95mph allowed the crews to undertake the majority of tasks with relative ease. The top speed of the C30A, a value rarely of use in the police role, was often quoted at a higher figure. Chamberlain, in notes left, likened the airframe vibration at any speed over 95mph to producing levels "so intense that the whole thing must have resembled a blancmange".

Aware that the Metropolitan Police were now confirmed protagonists of the autogyro principle, other rotary wing manufacturers regularly presented technical information on similar machines to Scotland Yard. Kay Gyroplanes Limited tried to raise a glimmer of interest twice, once in 1936 [in conjunction with the Cierva trial at Hounslow Heath] and then again in 1939. Both approaches failed primarily due to the Kay's small size and single seat specification. Intended multi-seat developments were halted by the war.

For the United Kingdom in 1937 a further proposal that a Metropolitan Police Flying and Motor Club should be formed remained a proposal far ahead of its time. Such organisations might be a quite acceptable adjunct to life in the USA and elsewhere, in the ranks of the British police however the mere ownership of a motor car - let alone involvement in flying - in the late 1930s was seen as an wholly unacceptable activity. For different reasons, a further suggestion that all of the police in London might follow the lead of such as Liverpool and Leicester in being instructed in the art of flying and navigation was discounted. This particular idea sprang from the attendance of some officers at a "Safety First" demonstration at Heston Aerodrome in 1934. The senior officers in London had considered the subject for three years before deciding to drop the matter on the grounds of cost.

Despite the general decision to deny the force at large the chance of instruction, a small section of the police in London did join their county cousins in limited instruction.

As previously recounted, Liverpool, Southport and Leicester had been undertaking such training for some years when the larger Metropolitan Police finally decided upon its decidedly limited efforts in this field.

The police in the South Coast county of Sussex also sought to instruct their officers from 1937. In those days Sussex was a county split into East and West and had forces to match. Additionally the county had a number of small town and borough forces. Each of these was invited to a

free air display to mark the opening of the newly completed aerodrome at Shoreham-by-the-Sea. On June 5, 1937 about one hundred police officers of all ranks were entertained to a flying display undertaken by a de Havilland DH60 Moth and a DH89 Rapide. The Moth was flown in a series of "crazy" manoeuvres designed to instruct those with little awareness of flight, by Mr. C L Pashley, the Chief Instructor at Shoreham. He also enacted a purposeful arrest and document inspection scenario for the audience. The Rapide was operated in a far more sedate manner by Captain C W F Wood a pilot with Olley Air Services.

In addition to the chief constables of the two county constabularies, officers of similar standing attended from the forces of Brighton & Hove and Hastings. The Hove Fire Brigade also sent representatives. By special request of Scotland Yard, invitations were also sent to a number of influential officers in the Metropolis. Superintendent Mayell and Sidney Chamberlain represented the Traffic Department, Superintendent Smith the Peel House Training School in Victoria and Inspector Seymour Trenchard's newer Hendon Police College.

With only two aircraft in the main display, clearly entertainment was not the primary intention of the air show organisers, the Brighton, Hove and Worthing Municipal Airport Committee. The event was not one that could realistically be placed alongside even the most modest of the public air shows of modern times for comparison. The limited antics of the aircraft were the draw, side shows operated by a variety of subsidiary groups provided substance to the hard headed business of the day. The visiting police and fire officers were instructed in a number of skills, including crash rescue and aircraft fire fighting - matters which might well involve members of the outside bodies in their duties. A number of the visitors



Chamberlain and Brie in 1937

The Metropolitan Police were not alone in flying activities as the war approached. In addition to the limited activities of the Reigate Borough police, Lancashire were making use of a de Havilland DH85 Leopard Moth G-ACRC in air spotting. Owned by Merseyside Aero & Sports Ltd., [another title for the Liverpool Aero Club] the Moth was contracted to cover a Royal visit to Lancashire in May 1938.

The weather for the Royal Tour by the recently crowned King George VI and Queen Elizabeth was typically British as the couple set off to tour the county over four days. The weather was so poor that it was not until the final day that flying conditions were suitable for operation of the Leopard Moth.

On the afternoon of May 20, the three seat aircraft, crewed by Inspector Tommy Platt, Mr H Willett the head of the Lancashire Constabulary Radio Department and an unidentified pilot, operated out of the airfield at Barton near Eccles. The trio transmitted verbal reports on the progress of the King and Queen in their motorcade as they short visits to Bolton, Rochdale and Oldham. The reception quality of the transmissions from the light aircraft was poor, but adequate.



