

WHITTLE LIST

A list of The Papers of Sir Frank Whittle, held by Churchill Archives Centre November 2003

Finding aid created in XML by Simon Coleman, October 2003. This collection (fonds) level description and catalogue were prepared by Simon Coleman at NCUACS.

The collection is owned by Churchill College, Cambridge.

The Papers of Sir Frank Whittle OM KBE FRS

Creation Dates, 1926-1994

97 archive boxes & 12 rolls

OUTLINE OF THE CAREER OF SIR FRANK WHITTLE

Whittle was born in Coventry on 1 June 1907. After attending Leamington College he applied to join the RAF as an apprentice in January 1923. He was successful in the entrance exam, only to fail the medical on account of his diminutive stature. After going through a strenuous physical exercise programme, he applied again six months later and was accepted. In 1926 he was offered a cadetship to the RAF College, Cranwell, and began training as a pilot. After passing out of the College in 1928, he undertook various flying duties including service in III Fighter Squadron at Hornchurch and postings to the Flying Training School, Digby, and the Marine Aircraft Experimental Establishment, Felixstowe, as a float plane test pilot. In 1934 he graduated from the Officers' School of Engineering at Henlow with such exceptional results that he was sent to Cambridge University as an undergraduate of Peterhouse to take the Mechanical Sciences Tripos.

While still at Cranwell Whittle wrote a thesis exploring the possibilities of flight at higher altitudes and speeds. He examined the potential of rocket propulsion and gas turbines but the idea of using a gas turbine for jet propulsion did not occur to him until the year after he left Cranwell. The Air Ministry believed the gas turbine to be completely impracticable but Whittle nevertheless took out a patent in 1930. His attempts to attract commercial interest in the idea were fruitless until 1935 when he was still at Cambridge. Two friends and former RAF pilots, Rolf Dudley Williams and J.C.B. Tinling, who were in business together, secured financial backing from a city banking firm and, after negotiations with the Air Ministry, a company called Power Jets Ltd was formed. Whittle was allotted shares in return for assigning all his patent rights to the company, while a contract for the design of an experimental bench engine, the "WU" was given to the British Thomson Houston Company, Rugby. After gaining a first Class Honours at Cambridge, Whittle was granted a further postgraduate year to supervise the work on the WU which made its first run on 12 April 1937.

Whittle was appointed to the Special Duty List and continued to work for Power Jets as Honorary Chief Engineer. By June 1939 the work had progressed sufficiently for the Air Ministry to place an order for a flight engine (the W.1) with the company. The Gloster Aircraft Company was contracted to build an experimental aircraft, the E.28/39, which was to be powered by the W.1. The highly successful first test flights of E.28/39 on 15 May 1941 resulted in an expansion of the project and the

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beginning of co-operation between Britain and the USA on the development of the turbo-jet engine. Before the outcome of the test flights a decision was taken to build a twin-engined fighter, the Gloster F.9/40 (Meteor), using the more powerful W.2.B engine. In 1944 the Meteor entered service and was the only Allied jet to be operational in World War Two. Before his attachment to Power Jets ended in 1946, Whittle was also responsible for the development of the W.2/500 and the W.2/700 engines, the parents of subsequent Rolls-Royce engines.

The nationalisation of Power Jets in 1944 hastened the break up of a remarkably talented and dedicated team of engineers. In 1946 the company (with the exception of a "rump", Power Jets R&D Ltd) was merged with part of the Royal Aircraft Establishment to form the National Gas Turbine Establishment which was chiefly restricted to research work and excluded from designing and developing engines. Whittle and most of his team resigned and his bitterness over the Government's policy remained for many years. As the break up of the team resulted in the abandonment of turbo-fan and exhaust-fan projects (arising from a number of Whittle patents), he could claim with some justification that nationalisation seriously retarded Britain's post-war jet industry. In 1948 he retired from the RAF on grounds of ill health, leaving with the rank of Air Commodore. Shortly afterwards he received a gratuity of £100,000 from the Royal Commission on Awards to Inventors which took into account the fact that he had handed over all his shares in Power Jets to the government when the company was nationalised.

From 1948 to 1952 he was technical advisor on aircraft gas turbines to the British Overseas Airways Corporation, travelling extensively in the USA, Canada, Africa, Asia and the Middle East. In 1953, having completed his book *Jet: The Story of a Pioneer*, Whittle turned to his interest in oil industry technology and joined the Shell Group as Mechanical Engineering Specialist to one of their subsidiaries. He devoted most of his energy to developing his patented turbo-drill which incorporated a hydraulic turbine to drive the cutting bit. Whittle left Shell in 1957 and the project was shelved until 1961 when Bristol Siddeley Engines became interested in its practical development. A subsidiary company, Bristol Siddeley Whittle Tools was formed in 1963 but Rolls-Royce's takeover of Bristol Siddeley in 1966 had serious consequences for the drill project. Support for the latter stages of development fell away as Rolls-Royce's financial difficulties increased and by 1971 work on the drill ceased, despite demonstrations of its commercial practicability.

In 1976 Whittle emigrated to the USA. He returned to aerodynamic work, taking up the post of NAVAIR Research Professor at the US Naval Academy, Annapolis, in 1977. His research concentrated on the boundary layer before his professorship became part-time from 1978 to 1979. The part time post enabled him to write a textbook on gas turbine aero-thermodynamics.

During the years following his retirement from the RAF Whittle gave a number of lectures on the development of the aircraft gas turbine, supersonic travel and the oil industry, including the 1954 Christmas Lectures at the Royal Institution. He participated in several anniversary events commemorating the first running of the WU and the first flight of the E.28/39. After his move to the USA, he became friends with the German jet pioneer, Hans von Ohain, and the two regularly attended conferences and functions, sometimes giving joint presentations.

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In the years following World War Two Whittle sometimes expressed strong views on two major political issues: immigration and nationalisation. He was Chairman of the Migration Council, 1950-1951, and advocated planned emigration from Britain to Commonwealth countries to reduce over-population. His extreme dislike of nationalisation led him away from his earlier Socialist beliefs and at the 1955 General Election he gave a public address at Exeter supporting Rolf Dudley-Williams, the Conservative Party candidate. In 1964 Whittle gave an election address at Smethwick where the campaign was dominated by immigration issues.

Whittle's honours were numerous and included a C.B.E. (1944), C.B. (1947), knighthood (1948), Fellowship of the Royal Society (1947) and membership of the Order of Merit (1986). He was also made a Commander, US Legion of Merit (1946). He was a Fellow of the Royal Aeronautical Society and a fellow or member of many other scientific and learned societies in the UK and abroad. He was a Founder Fellow of the Fellowship of Engineering (Royal Academy of Engineering), 1976, and received honorary degrees from several universities, including Cambridge, Oxford, Manchester, Edinburgh and Trondheim (Norway).

