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The Royal Aeronautical Society
The Southampton Branch - A Brief History

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The 60th Anniversary of the Southampton Branch

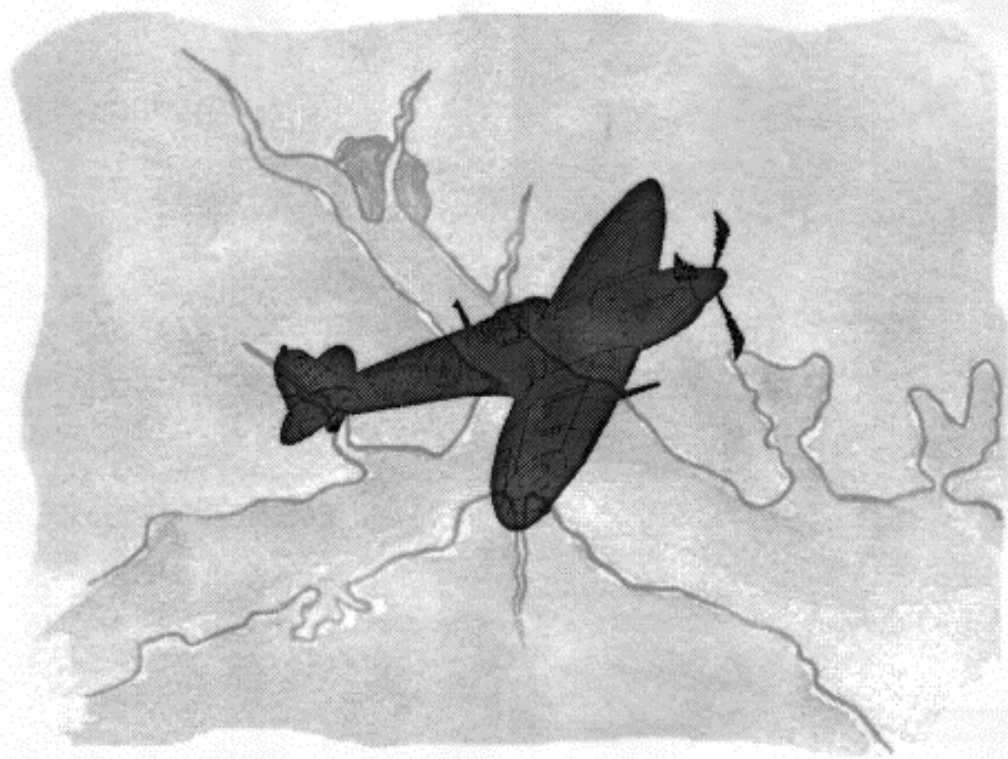
Foreword

The Southampton Branch of the Royal Aeronautical Society has a distinguished history covering 60 years of aviation in this region of Hampshire that has seen so much of the changing fortunes of aeronautical development and manufacture in this country. This book, prepared by David Baxter and myself, pays tribute to the many members of this branch of our Society, who from its earliest of days, freely gave of their time and expertise to ensure that the knowledge, skills and advances in aviation and more recently in the field of aerospace, could be communicated to as wide a public audience as possible. We also remember those stalwarts of the aviation world whose careers and companies were centred here in Southampton and whose support made an important contribution to our ability to organise lectures, conferences and symposia on the major issues in aviation of the day.

We dedicate this book to R J Mitchell, FRAeS, the designer of many aircraft including the world famous Supermarine S6B and the Spitfire, whose lifetime commitment to aviation development in this country and the world was spent here in Southampton.

Geoffrey Lilley

President of the Southampton Branch of the Royal Aeronautical Society.





Beginnings

The Royal Aeronautical Society was founded in 1866, the first aeronautical body in the world, 47 years before the Wright Brothers first flight. Following the success of the Wright Brothers, interest in aviation grew rapidly, and one centre of aviation was in the Southampton area.

In the 1920's and 30's the area around the Solent was a hive of aeronautical activity and a number of engineers and designers in aircraft companies in the area were members of the Royal Aeronautical Society. An even larger number were members of the Institution of Aeronautical Engineers. At that time the Society's activities were centred upon London and most of the London papers were presented at meetings held in the capital.

Although an excellent rail service existed between Southampton and London, many found it difficult to travel to the city for meetings at the Society. The need to attend meetings on state-of-the-art topics in the fast growing technology was of paramount importance. In the mid 1920s a number of branches were formed in other cities or centres of aviation interest, Coventry 1925, Yeovil 1926, Leeds 1927, Halton 1927.



