



BRITISH AEROSPACE AIRCRAFT GROUP
HATFIELD

Family & Open Day

SATURDAY · 7TH JULY 1979

PRICE TENPENCE PROCEEDS TO CHARITY



Hatfield's participation in **BRITISH AEROSPACE** Civil Aircraft Programmes....

1416



£25.700



A300





A Message of Welcome...

from

Mr M J Goldsmith
Divisional Managing Director

BRITISH AEROSPACE
HATFIELD-CHESTER DIVISION

After an interval of three years it is a pleasure to welcome you back to the Hatfield site for another Open Day. As before the day has been planned essentially as a family occasion, when we can encourage our friends and neighbours to visit the factory and see something of our work.

Hatfield has become more than ever the centre of British Aerospace's on-going civil aircraft activity, a role which we have been proud to assume in the two years since British Aerospace was formed.

We have a responsibility for three major programmes: the 125 business jet which has now over 440 sales world-wide making it one of the most successful civil aircraft: the new BAe 146 feederjet, with four other Divisions of British Aerospace and two overseas partners participating with both design and manufacture, is off to a good start and many airlines are showing strong interest in the aircraft. Final assembly will be at Hatfield and we hope it will keep our factory busy over many years. Then there is the Airbus for which we design and, at Chester, assemble the wings. We are now full partners in Airbus Industrie and many will have read of the consortium's outstanding sales successes over the last year: sales and options have reached over 350 including more than 100 of the new A310 version.

With these important long term programmes in hand we believe we have much to offer our local community in continuing and interesting employment and, for young people seeking a career in advanced engineering or associated trades, an opportunity for careers in a commercial and technical enterprise which is doing credit to our country.

I hope you will have an interesting and enjoyable day with us and our friends in British Aerospace Dynamics Group across the airfield.

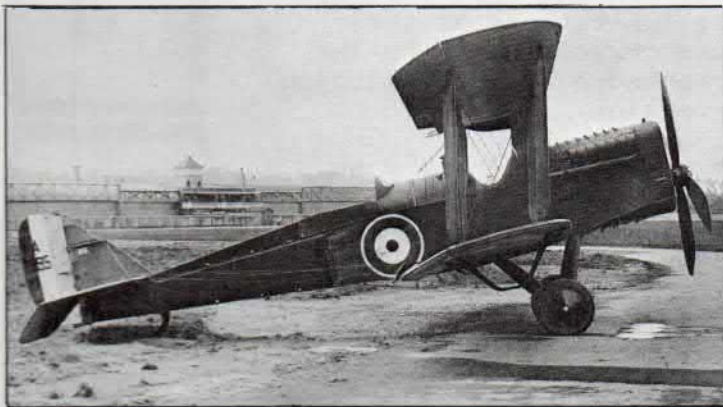
Hatfield History

continuous aircraft manufacturing since 1933.....

The Hatfield story, begins in 1933, when the famous de Havilland Aircraft Company Ltd. then based at Stag Lane in Edgware, London were looking for larger premises. Having in the 1920s designed and manufactured the de Havilland Moth light biplane and the DH4 biplane of World War I, was bringing flying to the man in the street. It was at this time, as the demand for aircraft, and the air congestion around Stag Lane so increased, that a pilot whilst on a flight from the airfield saw an area of flat fields near the country town of Hatfield.

The rest, is now aviation history, aircraft with a world reputation have been designed and built here, famous aircraft, like the Mosquito, Vampire, Comet and Trident.

At first the de Havilland School of Flying moved to the new base, and in 1934 a new factory and offices were opened and production of the Tiger Moth trainers and Dragon light transport aircraft commenced.



de Havilland DH4

When at the outbreak of war, in 1939, the design team led by Sir Geoffrey de Havilland again turned to the military application, and from this resulted the now world famous 'Mosquito' aircraft - "the wooden wonder" of which some 11000 aircraft of many marks and operational roles were produced.

It was very shortly after the coming of peace again - that the de Havilland DH104 Dove, small twin-engined airliner, flew in September 1945, of which numbers are still flying today. Another de Havilland Enterprise Wartime triumph, the designing of the "Goblin" jet engine, which flew in the DH100 Vampire some 3 years earlier, was to play a great part in the next era of aviation to emerge from Hatfield -



de Havilland DH60 Moth

The de Havilland DH106 Comet - the world's first jet airliner - cutting travelling times by half and promoting exciting new standards of passenger comfort. Continuing in the field of civil airliners, the Trident powered by Rolls Royce spey engines, and being the first airliner to use the capability to land automatically, flew for the first time from Hatfield in 1962. Today the aircraft is flying daily upon the networks of British Airways, and is widely used by CAAC in China.

Today Hatfield is poised yet again to enter the regional feederliner field with the 146, of which you will see test specimens, and a fully furnished mock-up.

de Havilland DH Mosquito and Comet Airliner



No other feederjet being built today meets the needs of the 1980s with the operating economy, maintainability and environmental acceptability of the

BRITISH AEROSPACE 146



British Aerospace Aircraft Group Hatfield-Chester Division, is going ahead with full development of the British Aerospace 146 new generation feederjet, the corporation's first new aircraft project. UK Government approval of British Aerospace's plans were announced in Parliament on July 10 1978. Development is programmed towards first flight in late 1980, certification and first deliveries in early 1982. Continued monitoring of the market as well as regular discussions with potential customers has established the world-wide need for an aircraft with the characteristics of the 146 and confirms that it will capture a major share of an estimated world market requirement for 1,200 feederjets by the end of the next decade.

Designed to provide greater profitability over short stages, the 146 will achieve substantially lower seat mile costs than the twin turboprop airliners it has been developed to replace. It will also offer greatly reduced aircraft operating costs compared with the larger twin turbo jets now in widespread use on main line routes.

Its wide cabin comfort, outstanding performance capability and extremely low noise levels will bring modern standards of travel to routes presently operated by propeller driven airliners and first generation narrow bodied jets.

The aircraft will initially be built in two versions. The British Aerospace 146-100 seating 70-90 passengers will be able to operate from runways less than 3,500 ft (1,070 m) in length with exceptional performance capabilities from high altitude, high temperature airfields. It will be able to operate from both un-paved and low bearing strength runways.