Whittle married Dorothy Mary Lee in 1930 and they had two sons. The marriage was dissolved in 1976 and Whittle married Hazel S. Hall in the same year. He died on 9 August 1996.

DESCRIPTION OF THE COLLECTION

The papers cover the period 1926-1994.

Section A, Biographical, has material relating to Whittle's academic career in the RAF: academic notebooks from his years at RAF College Cranwell, RAF College Henlow and the University of Cambridge. There are two of his flying log books: the earlier covering his flight cadet training at Cranwell, the other containing entries from 1928 to 1946. RAF career papers include some of Whittle's own accounts of personal experiences such as the "crazy flying" display at Hendon and papers detailing a number of his proposed inventions. Material relating to the history of the turbo-jet includes papers and articles by Whittle and a visitors' book for Power Jets Ltd. A large series of diaries and pages of typewritten diary entries spans the years 1927 to 1991. For the years covering the work on the jet engine and the turbo-drill there are, in many places, long and detailed entries concerning technical matters, meetings and foreign trips. There is personal correspondence, dating from 1946 to 1989, with various individuals including Sir Rolf Dudley-Williams and R.G. Voysey, charitable organisations, authors of books and articles, solicitors and autograph hunters. Whittle's sporadic involvement in political affairs is also documented by material such as drafts of articles and speeches relating to his chairmanship of the Migration Council and public addresses at the 1955 (Exeter) and 1964 (Smethwick) General Elections. The remainder of the section comprises a large body of financial papers, both business and private, and papers concerning social functions and anniversaries.

Section B, Research and Development, chiefly comprises Whittle's work on the development of the jet engine, his later interests in jet propulsion and jet-powered flight, and the work on the turbo-drill for the oil industry. A group of correspondence

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and papers, including copies of notes of interviews and meetings etc, reports and technical papers, reflect the day to day involvement of Whittle in the jet engine project from the formation of Power Jets Ltd to the nationalisation of the company. The financial affairs of Power Jets Ltd and the relations between various prominent individuals and companies collaborating in the work are also covered. There is also a series of notebooks in Whittle's hand, 1939-1950, with graphs, calculations and experimental results. The papers concerning his later jet interests are diverse and cover his work for BOAC (1948-1952); a patent infringement case in which he provided expert evidence in support of the defendants, Rolls-Royce Ltd; the problems of "jet noise"; supersonic aircraft; and a brief consultancy position. A number of his notebooks and sketchbooks, 1973-1993, relate to both jet-powered flight and the turbo-drill. The turbo-drill papers document the various stages of Whittle's involvement in the project: with the Shell Group, Bristol Siddeley Engines and the period following Rolls-Royce's takeover of Bristol Siddeley. The remainder of the section consists of small groups of papers relating to Whittle's analysis of possible German submarine development in 1943 and his NAVAIR Research Professorship at the US Naval Academy, 1977-1978.

Section C, Publications, dates from 1931 to 1992, and consists of a chronological sequence of drafts for publications and editorial correspondence. Included is a draft of an early paper on the turbo-jet idea, dated to 1931 or 1932, entitled "The Case for the Gas Turbine".

Section D, Lectures and broadcasts, covers the period 1943-1987. The jet engine is the chief topic of the lectures, but some relate to the oil industry and supersonic flight. Drafts and notes for lectures include those for the Christmas Lectures on the oil industry at the Royal Institution, 1954. Broadcasting material is slight and includes correspondence and papers concerning a BBC television Jet Propelled, 1966, in which Whittle appeared.

Section E, Visits and conferences, begins with Whittle's USA visit in 1942 to view American progress on jet propulsion. There are many reports covering his travels while working for BOAC; these give his views on various aspects of civil aviation, including the possibilities for the "Comet". He toured the USA on a number of other occasions before his emigration; one of these, in 1974-1975, allowed Whittle to promote Concorde and discuss the possibility of advanced supersonic travel. Most of the remaining papers reflect his attendance at conferences and commemorative occasions.

Section F, Societies and organisations, reflects Whittle's associations chiefly with engineering, scientific and learned societies and organisations in the field of aviation, all in Britain or the USA. Included are The Royal Society, The RAF Technical College, The International Aerospace Hall of Fame, "The Reactionaries" and the Tony Jannus Award.

Section G, Correspondence, principally consists of an alphabetical sequence of Whittle's correspondence with individuals and organisations including M.L. Bramson, Lord Dacre, S.G. Hooker, A. Pouring and the Royal Air Force Museum Hendon, and a chronological sequence of miscellaneous correspondence covering many professional and personal matters. There is a group of correspondence with

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inventors who sought Whittle's advice or support and a small number of letters from "cranks".

Section H, Non textual material is slight, chiefly consisting of rolls of technical drawings for various stages of the turbo-drill project. There is also Whittle's slide rule dating from his undergraduate days.

There is also an index of correspondents.

The papers were presented to Churchill Archives Centre by Sir Frank Whittle in May 1996.

The collection is open, with some restrictions, for consultation by researchers using Churchill Archives Centre, Churchill College, Cambridge. Churchill Archives Centre is open from Monday to Friday, 9am-5pm. A prior appointment and two forms of identification are required.

Researchers wishing to publish excerpts from the papers must obtain prior permission from the copyright holder and should seek advice from Archives Centre staff. Churchill Archives Centre, The Papers of Sir Frank Whittle, WHTL

A copy of this finding aid is available for consultation at Churchill Archives Centre, Cambridge, the National Register of Archives, London and on the Janus website, <http://janus.lib.cam.ac.uk/>. The collection has been catalogued and copies of the catalogue are available at Churchill Archives Centre.

Further material relating to Whittle's career may be found in the following repositories:

The National Archives, ref: AIR62.

Royal Air Force Museum, Department of Research and Information, ref: AC 96/54.

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WHTL/A

WHTL A.1-WHTL A.473

1926-1994, nd

BIOGRAPHICAL AND AUTOBIOGRAPHICAL

WHTL A.1-WHTL A.40

1943-1978, nd

WHTL A.1-WHTL A.30

1943-1978, nd

Autobiography and personal accounts.

WHTL A.1-WHTL A.10

'special Duty', Whittle's autobiography, published as "Jet: The Story of a Pioneer", London 1953. 'special Duty' appears to have been the original title of the book. Photocopy of typescript draft with extensive manuscript revisions.

10 folders.

Original box no.19.

WHTL/WHTL A.11-WHTL A.15

1943-1956, nd

"Morale and leadership".

Contents of a file so inscribed.

Original box no.25.

