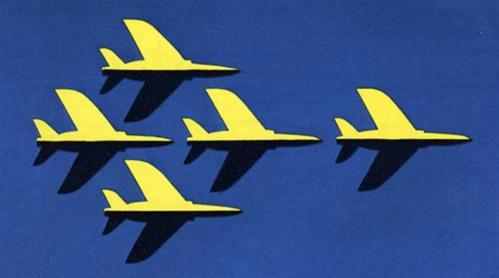
OFFICIAL PROGRAMME 2s

RAF 50th ANNIVERSARY YEAR

SSAFA international

## AIR PAGEANT

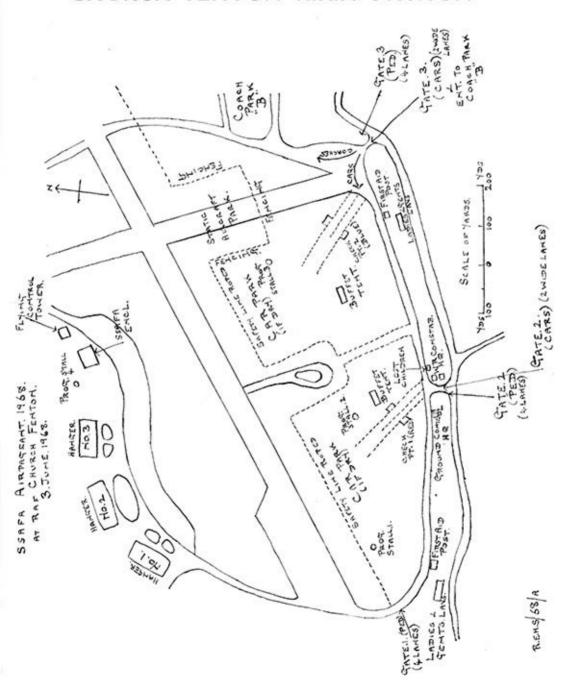
CHURCH FENTON · 3 JUNE 1968





THE COMPLETE AVIATION JOURNAL . THURSDAY 2s 6d

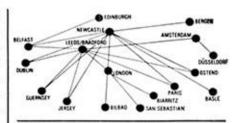
## CHURCH FENTON R.A.F. STATION





## First division team

If standards of service are anything to go by, BKS are well into the First Division. Promotion has been rapid since 1952 when they kicked off flying DC 3's and carrying 3,750 passengers. This year they're providing 1,000,000 seats. Because flyabout folk have shown they like BKS. On the way up BKS have used Anson 11, Bristol 170, Vickers Viking, D.H. Ambassador, HS 748. Now it's Viscounts and 'Whispering Giant' Britannias. Soon it's to be latest type pure jets. In sheer size, BKS aren't challenging the league leaders...yet. But they're the team to watch!



#### WIN A LUXURY FLIGHT FOR TWO

BKS wish the Air Pageant every success . . . and remind you that you could win a luxury flight for two to Jersey or Guernsey. Turn to Page ... for details of this great prize.

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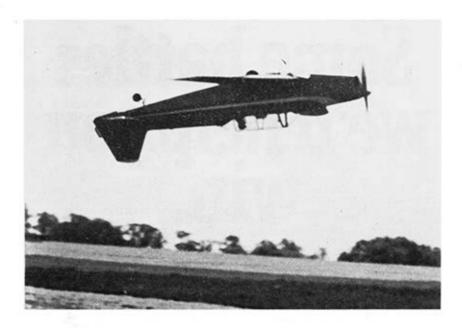
## A Return Match

Last year we headed this page "Great Britain v. France!" so the reason for today's heading is obvious: the stars of our show are again The Red Arrows—the R.A.F. Aerobatic Team for 1968, and The Patrouille de France, leading aerobatic team of the French Air Force.

After last year's thrilling displays by both teams, people went home arguing which team put on the best show. We would simply make the comment that both were first-class—as we know they will be today. The Red Arrows are now in their fourth season as the representative Royal Air Force team. We extend to them our best wishes for their continued success and, in saluting the Patrouille de France, we know that you will join us in giving them a friendly Yorkshire welcome.

## Belgian participation

At the time of going to press, it was known that the Royal Belgian Air Force intended to take part in the display but no details were available as to what part they would play. As always, however, they will be welcome: especially at this Yorkshire station where so many Belgian airmen were stationed in World War Two.



## Fifty Years of Flying

This is the Golden Anniversary Year of the R.A.F. and, coincidentally, the 50th anniversary of Neville Browning's joining the infant R.A.F. as a Pilot Officer, in 1918. We are delighted to welcome this outstanding aerobatic pilot again today and extend to him our congratulations on his clocking-up 50 years' of flying.

The holder of one of the earliest commercial pilot's licences, his first aircraft was a surplus First World War Sopwith Camel for which he paid £5. Today he is again flying his Czech-built Zlin.

## Lots of Prizes!

Keep your ears tuned for loudspeaker announcements that will give details of prizes.

