

Catalogue of the papers and correspondence of

ROBIN RALPH JAMISON FRS

(1912-1991)

Compiled by Peter Harper and Timothy E. Powell

Deposited in the Library,
University of Bristol

NCUACS 60/3/96

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1996

THE ROYAL COMMISSION ON HISTORICAL MANUSCRIPTS

Report on the correspondence and papers

of

ROBIN RALPH JAMISON

(1912-1991)

engineer

in Bristol University Library

Reproduced for the National Cataloguing Unit for
the Archives of Contemporary Scientists

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GENERAL INTRODUCTION

PROVENANCE

The papers were received in July 1994 from Mrs Hilda Jamison, widow

OUTLINE OF THE CAREER OF ROBIN RALPH JAMISON

Robin Ralph Jamison was born on 12 July 1912 in Horsham, Sussex but was brought up in South Africa. He was educated at South African College, Cape Town, 1924-1928, and the University of Cape Town, 1929-1933, where his studies combined chemistry with mechanical engineering. He went on to take a doctorate at Cape Town researching on the refrigerated gas storage of South African fruit (PhD 1937). In 1937 he married Hilda Watney Wilson; they had four children.

He returned to England in 1937 and joined the Rolls Royce Aeroengine Division, Derby where he worked on the Merlin, Griffon and Vulture engines. In 1940 he transferred to a new department being set up by S.G. Hooker to develop gas turbines at Derby. Six years later he was appointed assistant to A.A. Griffith and employed on advance performance and research planning for engines. In 1948 he became technical adviser to R.N. Dorey on centrifugal engines and was closely involved with the Derwent, Nene, Dart and Tay engines. Two years later he joined the engine division of the Bristol Aeroplane Company. Shortly after arriving at Bristol he took charge of the department entrusted with the design and development of ramjet engines for the Bristol Bloodhound Guided Missile which saw service with the RAF. Jamison's work in missile propulsion led to the investigation of engines for supersonic flight. In 1962 he was given the task of setting up a new Advanced Propulsion Research Department at Bristol Siddeley Engines Limited. In December 1965 Jamison became Chief Engineer (Research) and in 1971 he was appointed Chief Technical Executive (Research) of Rolls Royce, Bristol Engines Division. He retired in 1975.

Jamison was Visiting Professor at the University of Bath 1969-1973. He was elected FRS 1969 and FEng 1976. He died in 1991.

For a fuller account of Jamison's life and work see the biographical memoir by L. Haworth, M.A. Nedham and G.L. Wilde, *Biographical Memoirs of Fellows of the Royal Society* **40** (1994), 173-194.

DESCRIPTION OF THE COLLECTION

The material is presented in the order given in the list of contents. The collection contains biographical records, records of Jamison's research and lectures material.

Section A, Biographical, presents records of his career, appointments and awards from the University of Cape Town to his retirement from Rolls Royce. There are curricula vitae and testimonials from various stages of his career and documentation of his election to the Fellowship of the Royal Society.

Section B, Diaries, presents a group of desk diaries kept by Jamison as a summary record of his professional activity, 1965-1974.

Section C, Notebooks, presents a group of notebooks recording Jamison's work in engine research and development ca 1940-1990, and (one notebook only) his work for Bristol College of Science and Technology (later Bath University of Technology, University of Bath), 1964-1973.

Section D, Research, is the largest section in the collection. It presents records of Jamison's work in engine research and development in the form of calculations, notes, drafts, reports, correspondence etc, 1939-1977. The section includes the only extended correspondence in the collection, that with Sir Barnes Wallis, 1959-1974. There are also publicity materials relating to work at Bristol, 1954-1968, 1974, photographs, and material *re* computer applications prepared by the Rolls Royce Computer Education Service, 1969. The section also presents a little material relating to Jamison's PhD research at the University of Cape Town 1936-1937.

Section E, Lectures, presents the contents of two binders of lecture notes and drafts relating to Jamison's work in engine research and development, 1952-1973 and a binder of figures for lectures.

Section F, Publications, presents printed and duplicated copies of Jamison's publications, 1945-1969. They are not itemised separately.

There is also an index of correspondents.

ACKNOWLEDGEMENTS

We are very grateful to Mrs Hilda Jamison for making the papers available for cataloguing and to Mr Lionel Haworth for advice and encouragement.