WHTL A.11

29 July 1943

"Morale and leadership", a paper by Whittle.

14pp typescript with a few annotations in Whittle's hand on last page; 1p manuscript notes and 1p typescript re Whittle's paper by others.

WHTL A.12

1951, 1956

Brief correspondence mostly relating to Whittle's paper described in WHTL A.11. The letter dated 1951 could, possibly, relate to the paper in WHTL A.13 rather than the above.

WHTL A.13

20 March 1944

Paper by Whittle headed "Draft of Technical Branch Memorandum".

The paper analyses the various factors governing a person's ability to do a particular job.

14pp typescript.

WHTL A.14

"Leadership".

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33pp typescript draft, so entitled, with manuscript revisions in Whittle's hand. There is no other indication of authorship.

WHTL A.15

Letter and a 1p typescript by Whittle entitled 'some Thoughts on Science and Craftsmanship'.

WHTL A.16-WHTL A.30

*Writing on theology and related topics.
1949-1978, nd*

Contents of 2 files inscribed "J.B.R. [JohnB. Randell]".

Randell was Doctor of Psychological Medicine at Charing Cross Hospital.

Whittle undertook a study of various biblical topics and aspects of Christian belief in collaboration with Randell who appears to have been writing a book entitled "The Mental Status of Jesus Christ". Whittle sent copies of his papers described below to Randell and was involved in the preparation of Randell's text. The material includes notes by Whittle on works by others and also covers matters connected with psychology, history and sciences.

Nearly all the material dates from the 1970s. There is no clear indication of when the project began or ended nor evidence of a resulting publication.

The author of the papers described below is Whittle unless otherwise stated.

WHTL A.16-WHTL A.24

1949-1978, nd

*Contents of file inscribed "JBR Project".
Original box no.13*

WHTL A.16

1974

Studies on John the Baptist.

Typescript carbon copy of a letter from Whittle to Randell, 1974; 10pp typescript entitled "John the Baptist" and 6pp typescript entitled "References to John the Baptist in the N.T.", both with manuscript revisions.

WHTL A.17

1975

"On Writing History".

Manuscript draft so entitled; 4pp typescript draft with manuscript revisions and revised typescript version inscribed "c.1975" at end.

WHTL A.18

1974, nd

Studies on the Gospels etc.

4 typescripts, all with manuscript revisions or annotations. Entitled as follows, dates given where inscribed: "Basis of the Eucharist" (6pp, "31/5/74"); "Ethics Taught by the Gospels" (6pp, "Aug. 23/24 1974"); "Commentary on the Gospels" (14pp, "Aug. 1974"); "Refs to The Law in Gospels & Acts"; (4pp, undated).

WHTL A.19

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1975

Studies on Jesus Christ.

3 typescripts, all with manuscript revisions, entitled as follows: "Claims to Divinity in Gospel of John" (19pp); "The Alleged Miracles of Christ" (5pp); "Who was He?" (3pp).

WHTL A.20

1975

"The Background".

2 typescript drafts (19pp), with manuscript revisions, of a paper so entitled on comparative religion and belief.

WHTL A.21

1975

'synopsis of Genesis'.

12pp manuscript draft.

WHTL A.22

1975

Synopses by Whittle of works by others.

2 typescript drafts with manuscript revisions.

WHTL A.23

1975

Various manuscript notes and drafts on biblical and other topics.

Some of this material may have been early drafts of some of the papers in WHTL A.16-WHTL A.20.

WHTL A.24

1949, 1960, 1974-1978, nd

Correspondence between Whittle and Randell.

Re many of the topics covered in the papers described above. The two earlier letters, dated 1949 and 1960, do not indicate that Randell had at that time commenced work on his book.

WHTL A.25-WHTL A.30

1975

Contents of a file inscribed "JBR's MS".

Original box no.23

WHTL A.25-WHTL A.28

1975

Draft of Randell's book: "The Mental State of Jesus Christ"

114pp incomplete typescript draft with manuscript revisions and annotations in Whittle's hand.

4 folders.

WHTL A.29-WHTL A.30

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Various typescripts by Randell, probably used in the preparation of his book.
The topics are chiefly psychological and physical conditions.
One typescript is heavily annotated by Whittle. Included are a few manuscript notes by Randell.

2 folders.

WHTL A.31-WHTL A.37

1982-c.1986

Biographies.

WHTL A.31-WHTL A.32

Whittle: The True Story, by John Golley, Shrewsbury 1987.

This book, written with Whittle's assistance, covers the story of the development of the jet engine.

Original box no.72.

WHTL A.31

1986

Proof with manuscript revisions and annotations in Whittle's hand.

WHTL A.32

1986

Parts of a proof, apparently later than the one at WHTL A.32.

WHTL A.33-WHTL A.37

1982-1984

Material relating to an unauthorised biography of Whittle by Roland Cooper.

Cooper interviewed some of Whittle's family and former colleagues in the preparation of the biography which covered Whittle's career up to 1976. There is no evidence of eventual publication.

Original box no.10.

WHTL A.33

1982-1984

Letters from Cooper to Whittle concerning the draft.

On the back of one letter (26 September 1982) is a manuscript draft of a reply by Whittle.

WHTL A.34-WHTL A.37

1983

Typescript draft of the book.

The draft is extensively annotated by Whittle, many of his comments being highly critical of the factual accuracy and the language.

4 folders.

A38-WHTL A.40

1944-1979, nd

Short accounts, resumees

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Original box no.65.

WHTL A.38-WHTL A.39

1944-1973, nd

Contents of a file inscribed "Biographical details".

Various short biographical and autobiographical notes, accounts and resumes of Whittle's career, with related correspondence. Some of the information was provided for the Central Office of information.

Included at WHTL A.39 is a 15pp manuscript draft by Whittle (for the Central Office of Information) entitled "The Evolution of the Internal Combustion Turbine".

Mostly typescript.

2 folders.

WHTL A.40

1965-1979, nd

Miscellaneous biographical notices, notes etc.

ROYAL AIR FORCE

1926-1976

WHTL A.41-WHTL A.56

1926-1936

Academic notebooks.

All the notebooks are printed "Royal Air Force" on the cover.

WHTL A.41-WHTL A.42

1926-1928

RAF College, Cranwell [Whittle was a cadet at Cranwell, 1926-1928].

2 hardback notebooks containing essays and short prose pieces in Whittle's hand.

They are inscribed "F/CF. Whittle English Literature" on the covers.

WHTL A.41

1926-c.1928

Includes essays with the following titles: "The Birth and Growth of Flying"; "Traditions"; "Charles Lamb's Essays"; "Joseph Conrad".

On the second page is a 'specimen letter' dated "7/9/26".