The organisers wish to acknowledge the generosity of the following organisations who have kindly donated prizes: B.K.S. Air Transport Limited (return air tickets for two Leeds/Bradford Airport to Jersey or Guernsey); British Midland Airways (return air tickets for two Leeds/Bradford Airport to Glasgow or Edinburgh); Heaps Tours Limited (voucher for day's coach outing for two Old Age Pensioners); Northair Aviation Limited (free flights for 15 young ladies); Air Canada (air travel bag); Lewis's (Leeds)—(Canadian foods to fill the bag); Air India (world atlas); King Charles Sports Centre, Leeds (model aircraft kits).

# Some battles

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## The Supermarine Spitfire

The Spitfire first entered service with No. 19 Squadron (which was later stationed at Church Fenton) at R.A.F. Duxford in June 1938. During World War Two it flew in every operational theatre on a wide variety of duties.

By the time of the Battle of Britain, 19 squadrons were equipped with the Spitfire. First versions had eight .303 Browning guns in the wings; later versions were fitted with two or four 20mm. cannons and up to 1,000 lb. of bombs. The Spitfire was powered by a Rolls-Royce Merlin or Griffon engine, and was produced for low, medium and high-level photographic reconnaissance.

Total Spitfire production amounted to 20,231; in addition many more aircraft, known as Seafires, were built for the Royal Navy.

The Spitfire continued in service for many years after the war, flying on training duties and with the Royal Auxiliary Air Force. There are now only a very few still flying.

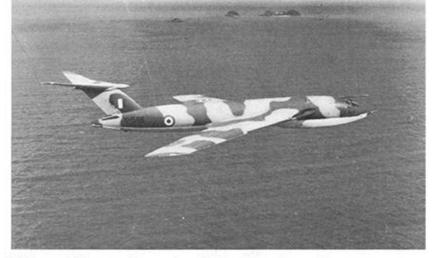
Technical Data: Dimensions—Span, 36ft. 10ins.; Length, 29ft. 11ins.; Weight, 6,527lb. loaded. Performance—Max. Speed (Mk. 1) 355 m.p.h.; (Mk. 14) 448 m.p.h.; (Mk. 21) 454 m.p.h. Rate of climb—6.2 minutes to 15,000ft.; Ceiling—34,000ft.

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## Handley Page Victor

Third and last of the aircraft ordered under the R.A.F.'s V-bomber programme, the Victor is the biggest and heaviest of them. The B Mk. 1 came into squadron service with Bomber Command in 1958, the B Mk. 2 in February 1962, and the SR Mk. 2 in 1965.

The Victor was produced to meet the same general requirements as the Vulcan and is readily identified by the 'crescent' or cusp-shaped wing. Airbrakes are fitted at the rear of the fuselage, and a tail braking parachute reduces the landing run. The wing root is deep enough to accommodate engines, fuel tanks and the main landing-gear units.

The wing was first tried out in the scaled-down form on the Handley Page HP 88 single-seater, which flew on June 21, 1951. The Victor prototype made its first flight on December 24, 1952, and the second

on September 11, 1954.

The first production Victor flew on February 1, 1956, and initial deliveries went to No. 232 Operational Conversion Unit at Gaydon in November 1957. No. 10 Squadron at Cottesmore was the first to be equipped with the Victor in the following Spring. No. 139 Squadron at Wittering was the first Victor B Mk. 2 squadron.

The crew of five consists of captain, co-pilot, navigator/plotter, navigator/radar and air electronics officer, occupying a pressurised compartment for operation at great heights. Power-operated controls provide

the heavy aircraft with the 'feel' of a light bomber.

Power for the Victor B Mk. 2 is supplied by four Rolls-Royce Conway turbojets each developing 19,750lbs. thrust. In addition to the internal fuel capacity there is provision for under-wing tanks; the SR version can also carry fuel in the bomb bay. The Victor B Mk. 1 is powered by four Bristol Siddeley Sapphire turbojets, each of 11,000lbs. thrust. The Victor B/SR Mk. 2, produced for photographic-reconnaissance duties, is fitted with radar equipment to provide pictures unobtainable by visual or photographic means. By this method an area equal to the whole of the Mediterranean could be covered on a single sortie, and four Victors on one sortie could produce a radar map of the whole of the Atlantic.

Technical Data: Span—120ft. (B Mk. 1 110ft.); Length—114ft. 11ins.; Height—26ft. 9ins. Performance: The Victor can fly above 50,000ft. very close to the speed of sound.

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## Hawker Siddeley Dominie

Powered by two Bristol Siddeley Viper 520 rear-mounted turbojets, each of 3,000lb. thrust, the Dominie entered service with No. 1 Air Navigation School, Stradishall, Suffolk, in 1965. The Dominie is the military version of the best-selling HS 125 twin-jet executive aircraft which has been sold in large numbers in North America.

Used as a navigation trainer, the Dominie enables students to be trained in more realistic conditions by filling the gap in performance between the older (200 m.p.h.) piston-engined Varsity, and operational flying in jet aircraft capable of more than 600 m.p.h.

