

# RAF COLLEGE CRANWELL

## “Pre-War Training Aircraft”



Training Aircraft at RAF Cranwell 1920 - 1939

# A College Journal Review Written in 1961

## Training Aircraft of the RAF College

WHEN the Royal Air Force College was officially opened in 1920, training equipment consisted of the well-tried and faithful Avro 504K, the D.H.9A, the Sopwith Snipe and a Vimy or two for wireless training. The Avros, with their old-fashioned rotary engines, remained in service until the late twenties, when they were replaced by the 504N, or Lynx-Avro, which had a re-designed undercarriage, fixed radial engine, and a correspondingly increased performance. The Sopwith Snipes, with a maximum speed of 121 m.p.h., were used for solo experience for Senior Flight Cadets, and in 1920 were still front-line fighters. (How about bringing in a few Lightnings?) The next aircraft to arrive at the College was the dual Bristol Fighter, which proved an excellent trainer, witness this comment in the *College Journal* of 1930:

“Consider now the slotted ‘Biffs’  
They stall not, neither do they spin,  
And yet a Christmas Tree in all its glory  
Was not arrayed like one of these.”

Another change in equipment took place in 1931 when the Armstrong-Whitworth Atlas arrived, a large cumbersome army co-operation machine. This replaced the D.H.9A. The Snipe had also been replaced by the dual controlled Siskin, another fighter type aircraft, with a maximum speed of 150 m.p.h. The Lynx Avros soldiered on until 1933, when they were

replaced by the Avro Tutor, an attractive biplane which had considerable aerobatic potentialities. Also in 1938 the Hawker Hart trainer, a delightful aircraft to look at, replaced the ugly ‘Atlas’ and remained in service until 1939. They also were superb machines for aerobatics in spite of the fact that their basic design was that of a light bomber, and they had a maximum speed of 165 m.p.h. The Siskin was replaced by the two-seater Bristol Bulldog in the middle-thirties, which had a scintillating performance. As well as being a trainer, they were front-line fighters until 1937, when the last squadron of Bulldogs was re-equipped with Gladiators. Tiger Moths and Magisters began to appear, until in 1939 the College was closed on the outbreak of the war.

There were also other less well-known aircraft which flew from Cranwell between the wars, notably those of the Long Range Flight. In 1927 a Hawker Horsley attempted to fly from Cranwell to India, but was forced to ditch in the Danube, without serious casualties. The same year another Horsley was slightly more successful and flew 3,470 miles in 34½ hours until forced down in the Persian Gulf. This record stood for two years, until Lindbergh broke it on his New York—Paris flight. The Fairy Monoplane completed four notable flights from Cranwell. In April 1929 it flew 4,130 miles to Karachi in 50 hours, and touched down with eight gallons to spare. The next attempt was less successful, and the aircraft crashed in the Atlas Mountains on the way to South Africa, killing both pilots. Another aircraft was built and in 1931 it flew from Cranwell to Egypt. Then in February 1933 it flew from Cranwell to Walvis Bay, 6,309 miles in 57 hours 25 minutes. This was a world long-distance record.

Another aircraft associated with the College was the Cranwell light aeroplane, of which there were two versions. The first flew in 1925 and was somewhat underpowered. The second aircraft followed a short time later and was reasonably successful. Also used at Cranwell for radio instruction (not for the College) were the Vickers Vimy, Virginia and Valentia, and the D.H.86B.

During the War, the College was closed, but at Cranwell there was an F.T.S., an Instructors’ Course, and numerous other trade groups under training. As the College was closed, this period will not be examined in detail. However, the famous first flight of the Gloster-Whittle E.28/39, on 15th May, 1941, Britain’s first jet aircraft, took place on the South Airfield, a special runway being constructed for the occasion.

When the College reopened in 1946, its equipment consisted of the perennial Tiger Moth, and the Harvard. The Tiger needs no introduction, and was much beloved, despite the fact that in winter, when the Lincolnshire north-easter blew, the open cockpit was very unpleasant. The North American Harvard was the advanced trainer, its main characteristic being its peculiar rasping note caused by the high tip speeds of its directly driven propeller.

In the summer of 1948, the ever faithful Tiger Moth departed, not without pangs of regret from instructors and pupils. To replace it, the Percival Prentice arrived, a brand new British trainer. This was a three-seat, low wing monoplane with fixed undercarriage and an enclosed hood, and also with full radio aids, flaps, brakes and variable pitch airscrew, a great advance over the Tiger Moth. However, the usual teething troubles accompanied the Prentice, and an unceasing duel between aircraft and airfield took its toll; tyres burst, stern posts cracked, and the Prentice fleet grew smaller until eventually there were insufficient aircraft to continue the operation, and the Tiger was used again! However, by January 1949 everything had been cured, and the aircraft was demonstrated to the Press. at Cranwell.