WHTL A.42

1926-1928

Included are essays with the following titles: "G.B. Shaw's Preface to "St. Joan"; "Cairo-Kano Flight"; "G.K. Chesterton: "The Ballad of the White Horse Vale"; "Revolt in the Desert"; by Colonel T.E. Lawrence".

WHTL A.43-WHTL A.56

1932-1936

RAF Henlow and University of Cambridge.

Whittle took the Officers' Engineering Course at Henlow, 1932-1934, before taking the Mechanical Sciences Tripos at Cambridge (Peterhouse), 1935-1936.

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Notebooks, mostly hardback, all but one inscribed "F/Lt Whittle". They contain notes, formulae, calculations and diagrams in Whittle's hand. A few contain intercalated pages of notes and typescript exam revision papers. The topics are inscribed on the covers of the notebooks and are reproduced below.

The absence of inscribed dates prevents definite identification of the notebooks as belonging to one or other of the two periods of his education. Those at WHTL A.53-WHTL A.55 appear to have been used at Cambridge but parts of them could also have been written at Henlow.

Original boxes no.s 1 and 4.

WHTL A.43

"Mechanics of Machines".

WHTL A.44

"Fluid Mechanics and Aeronautics".

WHTL A.45-WHTL A.46

"Heat Engines".

2 notebooks.

WHTL A.47-WHTL A.48

'structures'.

2 notebooks.

WHTL A.49

"Electricity".

WHTL A.50

"Maths".

WHTL A.51

"Aeronautics Laboratory Work".

WHTL A.52

"M[?echanics]."

Includes notes on stress waves.

WHTL A.53

"Mechanics".

First page is headed "Henlow Notes". An intercalated exam revision paper is dated 1936.

WHTL A.54

"Mechanics B".

This notebook appears to be a continuation of notebook WHTL A.53.

WHTL A.55

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“Heat and Aeronautics Examples”.

The first page heading refers to a 1935 exam paper.

WHTL A.56

Untitled

A57-WHTL A.58

1926-1946

Flying log books. They record, in Whittle’s hand, details of individual flights he made as a pilot or a passenger. The information includes date and duration of flight, machine type, height, course and “remarks”. They appear to provide a complete record of Whittle’s flights.

Hardback.

Original box no.1.

WHTL A.57

September 1926 - July 1928.

Log book from Whittle’s period as a Flight Cadet (officer and pilot training) at RAF Cranwell.

WHTL A.58

1928-1946

Large log book.

The log book covers the following stages of Whittle’s career: III Fighter Squadron, RAF Hornchurch, 1928-1929; Flying Instructors’ Course, Central Flying School, RAF Wittering; Flying Training School, RAF Digby, 1930 (There are references to “crazy flying” during this period); Marine Aircraft Experimental Establishment, RAF Felixstowe (test pilot), 1931-1932; and his later flying during his years at RAF Henlow and Cambridge University and while on the Special Duty list.

At the front of the book is the following intercalated material: a page of later manuscript notes by Whittle on his early impressions of RAF Hornchurch; a page of brief manuscript notes, probably on flying hours during his various postings; Certificate of completion of the Aeronautical Engineering Course, 1933.

WHTL A.59-WHTL A.67

1928-1948

RAF career papers.

WHTL A.59-WHTL A.60

1928-1948

General letters and papers. Mostly copies.

Chiefly official letters to Whittle from various RAF officers, ministers and officials in the Air Ministry and other Government departments, and other individuals relating to his promotions, transfers, achievements and inventive ideas. There are also a few letters by Whittle, including a report, July 1932, of an incident during catapult trials. There are letters of which Whittle is neither the author or recipient but most of these are concerning him.

Included at WHTL A.59 are a paper recording the examination marks (including Whittle’s) at the RAF Cadet College, July 1928; and 2 photographs of aircraft, probably of the type flown by Whittle at RAF Felixstowe.

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2 folders.

Original box no. 23.

WHTL A.61-WHTL A.67

1931-1936, nd

Papers by Whittle.

Various papers, some relating to inventions by Whittle. The titles are reproduced below.

Original box no.25.

WHTL A.61

1931

“Description of a Proposed Catapult Principle”.

Technical paper which Whittle submitted to the Commanding Officer, HMS Ark Royal, on his idea for a “catapult consisting essentially of a self-propelled launching trolley, running along a light trackway”.

4pp typescript with manuscript revisions.

WHTL A.62

1932

Untitled paper concerning a proposed catapult device for launching aircraft.

The details have some similarity to the paper in WHTL A.61, though other ideas are included.

Untitled 4pp typescript, the first page apparently missing.

WHTL A.63

1931-1932

“Catapult and Other Test Work for Admiralty 1931-1932”.

Incomplete 5pp typescript summary account of Whittle’s time as a test pilot at the Marine Aircraft Experimental Establishment, RAF Felixstowe.

WHTL A.64

“Crazy Flying”.

Whittle’s account of his “crazy flying “ performance at the 1930 RAF display at Hendon.

5pp typescript.

References in the text to subsequent events show that the paper was written some years after the event.

WHTL A.65

“Courts Martial”.

2pp manuscript account of Whittle’s involvement in RAF court martial cases.

WHTL A.66

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“Biographical”.

1p manuscript, in Whittle’s hand, of brief quotes from RAF officers involved in his selection for a cadetship (1923).

WHTL A.67

29 June 1936

Untitled paper on a proposed method of producing motion pictures in natural colour for cinema and television.

This invention by Whittle appears to be unconnected with his RAF service.

6pp typescript with manuscript revisions and annotations.

Found with the material in WHTL A.61-WHTL A.66.

WHTL A.68

1957-1976

Later association with the Royal Air Force.

Correspondence, with a few newspaper cuttings, re donations by Whittle to The Royal Air Force Museum, items for exhibitions, visits to RAF Cranwell and other matters.

Original box no.25.

WHTL/A/3

JET ENGINE HISTORY

WHTL A.69-WHTL A.81A

1941-1992, nd

WHTL A.69-WHTL A.72

1951-[?1952], nd

Papers by Whittle.

WHTL A.69

[?1952]

11pp typescript headed “Appendix”.

The paper appears to be evidence submitted by Whittle in support of the application by Power Jets (Research and Development) Ltd for an extension of Whittle’s British Patent No. 471368 (relating to a by-pass engine).

WHTL A.70

1951

“The First Ten Years of the Turbo Jet - a brief summary”.

Probably published in “The Aeroplane”, ?[May or June] 1951.

6pp typescript, with off-prints from “The Aeroplane” of similar articles (1951) mentioning Whittle.

Original box no.95.

WHTL A.71

“The Birth of the Jet Engine in Britain”.