The Knoll
Nomansland
Lyndhurst, Hants

Temporary Address

49 Bugle Street
Southampton

The Secretary
The Royal Aeronautical Society

Dear Sir

There are a number of members of the Society in this district who, like myself, are unable to get up to London to take advantage of meetings, lectures etc.

I have made enquiries in my own firm (Supermarine) and from a friend, an associate fellow, who is at Messrs Avro's, and I am convinced that there are down here many potential members who would join provided some evidence of local activity were offered them.

In the course of my enquiries I found that a member of the Institution of Aeronautical Engineers was about to correspond with that body on the same subject. After talking the matter over we felt that there was everything to be gained by combination for the reason that, although Southampton is the centre of a considerable amount of Aeronautical activity, there would appear to be no room for two successful local branches. He is, therefore, writing to the Institution, as I am writing to you, to enquire whether there are likely to be any objections to the formation of a joint local branch.

I should be very greatly obliged if you would let me know, unofficially, what attitude the Society may be expected to take.

Yours faithfully

A N Clifton

In 1926 Alan Clifton, R J Mitchell's assistant at Supermarines, wrote to the Secretary of the Society to explore the possibility of setting up a Branch in Southampton. His proposal was such a branch should be joint with the Institution of Aeronautical Engineers.

Captain Pritchard, the Secretary of the Society, gave approval for the setting up of a Branch which would be open to members of both the Royal Aeronautical Society and the Institution of Aeronautical Engineers, provided that the officers of the branch were members of the Society. This was to ensure that the power to dissolve the branch at any time resided with the Council of the Society



The early promise was thwarted by Mr James Bird of Supermarines, who thought that support for a branch could not be guaranteed because of the small numbers of RAeS members living in Southampton. Many of the technical staffs of Supermarines, AV Roe, and Faireys were members of the Hampshire Light Aeroplane Club and spent much time making it a success. Mr Bird reiterated the fact that there were more members of the Institution of Aeronautical Engineers in the Southampton area, and recommended unification of the two bodies.

This amalgamation actually took place in 1927, but the quest for a Southampton Branch was dropped until 1935.

It should be noted that during this period the Schneider Trophy races of 1927, 1929 and 1931 brought wins for Great Britain and retention of the trophy. The effort involved in the development of the Schneider Trophy aircraft by Supermarines may explain the long lapse of time before the issue of a Southampton Branch was resurrected.

Under the rules for branches of 1925, the Society simply required that a new branch should adhere to the society's rules, and a postal vote was held in May 1935 which confirmed support for a branch in Southampton:



	Southampton	Portsmouth	Bournemouth
Supermarine	118	-	-
Airspeed	-	48	1
Hampshire Aero Club	10	2	1
	128	50	2

It was therefore recommended that a branch be formed in Southampton with alternate meetings to be held in Portsmouth. However the strong support in the Portsmouth area resulted in a branch being formed there at the same time. The formal application from Southampton was made on 3rd September 1935 in the names of Mr A W Clifton, Mr B N Shenstone, Mr Schlotel, Mr S Scott-Hall and Wing Cdr Cave-Browne-Cave. Approval followed from the Society on 13th September 1935 and the first meeting was held at University College on 26th September (see Appendix). The Inaugural Meeting followed on 30th October 1935. The first Chairman was Wing Commander T R Cave-Browne-Cave, Secretary Mr S Scott-Hall and Treasurer Mr B S Shenstone.

Wing Cdr Cave-Browne-Cave became Professor of Engineering at University College, Southampton and came to the University following a distinguished career on the



development of airships, starting in 1912 at Farnborough. His main interest was in power plants for airships. His experience extended back into the First World War and he delivered papers to the Society (see Vol 23 1919 Aero journal) and later engaged in Society discussions on airships. He frequently delivered lectures to schools in Southampton to encourage young people to enter engineering and aeronautics.

Beverly Shenstone joined R J Mitchell and Alan Clifton at Supermarines and became Chief Aerodynamicist. He was later to become President of the Society, Chief Engineer and Technical Director to British European Airways, and made the first proposals that man-powered aircraft presented a challenge in aeronautical design and human achievement. Trevor Westbrook was General Manager of Supermarine, later to move to Weybridge and then on to be Lord Beaverbrook's right-hand man during the Second World War responsible for Aircraft Production. Mr Cordon was a member of the Hampshire Aeroplane Club. Mr Scott-Hall was the Air Ministry Technical Officer resident at Supermarines.