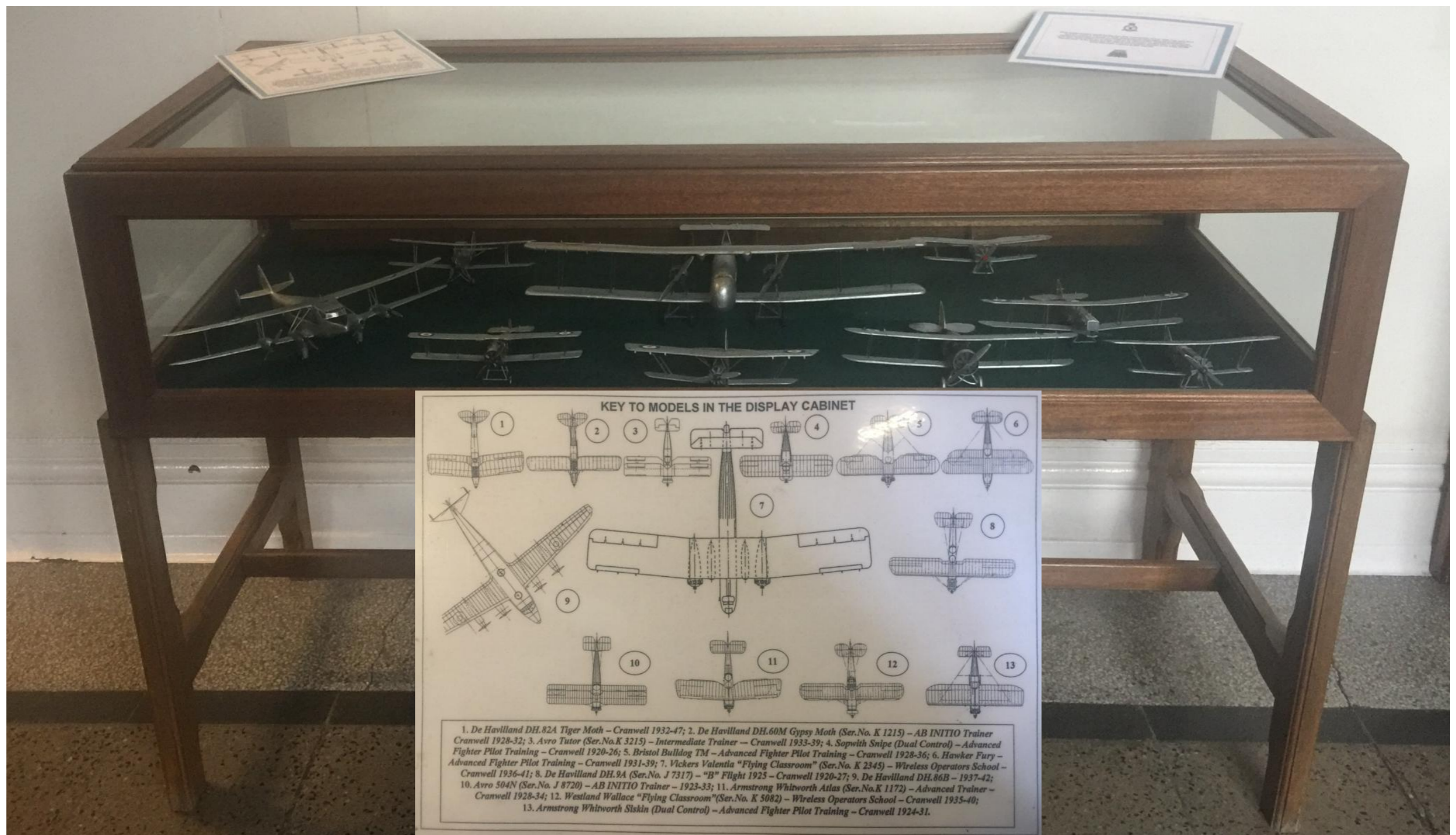
In the winter of 1952, the Prentices were replaced by a new primary trainer, the De Havilland Chipmunk. This aircraft, designed in Canada, was powered by a D.H. Gipsy Major engine and used tandem seating. It was a great advance over the Prentice in that it was fully aerobatic, and was much lighter. The noisy Harvard was also due for replacement, and, in 1953, this was replaced by the Boulton Paul Balliol T.2. This machine was powered by a Rolls Royce Merlin 35, had side by side seating, and a maximum speed of 288 m.p.h. at 9,000 ft. It had one Browning machine gun, and provision for four 60 lb rockets. Balliols served only at Cranwell and at one other F.T.S., their production being cut back in favour of the new jet trainers.

Jet aircraft had now appeared at Cranwell in the form of the Meteor 7, of which there were three, despite the fact that no runways had yet been constructed. In November 1954, the Chipmunk was replaced by the Hunting Percival Provost, which remained at Cranwell until 1960. This was a much more powerful aircraft, being sturdily and robustly built, with side by side seating and a maximum speed of 200 m.p.h., and with a service ceiling of 25,000 ft. The aircraft was capable of a rate of roll of better than 90° per sec. and had excellent aerobatic qualities. Provosts flew from the North Airfield during the construction of the runways, and from Spitalgate when Cranwell and Barkston were used by jets.

