AIRCRAFT RECOGNITION

Shapes in the Sky

RECOGNITION means “to know again”. Study and enthusiasm are required to become familiar with different types and marks of aeroplane, but what to study? Here, we take a look at the development of aircraft recognition and the various aids used.

Such was the novelty of airborne involvement in the early months of the First World War that any aircraft seen over military positions was usually fired upon by friend and foe alike. Nowadays we take the use of national insignia and identification markings for granted. At the beginning of the First World War, however, Union flags had to be hastily applied to British machines, red-white-and-blue roundels to French, and black crosses to German. At low altitudes this reduced “friendly
70 years ago, *The Aeroplane* became the first British aviation journal to publish silhouettes to aid aircraft recognition. PETER DAVISON, holder of the 2008 Air-Britain Aircraft Recognition Trophy, traces the history of this unusual skill.

**Early recognition aids**

*Flight* magazine first used the term “recognition” for aircraft observation in September 1913, with regard to the public’s need to identify the competitors for the Aerial Derby, held on September 20 that year. Pictures of the pilots sat alongside drawings of their respective mounts. By the time of the 1914 race the field had grown to 15 types of aeroplane, and just the drawings were used. Among the first plan-view silhouettes was a set of German aircraft specifically for military purposes.

In a lecture delivered in early 1914, future British Director of Civil Aviation Sefton (later Sir Sefton) Brancker declared: “A first requisite is the recognition of friend or foe. No system has yet been evolved to ensure the distinction and recognition of aircraft either from the air or from the ground. Instances do and will occur of rifle- and gunfire being directed at aircraft, but it seems generally that troops refrain from firing owing to the impossibility of recognising friendly from hostile aeroplanes.”

During the First World War recognition books of silhouettes were produced by both sides, and distributed among the Services in an effort to help forces discriminate friend from foe. The first edition of an official loose-leaf handbook of poor-quality silhouettes, Air Publication 1480, appeared in the late inter-war period, and update pages were issued at intervals. Each sheet had a three-quarter view and three-view silhouettes, gave basic dimensions and named the engine type to help “spotters” learn the sounds.

Aeromodelling was also popular in the 1930s, and the
A selection of the Flight silhouettes used to aid aircraft recognition for the Third Aerial Derby in May 1914. They are, from left to right: Farman biplane; Avro Scout; Morane-Saulnier monoplane; Bleriot monoplane; Caudron biplane; Martinsyde biplane and Martinsyde monoplane. Sadly, the artist of these treasures is unknown.

Skybird Club magazine often included an aircraft knowledge quiz. Actual competitions were held in Charles W. Cain’s basement in Beckenham, Kent, and by other enthusiasts elsewhere. Cain later founded Air-Britain.

Friend or foe?
As war clouds gathered over Europe, Peter Masefield, war correspondent for The Sunday Times and technical editor of The Aeroplane, became concerned at the lack of training material for aircrew and observers. The Aeroplane first published recognition silhouettes, known as “sillographs”, in its September 7, 1939, issue, in a feature entitled Identities in Outline, declaring that “rapid recognition of friendly and enemy aeroplanes over British territory will be of vital importance”. At The Aeroplane offices Masefield had access to an experienced art studio that soon set about refining silhouettes to include nacelles, flap detail and undercarriage configurations, making them more akin to those we use today. Debates on “white line density” dictated that it be kept simple but informative.

Technical artists at the studio included Flight’s Max Millar, whose early sketches made at aero shows had helped teach

“After a friendly fire incident between Hurricanes, it became clear that RAF bomber crews discuss the finer points of aircraft recognition beneath a fine collection of models. For these men, being able to distinguish aircraft was a vital skill.
pioneers the niceties of undercarriages and wing structures, and The Aeroplane's J.H. "Jimmy" Clark, who revealed every detail "beneath the skin" of fabric- or metal-clad aeroplanes fresh off the production line. The improvement in clarity was exceptional.