Peter Harper
Timothy E. Powell
BATH 1996

SECTION A

BIOGRAPHICAL

A.1 - A.27

- A.1 Obituary *Daily Telegraph*, 23 March 1991.
- A.2 Curricula vitae, testimonials, 1934-1936.
- A.3 Institute of Chemistry, 1937-1938.
Election to membership, appointments register, etc.
- A.4 Correspondence *re* job applications, 1937.
- A.5 Appointment to position of Aero Engine Experimental Tester, Rolls Royce Ltd, December 1937.
- A.6 Wartime letters (Photocopies).
Letter from Jamison to 'Pater', 9 July 1944 (continued 25 July and 20 August 1944).
Jamison considers his South African identity, the differences in outlook between the Dominions and Britain and the possible future role of the Empire in world affairs. He expresses his desire to return to South Africa to help in the advancement of her science and engineering.
Letter from Jamison to 'Pater', 10 February 1945.
Jamison raises the question of his possible return to South Africa detailing his academic qualifications and his experience in aero engine development since joining Rolls Royce in December 1937.
- A.7 Statement from University of Capetown certifying qualifications obtained by Jamison, 1932-1937, 7 May 1946.
Statements about research programmes at Rolls Royce, 1946, 1948.
- A.8 Curricula vitae, nd (late 1940s, 1950s).

Biographical

- A.9 Correspondence *re* possible return to South Africa, 1949.
Jamison's principal correspondent was his brother-in-law, A.N. Wilson.
- A.10 Correspondence *re* Jamison's departure from Rolls Royce, 1950.
In 1950 Jamison moved to the Engine Division of the Bristol Aeroplane Company.
- A.11 Testimonials, 1950.
- A.12-A.15 Miscellaneous personal documents *re* career, 1950s-1974.
4 folders.
Include Bristol Siddeley Engines Limited Service Agreements (A.13) and appointment as Chief Technical Executive (Research) Rolls Royce (1971) Engine Division (A.14).
- A.16 Award of Silver Medal of the Royal Aeronautical Society, 1965.
Letters of congratulation.
Folder also includes material *re* Society's 54th Wilbur and Orville Wright Memorial Lecture 1965.
- A.17 Royal Aeronautical Society Centenary Banquet, 1966.
Menu card, list of guests, etc.
- A.18 Letters *re* extension of appointment as Visiting Professor, Bath University of Technology (later University of Bath), 1967, 1970.
13pp duplicated manuscript on 'Basic equations of fluid mechanics - Navier-Stokes equations'. Found with preceding.
- A.19-A.23 Election to the Fellowship of the Royal Society, 1969.
- A.19 Correspondence *re* candidature, 1963, 1968.

Biographical

- A.20 Telegram from Royal Society informing Jamison of his election, with Jamison's reply.
Miscellaneous material *re* Royal Society.
- A.21, A.22 List of letters of congratulation received; letters of congratulations with Jamison's personal replies. 2 folders.
- A.23 Letters of congratulation with copy of standard form reply.
- A.24 Miscellaneous personal correspondence, 1969-1974.
- A.25, A.26 Photographs.
- A.25 Jamison at IVth Agard Colloquium, Milan, 4-8 April 1960.
- A.26 Rough proofs of Royal Society portfolio photographs.
- A.27 Press-cuttings. Includes photocopies.

SECTION B

DIARIES

B.1-B.10

Desk diaries kept by Jamison as a summary record of appointments, meetings, discussions, conferences, visits, lectures, papers, correspondence, telephone calls etc., 1965-1974.

B.1 1965.

B.2 1966.

B.3 1967.

B.4 1968.

B.5 1969.

B.6 1970.

B.7 1971.

B.8 1972.

B.9 1973.

B.10 1974.