In 1956, upon completion of the South Airfield’s runways, the De Havilland Vampire advanced trainer arrived to replace the Balliol. This was Cranwell’s first jet trainer, and it is only just leaving us now. A great advance over anything used before at Cranwell, with glamorous pieces of equipment like “Bang-seats” and bonedomes associated with it, the Vampire had a maximum speed of 550 m.p.h. and a service ceiling of 40,000 ft. Cranwell entered the jet-age at last. The Provost/Vampire scheme of training was now used, in conjunction with the rest of Flying Training Command. Cadets now passed out having completed their advanced training.

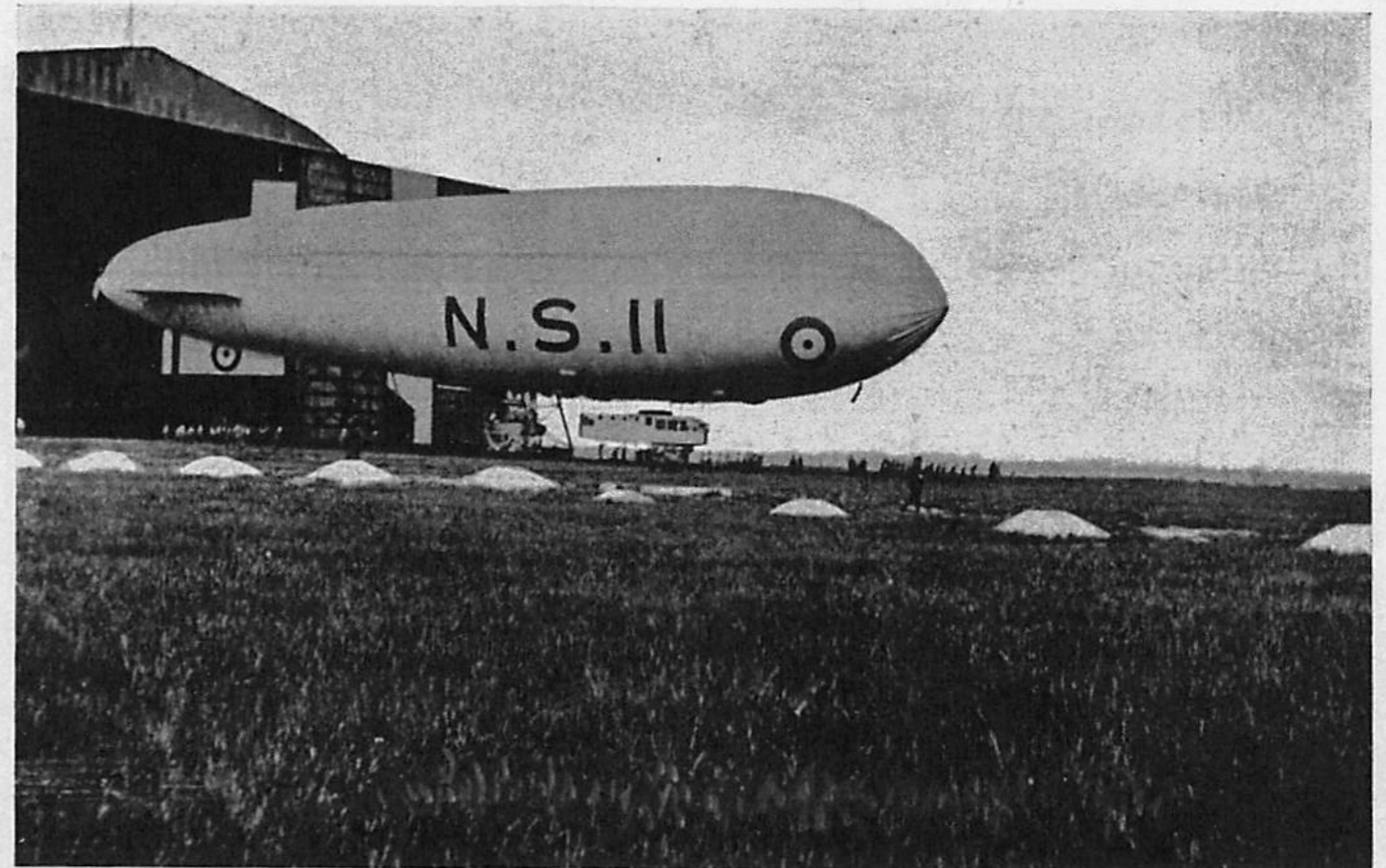
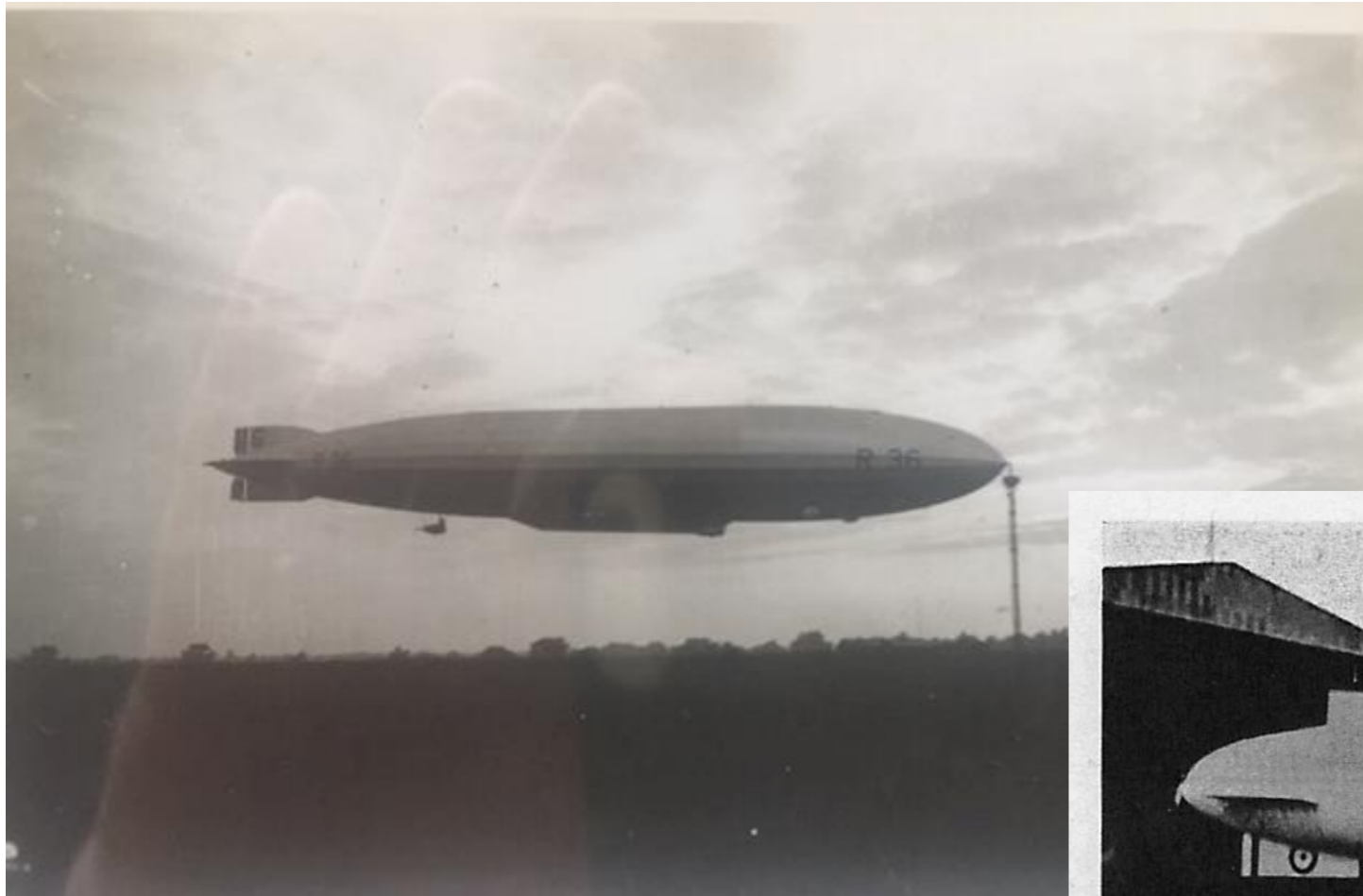
Valettas and Varsities were then, and still are, used for navigator training. Meteors still flew from Cranwell, mainly for the benefit of those cadets, who, because of their excess stature, could not squeeze themselves into the somewhat cramped cockpit of the Vampire. In 1960, the next big change took place. The “New System” meant that cadets started straight away on jets; advanced training was carried out after leaving the College. The faithful Chipmunk reappeared on the North airfield, to give once-weekly flights to those who were not yet flying on jets, and has gained quite a reputation. Jet Provosts, the last word in modernity and spaciousness, are taking over from the Vampire, and cadets now start on them. With a maximum speed of about 330 m.p.h. they are excellent aircraft, and will be supplemented later by the Mark 4 version. Finally, there are the weekend aircraft—Tiger Moths, Turbulents and gliders which fly from the North airfield on Saturday and Sunday afternoons making a welcome change from the noisy jets.

# College Models on Display



These models represent aircraft that flew from RAF Cranwell from 1918 to 1939. They were hand built from scratch to 1/48 scale by Peter Stephenson who lives nearby and produced them to supplement presentations that he gave locally on the history of RAF Cranwell between the two World Wars. These models are no longer used and Mr Stephenson donated them to the College in February 2009. All the models bear the airframe serial numbers allocated to actual aircraft during their period of service at RAF Cranwell.

# Airships Early 1920s



*[Photo : W. K. Morton & Sons, Ltd., Sleaford.]*

AIRSHIP N.S.II LEAVING ITS SHED, CRANWELL.