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24pp manuscript draft in Whittle's hand, so entitled, with revisions.
Original box no.35.

WHTL A.72

"What F.W. might say".

The paper appears to be an attempt by Whittle to recollect technical matters concerning the jet engine covered during his first visit to the USA, 4 June-13 August 1942. It is also inscribed "Jet history" and was clearly written many years later. Whittle's visit was made to strengthen the technical links between Power Jets Ltd on the one hand and the General Electric Company and Bell Aircraft on the other.

7pp typescript draft (paginated "1" to "7") with manuscript revisions; one further unpaginated typescript page found with the draft and also relating to Whittle's visit.
Original box no.35.

WHTL A.73-WHTL A.76

1944-1992, nd

"History Papers".

Contents of a file so inscribed.

WHTL A.73

1962

"How Jets Developed", letter by Whittle to "The Daily Telegraph", 13 March 1962. Whittle was responding to a letter by a reader, though he also refers to approaching anniversaries in the history of jet propulsion in explaining the reasons for his letter. Copy of the letter and printed version; brief correspondence arising; cuttings of related letters by readers to "The Daily Telegraph".

WHTL A.74-WHTL A.76

1944-1992, nd

Various articles on Whittle, or containing mention of him, by others in relation to the early days of jet propulsion.

The material consists of magazine and newspaper cuttings (or copies from them), special publications including "An Encounter Between the Jet Engine Pioneers, Sir Frank Whittle and Dr Hans von Ohain" (1978), and a few typescript or proof papers.

3 folders.

WHTL A.77-WHTL A.78

[c.1941]-1947

Material relating specifically to Power Jets Ltd.

WHTL A.77

March 1941-April 1947

Visitors' book.

Hardback book inscribed "Visitors' Secrecy Book" inside cover.

WHTL A.78

1941-1943

"P.J. engineers qualifications", contents of a file so inscribed.

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Papers, mostly typescript giving brief details of the qualifications, technical experience etc of the company's engineers.

WHTL A.79-WHTL A.81

Photographs.

Original box no. 43.

WHTL A.79

Colour photographs of [?Whittle's] jet engine.

Colour photographs of a jet engine (presumably Whittle's original) in storage. They are glued onto pieces of paper, both sides of the paper often used.

WHTL A.80-WHTL A.81

X-ray photographs of [?Whittle's] jet engine.

There are labels on the photographs indicating the part or parts shown.

2 folders.

WHTL A.81A

1943

Printed report.

Copy of "Report on Harold Adams" Trip to England", 25 November 1943.

The report documents the visit of Adams (of the Douglas Aircraft Co. Inc.) to view the work on jet propulsion being done by Power Jets Ltd and other organisations.
Bound.

WHTL/A/4

HONOURS AND AWARDS

WHTL A.82-WHTL A.168

1944-1993, nd

WHTL A.82-WHTL A.100

1944-1966

"Honours - Medals and Awards with Medals".

Contents of a file so inscribed.

Original box no.50.

WHTL A.82

1944

Commander of the Order of the British Empire (CBE), 1944.

Warrant with letter of notification; letters of congratulation.

WHTL A.83

1944

James Alfred Ewing Medal, Institution of Civil Engineers, 7 November 1944.

Letter of notification only.

WHTL A.84

1944

Gold Medal, Royal Aeronautical Society, 1944.

WHITTLE LIST

Letter of notification only.

WHTL A.85

1946

Commander, Legion of Merit, awarded by the US Government, the Pentagon, 15 November 1946.

Press release etc.

WHTL A.86

1946, 1964

Daniel Guggenheim Medal, USA, 1946.

Notification; later letter concerning a publication.

WHTL A.87

1947

Companion of the Order of the Bath (CB), 1947.

Letters of congratulation.

WHTL A.88

1947-1948

Kelvin Gold Medal (for 1947), Institution of Electrical Engineers, 7 October 1948.

The award was presented by the Institution of Electrical Engineers at the request of The Council of the Institution of Civil Engineers, the convenors for the award.

Notification and printed report of the presentation proceedings.

WHTL A.89

1948

Knight Commander of the Order of the Bath (KBE), June 1948.

Correspondence, mostly letters of congratulation.

WHTL A.90

1949

Melchett Medal, of the Institute of Fuel, 1949.

Correspondence re notification and acceptance.

Whittle accepted the award on condition of being excused (on health grounds) delivering the customary lecture which accompanied it.

WHTL A.91

1950

Rumford Medal, Royal Society, 30 November 1950.

Notification and certificate.

WHTL A.92

1952

Churchill Gold Medal, Society of Engineers, 6 October 1952.

Notification; letter of thanks from Whittle to Sir Winston Churchill; pages from a publication covering the award.

WHTL A.93-WHTL A.94

1956

WHITTLE LIST

Franklin Medal, The Franklin Institute, Philadelphia, USA, 17 October 1956.

Correspondence re notification etc and arising, with various papers concerning the ceremony.

2 folders.

WHTL A.95

1952, 1953

Albert Medal, Royal Society of Arts, 1952.

Notification; letter arising.

WHTL A.96

1957

John Scott Award, City of Philadelphia, USWHTL A.

The award was presented to Whittle at a general meeting of the Institution of Mechanical Engineers, London, 18 October 1957.

Correspondence re notification etc; letters of congratulation; pages from publication covering the presentation of the award.

WHTL A.97

1964-1965

The Goddard Award, American Institute of Aeronautics and Astronautics, New York, 26 January 1965.

Correspondence re notification and correspondence arising, including letters of congratulation; printed matter.

WHTL A.98

1965-1966

Coventry Award of Merit, 25 February 1966

Whittle was one of a group of individuals who were the first recipients of the award.

Notification etc; typescript biographical account; newspaper cuttings and other printed material.

WHTL A.99-WHTL A.100

1966

Christopher Columbus Prize for Communications, Genoa, 12 October 1966.

Letters of congratulation and correspondence arising; manuscript draft of Whittle's acceptance speech (delivered in Italian) and English translation (WHTL A.99); other papers concerning the award and ceremony.

2 folders.

WHTL A.101-WHTL A.119

1944-1972

"Honours - Awards Other than Medals and Honorary Degrees".

Contents of a file so inscribed.

Original box no.50.

WHTL A.101

1944

WHITTLE LIST

Fellowship of The Royal Aeronautical Society, January 1944.

Notification with reply by Whittle.

WHTL A.102

1944

Honorary Freedom of the Royal Borough of Leamington Spa, 1944.

1p typescript account of the ceremony; notification etc.

WHTL A.103

1944

Honorary Membership of the Institution of Mechanical Engineers, 1944.

Notification only.

WHTL A.104

1946

James Clayton Prize for 1945, Institution of Mechanical Engineers.