In addition to meeting this primary requirement the Dominie is also used at the R.A.F. College of Air Warfare, Manby, Lincs., by navigation specialists for evaluating or practising new or unusual navigation techniques and for training navigation instructors.

It is an all-metal low-wing monoplane, the fuselage being built in three main sections: the nose section, which is unpressurised, and contains cloud-warning radar; a pressurised section including the pilot's cockpit and rear crew compartment; and a rear section, unpressurised, including the engine pods, fillets, tail-unit and rear equipment bay.

Technical data: Span, 47ft. 0in.; length, 47ft. 5in.; height, 16ft. 6in.; weight, maximum take-off, 20,500lb. Performance—High-speed cruise, 482 m.p.h. at 30,000ft.; long cruise, 423 m.p.h. at 38,000ft.; climb to 30,000ft., 19min.; climb to 38,000ft., 34min.; ceiling 40,000ft.; maximum range, 1,383 miles.



## A Versatile Transport

The Belfast was designed specifically to carry large and heavy freight loads, or passenger/cargo combinations over a wide range of stage lengths and has been justly described as the most versatile of the world's big transport aircraft.

Few other aircraft have a cargo hold cross-section as great as that of the Belfast. Stacker and forklift trucks can work freely inside the fuselage and a walkway skirting the sides of the fuselage permits inspection of the cargo during flight.

The immense volume of the hold—more than 11,000 cubic feet—facilitates quick conversion for a variety of roles including those of freighter, troop carrier, weapon patrol carrier, tanker, air ambulance and paradropper.

The aircraft is powered by four Rolls-Royce Tyne R.Ty.12 engines driving 16ft. propellers and has an all-up-weight of 225,000lb. It is able to take off fully laden in a balanced field length of 7,400ft. to full civil performance margins.

The aircraft can carry its capacity payload of 80,000lb. over 850 statute miles at 340 m.p.h., with 20 per cent fuel reserves. With a capacity fuel load of 80,760lb. it can carry a 25,000lb. payload over 5,200 miles at 340 m.p.h., again with adequate fuel reserves.

Including the ramp, the hold is more than 80ft. long, has a maximum height of 13ft. 4ins., a floor width of 12ft. and a maximum width of 16ft. A removable floor enables an upper deck to be added over any section forward of the wing.



## Lockheed Hercules C Mk.1

The Hercules CMk. 1 is basically the USAF C130E but is fitted with a British avionic system, a roller conveyor system for heavy air dropping, and has more powerful engines.

The aircraft is rugged and well proven; it is primarily intended for tactical operations, but has the ability to perform a dual role: it can work from small, unprepared strips and also possesses the endurance necessary to mount long-range strategic lifts if required.

The Hercules can be used for para-trooping, air-dropping of supplies and troop-carrying. On regular freight services to the Far East, these aircraft reach Singapore in 27 hours' flying time.

The Hercules has the capacity to employ the new Ultra-Low Level Airdrop (ULLA) technique to deliver supplies with great accuracy from a height of only 20ft.

Technical Data: Max. all-up weight—175,000lb. (more than 78 tons); Span—132ft.; Length—97ft; Power—4 x 4,910 h.p.; Cruising speed—345 m.p.h.; Range and payload—2,500 miles at 45,000lbs.; 4,600 miles at 20,000lbs.

## See a Canberra cockpit

The static display being put on by Headquarters No. 6 Recruiting Region, R.A.F. Church Fenton, will include a Gnat fighter (a genuine production aircraft but non-flying), a Canberra cockpit, an Avon jet engine and a mobile recruiting trailer.

## R.A.F. Station, Church Fenton

Church Fenton, in common with many other airfields, was constructed during the general expansion of the Royal Air Force during the midthirties to meet the threat of war. The first squadrons to arrive in 1936 were equipped with Gauntlet and Gladiator fighters, and the station remained in Fighter Command for the next 23 years.

In 1939 the squadrons were re-equipped with Spitfires, Blenheims and Hurricanes and during the Battle of Britain period they fought many actions, mainly in defence of the East coast and inland towns.

From May, 1942, many fighter squadrons, chiefly equipped with Beaufighters and Mosquitoes, were based at Church Fenton and carried out defensive operations against German raiders or, in the attacking role, operated against military targets on the Continent and as "intruders."

With the coming of peace training was resumed, first of all in squadrons equipped with the piston-engined Beaufighter, Spitfire, Mosquito and Hornet and subsequently jet-propelled Meteors, Hunters and Javelins. For much of this time the "week-end pilots" of No. 609 (West Riding) Squadron, Royal Auxiliary Air Force, also flew from Church Fenton.

In July, 1959, the station was transferred to Flying Training Command to become the home of several important units, the principal ones being Headquarters No. 23 Group and No. 60 Maintenance Unit. In 1962 Church Fenton resumed its flying function and became the home of No. 7 Flying Training School. Up to the end of 1966 over 400 student pilots trained on Jet Provost aircraft and were presented with their wings, many of them from Commonwealth and other countries. In 1966 Leeds University Air Squadron (which had previously been based here) returned to Church Fenton, together with No. 9 Air Experience Flight, both units operating Chipmunk aircraft.