Flight Lieutenant Jenkins was Chief Instructor at the College of Air Training formerly the Air Services Training School, at Hamble. The school was established in 1931 and many pilots received their training here, including Sir Alan Cobham, who received his Blind-Flying training at Hamble in 1934.



The support for a branch of the Society in Southampton was overwhelming. 250 people attended the Inaugural Meeting of which 80 to 100 were members of the Society. The Annual Subscription was set at 2s 6d. Wednesday was thought to be the best evening for lectures and University College the best location. In its first year the attendance averaged 100 and the year ended with a visit to the Royal Aircraft Establishment. The committee remained intact during 1936/37 but changes were soon to take place. Professor Cave-Browne-Cave relinquished the Chairmanship to Flight Lieutenant Jenkins, even though at the time he was not a member of the Society. But common sense reigned and his appointment was confirmed and he became Chairman in 1938 and was in post in 1939 when the Branch suspended operations for the period of the Second World War.

In 1938 Scott-Hall left Southampton to take up an appointment at the Research Establishment at Orford Ness. His place as Secretary was accepted by W Thomas Tanner. He had earlier joined Wing Commander Cave-Browne-Cave at University College from Imperial College to set up the first teaching of an aeronautical course at the University.

In these early years of the Branch, members had available to them for reference the Aeronautical Collection held by Captain Wakeford of the School of Navigation within University College Southampton. Many distinguished lecturers visited the Branch in these pre-war years including:



Mr Scot-Hall and Squadron Leader Payn with R J Mitchell, Matt Summers and Jeffrey Quill after the first flight of the Spitfire in March 1936



R J Mitchell to whom this Anniversary Booklet is dedicated



(L-R) Wg Cdr R R Stanford-Tuck RAF (Rtd),
Gp Capt Sir Douglas Bader RAF (Rtd), Mr J Quill,
Capt G C Baldwin RN (Rtd) at the Mitchell Memorial
Symposium in March 1976 - the 40th Anniversary of the first
Flight of the Spitfire



Dr Harold Roxbee-Cox, later to become Lord Kings Norton and Chancellor of the Cranfield Institute of Technology, earlier the College of Aeronautics, an authority on airships and aircraft structures and during the Second World War was to become Director of Aircraft Propulsion; Mr Ernest F Relf, Superintendent of the Aerodynamics Division of the National Physical Laboratory and later to become the first Principal of the College of Aeronautics; Mr Dowty of the firm of that name, an expert in undercarriage design; Mr Hollis-Williams of Westlands.

The activities of the Branch in those pre-war years served the still growing aircraft industry along the banks of the Itchen and at Hythe and Hamble, and the students and staff of Air Service Training. In addition there were the growing activities at Southampton Airport at Eastleigh, where the first flight of the Spitfire had taken place.

But one person was missing from the scene and this was R J Mitchell. Still young by today's standards he died in 1937 but happily not before he had seen his crowning achievement, the design and manufacture and the flight of the Spitfire. Developed from the Supermarine S6B with Shenstone's elliptical wing, it was to prove to be the finest and most successful aeroplane of World War H. Mitchell. had lectured to the Society and taken part in many discussions at the Society but not to the Branch. In 1937 he was proposed and elected to serve on the Council of the Royal Aeronautical Society but his untimely death prevented him from participating on the Society's ruling body.



After the War

Following its suspension during World War II, the Branch re-opened its doors on April 18th 1945, under the Chairmanship of Squadron Leader Jenkins and Secretary Mr Thomas Tanner. Some 60 people attended this meeting and a new committee was formed.

The Supermarine design team had moved to Hursley Park in 1940, after the bombing of the Southampton Works, and was now under the command of Joe Smith and the many aircraft on which Supermarines were engaged include not only the various marks of "Spitfire", the "Sea Spitfire" or 'Seafire' (the name Seafire being proposed by Mrs Freda Clifton), the "Spiteful", and later jet aircraft, the "Attacker", "Swift" and "Scimitar". In 1958 Supermarines, then under the design leadership of Alan Clifton, left Hursley Park and moved to South Marston. The design and project office were continuing to design aircraft to meet specifications as they appeared from the Air Ministry. Supermarines had been a 'tour de force' in the founding and running of the Branch. Now they had gone to new pastures some members to Swindon, some to Bournemouth, some to Weybridge. Their gain was our loss. One member we did not lose and that was Alan Clifton, one-time Chairman and past President of the Branch.