SECTION C

NOTEBOOKS

C.1-C.8

- C.1 Notebook with typescript note headed 'Detail weight analysis' inside front cover and date stamped March 1940.
- Used for work on aero gas turbines. Includes work dated 1944-1947.
- Loose papers enclosed including papers dated 1941, 1944, 1946 and 1948.
- C.2 Notebook used for records of 'investigation of axial compressor blading' etc. Pages dates 13 December 1946, various dates 1947 and 24 November 1948.
- Loose papers enclosed.
- C.3 Notebook labelled 'Vol.III' on front cover. Used for work on marine turbine etc., 5 May - 30 September 1947.
- Loose papers enclosed.
- C.4 Notebook labelled 'Vol IV' on spine and headed on the first page 'Vol IV Marine Turbine Contraflow Compressor Design (cont. from Vol. III)' Contents list inside front cover. Used for record of work 30 September 1947 - 27 May 1949.
- Loose papers enclosed. Includes undated manuscript note from 'Pierre [?Young]' *re* the 'Fundamental Theory of Levers' and manuscript notes dated 1973-1975.
- C.5 Untitled notebook used for record of work on normal shock equations, oblique shocks, ramjet performance etc., 12 July - 8 December 1950, and in January 1974, November, December 1988 and February 1990. Contents list on first page (1950 and 1974 work only).
- Loose papers enclosed including papers dated in 1974 and 1988.
- C.6 Notebook used for bibliographical references, notes on the literature, etc, 1954-1971.
- Loose papers enclosed. Includes manuscript notes on 'Increase in total pressure in a stage incompressible flow', 29 May 1944.

Notebooks

- C.7 Notebook used for record of activities in respect of engine research and development 7 July 1962 - 13 January 1969.
- Records meetings, discussions, visits, telephone calls etc. Similar in content to diaries in Section B.
- From the back of the notebook is an incomplete contents list, giving date and description of activity.
- Loose papers enclosed.
-
- C.8 Notebook used for record of activities in respect of work at Bristol College of Science and Technology (later Bath University of Technology, University of Bath), 12 October 1964 - 22 June 1973.
- Records projects, meetings, visits, lectures given etc.
- From the back of the notebook is a contents list giving date, description of activity and time taken.
- Loose papers enclosed.

SECTION D

RESEARCH

D.1-D.107

D.1, D.2	UNIVERSITY OF CAPE TOWN
D.3-D.37	ROLLS ROYCE LTD, DERBY
D.38-D.56	BRISTOL SIDDELEY ENGINES LTD RAMJET DEPARTMENT
D.57-D.61	BRISTOL SIDDELEY ENGINES LTD ADVANCED PROPULSION RESEARCH DEPARTMENT
D.62-D.78	ROLLS ROYCE LTD BRISTOL ENGINE DIVISION
D.79-D.86	PUBLICITY
D.87-D.92	COMPUTER APPLICATIONS
D.96-D.100	CORRESPONDENCE
D.101-D.106	PHOTOGRAPHS
D.107	PRINTED AND DUPLICATED MATERIAL

UNIVERSITY OF CAPE TOWN

D.1, D.2	PhD research, University of Cape Town. Jamison's thesis was on the refrigerated gas storage of South African fruit.
D.1	'Ohenimuri apples Gas storage'. Contents of folder so inscribed: examination booklets used for experimental results, summarised data etc 1936.
D.2	Examination booklet with list of 'respiration experiments on peregrine peaches' 1936-1937, programme of research etc.

Research

ROLLS ROYCE LTD, DERBY

Jamison joined Rolls Royce in 1937 initially as a fitter/tester in its single cylinder department and remained with the company until January 1950. His experience included:

a) Cooling development for the Rolls Royce 'Exe' 24 cylinder, air-cooled, sleeve valve engine.

b) Lubrication development on Vulture, Merlin and Griffon engines.

c) In 1940 he transferred to a new department being set up to develop gas turbine aero-engines. Its initial work was on Griffith contraflow turbine with interest later shifting to Whittle type and straight axial units. During the next ten years in this field his responsibilities covered many aspects of gas turbine research, design and development, including the aerodynamics of blading and ducts, combustion, mechanical development and testing. (See Jamison's curricula vitae at A.14).

- D.3-D.7 'Air Cooling Calculations'. Contents of folder so inscribed divided into five for ease of reference: contents list, calculations etc, 1939-1940.
- D.8, D.9 'Air Cooling Calculations (2)'. Contents of folder so inscribed divided into two for ease of reference: contents list, calculations, 1940-1941.
- D.10 Contents of envelope: patent applications etc, 1940, 1941, 1944.
Patents relate to 'Cooling of junk by spiral fins' and 'Cooling of junk head'.
- D.11 Contents of untitled folder: graph sheets, 1943, 1944.
- D.12 'Compressible air flow $\gamma = 1.395$ '. Contents of folder so inscribed: data, 1943, 1945.
- D.13 'Compressible gas flow $\gamma = 1.333$ '. Contents of folder so inscribed: data, 1943, 1944.
- D.14 '“q” curves'. Contents of folder so inscribed: data, 1943, 1944.
- D.15-D.17 'Data file'. Contents of folder so inscribed divided into three for ease of reference: data, 1943, 1944.