# Sopwith Snipe - Early-1920s



# Sopwith Cuckoo - Early-1920s



# Gloster Grebe - Early-1920s



# Boulton Paul P9 - Early-1920s



# Flying Parade A Flt - 1922



# Vickers Vimy Bomber - 1919 to 1925



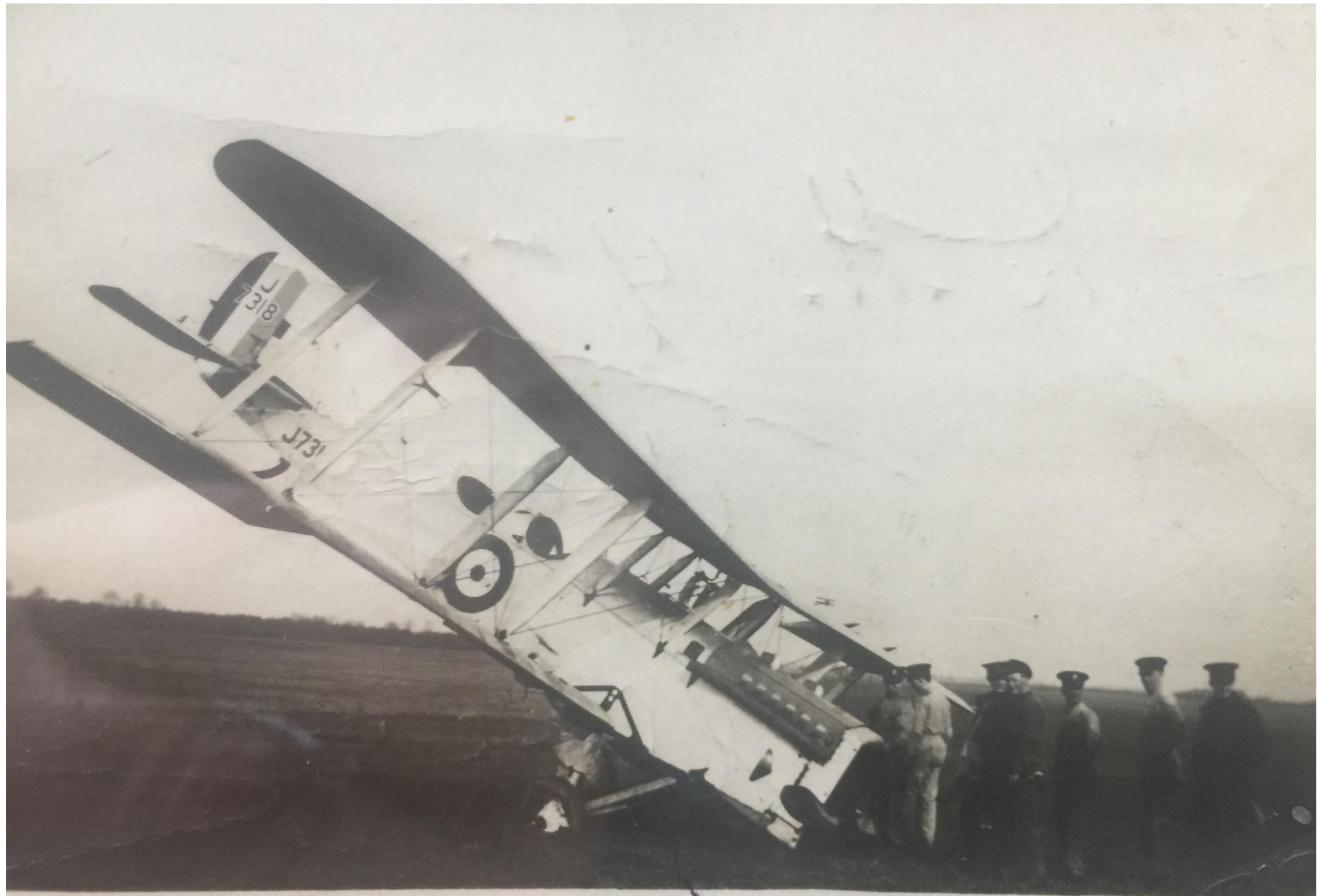
# II Grebe II - July 1925

Believed to be Grebe II J7380 of 29 Sqn - courtesy Paul McMillan



# 1926 - DH9a Crash Cranwell

Possibly J7318 hit by Snipe E6310 taking off; pilots survived; 8/6/26 - courtesy Paul McMillan