In the early 1950's Professor E J Richards came from Weybridge to be the first Professor of Aeronautical Engineering and that title was later to be changed to Professor of Aeronautics and Astronautics. From 1952 he immersed himself in the affairs of the Branch as well as the Society in London, where he later became Member of Council. Professor Richards took on the Chairmanship of the Branch more than once and later became the first President of the Branch. Professor Richards was followed by Alan Clifton then came N E Rowe, who was also chairman of the Branches' Committee for many years, and currently Professor Geoffrey Lilley. It is with sadness that we report the death of Professor Richards on 7 September 1995.

Branch Chairmen, starting with Professor Cave-Browne-Cave, have included University staff as well as many from the local aerospace industry. The Branch Honorary Secretaries following from the early days of Scott-Hall have been generally from the University although there have been periods when the industry assisted through F C Kirkpatrick, 5 Stapleton and H C Smith to name a few. Thomas Tanner was the first University based secretary and others included Robin East, Michael Judd, Peter Fortescue, Paul Taylor and Stephen Wolf.

The 1960s and 1970s brought many changes to the local aerospace community resulting in a general reduction in the number of companies and of people. This had an impact on branch activities which were generally maintained only by much hard work on the part



of the committee. Lecture attendance was reported as variable with some events actually being cancelled, including the Mitchell event.

Difficulty was also found in recruiting new blood on to the committee and by 1983 the minutes show that much discussion was devoted to this issue. In particular, there was a dearth of members willing to take on the office bearing duties. The newly formed Aerospace Division of the 1MechE was also viewed with some concern and at one point the formation of a joint branch was proposed.

The financial position also was not secure with the grant requested from the Society being insufficient to cover the annual running costs of the branch. Some rather acrimonious correspondence passed between the branch and the Chairman of the Branched Committee. The branch had a financial reserve which was steadily being eroded to fund running costs. The problem was finally resolved but the relationship between the branch and Society Headquarters was difficult for many years. This low point in the branch history was rounded off by the resignation of the Honorary Secretary, Stephen Wolf who was about to take up employment in the USA.

Following a plea for a new secretary the Department of Aeronautics and Astronautics at the University agreed that if one of its members were to fill that post it would constitute part of that person's departmental duties. It was with this background that David Baxter

was approached and invited to join the committee as branch Honorary Secretary, a position he still holds today.



The branch has seen the benefit of officers who have brought some stability to its administration. Apart from the Hon Secretary, the Hon Treasurer, Graham Roberts and the Assistant Secretary, Nick Bardell have held office for almost ten years.

After the decline of the early 1980s, the branch has enjoyed more success in recent years. The R J Mitchell lecture now has international standing, and the branch has hosted this years Branches' Conference. National and local companies are now willing and active supporters of the branch, and this support is gratefully acknowledged. The list of companies that have provided sponsorship is shown in Appendix 2.

The RJ Mitchell Lecture

In 1954 the R 1 Mitchell Memorial Lectures were set up, as Main Society Lectures held at the Branch. The Mitchell Lectures have exposed the Branch to many of the great names in aeronautics. The first lecturer was Joe Smith, who followed R J as Chief Engineer. His lecture on the Spitfire is compulsory reading for all entering a career in aeronautics as well as nostalgic reading for all his colleagues and co-workers of R J Mitchell. Among the long



long list of Mitchell lecturers are Sir Peter Masfield, Sir Barnes Wallis, Sir Stanley Hooker and Sir Colin Marshall. The complete list of Mitchell Lectures to date is shown in Appendix 1, and gives some idea of the status of this lecture.

Mr Beverly Shenstone, who was twice a Mitchell Memorial Lecturer, first pronounced, in 1960, his ideas on Manpowered Flight and the setting up of the Kremer Competition by the Manpowered Aircraft Group in the Society under Henry Kremer's sponsorship. This gave enthusiastic support to the team of postgraduates from the Department of Aeronautics and Astronautics, at the University, led by David Williarns, Alan Lassiere and Anne Marsden who designed and built SUMPAC, the first man-powered aircraft to fly in the world. Other manpowered aircraft had all been catapulted into the air. This was the first aircraft to take off on manpower alone.

Sir Stanley Hooker also played on the theme - every problem has a solution and the best solution is usually the simplest. Dr John Fozard taught us the art of compromise in the design of the Sea Harrier. Sir Peter Masfield stressed the importance of economic viability. Alan Clifton gave a stirring account of how and why the shape of aircraft had changed - the results of over 50 years experience in project design. Elfyn Richards discussed the theme that there is a quieter world around the corner and new technology need not bring noise in its wake.