Research

- D.18 'Standards'. Contents of binder so inscribed: duplicated papers, 1944.
- D.19 Loose papers found with preceding, 1943, 1960, 1968, nd.

1968 papers are for lecture course on fundamental engineering principles given in the School of Engineering, Bath University of Technology.
- D.20-D.23 Four Rolls Royce Experimental Department Reports on 'The Compressible Flow of Fluids in Ducts' by Jamison and D.L. Mordell, 1944.

Retained in original folders.
- D.24 Rolls Royce Experimental Department Report on 'Gas Turbine Control by Jet Pipe Temperature' by SGH[ooker] and Jamison, 1945.
- D.25 'Q curves'. Contents of Rolls Royce folder so inscribed: graph sheets, 1946; later work (at Bristol Aeroplane Company), 1951.
- D.26-D.32 Contents of envelope: duplicated typescript reports (one carbon copy), 1946-1949.

The reports were probably brought together in connection with work on the Royal Society memoir of Jamison.
- D.26 'Dart turbine. Design of constant reaction blading', 10 October 1946.
- D.27 'Starting conditions of jet engines', 20 November 1946.
- D.28 'Dart H.P. Turbine. Impulse blading', 28 February 1947.
- D.29 'Temperature control of turbine engines', 29 September 1947.
- D.30 'Avon compressor. Low stagger blading', 22 October 1947.

Research

- D.31 Experimental Department Report on 'Tay No. 163 Performance Tests with increased Nozzle Guide Vane Area', 22 December 1948.
- D.32 Gas Turbine Development Department Report on 'Derwent V - Revision of Type Test Schedule for Temperature Controlled Engines', 5 January 1949.
- D.33 Rolls Royce Experimental Department Report on 'Automatic Jet Pipe Temperature Control. Meteor Flight Tests of a Variable Datum Control Fitted to a Derwent I Engine', 3 January 1947.
- D.34 Contents of Rolls Royce folder: 'brochure' prepared for Ministry of Supply on 'R.B. 78. Contraflow Research Unit Divided Flow Design', December 1947.
- D.35 'R.B. 78 CR Data & Design'. Contents of folder so inscribed: manuscript tables, graphs, 1947.
- D.36 Contents of untitled folder: manuscript draft 'Shock waves', 19 March 1948, manuscript notes and calculations, duplicated copy of article by T. von Karman on 'Supersonic Aerodynamics'.
- D.37 Contents of untitled folder: report on 'Reheat Calibration of Derwent V no. 3710' etc, ?1949.

BRISTOL SIDDELEY ENGINES LTD RAMJET DEPARTMENT

In 1950 Jamison joined the Bristol Aeroplane Company Engine Division (later Bristol Siddeley Engines Limited). Shortly afterwards he took charge of the department entrusted with the design and development of ramjet engines for the Bristol Bloodhound Guided Missile which saw service with the Royal Air Force.

Research

- D.38-D.46 Contents of folder divided into nine by subject dividers: correspondence and papers, 1950-1951.
- The titles of the subject dividers are used in the catalogue entries.
- D.38 Appointment of Jamison to take charge of development work in the factory, 18 September 1950; appointment of Jamison as Engineer-in-charge (Ramjet Development), 21 May 1951.
- D.39 'Agreement'. Copy of the agreement between Boeing Airplane Company and Bristol Aeroplane Company *re* development of ramjet power plant, 30 January 1951; manuscript notes on 'Agreement Salient Points', 14 February 1951.
- D.40 'Correspondence'. Correspondence, telegrams, note of telephone conversation etc *re* visit of Bristol party (including Jamison) to Boeing at Seattle *re* ramjet design project, February, March, 1951.
- D.41 'Perf. Method.' Manuscript calculations, drawings etc., 9, 10 and 13 February 1951.
- D.42 'Test Plant'. Manuscript calculations, photograph etc., 13 and 20 February 1951.
- D.43 'Design Calcs'. Manuscript calculations 'Fuel Evaporation Time', 15-16 February 1951; graphs.
- D.44 'Report Lists'. List of reports, drawings, photographs sent from Boeing to Bristol.
- D.45 'Firing'. Manuscript notes on 'Firing', 15 February 1951, 'Flight Performance Analysis', 23 February 1951.
- D.46 'Flares'. Manuscript notes, correspondence, 13-28 February 1951.