In January, 1967, the Primary Flying Squadron replaced the now disbanded 7 FTS and in January this year, the Aircrew Officer Training School also moved here from South Cerney. The aim of the school is to introduce the aircrew entrant to the Royal Air Force and to begin his officer training. Direct entry pilots and navigators are given their first knowledge and experience of the RAF at Church Fenton and those who are successful in the intensive 15-week course are commissioned and are ready to start their flying training. Those pilots who are not already qualified at civil flying schools, etc., remain at Church Fenton for 30 hours' primary flying in Chipmunk aircraft which enables them to acquire handling skills and airmanship in a simple type of aircraft before graduating to the more complicated checks and procedures necessary in jet aircraft.

## DISPLAY DOODLES by home "RIGHT, CHAPS, WE'RE YOU'RE ON ON TV NOW, SO IN FIVE **EVERYBODY** MINUTES, SIR SMILE! "BAGSHAW AND HIS DAMN HICCUPS". "IN HIS BOOK HE DOES IT ON ONE ENGINE AT FIFTEEN FEET" "I SAID HE'S BROUGHT HIS OWN SOUND BARRIER WITH HIM"



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SSAFA is a world-wide independent voluntary organization whose object is to be of use to the families of Service and ex-Servicemen and women, and to provide them with relief when they are in distress.

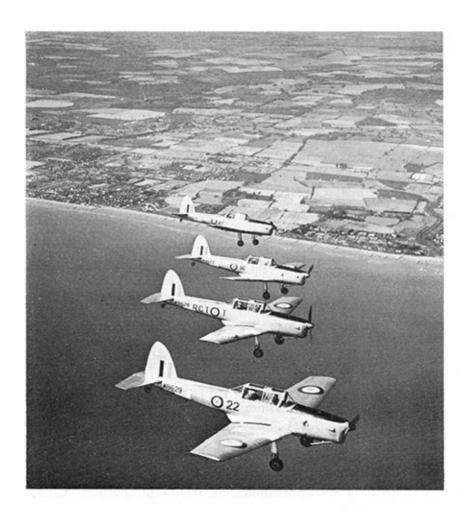
Every year thousands of families, widows, and orphans, whose needs cannot be met by the Welfare State, are helped by SSAFA's 12,000 voluntary workers in the 1,500 Branches throughout the United Kingdom and Service stations abroad.

SSAFA has its roots in our cities, towns, villages, and countryside. Its workers are local people with local contacts and they work with patience, tact, and in strictest confidence.

The case may be a lonely war widow, sick and helpless, or an estranged wife unable to join her husband serving overseas, with all the domestic difficulties which this involves. A Serviceman abroad may be worried about a family crisis at home, but SSAFA provides a vital link and the local Branch may help to solve his family's problems in his absence.

SSAFA's confidential reports are invaluable to the Services when compassionate applications are being considered.

By helping Service families not only during the time the man is serving, but afterwards as well, SSAFA fills a role which the heads of the Services recognize as essential to good morale. SSAFA also ensures that the widows and dependants of men who died serving are not left lonely and in need.



## An Ideal Trainer

The Chipmunk was adopted in 1947 to replace the Tiger Moth and immediately became popular with students and instructors who flew it. Now, in 1968, the same aircraft is being used to give primary flying training to R.A.F. pilots at the commencement of their training, as well as providing air experience flying for A.T.C. cadets.

The Chipmunk has tandem seating to ensure the best aerobatic performance and tailwheel undercarriage to teach correct landing techniques. Technical Data: Span—34ft. 4in.; Length—25ft. 5in.; Height—7ft.; Cruising speed—124 m.p.h.; Stalling speed—50 m.p.h.; Take-off—248 yards; Landing—310 yards; Range—485 miles.

## Flying Programme

(The Organisers cannot hold themselves responsible for any alteration in the programme through circumstances beyond their control. Any such alteration will be notified through the Public Address System).