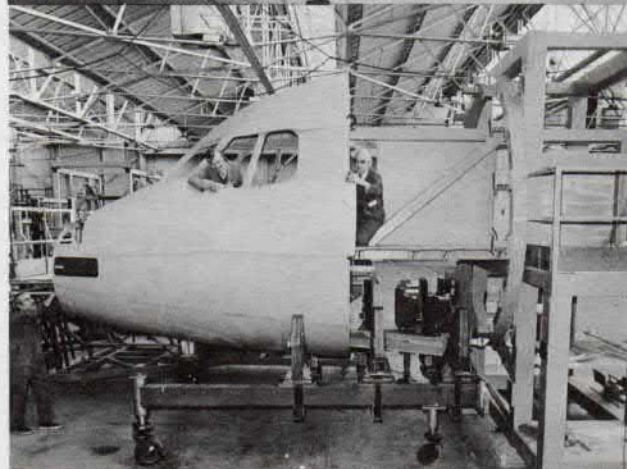
The design is also readily adaptable to other duties and, in particular, it is intended to develop a very effective military tactical freighter incorporating a loading ramp in the rear fuselage. In this configuration a wide range of military personnel and equipment can be carried, operating from short, rough airfields and the aircraft will have excellent aerial delivery capabilities.

The 146 will be powered by four Avco Lycoming ALF 502-H engines. These small, modular high by-pass ratio fan-jets of 6,700 lb (3,040 kg) thrust contribute to the aircraft's very low noise levels, high fuel efficiency and economy of operation on short haul feederjet operations.

Production will be undertaken in a number of British Aerospace factories which will be responsible for all fuselage components, while the wing boxes will be built by Avco Aerostructures in the USA and all moving surfaces by SAAB Scania, Sweden. These companies will participate in the programme on a risk sharing partnership basis. Final assembly will be at British Aerospace's Hatfield plant where the marketing operation is also centred.

The component parts of the 146 will be built at all five divisions of British Aerospace and at three locations outside British Aerospace.

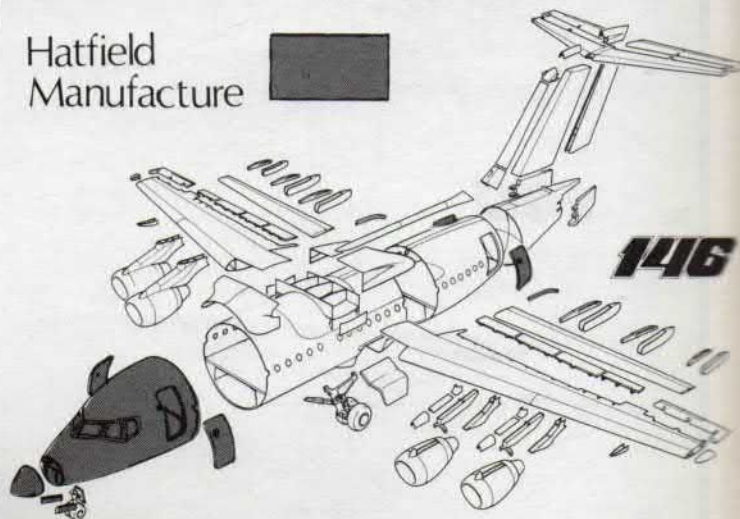
The final assembly of the aircraft will be at Hatfield, where the nose fuselage together with the doors are also being manufactured. Other divisions of British Aerospace involved in the manufacture of the 146 are Bristol, who are building the centre fuselage and wing box, Manchester, producing the rear and tail portions of the fuselage, Brough manufacturing the flaps and fin and Scottish who are making the engine pylons.



Key Facts

	Series 100	Series 200
Wing Span	86ft 6in	86ft 6in
Overall Length	85ft 10in	93ft 1in
Overall Height	27ft 11in	27ft 11in
Wing Area	832 sq.ft	832 sq.ft
Cabin Internal Width	11ft 1in	11ft 1in

Hatfield
Manufacture



Programme of Events

We welcome you to the Hatfield facility of British Aerospace Aircraft Group today. This brief is expressly intended to give an outline of the programme arranged for you to inspect certain factory areas where our aircraft are manufactured, and for you to witness a short flying display which includes both current production aircraft and the vintage aircraft of yesteryear.

May we bring to your attention the following points which will be of importance.

- Our gates open at 0900 hours
- Flying display commences at 1030 hours
- Factory closes at 1230 hours
- The airfield closes at 1400 hours

The areas of the factory which are open for your inspection, are indicated upon the map overleaf.

There is an exhibition area within the main assembly hall, in which both aeronautical and non-aviation stands will be seen, these are again indicated on a map overleaf.

As you are no doubt aware the Dynamics Group of British Aerospace situated on the opposite side of the airfield is open, and you are most cordially invited to use the special bus shuttle service to visit the activities and products of this facility within the Dynamics Group, manufacturing guided weapons and missiles, together with participation in European Space Programmes.

The boarding and alighting area for the bus shuttle is indicated overleaf.

Refreshments are available, luncheon tickets are available, to the appropriate restaurants.

Ice cream and beverages can be purchased at the stalls which are marked and located on the guide map.

A lost children's area is provided.

During your visit with British Aerospace Aircraft Group today, a number of mobile exhibitions and displays have been especially arranged for your enjoyment - the details of their location is indicated on the map, within the exhibition area are:-

Design Department:- a display to include the many facets in modern aircraft design, from the Design Office, Systems Group, Stress Office, Aerodynamics and Wind Tunnel Departments.

Training Department:- a display will show samples of work, the current training programme and the Shell Super Mileage vehicle.