Research

- D.47 Contents of small format ring binder: manuscript notes *re* visit to USA *re* ramjet design project, 4 February - 19 March 1951, etc.
- D.48, D.49 Contents of untitled folder divided into two for ease of reference: duplicated papers *re* axial flow compressor theory, 1951.
- D.50 'Data file Compressible air flow functions'. Contents of folder so inscribed: data, 1951, 1954, 1955.
- D.51 Report on 'Flight trials BRJ.2 Ramjets in X.T.V.4 Test Vehicles'. 4 July 1952.
- D.52 Note on the theory of density discontinuity, 15 July 1952.

1p manuscript calculations, 18 June 1964. Found with 1952 note.
- D.53 Contents of Jamison's folder: correspondence, notes etc *re* ramjet development, 1953-1969.

Includes 'rough notes' on 'propulsion development progress and status', 15 January 1953 and letter of appreciation on the occasion of Jamison leaving the ramjet field at Bristol Siddeley, 2 February 1962.
- D.54 Two patents *re* 'improvements in or relating to fuel supply systems for ramjet inventions', 1956.
- D.55 'Atmospheric Data The A.R.D.C. Model Atmosphere 1956'. Ramjet Department report by R.D. Evered, June 1959.
- D.56 'Atmospheric Tables A.R.D.C. Model'. Ramjet Department report by R.D. Evered, June 1959.

Research

BRISTOL SIDDELEY ENGINES LTD ADVANCED PROPULSION RESEARCH DEPARTMENT

In January 1962 Jamison was given the task of setting up a new Advanced Propulsion Research Department at Bristol Siddeley to '...prosecute enquiries and research on frontier techniques in science and technology applicable to aero and space propulsion...' (A.14).

- D.57 Memo by Jamison on 'Advanced Propulsion Research Organisation', 21 July 1961.
- Circular from A.A. Hall *re* 'New Research Unit for Advanced Propulsion, and consequent changes in the Ramjet Department', 13 December 1961.
- D.58 Contents of folder: correspondence and papers *re* research policy, 1962-1967.
- D.59 Contents of folder: correspondence and papers *re* research policy, 1962-1967.
- D.60 'Total Temperatures and Pressures in A.R.D.C Model Atmosphere', Advanced Propulsion Research Group report, July 1963.
- D.61 Paper by Jamison on 'The Potential Uses of Very High Speed Aircraft', 27 April 1965.
- The paper was intended as a submission to the Ministry of Aviation 'Hypersonic Committee'.
- 2 copies.

ROLLS ROYCE LTD BRISTOL ENGINE DIVISION.

In December 1965 Jamison became Chief Engineer (Research). In this capacity he was responsible for the organisation, funding and prosecution of all research work into aero engines and their applications within the Division, and for the co-ordination of the programme with those of other

/...

Research

- /... Divisions of the Company. He was also concerned with the planning of aerospace research on a national scale. In 1971 Jamison became Chief Technical Executive (Research).
- D.62 'Evoluzione del turboreattore e della turboelica e nuove direttrici di sviluppo dei motopropulsori aeronautici', *Ingegneria Meccanica*, February-May 1962. Italian text with English translation made 14 March 1966.
- D.63 Paper by Jamison on 'Company Research Policy', 2 October 1967.

Manuscript notes attached to the preceding, 16 February 1971.
- D.64 Report by Jamison on European Conference on Technological Forecasting, University of Strathclyde, June 1968.
- D.65-D.69 'Pollution'. Contents of folder so inscribed divided into five for ease of reference: papers, memoranda, manuscript notes *re* atmospheric pollution by aircraft engines etc, 1970-1974.
- D.70 Contents of folder. Manuscript calculations, miscellaneous duplicated papers, 1970-1975.
- D.71 Manuscript calculations, 1971, 1977.
- D.72 Contents of folder. Manuscript calculations on 'No_x Budget etc', duplicated papers *re* meteorological conditions and aircraft operations, 1973, 1974.
- D.73-D.78 'Energy'. Contents of folder so inscribed divided into six for ease of reference: papers and correspondence *re* energy questions including aircraft fuels, 1973, 1974.