**Painful lessons learnt**

The outbreak of war led to sirens prevailing when a Croydon-bound French Bloch 220 airliner was misidentified over Maidstone and Bromley. Then came the turning point: the Battle of Barking Creek on September 6, 1939, in which RAF Hawker Hurricane squadrons attacked each other amid confused reports from a searchlight battery and friendly fire from anti-aircraft (AA) defences. The Air Ministry held courts martial and blamed controllers while sweeping the errors under the carpet. It became obvious that schoolboys could do a better job than the untrained Observer Corps — literally.

Observers, trained to track speed and height, soon deluged The Aeroplane for information. On November 18 H. James Lowings, an observer from Guildford in Surrey, called a meeting in a high street restaurant to form a "Hearkers' Club", based on hearkening, or listening. The first proper meeting was held at the Corna Café, Guildford, on December 9, 1939, and the speaker, on aircraft recognition, was Peter Masefield. A contest was held with 34 postcards shown for 10sec each, the highest correct score of 28 being attained by Douglas Jenkins. By 1940 three grades of aircraft recognition success had been established.

**Gradual improvement**

During 1940 proficiency improved. Masefield toured RAF stations, AA batteries and Observer Corps stations across the country, and some 15 Hearkers' Clubs were formed, with another 100 clubs starting up. With more than 400 types of aircraft in European skies, mostly military, methods of assessment were established and, with spasmodic support from the establishment, they were reconstituted as the Observer Corps Clubs in 1941.

The term "spotter" was now recognised, the first civilian spotters' club being formed at Southend in Essex in January 1941. Workers with the appropriate skills kept watch on factory and hospital roofs to warn the labour force of real and imminent danger, thereby minimising interruptions to the war effort. More than 800 clubs were formed, far outnumbering the Observer Corps Clubs.

To add to the growing pool of knowledge, Flight launched a series of articles, comparing similar types, in January 1941.

**The spotter's Spotter**

In January 1941 Temple Press launched a new weekly magazine, The Aeroplane Spotter. Priced at 3d and edited by Masefield, it carried no advertising and "borrowed" from The Aeroplane's paper ration. Circulation rapidly rose to 200,000, with most subscribers also buying The Aeroplane. The Spotter stayed in publication until July 1948.

On May 3, 1941, a Royal Aeronautical Society conference
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A sequence of caricatures by E.A. "Chris" Wren for his Oddentification series. His playful vignettes emphasised the salient features of a given type and proved to be a great recognition aid. From left to right: Bristol Blenheim; Douglas Boston; Focke-Wulf Fw 189; Macchi C.200 Saetta; Boeing B-17; Fairey Swordfish and AW Whitley.

helped formalise the Spotters' Club organisation. Twelve regional councils took control of what became the National Association of Spotters' Clubs in August 1941. Each club might be affiliated to an Air Training Corps squadron, school or factory. During all this, instances of friendly fire were diminishing.

The major players
The Observer Corps had become "Royal" (ROC) in May 1941 and was given financial support, its members being issued with an official uniform. A keen Observer and Spotter in a Leeds publishing house, Charles Tapp, produced the first Journal of the Royal Observer Corps Club at Fair Oaks aerodrome in Surrey (now Fairoaks). The paper ration was redirected, but Temple Press allocated enough to keep the Aeroplane Spotter in print, albeit bi-weekly.

Masefield wrote for both journals. Once the USA and the Soviet Union joined the war a staggering number of new types were added to the curriculum, plus those of the new enemy, Japan, and many of these new types were researched and drawn by John Stroud of BOAC. The appearance of Basic Aircraft Recognition by Charles Gibbs-Smith in late 1942 led to the demise of the ROC Journal in December. This monthly "official" journal included many secret British types denied to the "spotter", even though details of some were already in enemy hands. Although there was an

Charles Gibbs-Smith
BORN IN 1909, Charles Gibbs-Smith was an historian trained at Harvard University in 1932 before joining the Victoria & Albert Museum in London. As Director of the Photographic Division at the Air Ministry in 1945 he became involved in teaching recognition in the Observer Corps, and later returned to museum service. A world authority on early aviation, he wrote copiously from original sources and was made an Honorary Companion of the Royal Aeronautical Society in 1962. Gibbs-Smith died in December 1981.