As police aviation in the United Kingdom continued in a half hearted manner of trials held back by a lack of adequate funding, on the other side of the Atlantic Ocean the Canadians entered the field of aviation with gusto. If the intentions of the chief of the Royal Canadian Mounted Police [RCMP] from 1931, Major General Sir James Howden MacBrien, had been met in full, this famous police force might well have undertaken full flying operations early in the 1930s. In August 1928 a number of detectives in a single armed aircraft had been used to search for five

armed bank robbers in a car without success. In 1929 another aircraft had been borrowed to assist ground patrols in a gruelling 29 day manhunt in the Arctic for the killer of a Mountie. Under its influential leader - as a former Chief of Staff with the Canadian armed forces, MacBrien was another figure in the stature of Lord Trenchard - a de Havilland DH60 Gipsy Moth CF-AAA owned by the Aviation League of Canada became available to assist in limited anti-smuggling patrols. The police chief was included among the pilots.

The space in the two seat Moth was at a premium and stringent financial considerations were holding back any aircraft purchases. It was additionally arranged that the RCMP would have limited access to the few examples of the Fairchild 71 operated by the Royal Canadian Air Force [RCAF]. The Fairchild was a single engine high wing utility type. Flights by police were reasonably successful in thwarting rum-running and drug smuggling but, with a fleet of only 135 aircraft all told, the RCAF were none too pleased at giving up flying time to the police. Reluctant or not, for four weeks in 1936 Flight Lt. R C Gordon was seconded to fly Commissioner MacBrien on an 11,000 mile inspection trip around outlying RCMP stations.

Before long the RCMP were undertaking the detailed planning of a new police Air Division. The decision to equip the new RCMP air unit with the twin engine de Havilland DH90 Dragonfly airliner was made in 1936. With coastal patrol being a primary duty, the choice was partly made on the basis of the twin engine specification.

In October 1936 a Canadian registered demonstrator aircraft from the British manufacturers was loaned to the RCMP for training.

On April 1, 1937 a police detachment moved into North Toronto and took over part of the Post Office Building on Montgomery Avenue in preparation for the delivery of four new aircraft for the unit. Eight pilots, each with a variety of former flying experience, were allotted to the new unit. The pilots were given refresher training in the aircraft of the Toronto Flying Club while the new equipment was delivered.

Staff Sergeant T R Michelson, one of the police pilots, was taxiing the demonstrator Dragonfly CF-BBD across the airfield on April 19 when the machine collided with, and wrote off, a parked Toronto Flying Club Puss Moth CF-CDM. The Puss Moth had been sitting with its engine running but Michelson saw it too late to miss it. In spite of all the damage caused by three engines and whirling propellers, the two in the Moth survived uninjured - although the policeman's leg was broken.

After receiving a temporary patch, the Dragonfly survived to return to the local de Havilland factory for a rebuild.

The first of the RCMP aircraft, each predominantly dark blue with yellow wings, was delivered on May 5, 1937 registered as CF-MPA. The second, CF-MPB, was delivered at the end of the same month. The third

machine to arrive bore the out of sequence registration CF-MPD when it arrived in service from June 26. The final delivery, on July 15, of the initial equipment was Dragonfly CF-MPC. This aircraft was the damaged demonstrator CF-BBD returned to service after its repairs had been completed. Each of the Dragonfly received the addition of a name which reflected the last letter of its registration - *Anemone*, *Buttercup*, *Crocus* and *Dandelion*. The effect of this fleet upon the rum and drug running was quite dramatic and most of the illicit traffic found alternative routes of entry to Canada and the USA. The Dragonfly fleet did not remain long with the RCMP. Three of fleet were called up for service with the RCAF on the outbreak of war, the fourth being sold off.

In 1938 another type was added to the Mountie fleet. A float equipped version of the single engine Noordyn Norseman bush aircraft, another high wing utility type in the mould of the RCAF Fairchild's it was a type optimised for the patrol of the vast interior regions rather than the coast. The Norseman was originally registered CF-MPE, but it too suffered an accident in 1939 and when it returned after repair in 1940 it was re-registered CF-MPF. Those early aircraft were unusual in the short length of time they stayed in service. As a guide to the general longevity expected of the RCMP's aircraft fleet it is worth noting that a Grumman Goose amphibian CF-MPG, acquired by the unit post war in 1946, was to remain in service for over 47 years, only finally being withdrawn in the 1990s.