Research

PUBLICITY

- D.79-D.86 'Publicity, press etc'. Contents of folder so inscribed divided into eight for ease of reference: correspondence and papers *re* press releases, publicity brochures, articles, broadcasts, films, etc., 1954-1968, 1974.
- D.79 1954-1957. *Re* ramjet project.
- D.80 1958-1959. *Re* ramjet project.
- D.81 1960-1963. *Re* ramjets, advanced propulsion, appointments, etc.
- D.82 1964 January-June. *Re* defence and aerospace, aircraft propulsion, appointments, etc.
- D.83 1964 July-November. *Re* supersonic/hypersonic flight, appointment, etc.
- D.84 1965. *Re* article on powerplants for very high speed aircraft, hypersonic flight, etc.
- D.85 1966. Includes invitation (declined) to write book 'on the generation of high Mach number projects'.
- D.86 1967-1968, 1974. *Re* graduate recruitment film etc.

COMPUTER APPLICATIONS

- D.87-D.92 Rolls Royce Computer Education Service Senior Management Seminar on Responsibility for Computer Development, 20-23 October 1969.
- List of participants, programme, duplicated course notes, Jamison's manuscript notes etc.
- 6 folders.

Research

D.93-D.95 Duplicated notes on computer programming to calculate solutions to engineering problems. Nd.

3 folders.

CORRESPONDENCE

D.96-D.100 Correspondence etc with B.N. Wallis, *re* research projects, 1959-1974, 1980.

Wallis was based at Vickers-Armstrongs (Aircraft) Ltd (later British Aircraft Corporation), Weybridge, Surrey.

D.96 1959-1961.

D.97 1962-1965.

D.98 1967-1970.

D.99 1971. Includes photocopy of interview with Wallis from *The Engineer*, 1 April 1971.

D.100 1972-1974, 1980. 1980 material is *re* Service of Thanksgiving for the life of Wallis who died in 1979.

PHOTOGRAPHS

D.101 Swedish ramjet test vehicle. With related correspondence 1959, 1960.

D.102-D.106 *Re* ramjets, guided missiles, powerplants for supersonic flight etc, 1962, nd.

5 folders.

Research

PRINTED AND DUPLICATED MATERIAL

D.107 Printed and duplicated material *re* ramjets, guided missiles, hypersonic aero engines, publications and publicity material of Bristol aero engine companies.

1 box.

SECTION E LECTURES E.1 - E.71

- E.1-E.26 'Lectures'. Contents of binder so inscribed.
- E.1 Contents list.
- E.2 'Flight Trials of BRJ.2 Ramjets in X.T.V.4 Test', 4 July 1952.
Duplicated typescript, table, figures.
- E.3. 'History of the Ramjet Development at the Bristol Aeroplane Co. Ltd', 21
October 1952.
2pp typescript.
- E.4 'Ramjet propulsion for Red Duster', 21 October 1952.
Duplicated typescript.
- E.5 Lecture on ramjets, R.A.F. Henlow, 7 June 1955.
7pp typescript, list of slides.
- E.6 Lecture on ramjets, Royal Aeronautical Society, Derby Branch, 5 November
1956.
Duplicated typescript, typescript notes with manuscript additions and
corrections, list of slides.
- E.7 Remarks on Probert lecture to Guided Flight Section of Royal Aeronautical
Society, December 1957.
5pp typescript draft.
- E.8 'Slide list for Preston Branch lecture', 29 January 1958.
2pp typescript.

Lectures

- E.9 Lecture on 'Ramjets and supersonic power plants', Royal Aeronautical Society, Bristol Branch, Junior Committee, February 1958.
3pp typescript notes, list of slides.
- E.10 Speech for opening of H.A.T.P. [High Altitude Test Plant], April 1958.
4pp typescript.
See also E.67.
- E.11 Lecture on ramjets, Royal Aeronautical Society, Bristol Branch, 18 November 1958.
9pp duplicated typescript notes, ramjet department report on 'Great circle distances between London and various destinations', list of slides.
See also E.68, E.69.
- E.12 Paper on 'Power for the long range supersonic airliner', I.A.S. summer meeting, Los Angeles, 18 June 1959.
18pp typescript notes, instructions for slides, etc.
- E.13 Lecture on 'Engines for supersonic airliners', Royal Aeronautical Society, 24 March 1960.
24pp typescript with manuscript additions and corrections, manuscript notes.
- E.14 Lecture on 'high speed long range transport from the engine makers' viewpoint', Club de Luftfahrt, Bonn, 27 May 1960 and Swedish Aeronautical Society, Trollhättan, 3 November 1960.
10pp typescript with manuscript additions and corrections.
- E.15 'Resumé of our activity on ramjets' prepared for 'visit of Sir George Gardner C.A. and Mr M.B. Morgan D.C.A', 2 December 1960.
4pp typescript.