Particular mention should be made of the 1976 and 1981 events. In 1976 the 40th anniversary of the first flight of the Spitfire was celebrated with a special symposium and flying display attended by many of those involved in the design development and flying of that aircraft. Similarly in 1981 the 50th anniversary of the outright winning of the Schneider Trophy was celebrated with a lecture at the University and a public flying display at Calshot which was attended by 20,000 people.

In more recent years the committee made a conscious decision to improve generally the nature of the annual Mitchell lecture, by the involvement of company sponsorship. So successful has this strategy been that a change of venue from the Southampton Hall of Aviation was forced upon the organisers and the lecture has now reverted to the University. In the past three years audiences for the event have averaged 300, as the status of the lecture has grown.

In 1990 the Society decreed that the word 'memorial' should be dropped from all named lectures, a move which was generally welcomed. This was done to give the event a more modern and forward looking image. The subjects of recent lectures shows the branch's willingness to embrace this philosophy.

The 1992 lecture by Sir Colin Marshall was virtually the first public statement by his company of its aim to become a truly global airline. It has been interesting to note this



continuing theme in many public announcements made by British Airways. In 1993 the branch was proud to add to the list the name of Mr Oliver C Boileau, President of the Northrop B-2 Division. Mr Boileau was the first US citizen to present a Mitchell lecture, and still maintains contact with the branch.

1996 will bring a very special event as the 40th R J Mitchell Lecture coincides with the 60th anniversary of the first flight of the Spitfire. At the time of writing plans are already in hand to make this event really memorable, and a fitting tribute to R J Mitchell.

In Conclusion

It is hoped that this brief history has provided an interesting insight into the formation and development of the Southampton Branch. Many notable figures in the aerospace industry have contributed to the success of the branch throughout its 60 years, and it has been only through the dedication of all who have served on the committees that the branch has achieved so much.

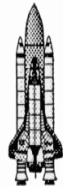
The Southampton Branch is currently well placed to face the future, and with the support of its members, can look forward with confidence to serving the professional needs of the local aerospace community. The lecture programme and symposia contribute to the

continuous professional development of our members, a requirement which will become increasingly significant in the next few years. Much encouragement should be drawn from the stronger links with the industry in our area, and the branch aims to consolidate and expand such links.

Our branch can be proud of its history, but should regard the past only as the foundation for the future.

Geoffrey M Lilley

David R J Baxter



Minutes of the First Meeting

An extract from the Minutes of the First Meeting of the Provisional Committee, Southampton Branch, Royal Aeronautical Society

The first meeting of the provisional committee was held at University College, Southampton on the 26th September, 1935. Professor Cave, Mr Westbrook, Mr Shenstone, Flight Lieutenant Jenkins, Mr Gordon, Mr Slater, Mr Gravenell and myself were present.

Professor Cave outlined the constitution of the Branch and the nature of the collaboration with Portsmouth Branch. Wednesday was selected as the best day of

the week for lectures which Professor Cave stated could be held at University College.

It was agreed that this was the most central and convenient spot. The following dates were suggested for the first lecture, subject to the convenience of lecturers.

Wednesday 23rd October
Wednesday 30th October
Wednesday 9th October

The following lecturers were suggested for the inaugural lecture.

Mr C. R Fairey
Lord Sempill
Colonel Moore-Brabazon
Mr Manning

7.30 was suggested as the best time for lectures and High Speed Flying as the first suitable subject, but it was agreed that Lord Sempill should be allowed complete latitude in the choice of his subject.

The question of publicity was discussed. Mr Westbrook offered to print slips giving notices of the lectures to be put into the pay envelopes of employees, as follows:-

Supermarine Aviation Works, Ltd. 150.
Fairey Aviation, Ltd 50.
Air Service Training 200.
Saunders Roe & Co. Ltd 150.