- Event 1. The Red Arrows, R.A.F. Formation aerobatics in Gnats.
- Event 2. Solo aerobatics by Sqn. Ldr. Neville Browning, R.A.F. (Retired) Chief Flying Instructor, Herts. and Essex Aero Club, in a Zlin.
- Event 3. Gnat solo aerobatics, R.A.F. Valley.
- Event 4. Solo aerobatics, Fouga Magister, Royal Belgian Air Force.
- Event 5. Crash and Rescue Vehicle Demonstration by R.A.F. Church Fenton.
- Event 6. Flying display by a Victor of R.A.F. Wittering.
- Event 7. Demonstration by a Beaver and a Scout helicopter of the Army Air Corps, Netheravon.
- Event 8. Demonstration. Nipper aircraft of Nipper Aircraft Ltd., Castle Donington, Derby.
- Event 9. Demonstration. Blackburn B.2 of Hawker Siddeley Aviation Ltd., Brough, Yorkshire, piloted by Mr. D. Whitehead.
- Event 10. Flying display. Dominie of R.A.F. Stradishall.
- Event 11. Flying display. Andover of R.A.F. Odiham.
- Event 12. Demonstration. Hercules of R.A.F. Lyneham.
- Event 13. Air/Sea Rescue demonstration, Whirlwind helicopter, R.A.F. Leconfield.
- Event 14. Chipmunk solo aerobatics, Leeds University Air Squadron.
- Event 15. Demonstration. Cessna 310 and Cessna 172 of Northair Aviation Ltd., Leeds/Bradford Airport, Yeadon.
- Event 16. Display by a Spitfire from R.A.F. Coltishall.
- Event 17. Formation aerobatics in Fouga Magisters, by La Patrouille de France, of the French Air Force.
- Event 18. Demonstration by a Shackleton from R.A.F. Ballykelly, Northern Ireland.
- Event 19. Solo aerobatics by the winner of the Wright Jubilee Trophy 1968.
- Event 20. Formation flypast by a Chipmunk, Cessna 150, and Cessna 172 of Yorkshire Flying Services Ltd., Leeds/Bradford Airport, Yeadon.

## Acknowledgments

The Chairman and Council of the Association desire once again to express their very sincere appreciation to all those who have so kindly given their services voluntarily and willingly to assist in this annual SSAFA Air Pageant as under:—

The Ministry of Defence (Navy, Army, Air), the Royal Air Force.

The French Air Force.

The Royal Belgian Air Force.

All participants in the flying programme and the static display.

The G.O.C. in C. Northern Command.

charge of all traffic arrangements.

The A.O.C. No. 25 Group, Training Command, R.A.F.

Group Captain G. J. South, D.S.O., D.F.C., R.A.F., The Officer Commanding, Royal Air Force, Church Fenton, and all Ranks. The Royal Air Forces Association.

150 (Northern Command) Provost Company, Royal Military Police.
4th (Volunteer) Battalion, The Parachute Regiment.

The Yorkshire Evening Post.

Allen Rowley, Promotions and Publicity Manager, Yorkshire Post Newspapers Ltd., Editor of this programme.

The Chief Constable and all members of the West Riding Constabulary. Superintendent C. M. Tunnicliffe, West Riding Constabulary, in

The British Red Cross Society, West Yorkshire Branch.

The St. John Ambulance Brigade, Midland Area, West Riding, Yorkshire.

The Manager and staff of the National Provincial Bank, Leeds.

Mr. C. G. Carlton, Publicity Director, Iliffe Marketing Co. Ltd.

The Automobile Association.

The Royal Automobile Club.

Finally, the spectators themselves, who each year encourage the organisers so much by attending the SSAFA Air Pageant. It is hoped that everyone will have a most enjoyable day.

This programme was printed by the Yorkshire Evening Post Colour Printing Division at Driffield.

#### FLYING PROGRAMME OFFICIALS

Flying Controller:

Squadron Leader L. K. Grzybowski A.F.C., R.A.F., Senior Air Traffic Control Officer, R.A.F. Church Fenton.

Assistant Flying Controller:

Flight Lieutenant I. WATT, D.S.O., D.F.C., R.A.F.

Commentator:

Allen Rowley, Promotions and Publicity Manager, Yorkshire Post Newspapers Ltd.



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## Hawker Siddeley Andover

Principal function of the Andover is to give battlefield mobility to the Army by providing air transport forward from a major air-head which can only be used by the larger long or medium range aircraft. The Andover is one of the most versatile transport aircraft ever built for the R.A.F., its main feature being a STOL (short take-off and landing) capability, which enables it to operate from rough airstrips down to 300 yards in length with obstacles in the approaches. It may be used for troop carrying or freighting—the troops or freight being either landed at their destination or despatched by parachute—and may also be employed in the aeromedical role, i.e. as an air ambulance.

The Andover (length 78ft., span 98ft.) is powered by two Rolls-Royce Dart turbo-props of 3,000 h.p., and can cruise at 254 m.p.h. The freight hold is 37½ft. long, with a floor width of 6ft. 10ins. The cabin is fully pressurised and the aircraft can operate at heights of over 20,000ft.

For freight loading and supply dropping the Andover has a large hydraulically-operated ramp-type rear door, and a roller conveyor system is installed in the floor. A unique feature of the aircraft is its "kneeling" undercarriage which enables the sill height of the ramp to be adjusted from 3ft. to 7ft., thus facilitating the loading of freight from widely assorted vehicles ranging from one to 10-tonners.

The Andover carries a crew of four—captain, co-pilot, navigator and air quartermaster.

The Andover C.Mk. 1 is a development of the Hawker Siddeley 748 civil airliner, of which the R.A.F. has six in service (the Andover CC Mk. 2). Two are with the Queen's Flight and four are used for communications flying at home and overseas.