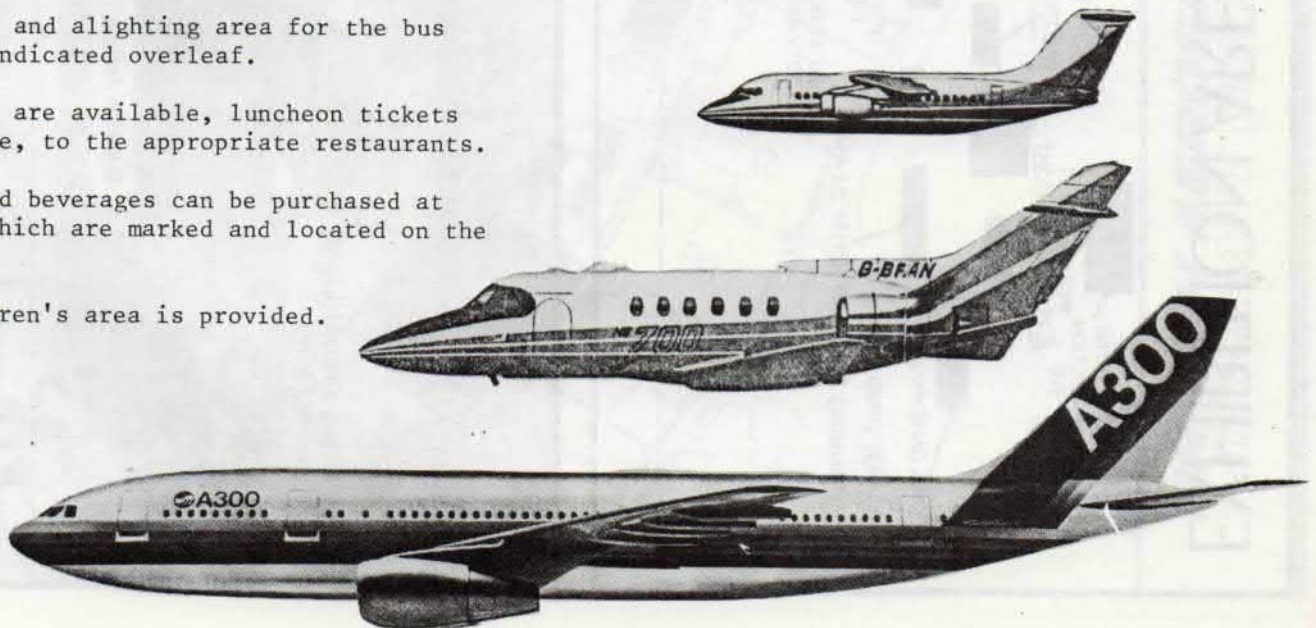
Apprentice Association:- in association with the Training Department will show the activities of the apprentices both in and out of their training programmes, hang gliders etc.

Personnel and Public Relations will present a joint display of British Aerospace range of programmes and career opportunities.

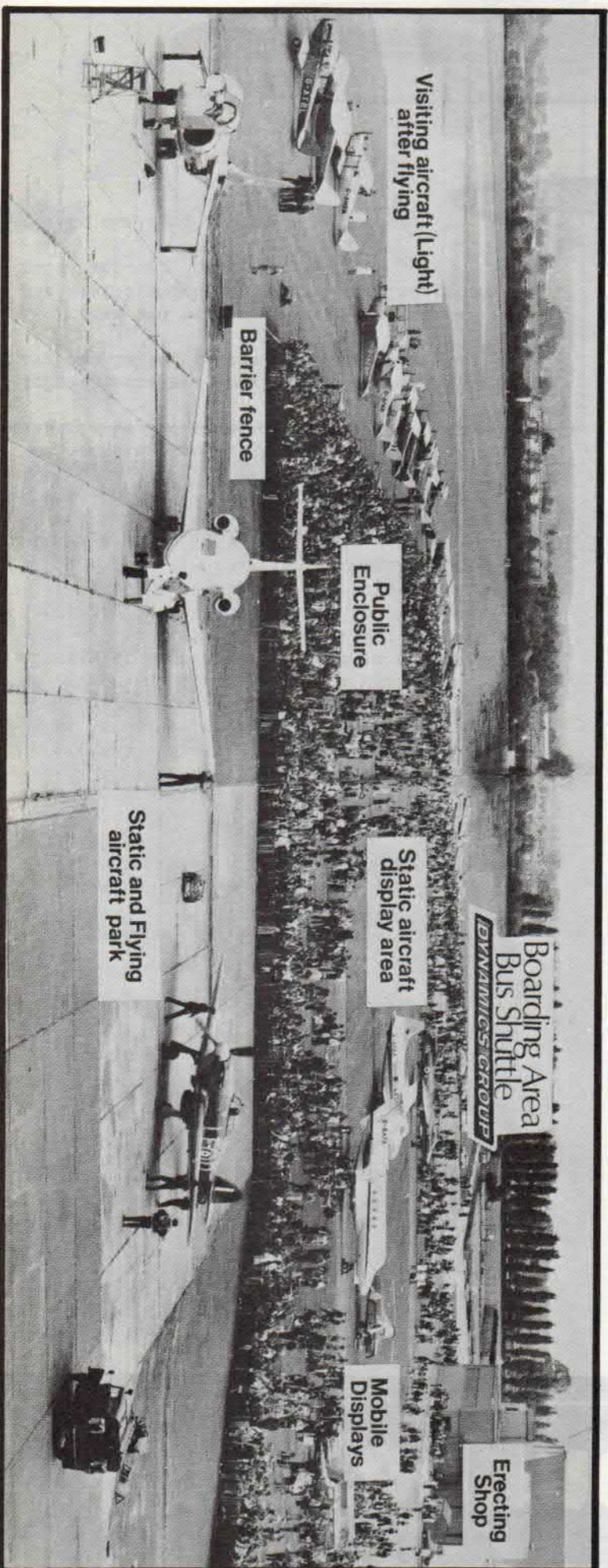
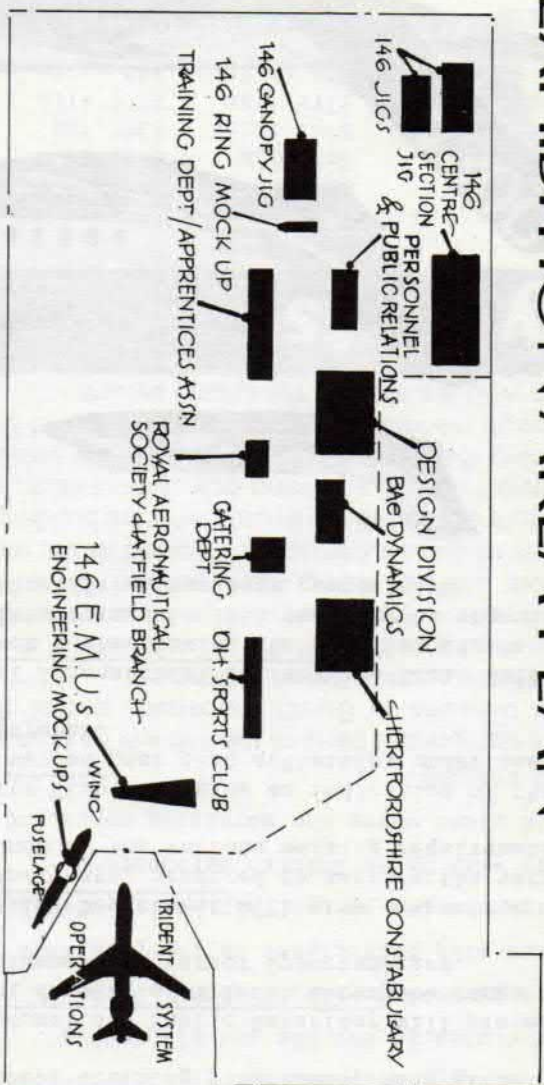
Catering Department will give a spectrum of the culinary art, produced to satisfy the varying demands of the various messing requirements.