Lectures

- E.16 Presentation on future of ramjets to the German Ministry of Defence, Aircraft and Engine Industries, 10 January 1961 and Italian Air Ministry, 16 May 1961.
6pp duplicated typescript, information on slides and list of slides
- E.17 Lecture on 'Weight v. Performance' to Weight Engineers, 29 March 1961.
- E.18 Lecture on 'Supersonic ramjet engines with their applications and their problems', Royal Aeronautical Society, Glasgow Branch, 2 May 1961.
11pp typescript notes, list of slides.
- E.19 Lecture on 'Advanced Air-Breathing Engines', Seminar on Astronautics, Southampton, July 1961.
13pp typescript notes with manuscript additions, 2pp typescript, list of figures for seminar paper, Bristol Siddeley Ramjet Department report on the assumptions used for the Southampton paper.
- E.20 Contribution on very high speed vehicles to R.A.E. Symposium, July 1962.
9pp typescript notes with manuscript additions and corrections.
- E.21 Talk on research arising from ramjet work, for Minister of Aviation, September 1962.
Manuscript notes.
- E.22 Paper on 'Techniques of aero-engine development' presented at the N.G.T.E., 23 November 1962.
11pp typescript notes, 17pp typescript paper, distribution list.
- E.23 'Notes on R.J.L.'s paper on Air Breathing Boosters. For A.R.C. Meeting of Astronautics Committee, 30 November 1962'.
Manuscript notes.

Lectures

- E.24 Presentation on advanced engines to D.G. (Eng), St Giles Court, 10 December 1962.

3pp typescript notes.
- E.25 'Review of Research' to Technical Committee (New Projects), 3 May 1963.

12pp typescript notes with manuscript additions.
- E.26 Talk on 'Operational aspects of supersonic transports from the propulsion angle' to the Empire Test Pilots School, 17 October 1963.

14pp manuscript notes, list of figures, table.
- E.27-E.49 'Lectures'. Contents of file so titled.
- E.27 Contents list.
- E.28 Contribution to Institute of Mechanical Engineers informal discussion 'Rockets versus air-breathing engines - as launchers for satellites', 7 November 1963.

Agenda, 9pp typescript of Jamison's contribution, duplicated information sheet, data.
- E.29 Lecture on 'The engineering problems of hypersonic flight, Manchester University, 23 April 1964.

11pp typescript notes, list of slides.
- E.30 Lecture on 'Ramjet design', B.C.S.T. (Bristol College of Science and Technology), 18 February 1965.

16pp typescript, list of slides.
- E.31 Lecture on 'Aero engine development', B.C.S.T., 9 March 1965.

12pp manuscript notes for lecture; 9pp manuscript notes on 'Rig work, its uses and limitations'.

Lectures

- E.32 Lecture on 'Supersonic intakes', B.C.S.T., 11 March 1965.

9pp manuscript notes, with manuscript additions for later version 25 January 1967, figures etc.
- E.33 Lecture on 'Integration', B.C.S.T., 18 March 1965.

10pp manuscript notes for lecture; 5pp manuscript notes on 'Integration and matching', dated 25 May 1969 and 5pp manuscript notes on 'Integration and matching of engines/airframe combinations' dated 29 May 1969, filed with 1965 lecture notes.
- E.34 List of slides used for all B.C.S.T lectures.
- E.35 Paper on 'Powerplants for very high speed aircraft' for the *New Scientist*.

10pp typescript dated October 1965, captions for figures.
- E.36 Lecture on 'High speed propulsion', Bristol University, 11 December 1965.

13pp typescript, list of figures.
- E.37 Lecture on ramjets to the Society of Engineers, 22 February 1966.

5pp typescript notes, list of slides.
- E.38 Presentation on 'Hypersonic propulsion aerodynamics' to the Round Table of the Agard Fluid Dynamics Panel, Delft, 30 August 1966.