### **SPORT**

EVERY reader is interested in one game or another and, in keeping with the policy of The Daily Telegraph, reports on all sports are contributed only by those recognised as leading authorities in their particular sphere. For expert criticism and imaginative writing follow your favourite sport through the eyes of

"HOTSPUR" and "MARLBOROUGH"

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ENID WILSON (Golf)

DONALD SAUNDERS (Boxing and Soccer)

BRYON BUTLER (Soccer and Cricket)

DAVID MILLER (Amateur Soccer) LANCE TINGAY

OND THE

(Lawn Tennis)

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JOHN LANGLEY (Motor Racing)

RUPERT CHERRY (Rugby)

DAVID THORPE (Yachting)

JAMES COOTE

(Athletics)

DAVID SAUNDERS (Cycling)

ALAN SMITH (Equestrianism)

# Daily Telegraph

The paper you can trust



## A 'Pilot's Aeroplane'

The Gnat T,Mk. I two-seat advanced trainer was developed from the single-seat Gnat light fighter and first flew on August 31, 1959. It is transonic, and although similar to the fighter version, the wings and tail unit have increased area and a longer fuselage accommodates the second seat in tandem. The Gnat is ideal for bridging the gap between the basic trainer and the front-line fighter and can also carry armament for various operational roles.

The aircraft is powered by a 4,520lb. thrust Bristol Siddeley Orpheus 101 turbojet. Fuel, totalling 264 gallons, is carried in bag tanks in the wings and fuselage and there is provision for two further 59-gallon under-wing tanks.

The Gnat is most popular with instructors and pupils and has been described as a "pilot's aeroplane."

Wing span—24ft.; length—31ft. 9ins.; height—9ft. 7½ins.; maximum speed (with under-wing tanks)—Mach 0.91 (approx. 600 m.p.h.); maximum speed in shallow dive—Mach 1.15 (approx. 760 m.p.h.).

## A Youthful SE5A

The newest aircraft on display today—it is so new it isn't even completed yet—also happens to be the "oldest" of any aircraft present. The SE5A replica is being built by pupils of the Historical Aircraft Society of Pontefract Secondary Boys School. They started work on it last September and it has now reached skeleton form.

The aircraft will be non-flying but, even at this stage of construction, it reveals a very high standard of workmanship that is a credit to all concerned.

#### THE OFFICERS' WIDOWS' BRANCH SSAFA

The maintenance of the ROYAL HOMES for Officers' Widows and Unmarried Daughters, Queen Alexandra's Court, Wimbledon, S.W.19. which provides 79 unfurnished apartments and 9 bed sitting rooms, rent free for widows and unmarried daughters of deceased officers of the Three Services. Applicants must not be under 45 nor over 70 years of age.



And debts accumulated during illness or perhaps just bad management

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#### the MORE HELP WE CAN GIVE

Donations gratefully received by:-

Captain J. A. Grindle, C.B.E., J.P., R.N., Chairman, Officers' Widows' Branch S.S.A.F.A. 27 Queen Anne's Gate, London S.W.1.



## Northair Aviation Limited

At the conclusion of today's flying programme, 15 lucky young ladies will get free flights in a Cessna 310 of Northair Aviation Limited. Based at the Leeds Bradford Airport, the company has aircraft hire and charter facilities and has a Cessna sales and service organisation.

Two of the company's aircraft, the 310 and a 172 will be taking part in the flying display. The exceptionally quiet single-engine 172 has the Cessna high stability wing which produces a smoother, more stable ride. It has a six cylinder 145 h.p. Rolls-Royce engine.

The American-built 310 has superb short-field capabilities. It will fly at up to 237 m.p.h. and has a range of more than 1,700 miles. It has twin 260 h.p. engines with specially-designed mountings to reduce vibration to a minimum and reduce noise.

## A Model Dog-Fight

A display of formation flying, and some exciting "dog fights," will be staged by members of No. 168 (City of Leeds) Squadron A.T.C., and some of their friends, using flying model replicas of World War One aircraft.

Their programme will be divided into two main parts: Stunt Control Line Flying and Intermediate Stunt Flying.

In the former, large stunt models will be used, flying at about 60 m.p.h. on 55ft. steel lines. In the latter section, cadets will fly models on 35ft. lines and there will be a demonstration of how novices are taught to fly control line models.

However, the highlight of the show will undoubtedly be the use of models of 1914-18 aircraft in simulated dog-fights. The models are expected to include a B.E.2B, Pfalz DIII, S.E.5A and Fokker DUII.

The plan is for the German and British aircraft to take off separately; aerial battle will then commence and there will be "ground effects" to add to the realism. At the conclusion, it is intended that one aircraft will be shot down in flames.

## Army Air Corps' Beaver

The Canadian-built Beaver is a single-engined high-wing monoplane designed to carry a pilot and five passengers. A tough and reliable work-horse, with remarkable short landing and take-off capabilities, the Beaver is in world-wide service. It is used in a number of roles by the Army Air Corps and some of these roles will be demonstrated today.

#### WATCH OUT!

It is particularly stressed that no member of the public must attempt to cross the runways either before, during, or after the Air Display finishes. The safety line guarding the runway is marked by a post and rope fence, and danger notices; the public must on NO account go beyond this safety line.