Sports Club will give an indication of the wide and varied past time activities undertaken by employees.

Royal Aeronautical Society the local Hatfield Branch - are showing the benefits of the Society formed in 1866 and will be organising an aircraft enthusiasts competition.



EXHIBITION AREA PLAN



Guide

Not open
to public

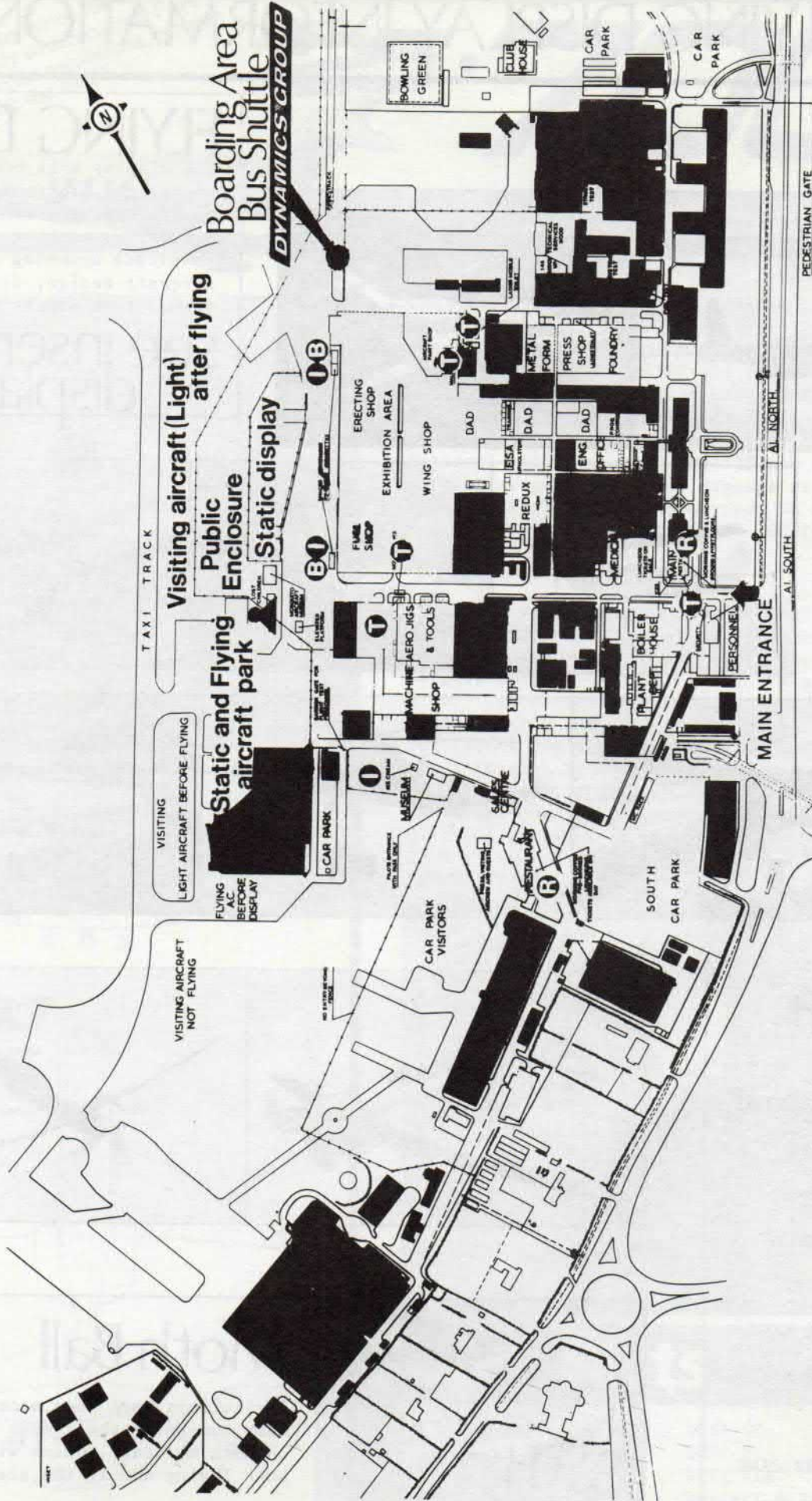


Barrier fence



LOST CHILDREN

- B** BEVERAGES
- I** ICE CREAM
- R** RESTAURANT
- T** TOILETS



BRITISH AEROSPACE
AIRCRAFT GROUP

Hatfield facilities

FLYING DISPLAY INFORMATION

FLYING DETAILS

The display will commence at 10.30 hours, the programme being subject to aircraft availability, and prevailing weather conditions - A cavalcade spanning some 45 years of aircraft design, development and manufacture can be witnessed.