## DH 9a - Mid/late-1920s



DH 9a Trainer

## DH 10 - Mid/late-1920s



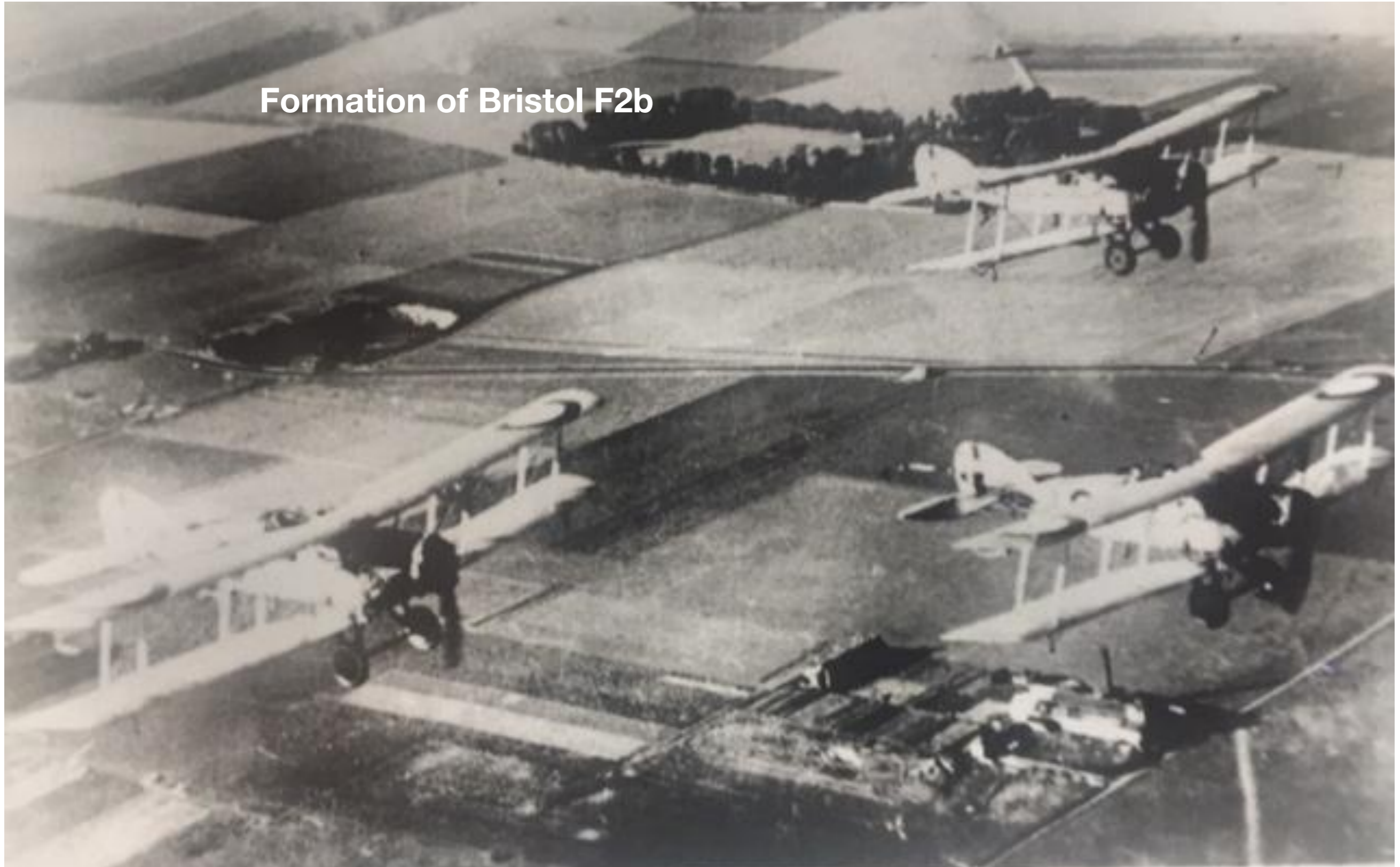
# Avro 504K - Mid/late-1920s



Avro 504Ks of 2 Sqn

# Bristol F2b - Mid/late-1920s

Formation of Bristol F2b



## **AW Siskin 111 A - Mid/late-1920s**



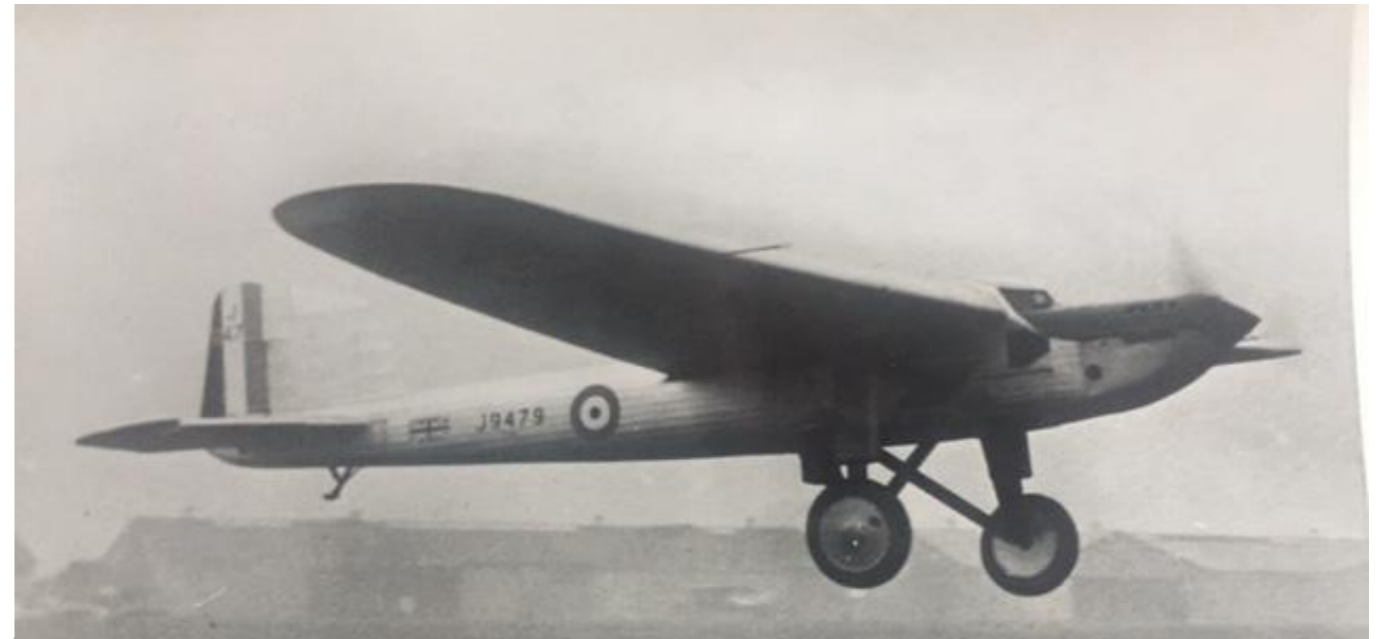