It is also strictly forbidden for the Public to enter the enclosure round the Static Aircraft display. Some of the aircraft in the Static Display are taking part in the flying programme this afternoon.



## A Veteran Trainer

Enthusiasts who felt that aviation lost a lot when bi-planes began to fade from the scene will be delighted by the presence today of the beautifully-maintained Blackburn B2.

The Blackburn Bluebird, built in 1926, was really the fore-runner of the B2. This bi-plane, a side-by-side two seater for private owners, was designed in 1924 but a suitable engine was not found until two years later. A total of 69 was built.

The Bluebird proved so popular for training flying that it finally emerged, in metal-clad fuselage form, as the B2 in 1932. It continued in use as an initial trainer until 1941 and was regarded as a keen rival for the Tiger Moth. A total of 45 B2s was built.

The aircraft has a span of 30ft. 2in., a length of 24ft. 3ins. and a maximum speed of 112 m.p.h.

## Yorkshire Aeroplane Club

Coming from the Leeds and Bradford Airport today will be a Cessna 150, Cessna 172 and Chipmunk of the Yorkshire Aeroplane Club. They will be flown by pilots of Yorkshire Flying Services Limited who are responsible for flying training at the Club.

Over 50 pilots a year are trained at the Club and its training aircraft are well known in the skies around Yeadon. The Chipmunk is fully aerobatic.

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## A Do-it-yourself job!

At the time of writing, the smallest aircraft scheduled to take part in this year's show was the Nipper, latest version of the world famous Tipsy Nippers.

Built by Nipper Aircraft Limited, East Midlands Airport, Castle Donington, it is also obtainable in kit form for home construction.

The design features of the Nipper have won it the highest regard for performance, handling and economy and endeared it to pilots all over the world.

The aircraft can operate from the smallest fields, climb at 650ft. per minute and cruise at over 95 m.p.h. on three gallons per hour. The delightful handling qualities of the Nipper, its inherent stability and forgiving nature make it ideally suitable for aerobatic practice.

Proof of its superlative aerodynamic qualities lies in the fact that on two occasions Nippers have won the coveted King's Cup Air Race.

## NAAFI

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well equipped clubs in garrisons at home and overseas self-service grocery shops and supermarkets for Service families a comprehensive sports goods service a printing service a catering service for anniversary dinners and sports days instalment credit on particularly favourable terms a hire purchase service for new and used cars petrol stations bakeries sausage factories a tea blending and packing plant a coffee factory one of the largest wine cellars in the country



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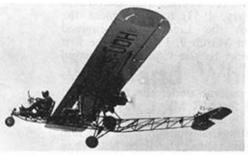
## Space for Spotters' Notes

## Up, up and nearly away . . .

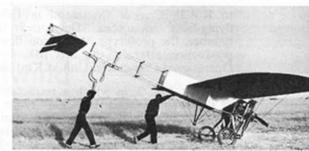
Over the years people have used all sorts of weird and wonderful designs in an effort to fly. Some made it, others didn't: here are some that just about got off the ground . . .



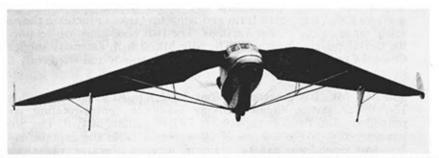
This tail-less aircraft, pictured in 1930, was built by two Nottingham men over a period of four years. On its first flight it covered several miles and reached a height of 1,000ft. Pictured with it is Mr. R. F. T. Granger, the designer.



Dr. Mickey Finn, of Johannesburg, pictured at the controls of his "Parasol Pusher" which, he claimed, was a replica of a 1909 Curtiss using parts taken from relatively modern aircraft. The 108 h.p. engine gave his aircraft a speed of 65 m.p.h.



. . . ah! well, we can always try again another day: M. Jean Salis and his son waiting for the right weather to try a cross-Channel flight with their Bleriot-replica in 1955.



The novel "Pterodactyl" tail-less research aircraft rehearsing at Farnborough for an R.A.F. Pageant in June, 1931.



## Long-range Shackleton

Shackleton long-range maritime-reconnaissance aircraft were introduced to R.A.F. Coastal Command in February, 1951, to supplement the flying-boat squadrons. Developed from the Lincoln four-engined bomber, the prototype Shackleton flew on March 9, 1949, and the first production aircraft—the MR Mk. 1—went to the Coastal Command Operational Conversion Unit at Kinloss.

The MR Mk. 2, in which a retractable radome under the fuselage aft of the wing replaced the "chin" radar of the MR Mk. 1, was issued to the R.A.F. late in 1952. Two 20mm. guns were mounted in the lengthened nose and there were gun-sighting positions in nose and tail. The dorsal turret mounted two more 20mm. guns. The large bomb-bay of the Shackleton can accommodate a wide variety of anti-shipping weapons, including depth-charges and bombs, and there is extensive radar and radio equipment.