Minutes signed by Mr S Scott-Hall

95/96 Branch Committee

Officers

President

Prof C M Lilley CEng FRAeS

Chairman

Mr P Boyle CEng MRAeS

Vice Chairman

Mr D Goodman CEng MRAeS

Hon Secretary

Mr D R J Baxter CEng FRAe S

Hon Treasurer

Dr G T Roberts CEng MRAeS

Hon Assist Secretary

Dr N S Bardell CEng MRAeS

Hon Membership Secretary

Mrs J East

Immediate Past Chairman

Mr C Wise CEng MRAeS

Committee

Prof R A East CEng FRAeS

Mr C Wise CEng MRAeS

Dr S J Newman CEng MRAeS

Mr M Drasdo, MRAeS

Mr R J Phillips AMRAeS

Mrs H Dyne Grad RAeS

Mr B Muddle CEng MRAeS

Mr P Smith IEng AMRAeS

Miss J Geeson

Mr V Lodge

Co-opted Members

Sqn Ldr C Kennedy RAF (UAS)

Lt Cdr R McLellan RN

Sponsorship Companies

Aerostructures Hamble Ltd

Airbus Industries

British Aerospace plc

British Airways plc

European Space Agency

GE Aircraft Engines

GEC -Marconi Aerospace

IBM (UK) Ltd

Matra Marconi Space

Meggitt Avionics

Northrop B2 Division

Ramsey Hall Ltd

Rolls Royce plc

Smiths Industries

Tubesales UK Ltd

Vickers Systems Trinova

Westinghouse Surveillance Systems
Ltd

University of Southampton, specifically:

ISVR

Department of Aeronautics and
Astronautics

RJ Mitchell Lectures

1954

RJ Mitchell - Aircraft Designer

Mr J Smith

1955

Problems and Prospects in British Air
Transport

Mr P C Masefield

1960

The Aircraft Engine

Mr A C Lovesey

1957

Noise and Aircraft Structures

Professor E J Richards

1958

The Development of Propulsion
Systems for High Speed Flight

Dr S J Hooker

1959

Applied Rocket Power

Mr M J Brennan

1960

Vertical Take-off by Jet Lift

Mr D Keith-Lucas

1961

Man Powered Aircraft

Mr B S Shenstone

1962

The Strength of England

Dr Barnes-Wallis

1963

The Shape of Aeroplanes to Come

Mr A N Clifton

1964

The Development of Civil Air Transport

Mr B S Shenstone

1965

The Work of the Royal Aircraft

Establishment

Mr L F Nicholson

1966

The Ideal Gas Turbine

Mr S L Bragg

1967

The Domain of the Convertible Rotor in
Aircraft

Mr R Hafner

1968

Kinetic Heating of Aerospace Structures

Mr J Taylor

1969

The Role of the Aircraft in Future
Transport

Systems

Mr E E Marshall

1970

Short Haul in the Long Term -
Projections in

Aircraft Development

Mr D C Brown

1971

Astronautics, after Apollo
Mr A V Cleaver

1972

An Airports System for UK Air Service
Mr P C Masefield

1973

MRCA - A Progress Report
Squadron Leader R W Richardson

1974

Technical and Operational Aspects of
Concorde
M R Chevalier

1975

Aero and Underwater Engineering
Mr C S Henson

6 March 1976

Special Spitfire Memorial
Symposium to mark the 40th
Anniversary of the first flight of the
Spitfire on 5 March 1936

1976

Sea Harrier - the First of a New Wave
Dr J W Fozard

1977

History of British Flying Boats and the
Final Stages
Mr M J Brennan

1978

The Merlin for the Spitfire and Early
Rolls Royce Jet Engines
Sir Stanley Hooker

1980

Airbus Industrie - Past, Present and Future

Mr D C Brown

1981

The Schneider Trophy - 50 Years On

Mr D N James

1983

Fighter Aircraft Design

Mr R D Boot

1985

Europe's Future Launchers

Mr H A Pfeffer

1986

The Basic Design for the Prototype Spitfire

Mr J Davies

1987

Europe's Future Fighter

Mr. J Vincent

1988

Propulsion for Economic Space

Transportation Systems

Mr A Bond

1989

Beyond 2000 with Hawk and Goshawk

Mr K C Hodson

1990

Airbus Industrie - Today and Tomorrow

Mr S C Corps

1991

Rolls-Royce in Perspective, Past, Present
and Future

Mr F Turner

1992

G-Global – Britain's Role in World Air
Transport

Sir Colin Marshall

1993

B2 - the Stealth Bomber

Mr Oliver C Boileau

1994

Space - Open to International Co-operation

M. Jean-Marie Luton

1995

Five Decades of Progress in Aero
Engines; Remembrance of the Past
and Opportunities for the Future

Brian H Rowe

*This booklet was compiled by Mr D R J Baxter and Professor G M Lilley, and produced by Christine Pinnington
on the occasion of the 60th Anniversary of the Southampton Branch of the Royal Aeronautical Society - 1995*