In the period after the war the RCMP introduced a number of bush aircraft similar in appearance to the Norseman and Fairchild. These long lasting types, originating from the factories of de Havilland Canada, became the mainstay of the early post war operations.

As the fortunes of one unit in the New World waxed, so another waned. The aviation bureau of the New York Police Department [NYPD], now almost nine years old in its regular police form, was closed down early in 1938.

In the years of its existence, with limited resources, the police aviation bureau had undertaken all that had been asked of it - and more. Soon after it had been constituted aircraft had started flying out of the New York area to pick up wanted prisoners and return them to the city - a clear saving in potential airline costs - and then of course they had quickly driven the stunting fliers from the sky and undertaken numerous rescue missions in and around the city. In April 1933 the pilots of the unit had distinguished themselves beyond the borders of their own area in the rescue of five men from the sea off the New Jersey Coast. The five were from the US Navy blimp J-3 which had crashed in the water as it was itself employed in searching for survivors of the US Goodyear-Zeppelin ZRS4 dirigible *Akron*. Only three of the seventy-six crew of the dirigible survived. Like the larger air ship, the J-3 had been driven into the rough sea during a storm.

Created in a blaze of publicity, the aviation bureau had quickly suffered from chronic under funding of resources and the original fleet had eventually expired without replacement. Unlike modern aeroplanes which can serve for decades, the structures of the flying machines of the late 1920s, being mainly wood and canvas, were not blessed with longevity. There were exceptions of course. Two of the Savoie-Marchetti machines had been withdrawn in 1934, leaving the third example, the Loening and a Fleet to continue for another few years. None of this had been assisted by the stock market crash and the Depression. Finally, in the Spring of 1938 the last two machines were condemned by Federal Inspectors and the unit closed down.

Faced with this unexpected development, the NYPD budget was unable to finance the acquisition of replacement aircraft so the primary tasks of the unit passed into a state of limbo and the majority of the flight crews and engineers returned to standard police duties. The worth of the unit was appreciated by both politician and police alike. It may not have retained a continued ability to fly, but a skeleton force of men was maintained to supervise the towing of banners over the city and to investigate aerial accidents within the metropolitan area.

There appears to never have been any intention of doing away with the air unit, it was almost wholly a case of poor financial provision being made for aircraft re-equipment in what were decidedly hard times and red faces all round. As soon as the finance was available, Mayor Fiorello La Guardia and Police Commissioner Lewis J Valentine rehabilitated the aviation bureau in its original form as a flying unit with six pilots. The fact that the unit was reconstituted so quickly in the face of potential political embarrassment speaks volumes of its former effectiveness. Some sources suggest that this was greatly assisted by billionaire aviation enthusiast Howard Hughes donating two new aircraft engines to the city in 1939.

A pair of Stinson Reliant SR-10K high wing monoplanes, one equipped as a land plane and the second with a pair of floats, were ordered for the NYPD aviation bureau for service from July 1939. According to contemporary reports the land plane, NC-21148, cost the city \$14,641 and the seaplane, NC-21147, \$19,000. Destined to be built in large numbers as a sturdy communications aircraft in the approaching war, the Reliant was offered to potential customers with a variety of engines, the NYPD chose to have their examples powered by 450hp Wright Whirlwind radial engines which gave a cruise speed of around 150mph. If these were donated by Howard Hughes, it was clearly as part of the overall purchase package. The original city colour scheme of green and white with "*New York City Police Department*" placed conspicuously on the sides and "*NYCPD*" below the starboard wing, was retained.



For those with romantic inclinations, the choice of type may be thought to have been influenced by the closeness of the designer, Eddie Stinson, to the original 1919 NYPD unit in the days when he was merely a well known pilot who gave up his time and help freely. This is quite unlikely. Each of the earlier aircraft purchases had involved machines built in New York State, but Stinson the aircraft company was set up in Wayne, Michigan, and retained no traceable contact with the NYPD. The Reliant series was already a relatively popular type with pre-war flyers across the world. Other police forces were also associated with the type, Nassau County Police, also in New York State, had a similar model Stinson for a period in 1939.