Inter-Services Recognition Committee at the helm, Masefield wrote most of the first three issues, distributed free to all relevant organisations.

By 1943 the title had changed to The Inter-Services Recognition Journal and incorporated colour. A notable contributor was E.A. "Chris" Wren, an RAF Flying Officer with a penchant for aircraft caricatures, emphasising their salient features. These were known as "Oddentifications".

In 1944 Masefield took up duties with the US Eighth Air Force, flying missions, and eventually became the British Air Attaché in Washington DC. Gibbs-Smith updated his guide in April 1944, when scarce paper at Newnes publishers became available. This gave guidance on recognition training and categorised the aircraft of five nations. The Aeroplane Spotter was edited by Peter Murray and later by Charles Cain, who went on to edit Air Pictorial (now Aviation News).

For many years after the war the Aircraft Recognition Society (ARS) evolved from the earlier spotters' clubs, holding the annual All-England Aircraft Recognition Contest in London, which was open to civilian and military teams as well as individuals. It also held monthly meetings in the Kronfeld Club in Eccleston Square. Certificates and prizes were awarded to
recognise improving levels of skill. Air-Britain eventually absorbed the ARS and continued the annual contests from 1961.

**The spotter's bibles**

On July 1, 1948, in response to a parliamentary question, the print-run for all recognition booklets was declared at nearly three million; not bad in the austere post-war economy. Saville-Sneath's little paperback aircraft-recognition books, published by Penguin during the war, won a place in the Guinness Book of Records for their enormous sales, which were second only to the Holy Bible.

The first issue of *The Observer's Book of Airplanes*, published by Frederick Warne, appeared in 1942, and is now a collector's item. Subsequent editions followed in 1943, 1945, 1949 (the first retitled *The Observer's Book of Aircraft*), 1952-53 and 1953-54, after which it was published annually for many years. Compiled by William Green and Gerald Pollinger from 1952, in its initial form the main section provided a picture, description and three-view silhouette of each aircraft, lesser types being grouped in a picture-only section at the back. It was no substitute for the comprehensive *Jane's All the World's Aircraft*, of course, but that was not its purpose. It was handy and affordable that today's issues are almost identical, save for the recent clarity of Soviet types that were, in the early years, somewhat vague.

Highly-respected author Bill Gunston followed John Stroud in exposing and interpreting many of those mysterious shapes and sizes and matching them to Nato codenames.

As the variety of types increased, more specialised pocketbooks were published. The *Macdonald Aircraft Pocketbooks* of 1964 used only silhouettes grouped by configuration and later, in 1984, Montgomery & Foster of Boston, USA, produced a Field Guide to Aeroplanes. This used drawings and plan-view silhouettes with arrows pointing out minor differences between 300 American aircraft types.

**Continuing the tradition**

The advancing art of aircraft recognition owes a great deal to journals and magazines, and to individuals who saw the needs of a nation and found resources to educate in both the civil and military arenas. Air-Britain, the Air Training Corps and the Observer Corps still actively engage in training and competition. Each November the Air-Britain International Aircraft Recognition Contest is held at RAF Museum London, Hendon, and is open to all.

Spotting aircraft is still a popular hobby, and, as with many pastimes, new blood is always welcome and indeed vital if the art is to continue. Note how the window seats in airport restaurants always fill first, and how air displays and air racing events are still, after football, the UK's most popular public entertainment activity. Sadly, with increased perimeter security and the high value of retail space in terminals the opportunities for safe observation have decreased markedly. The aeronautical press and the internet, however, have helped fill the gap, but I'm sure we're agreed that it does not have quite the same atmosphere!

**Fancy your chances?**

Happily, the art of aircraft recognition is alive and well in the UK, with the Air-Britain International Aircraft Recognition Contest offering prizes in various individual and team categories. This year's contest is on November 21, 2009, at the usual venue of Royal Air Force Museum London, Hendon.