This versatile aircraft was progressively improved and eventually replaced the flying-boats altogether. The current version is the MR Mk. 3, generally similar to the MR Mk. 2 but with a nose-wheel landing-gear, modified wing plan-form and wing-tip tanks to increase the already great range of the earlier versions. The two nose guns are retained, but the dorsal turret is removed. The MR Mk. 3 is in extensive service with Coastal Command and in the overseas Commands and frequently figures in outstanding rescue incidents.

The MR Mk. 3 is powered by four 2,455 h.p. Rolls-Royce Griffon 57A 12-cylinder piston engines driving six-blade contra-rotating co-axial propellors, and there is capacity for 4,248 gallons of fuel. The Shackleton normally carries a crew of 10 which includes the captain, co-pilot, first and second navigators, engineer, wireless operator, radar operator and three men to act as look-outs and operate the SARAH equipment. Crew members alternatively operate as bomb-aimer and front gunner.



## Westland Whirlwind

The Whirlwind Helicopter—originally the Westland-built version of the Sikorsky S-55—has been in service with the R.A.F. since 1954, the first HAR. Mk. 4s, equipped for tropical operation at high levels and in high temperatures, being issued to No. 155 Squadron at Kuala Lumpur, Far East Air Force, for troop transport and rescue work in the Malayan jungle.

When the helicopter is used for search and rescue operations both the scoop-net and winch methods are used. A swimmer can be scooped out of a calm sea, or in bad weather the winchman is lowered to the victim by line, wraps him in a strop and he is then winched up to the helicopter. If necessary the winchman can support the victim while both are winched up in a double-hoist.

Later variants of the Whirlwind are fitted with a 1,024 h.p. de Havilland Gnome shaft-turbine engine. This version is designated the HAR. Mk. 10. A simple engine installation permits piston-powered versions to be converted.

## Your leaving arrangements . . .

FOR LEAVING THE AIRFIELD, AFTER THE FLYING DISPLAY FINISHES AT 5 p.m.

#### 1. Traffic

- (a) Leaving Gate 2 ALL TRAFFIC will turn RIGHT, and then travel towards CHURCH FENTON.
- (b) Leaving Gate 3 ALL TRAFFIC will turn LEFT, EXCEPT COACHES, which will turn RIGHT towards CHURCH FENTON.

#### 2. Pedestrians

- (a) Pedestrians who arrived by coach and debussed at COACH PARK "B" will embus in their coaches at the same place.
- (b) Pedestrians who wish to use the ordinary STAGE CARRIAGE SERVICE on leaving the airfield should proceed to Gate 1, where they can embus on the requisite bus.
- (c) Pedestrians, who wish to use the "SHUTTLE BUS" service to Church Fenton Railway Station, proceed to Gate 1 and embus there.

## Air-Britain

Aviation photographs and publications will be on sale at the Air-Britain stand. The West Riding Branch of Air-Britain exists to bring together people with a common interest in aviation. Meetings are held monthly at the Yeadon headquarters of the Yorkshire Aeroplane Club. The branch also publishes a monthly "Yorkshire Air News."

#### LOST CHILDREN

The Lost Children's Tent is situated alongside the West Riding Police Headquarters, near Gate No. 2 on the South side of the airfield and is clearly marked.

Those looking for lost children are asked to go to the Lost Children's Tent without delay.

A detachment of the British Red Cross Society are kindly manning the tent. It should be noted that during the flying programme it is regretted that messages regarding Lost Children cannot be given over the public address system.

#### AN ADVANCE ANNOUNCEMENT

## CHRISTMAS CARDS

SSAFA Christmas cards will again be on sale this year.

There are four completely new exclusive designs, published by SSAFA and sold in aid of the funds of the Soldiers', Sailors' and Airmen's Families Association.

The cards are superbly produced in full colour at 4d, 6d, 8d, 10d and 1/3.

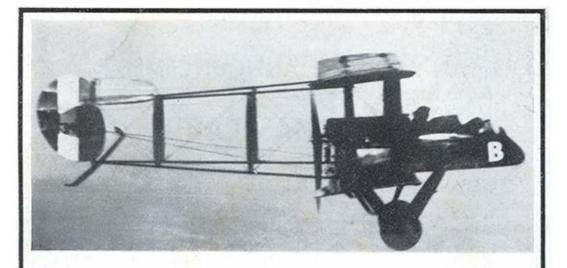
A leaflet, illustrated in full colour and giving all the details of the cards and prices, together with an order form, will be sent to you without obligation.

Simply fill in the form below, and post it in an unsealed envelope bearing a 3d stamp. Do please send for your leaflet early.

SSAFA is a nation-wide voluntary organisation whose object is to help the families of Service and Ex-Servicemen in times of distress.

Will you please help by buying SSAFA Christmas cards this year? Thank you.

To: S	Soldiers', Sailors' and Airmen's Families Association,
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2	27, Queen Anne's Gate, London S.W.1.
	e send the illustrated leaflet of SSAFA 1968 Christmas Cards order form.
Name	e (Mr., Mrs., Miss)
Addr	ess
	(Block letters please)
Post	this form for full colour illustrated leaflet.



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