At this stage in its existence the NYPD aviation bureau was part of the Emergency Service Division [ESD] of the NYPD. Twelve men, six pilots and six mechanics, were selected from the ESD to rebuild the aviation bureau under Inspector Arthur Wallander. This officer was a pilot and had formerly been acting Captain in charge of the 1938 unit. Some time before flying re-started these men were sent to Stinson's factory at Wayne and one of the Wright Aero Engine factories at Paterson, New Jersey, to work alongside the factory hands producing the aircraft and engines, in order that they might get to know intimately their future charges.

After the completed aircraft arrived the unit was re-dedicated in a public ceremony. Mayor La Guardia, a pilot in the Great War, was taken on a lengthy flight over the city. After the financial hiccup that had robbed the city of its police air cover was corrected the unit quickly returned to its former state of efficient service. One hour duration patrol flying was the standard tactic in daylight hours and after flying for six months in the Stinson's the crews were flying an average of 40 to 45 hours each month. As the aircraft tended to be on the ground far more than they were flying, where the weather allowed, patrol times were deliberately staggered to ensure that the aircraft were not habitually flying at the same time each day. At the time it was claimed to be the only organised municipal police aviation unit in the USA.

Others were also trying to fly for themselves, but most were held back by their small size and lack of finance. Many arranged with friendly local pilots for ad-hoc use of their aircraft, but this was an unsure system far from the ideal.

Autogyro's featured in US police flying only in a small way. Cierva had let a number of patents to US based companies, this leading to a variety of rotary wing craft from Pitcairn and Kellett among others. It is quite likely that a number of those constructed undertook some police or law enforcement duty in obscure areas but the only recorded instances relate to the use of Kellett machines.

The Kellett KD-1 of 1934 was a unique wingless two seat autogyro similar in general appearance to the Cierva C30 series and powered by a

225hp Jacobs radial engine. Built in Philadelphia, seven examples of similar Kellett machines were purchased by the US Army in 1938. The KD-1 was demonstrated in Washington during 1939, this leading to Eastern Air Lines winning a regular mail service back in Philadelphia some time afterwards. The contract was destined to last for one year using the KD-1B NC15069, a similar single seat machine which featured an enclosed cabin area. The operation bore many of the hallmarks of the unsuccessful British Cierva postal trials of 1934. The machine operated a shuttle from the roof of the local post office to Camden Airport.

This mail contract led in turn to the local Philadelphia Police Department [PPD] having use of a KD-1 for assistance in directing traffic during the Army-Navy Games early in the war, before America was herself dragged into the conflict. This and other small scale trials did not succeed in furthering any long term aspirations the PPD may have harboured. Air support flying in the city was still struggling to survive over fifty years later.



The PPD use of the Kellett was not the only law enforcement use of the type in the US. The US Border Guard [USBG], a law enforcement operation primarily tasked with ensuring illegal immigrants were not able to enter the country, had some use of a two seat model of Kellett for a period. Little is known of this operation, but it would appear that the agency had access to one of the Army examples, probably a YG-1B used at one time by the Autogiro training school at Patterson Field, Dayton, Ohio.

In the UK Sidney Chamberlain and other London "B" Department notables were involved in an early outside broadcast on the fledgling British Broadcasting Corporation [BBC] television service. After only three years of broadcasting the world first service the war was to close it down. Some months before this sad day, on Sunday February 5, 1939, BBC crews drew together the police personnel at Bignell's Corner on the Barnet By-pass, north of London. The 20 minute programme, "The

"Mobile Police" was conducted beside and along the Great North Road. Part of a series entitled "Television surveys", the content of the programme drew little on Chamberlain's aerial expertise. At the end of the transmission after thanking Chamberlain and his colleagues for their assistance, the presenters were able to announce their next programme in the series, "Television survey number 4", was to involve autogyro's. On Sunday February 19, the BBC team transmitted the programme starring Reginald Brie and the new Cierva C.40. As the highlight of the live programme, the female half of the television presentation team, Miss Jasmine Bligh, was taken aloft in the craft and transmitted her impressions of the flight live. There is no surviving evidence to confirm that the British police also managed to make use of this, the ultimate advance in Cierva autogyro technology. The last before the helicopter took over, it was arguably the best of its type available, and clearly known to Chamberlain if no-one else at Scotland Yard. It would appear likely that at least one test flight was arranged.

As war in Europe loomed, in 1939 the majority of the surviving Cierva Autogyro's had gravitated towards the Hanworth factory. They were thus neatly in one place when war broke out later that year.