**AW Siskin 111A**

# 1928 - Siskin IIIA "Chinese Three Pointer"

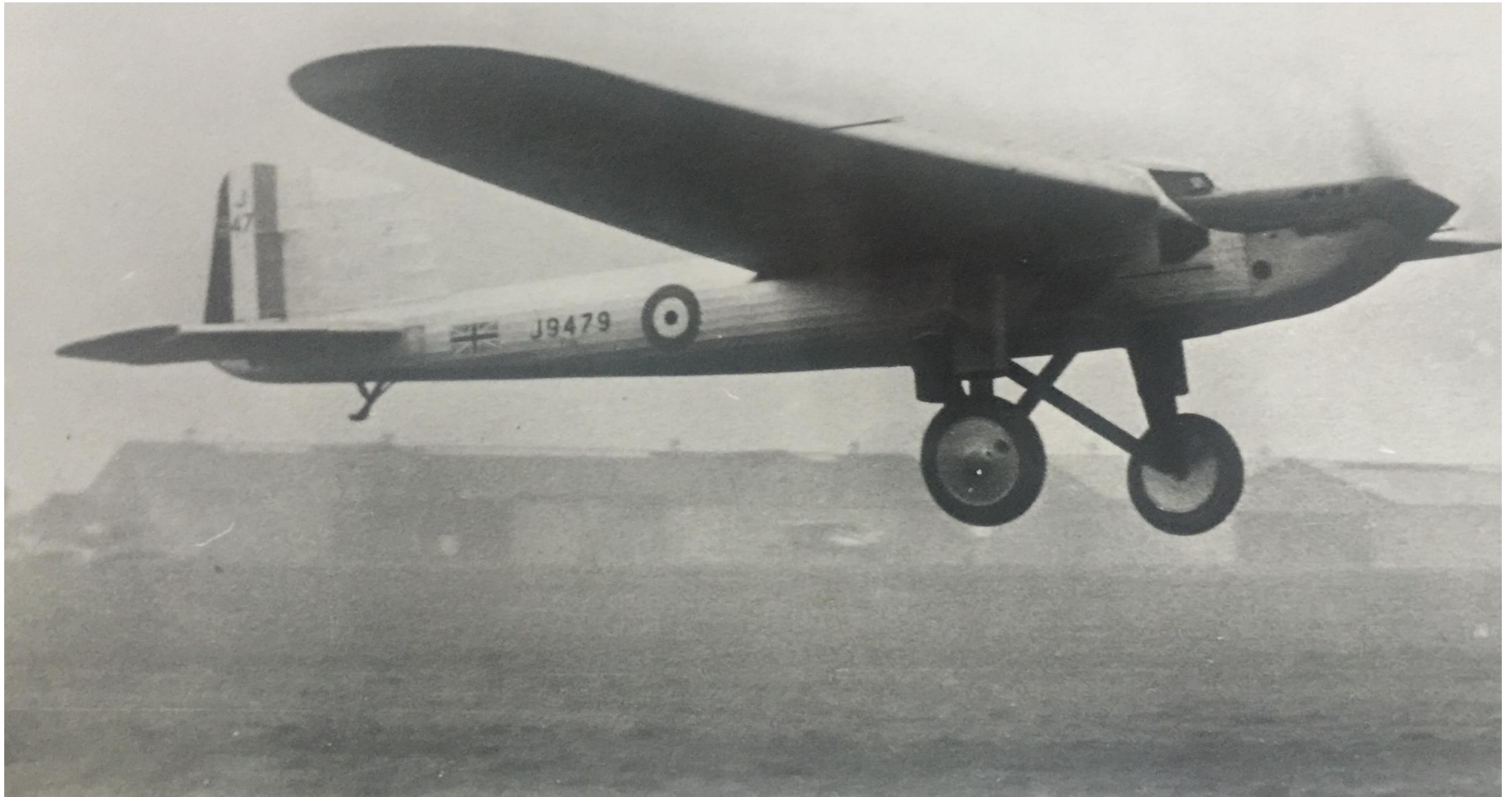


*Siskin IIIa crashed by Flight Cadet Clarkson. Landing with drift caused this type of prang - which was fairly common! Known in those days as a 'Chinese Three