see insert for
display order

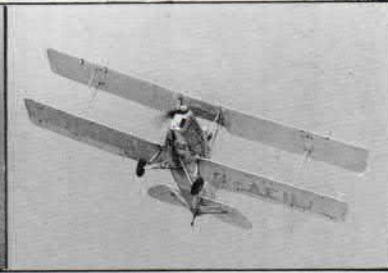
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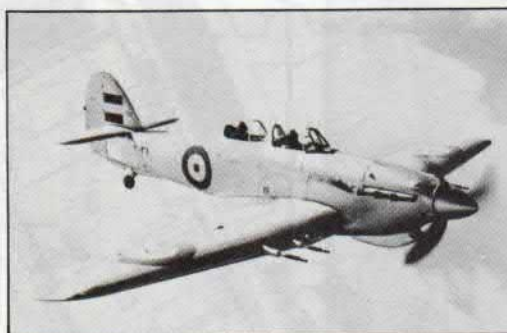
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3|4|5

6
7
8

9



10



Aircraft...

1. D.H. 98 MOSQUITO
2. BAe. 125-700
3. D.H. 60 MOTH
4. BAe. COASTGUARDER
5. BLACKBURN B2
6. HAWKER SEA HAWK
7. WESTLAND SEA KING
8. BAe. HAWK
9. HAWKER HURRICANE
10. HAWKER SEA FURY



Moth Ball



Invitations have been accepted by many owners of the famous family of DH Moth aircraft, which will be seen both flying and in the static park.

"Softly softly" is the Series 700 style.
 It operates not only within current FAA/
 ICAO noise and pollution regulations, but also
 within those tabled for the 1980's.

125.700

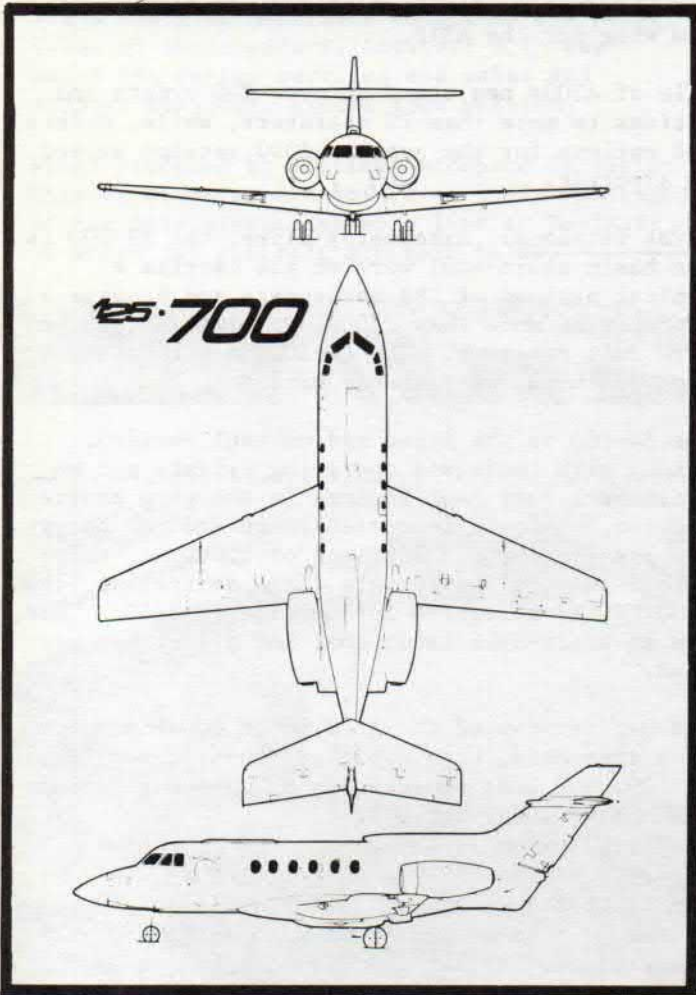


Wherever you fly, you're a good neighbour.



The HS 125 Business Jet is in production by the Hatfield-Chester Division of British Aerospace. The latest version, the Series 700, is powered by Garrett AiResearch TFE 731 turbofan engines whose low fuel consumption have enabled the range to be increased by some 50% to 2,600 miles (4,184 km) while drastically reducing external noise levels. The 125 can carry 8 or more passengers and their baggage at a cruising speed of Mach 0.75. The current UK market price for a fully equipped 125-700 is approximately £2 million.

Since the first delivery to Chartag, a Swiss charter Company in September 1964 over 430 125s have been sold in 28 countries, the largest market (over 220 sold) being in the highly competitive North American area. Approximately 80% of all HS 125s sold have been for export and the fuel conservation and environmental benefits of the Series 700 have further stimulated sales, particularly in the USA where over 50 of this series have been sold. Overseas earnings at today's value now exceeds £300 million.



Key Facts

Wing Span	46ft 0in
Overall Length	50ft 8in
Overall Height	17ft 7in
Engine (2)	Garrett AiResearch TFE 731-3 turbofan

A310**Small
economy
model.****A300****Large
economy
model.**Both the A300 and the A310
incorporate the technology
of the 80's. **Airbus Industrie**

The European Airbus family of wide-body fan jets now comprise two basic versions - the A300 series, of which there are five variants seating typically around 270 passengers, and the smaller A310 launched in July 1978, of which there are two versions seating typically 200 passengers.

The A300 Airbus family is built by Airbus Industrie, a European consortium. The partners are France (Aerospatiale) 37.9%, the UK (British Aerospace) 20%, West Germany (Deutsche Airbus, grouping the interests of Messerschmitt-Bölkow-Blohm and VFW) 37.9%, and Spain (CASA) 4.2%. Final agreement for British Aerospace to become a full member of Airbus Industrie was signed on 29 November, 1978 and Airbus Industrie was reformed on 1 January, 1979 to take into membership the UK. As a result of British Aerospace's 20% interest in the consortium, the Corporation invested some 50 million US dollars as its share of the net assets of AI.



British prime interest is in the continued manufacture of wings for A300 B2/B4 versions and for the design, development and manufacture of a new wing for the A310.