Notification only.

WHTL A.105-WHTL A.106

1945-1949

Award of £100,000 by The Royal Commission on Awards to Inventors, 1948.

An interim ex gratia award of £10,000 was made to Whittle in April 1945. He was notified of the total award he would receive in May 1948.

Correspondence etc relating to the assessment and notification of the main award and correspondence arising, including letters of congratulation. Brief correspondence re the interim payment is included.

2 folders.

WHTL A.107

1949

Honorary Membership of the Engineering Institute of Canada, December 1949.

Notification and reply.

WHTL A.108

1951

Honorary Fellowship of Peterhouse, University of Cambridge, October 1951.

Notification etc.

WHTL A.109

1952

Honorary Fellowship of The Society of Engineers, September 1952.

Notification only.

WHTL A.110

1953

Honorary Membership of the Institution of Engineering Draughtsmen and Designers, May 1953.

WHITTLE LIST

Notification and correspondence re arrangements for the presentation ceremony.

WHTL A.111

1954

Honorary Fellowship of the Royal Aeronautical Society, 1954.

Notification and reply.

WHTL A.112

1956

Honorary Membership of the Sociéété Royale Belge des Ingéénieurs et des Industriels, May 1956.

Notification only.

WHTL A.113

1956-1957

Honorary Membership of the Franklin Institute, Pennsylvania, USA, November 1956.

Notification and reply.

WHTL A.114

1965-1966

Honorary Fellowship of The Society of Experimental Test Pilots, California, USA, 24 September 1966.

Whittle received the honour at the Society's Tenth Awards Banquet held on the above date.

Correspondence concerning notification and arrangements, with programme, and correspondence arising.

WHTL A.115

1967

Enrolment in the Aviation Hall of Fame, USA, 10 June 1967.

The enrolment took place (though another attended in Whittle's place) at the Annual Awards and Installation Banquet, San Diego, on the above date.

Correspondence etc re notification and arrangements and correspondence arising.

WHTL A.116

1968

Honorary Fellowship of the American Institute of Aeronautics and Astronautics, 1968.

Whittle accepted the honour but was unable to attend the Honours Banquet to receive it.

Correspondence etc concerning notification and the Honours Banquet.

WHTL A.117-WHTL A.118

1967-1969

Tony Jannus Award, Tampa, USA, 24 January 1969.

Whittle received the award at the 6th Annual Tony Jannus Award ceremony.

Correspondence re arrangements for the ceremony and arising; newspaper cuttings.

WHITTLE LIST

See F.61-F.65 for related papers.
2 folders.

WHTL A.119
1972

Membership of the Academical Council for Science of Communications and Transports, 1972.

Whittle's 1966 Christopher Columbus Prize for Communications (WHTL A.99-WHTL A.100) entitled him to the above distinction.

Notification and reply.

WHTL A.120-WHTL A.129
1946-1973, nd
"Honorary Degrees".
Contents of a file so inscribed.
Original box no.50.

WHTL A.120
1946

Honorary Doctor of Science, University of Manchester, 15 May 1946.
Notification and copy of oration.

WHTL A.121
1949

Honorary Doctor of Science, University of Oxford, 22 June 1949.
Copy of oration (English) and printed "Encaenia Addresses"; certificate.

WHTL A.122
1951

Doctor of Laws, University of Edinburgh, 6 July 1951.
Printed orations.

WHTL A.123
1953

University of Cambridge, 4 June 1953.
Copy of oration (English) and printed version; programme.

WHTL A.124
1960

Honorary Doctor of Science, University of Leicester, 15 July 1960.
Notification and reply; order of proceedings.

WHTL A.125
1960

Honorary Doctorate, Norges Tekniske Høgskole, Trondheim, Norway, 16 September 1960.

WHITTLE LIST

Correspondence concerning arrangements for the receipt of the award and correspondence arising.

Awarded in absentia.

WHTL A.126

1968

Honorary Doctor of Science, University of Warwick, 13 July 1968.

Notification and correspondence arising; printed oration.

Awarded in absentia.

WHTL A.127

1967

Honorary Doctor of Science, University of Bath, 13 October 1967.

Notification and reply; draft biographical notice; order of procession.

Awarded in absentia.

WHTL A.128

1972-1973

Honorary Doctor of Science, University of Exeter, 5 July 1973.

Correspondence re arrangements for the degree ceremony.

Awarded in absentia.

WHTL A.129

Photograph of Whittle receiving an honorary degree at an unidentified [British] university.

WHTL A.130-WHTL A.168

1976-1993

Other honours and awards.

WHTL A.130-WHTL A.131

1976

Foreign Honorary Membership of the American Academy of Arts and Sciences, 12 May 1976.

Whittle appears to have visited the USA from April to June 1976, receiving this honour during the visit.

Certificate and correspondence re the honour; correspondence concerning Whittle's return flight on Concorde and other matters connected with his stay in the USA; photograph of Whittle.

2 folders.

Original box no.87.

WHTL A.132-WHTL A.133

1977-1978

James Watt International Medal, The Institution of Mechanical Engineers, 30

November 1977.

2 folders.

WHITTLE LIST

WHTL A.134

1979

William E. Downes Jr Memorial Award, Airport Operators Council International, Honolulu, Hawaii, 17 October 1979.

Correspondence etc mostly re arrangements.

Original box no.74.

WHTL A.135-WHTL A.136

1980

1980 Award for Meritorious Service to Aviation, National Business Aircraft Association Inc., Kansas City, USA, 24 September 1980.

Received jointly with Hans von Ohain.

Correspondence etc re arrangements and correspondence arising.

2 folders.

Original box no.74.

WHTL A.137-WHTL A.140

1986

Order of Merit, 1986.
Letters of congratulation.
Unindexed.

4 folders.

Original box no. 39.

WHTL A.141-WHTL A.143

1986-1987

Honour on the occasion of the 50th Anniversary of the first run of the Whittle jet engine, National Air and Space Museum, Washington, USA, 12 April 1987.

The event was organised by Rolls-Royce plc.
Correspondence etc re arrangements and arising.
Included is a draft oration for Whittle.

3 folders.

Original box no.51.

WHTL A.144-WHTL A.145

1987

"Cranfield and Loughborough", contents of a file so inscribed.

WHTL A.144

1987

Honorary Doctor of Science, Cranfield Institute of Technology, Bedford, [?12 June] 1987.

WHITTLE LIST

Correspondence chiefly re arrangements.

WHTL A.145

1987

Honorary Doctor of Technology, Loughborough University of Technology, 9 July 1987.

Correspondence etc, chiefly re arrangements.

WHTL A.146

1988

Honour received on European Pioneers" Day, The Royal Aeronautical Society, 12 September 1988.