Pointer' - one wheel, one wing and the tail skid.*

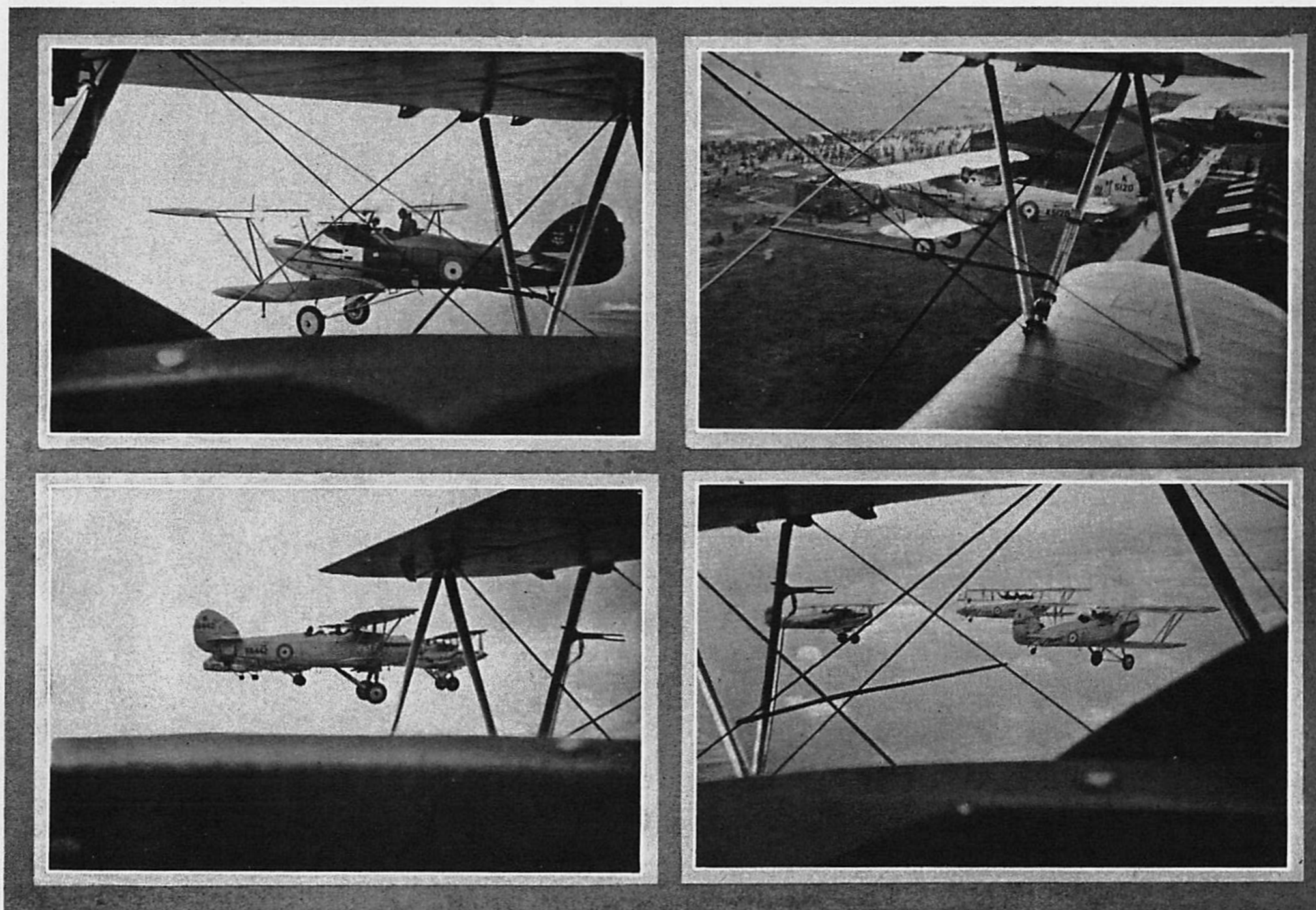
# Long Distance Flights of 1920s



# Fairey Long Range Monoplane 1929



# Tiger Moths - 1937



EMPIRE AIR DAY AT CRANWELL.

[Photographs by "Flight Cadet."]

# Cranwell Training Facilities 1920s