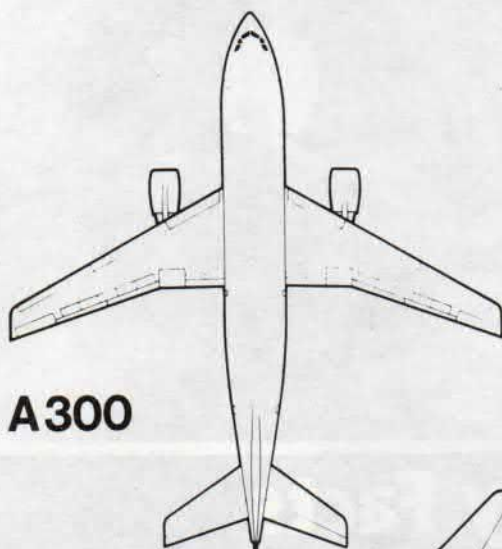
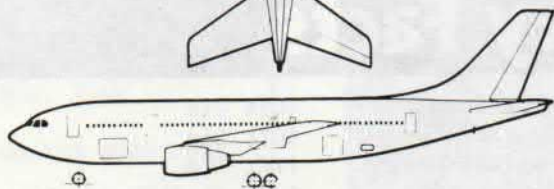
Sale of A300s now stand at over 200 orders and options to more than 20 operators, while, orders and options for the smaller A310 version exceed 90 aircraft.

B2/B4 versions: Externally alike, the B2-100 is the basic short-haul version and carries a typical payload of 269 passengers and baggage a distance of more than 2,000 st. miles (3,219 km) with full reserves. The B2-200 is a special 'hot and high' performance variant.

The B4-100 is the basic medium haul version, which, with increased operating weights and an additional fuel tank located in the wing centre section, achieves increased range and can carry 269 passengers to a distance of 3,000 st. miles (4,828 km). A convertible cargo derivative, the A300 C4, is scheduled for service in 1980. This has an upper-deck cargo door and a 41-tonne payload.

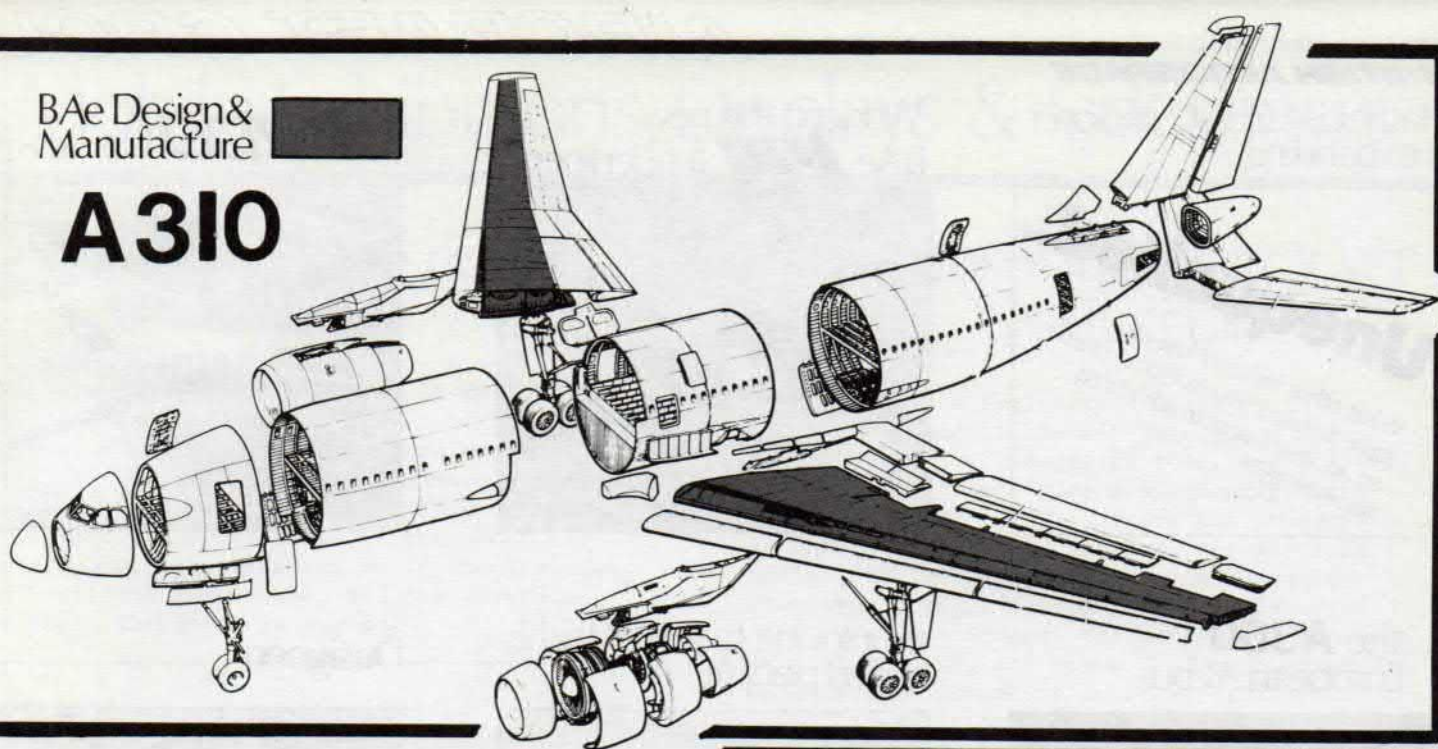
Another version of the A300 under consideration is a stretched, high capacity 350-seat version, the B9, and less immediately a long-range, four-engine version, the B11.

The Airbus A300 is powered by the General Electric CF6-50C engine with 52,500 lb (23,814 kg) thrust. In 1977 Pratt and Whitney signed an agreement with Airbus Industrie to install the JT9-D engine as an alternative.

**A300**

BAe Design &
Manufacture

A310



A310 versions: Launched in July 1978 the A310-100 is a shortened fuselage version of the A300 wide-body airliner designed to carry 180/220 passengers up to 2,300 st. miles (3,702 km). It has an optimised advanced technology wing, providing savings in weight and drag, and hence improved fuel economy.