11pp manuscript notes, list of slides, 2pp manuscript note on 'Fluid dynamic problems in hypersonic A/C'.
- E.39 Lecture on 'Power units for very high speed winged vehicles', RAeS/ICAS Congress, Royal Garden Hotel, 11-16 September 1966.

28pp typescript, 2pp typescript summary, 3pp manuscript addendum dated 28 January 1968.

See also E.62.

Lectures

- E.40 Lecture on 'Aspects of work done in general field of supersonic propulsion and design factors in a high speed power unit', to students at B.U.T. (Bath University of Technology).

Paginated sequences of manuscript notes for lecture dated 30 November, 7 and 30 December 1966, list of slides.
- E.41 Lecture on 'Supersonic intakes', to students at Bath University of Technology, 27 January 1967.

8pp manuscript notes, 2pp manuscript 'points to remember', 3pp manuscript notes dated 14 January 1968, etc.
- E.42 Lecture on 'Supersonic combustion' to students at Bath University of Technology, 10 March 1967.

Manuscript notes dated in February 1967 and June 1968, figures.
- E.43 Lecture on 'High speed aircraft, prospects and problems', Bristol University Student Chemical Society, 14 October 1968.

8pp typescript notes with manuscript additions and corrections, list of figures, manuscript notes dated December 1968 and May 1970.
- E.44 Lecture on High Speed vehicles, Bath University, 9 June 1970.

8pp typescript notes, list of slides.
- E.45 Lecture on 'The organisation of research and development (Part II)', Bath University, 24 February 1971.

12pp typescript notes with manuscript additions and corrections.
- E.46 Lecture on 'The organisation of research and development (Part I)', Bath University, 24 February 1971.

Part I follows Part II in the Contents List (E.27).

8pp typescript notes, manuscript notes.

Lectures

- E.47 Graphs for preceding lecture, list of figures dated 9 May 1973.
- E.48 Lecture on 'Ramjet development', Bath University, 8 February 1972.

3pp typescript notes, list of slides; also 'Notes on contents of films from the research department shown on 26th January 1973'; manuscript notes and lists of slides January, February 1973.
- E.49 Presentation on research and innovation, 'originally produced for visit of ACAG (OR) (designate) AJM Bower 5.2.73'.

Not listed in Contents List.

Manuscript notes, list of diagrams etc.
- E.50-E.63 'Lectures (figures)'. Contents of binder so titled.
- E.50 'Ramjets'.
- E.51 'Hypersonic air breathing engines'.
- E.52 'Power for the long range supersonic airliner'.
- E.53 'Engines for supersonic airliners'.
- E.54 'The future of ramjets (German and Italian presentation)'.
- E.55 'Advanced air-breathing engines'.
- E.56 'Recoverable air breathing boosters for space vehicles'.
- E.57 'Symposium on very high speed vehicles'.

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- E.58 'Figures for talk to Empire test pilots school'.
- E.59 'Figures for talks to B.C.S.T.'
- E.60 'Figures for New Scientist Paper'.
- E.61 'Figures for lecture to Bristol University Scientific Club'.
- E.62 'Figures for lecture for RAeS/ICAS Congress'.
- Jamison lectured to the Royal Aeronautical Society on 'Power units for Very High Speed Winged Vehicles', 1 September 1966. See E.39.
- E.63 Unidentified.
- E.64 'Advanced Propulsion Research Group Slide Index Dr R.R.Jamison'. Contents of folder so inscribed.

Miscellaneous

- E.65, E.66 Contents of binder divided into two for ease of reference: delegates' programme for 'Sixth Anglo-American Aeronautical Conference', September 1957, Jamison's manuscript notes on proceedings.
- Jamison was a delegate but did not give a paper.
- E.67 Opening of new high altitude test plant, Bristol Siddeley Engines Ltd, April 1958.
- Drafts of Jamison's speech, press releases, photographs.
- See also E.10.

Lectures

- E.68, E.69 Figures for lecture given to Royal Aeronautical Society, Bristol branch, 18 November 1958.
- 2 folders.
- See also E.11.
-
- E.70 Colston Research Society Symposium on Hypersonic Flow, Bristol University, 6-8 April 1959.
- Jamison spoke on 'Hypersonic Air Breathing Engines'.
- Programme only.
-
- E.71 2pp manuscript notes for talk, 26 August 1966.

SECTION F

PUBLICATIONS

F.1

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