This event immediately preceded an International Conference also held at The Royal Aeronautical Society, 13 & 14 September 1988: "Practical Aspects and Operational Applications of Aeronautical Technology".

The honour actually received by Whittle is not clear.
Programme only.

WHTL A.147

1988

Award from the International Society for Air Breathing Engines, September 1989.

The award was for outstanding contributions to air breathing propulsion. It appears that Whittle asked someone to accept it on his behalf at the International Symposium on Air Breathing Engines, Athens, 6-9 September 1989.

Letter of notification.

Original box no.77.

WHTL A.148

1988-1990

Enshrinement in The Engineering and Science Hall of Fame, Dayton, USA, 12 October 1989.

Correspondence etc chiefly re arrangements.

Original box no.77.

WHTL A.149

1990-1991

Meritorious Service Award, The Aviation Hall of Fame, Cleveland, USA, 31 August 1990.

Whittle was not able to attend the award ceremony.
Correspondence rearrangements; printed matter..

Original box no.77.

WHITTLE LIST

WHTL A.150

1991

Prince Philip Medal of The Fellowship of Engineering, presented at the British Embassy, Washington DC, USA, 15 May 1991.

The medal was presented to Whittle by Prince Philip, Duke of Edinburgh, in a private ceremony.

Correspondence etc re arrangements and arising.

Original box no.77.

WHTL A.151-WHTL A.161

1989-1993

Charles Stark Draper Prize, National Academy of Engineering, Washington DC, USA, 2 October 1991.

Whittle received the prize jointly with Hans von Ohain. The announcement was made on the above date during the NAE's Annual Meeting which was attended by Whittle. The prize was presented on 18 February 1992 at the Draper Prize Presentation Dinner, State Department, Washington DC.

Original box no.87 except for the material in WHTL A.160-WHTL A.161.

WHTL A.151-WHTL A.152

1989

Correspondence etc concerning Whittle's unsuccessful nomination for the 1989 Charles Stark Draper Prize.

Included at WHTL A.153 is brief correspondence re Whittle's nomination for the Royal Society's Japan Prize for 1990, found among the Draper Prize material.

2 folders.

WHTL A.153

January-February 1991

Copies of letters supporting Whittle's nomination for the Draper Prize.

WHTL A.154-WHTL A.157

1991-1993

Correspondence etc re the announcement of the prize; letters of congratulation and other correspondence arising.

4 folders.

WHTL A.158-WHTL A.159

1991

Press cuttings and press releases relating to the announcement of the prize.

2 folders.

WHITTLE LIST

WHTL A.160-WHTL A.161

1992

Draper Prize Presentation Dinner, 18 February 1992.

Contents of a file.

Letters of congratulation and other correspondence arising; programme, remarks made at the presentation, photograph etc.

2 folders.

Original box no.75.

WHTL A.162

1991

Induction into the First Flight Society, 17 December 1991.

Whittle and Hans von Ohain were inducted in the same ceremony which took place near Kitty Hawk, North Carolina, USWHTL A. The Society annually commemorated the Wright brothers' Kitty Hawk flight.

Various papers concerning the ceremony and its proceedings.

Original box no.75.

WHTL A.163

1990-1991

Royal Mail commemorative stamp.

The stamp commemorating Whittle and the jet engine was part of an issue commemorating British scientific discoveries.

Correspondence with the Royal Mail; brief related correspondence and printed material.

Original box no.76.

WHTL A.164

1991

Gold Plate Award and induction into the American Academy of Achievement, Las Vegas, USA, [?27 June] 1992.

Notification only.

WHTL A.165

1992

Aerospace Engineering Leadership Award, Society of Automotive Engineers (USA), 8 October 1992.

WHITTLE LIST

Whittle was unable to attend the presentation ceremony. Hans von Ohain was the joint recipient of the award.

Notification only.

WHTL A.166

1993

Godfrey L. Cabot Award, Aero Club of New England , Massachusetts, USA, 4 June 1993.

Notification only.

WHTL A.167

Membership of the Jet Pioneers" Association of the United States of America.

Certificate only.

WHTL A.168

1988

Honorary degree not accepted.

The University of Bristol awarded Whittle an Honorary Degree but he was unable to attend the congregation.

Brief correspondence regarding Whittle's inability to attend.

Original box no.77.

WHTL/A/5

DIARIES

WHTL A.169-WHTL A.270

1927-1991

A chronological sequence of pocket diaries, larger hardback diaries and unbound typewritten pages of diary entries. Some of the latter are "consolidated diaries" documenting some of the years in which Whittle worked on the jet engine. Those that are unbound are complete unless otherwise stated.

The diaries provide wide coverage of Whittle's professional activities (work on the jet engine and the turbo-drill) and include details of meetings, telephone conversations and technical matters. Foreign trips are normally documented in some detail. WHTL A.171-WHTL A.187 cover the years from the formation of Power Jets Ltd to the end of Whittle's career in the RAF.

Intercalated material is sometimes found.

Original boxes nos 2, 3, 7, 20, 21, 22, 58, 59, 61.

WHTL A.169

WHITTLE LIST

1927

Pocket diary (cover missing).

Entries (often quite detailed) relate to RAF College, Cranwell.

WHTL A.170

1928

Pocket diary (cover missing).

Entries (often quite detailed) relate to RAF College, Cranwell and at 111 Fighter Squadron, RAF Hornchurch.

WHTL A.171

1936

Hardback diary.

Entries (rather sparse) relate to the early days of Power Jets Ltd.

WHTL A.172

1937

Large hardback diary.

Includes detailed entries re the work on the jet engine.

WHTL A.173

1938

Large hardback diary.

Includes detailed entries re the work on the jet engine.

WHTL A.174

1939

Large hardback diary.

Includes detailed entries re the work on the jet engine.

WHTL A.175

1940

Large hardback diary.

Entries are brief.

WHTL A.176

1941

Large hardback diary.

Most entries are brief.

WHTL A.177

1943

WHITTLE LIST

Large hardback diary.

Included at the front are loose typescript pages of statistics re Power Jets" labour and the running times of the various jet engine models.

WHTL A.178

1943

Hardback diary.

WHTL A.179

1943

Pocket diary.

Entries are brief.

WHTL A.180

1944

Large hardback diary.

WHTL A.181

1945

Hardback diary.

Attached to some pages are additional pages of typewritten entries.

WHTL A.182

1946

Hardback diary.

Attached to some pages are additional pages of typewritten entries. Inserted also are loose typewritten and manuscript pages of diary entries covering a Whittle's USA tour (June to September 1946) and a short visit to France which followed very soon afterwards.

See E.2-E.5 for further material relating to the USA tour.