Orders to date on British Aerospace for wings and wing materials amount to 244 sets. Value of these orders, together with payments for design services and sales and support services, exceed £300 million.

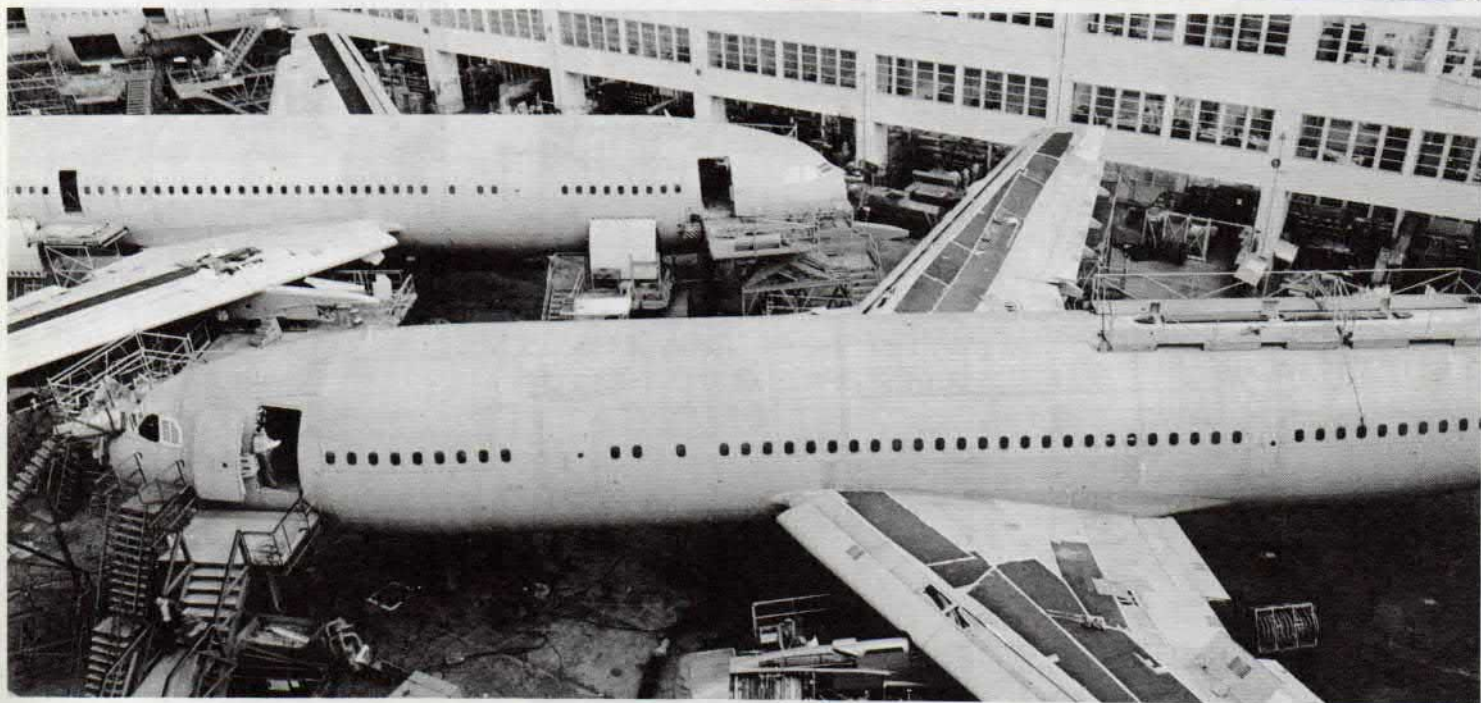
Wings produced by British Aerospace Hatfield-Chester Division are joined to their fuselages at the main Airbus assembly line at Toulouse of which two aircraft are seen below.

Key Facts

Dimensions

	A300	A310
Wing Span	147ft 01in	144ft 00in
Overall Length	175ft 11in	153ft 02in
Overall Height	54ft 03in	51ft 10in
Wing Area	2800 sq.ft	2357 sq.ft
Fuselage Diameter	18ft 05in	18ft 05in
Max. Operating Speed	345kts CAS	360kts CAS

The entry into service of the A300 was remarkably trouble free. By the end of 1978 the fleet had accumulated more than 230,000 flying hours with a despatch reliability of 98%.



AIRCRAFT GROUP

BRITISH AEROSPACE

Hatfield's largest employer is expanding...

Unequaled..

What other industry last year gave Britain £900 millions return on an investment in advanced technology?

Work on the new BAe **146** feederliner



... **125-700** business jet



... the **A300** European Airbus



employing teams of highly skilled people



Designers



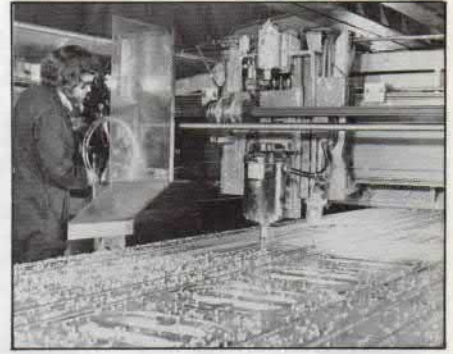
Engineers



Computer Staffs



Machinists



and many more



within one of the world's largest aerospace companies



HATFIELD-CHESTER DIVISION

Mobile Exhibitions, Displays & Sideshows



DH Museum

The history of the de Havilland Aircraft and Hatfield can be viewed at the DH Museum which is situated near the Sales Conference Centre. Many of items of achievement and success are displayed through photographs, models and memorabilia of the times, from 1910 to the present day. A cavalcade of aeronautical development, progress and achievement of the de Havilland Enterprise, and the growth of Hatfield Aerodrome is depicted



MOSQUITO AIRCRAFT MUSEUM

The Museum is a registered charity with proceeds in aid of the RAF Benevolent Fund, and is run by volunteers in their spare time. The main aim of the Museum which originally opened in 1959, is to preserve the products of the de Havilland Companies, the aircraft collection including the original Mosquito Prototype designed and built at Salisbury Hall in 1940. Amongst the many other exhibits is a Bleriot XI, Sea Vixen, Chipmunk, Dove and DH125 with a number of other aircraft under active restoration. The DH engine collection covers the full range of piston, jet and rockets from the Gipsy I to the Spectre.

THE ROYAL AERONAUTICAL SOCIETY HATFIELD BRANCH



The Hatfield Branch, is giving information regarding its yearly activities, visits and programme of lectures etc. together with a special Aircraft Enthusiasts Quiz - with special prizes for the lucky winners.

The Museum is open on Sunday afternoons and Bank Holidays, Monday mornings and afternoons from Easter until the end of September. From July 1 onwards it is also open on Thursday afternoons. Entry for adults is 25p and 10p for children with free car parking. Salisbury Hall is sign posted on the A6 about four miles south of St. Albans and the historic moated manor house is open as a complementary attraction to the Museum.



HERTFORDSHIRE CONSTABULARY

The county police force, is displaying a Static Motor Cycle Safety Exhibition together with a Motor Car Driving Simulator for novices to gain first hand experience and to test their aptitude.

On hand will also be a Traffic Patrol Motor Cycle and Patrol Car, together with a display of equipment carried by such vehicles.



de Havilland DH125

MOSQUITO AIRCRAFT MUSEUM
SALISBURY HALL
IN LONDON COLNEY OFF A6 ROAD

OPEN DAY

SUNDAY 15TH JULY 79
10AM - 6PM

DURING THE DAY THERE ARE
PLANNED VARIOUS ATTRACTIONS
INCLUDING

- RAF HALTON PIPE BAND
- DEHAVILLAND AIRCRAFT FLYING AROUND
- AMATEUR RADIO - VINTAGE VEHICLES
- SIDE SHOWS - COMPETITIONS - DEMONSTRATIONS

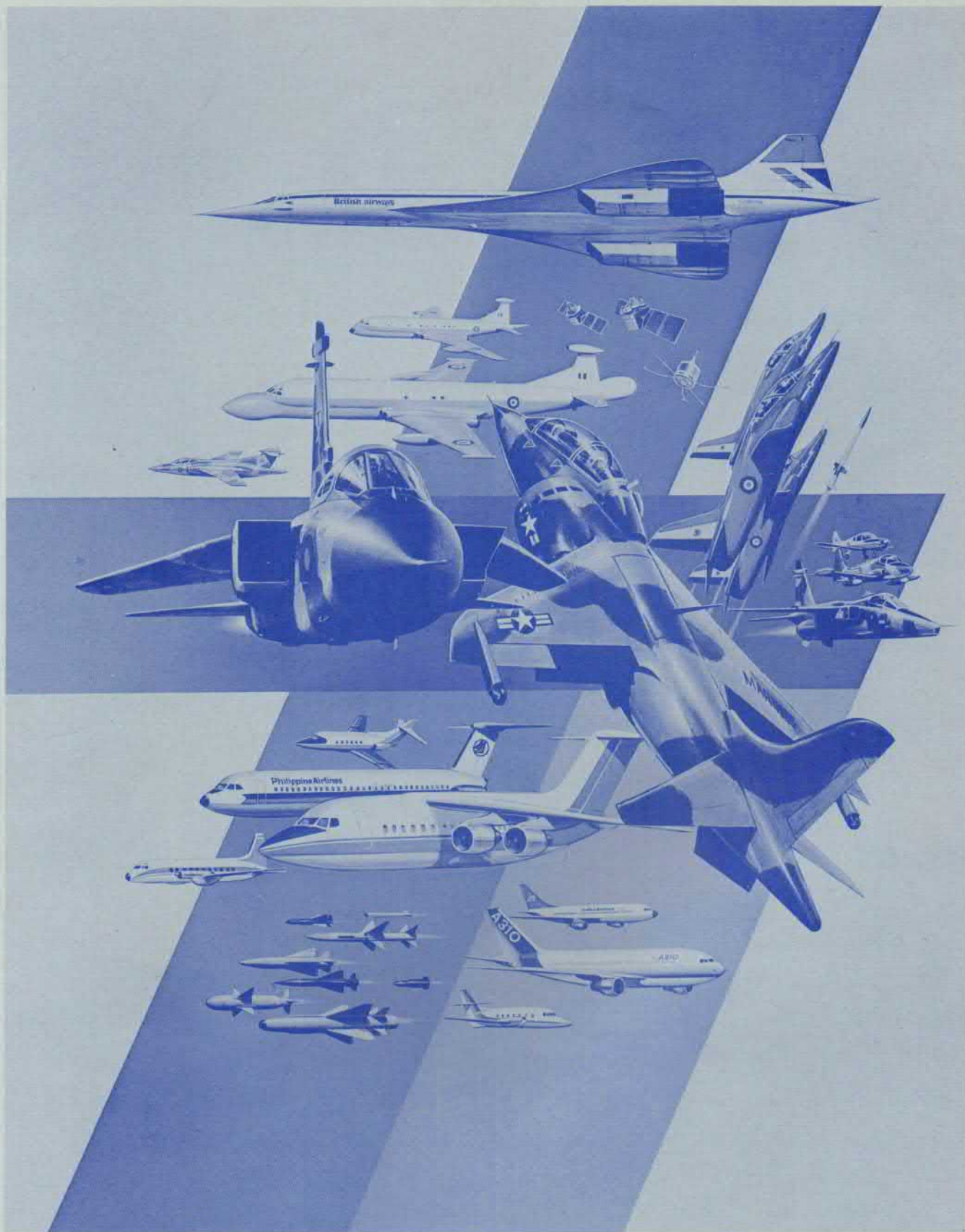
LUNCHES AND REFRESHMENTS AVAILABLE

ENTRY ADULTS 25P - CHILDREN 10P - CAR PARK FREE

COME EARLY AND SPEND
AN ENJOYABLE DAY!

WHY
NOT...
EH!

May we kindly ask for your cooperation during this year's Open Day, in requesting that all our friends and neighbours help in keeping the Hatfield Site tidy. Please use the litter bins which are situated throughout the area. Thank you for your assistance.



BRITISH AEROSPACE
*working for Britain's
future prosperity*