WHTL A.183-WHTL A.184

1947

Typewritten diary, contents of a ring binder.

Covers June to December only but includes a few rough manuscript pages for May. There is also part of an earlier typescript version.

2 folders.

WHTL A.185-WHTL A.187

1948

Typewritten diary, contents of a ring binder.

3 folders.

WHITTLE LIST

WHTL A.188-WHTL A.190
1949.

Typewritten diary, contents of a ring binder.

3 folders.

WHTL A.191-WHTL A.194
1950

Typewritten diary, contents of a ring binder.

4 folders.

WHTL A.195-WHTL A.197
1951

Typewritten diary.

3 folders.

WHTL A.198-WHTL A.199
1952

Typewritten diary.

2 folders.

WHTL A.200-WHTL A.201
1953

Typewritten diary.

2 folders.

WHTL A.202-WHTL A.203
1954

Typewritten diary.

2 folders.

WHTL A.204
1955

Typewritten diary.

Both sides of the pages used.

WHTL A.205-WHTL A.206
1956.

Typewritten diary.

2 folders.

WHTL A.207

WHITTLE LIST

1957

Typewritten diary.

WHTL A.208

1958

Typewritten diary.

WHTL A.209

1959

Typewritten diary.

WHTL A.210

1960

Typewritten diary.

WHTL A.211

1961

Typewritten diary.

WHTL A.212-WHTL A.213

1962

Typewritten diary.

2 folders.

WHTL A.214-WHTL A.216

1963

Typewritten diary, contents of a ring binder.

Included are additional typescript pages of "points".

3 folders.

WHTL A.217

1963

Large hardback diary.

WHTL A.218

1964

Large hardback diary.

WHTL A.219

1965

Large hardback diary.

WHTL A.220

1966

Large hardback diary.

WHTL A.221

1967

WHITTLE LIST

Large hardback diary.

WHTL A.222

1968

Large hardback diary.

WHTL A.223

1969

Large hardback diary.

WHTL A.224

1970

Large hardback diary.

WHTL A.225

1971

Large hardback diary.

WHTL A.226

1972

Large hardback diary.

WHTL A.227

1973

Large hardback diary.

WHTL A.228

1974

Large hardback diary.

WHTL A.229

1975

Large hardback diary.

WHTL A.230

1976

Large hardback diary.

Inserted at the front are a few manuscript drafts of letters by Whittle (1976) and pages of rough manuscript notes. Also intercalated near the end are further pages of manuscript diary entries.

WHTL A.231

1977-1978

Ring-bound notebook of diary entries.

Complete for both years.

WHTL A.232

1979

WHITTLE LIST

Hardback diary.

WHTL A.233

1980

Hardback diary.

WHTL A.234

1981

Hardback diary.

WHTL A.235

1982

Hardback diary.

WHTL A.236

1983

Hardback diary.

WHTL A.237

1984

Hardback diary.

WHTL A.238

1985

Hardback diary.

WHTL A.239

1986

Softback diary.

WHTL A.240

1987

Hardback diary.

Pages for January to March used only.

WHTL A.241

1987.

Softback diary.

WHTL A.242

1988

Softback diary.

WHTL A.243

1989

Hardback diary.

WHTL A.244

1990

WHITTLE LIST

Softback diary.

WHTL A.245

1991

Softback diary.

WHTL A.246-WHTL A.265

1935-1941

“Consolidated diary”.

Contents of a number of folders so entitled.

The consolidated diary is typewritten and covers, in considerable detail, the work on the development of the jet engine. In structure it is virtually a continuous narrative of events given by Whittle, with numerous quotations from letters, accounts of meetings, and descriptions or summaries of stages of the work under separate headings. It has presumably been compiled from more than one original source and might have been used in the drafting of Whittle’s book “Jet”.

Paginated continuously.

See B.1-B.161 for the main series of correspondence and papers relating to the jet engine work.

Original boxes no.s 17, 21, 22.

WHTL A.246

May 1935-February 1937.

WHTL A.247

February - November 1937.

WHTL A.248

November 1937- July 1938.

WHTL A.249

August 1938 - June 1939.

WHTL A.250

June - December 1939.

WHTL A.251-WHTL A.253

January - July 1940.

3 folders.

WHTL A.254-WHTL A.256

July - October 1940.

3 folders.

WHITTLE LIST

WHTL A.257-WHTL A.259
October - December 1940.

3 folders.

WHTL A.260-262
January - March 1941.

3 folders.

WHTL A.263-WHTL A.265
March - May 1941.

3 folders.

WHTL A.266-WHTL A.267
[?1941]
Various typescript pages of further entries, probably all for 1941.

Found among the “consolidated diary” pages for 1941.
Paginated variously and differently to the “consolidated diary”.

2 folders.

WHTL A.268-WHTL A.270
“Diary scraps”, contents of a folder so inscribed.

Covering diaries 1936-1962.

Typescript and manuscript pages relating to diaries for various years. Most are headed “Points from [a particular] diary”; included is a copy of Whittle’s diary of his USA visit in 1942 (WHTL A.268) and a manuscript page headed “German Work (Heinkel)” (WHTL A.270).

3 folders.

WHTL/A/6 SOCIAL FUNCTIONS AND ANNIVERSARIES

WHTL A.271-WHTL A.285
1951-1991

WHTL A.271-WHTL A.277
1951-1966
‘special anniversaries etc’, contents of a file so inscribed.
Original box no.74.

WHTL A.271
1951

WHITTLE LIST

Dinner commemorating the first ten years of jet-powered flight “in the free world”, London, 31 May 1951.

Whittle was one of a number of pioneers honoured. The organisers and location of the dinner are unknown.

Programme etc, with printed article (1951) found with programme.

WHTL A.272

1961

Avro 504 Club 11th Annual Reunion Dinner, Londonderry House, London, 6 April 1962.

Whittle was Guest of Honour.<p>
Invitation and acceptance, with printed material.

WHTL A.273

1961-1964

Events on 12 April 1962 to mark the 21st anniversary of the first run of Whittle’s jet engine.

The events were as follows: a ceremony at which Whittle laid the foundation stone for Bristol Siddeley Engines Ltd’s new building and dinner at Lancaster House, London, organised by Rolls-Royce Ltd and Bristol Siddeley Engines Ltd.

Correspondence re arrangements and arising, with programme for the foundation stone ceremony; letter of invitation to the opening ceremony for the aforementioned Bristol Siddeley building, 1964.

WHTL A.274

1966

Installation of the Master and Deputy Master of the Guild of Freemen of the City of Coventry, 22 April 1966.

Whittle attended as chief guest.

Letters etc re invitation.

WHTL A.275

1966

Air Force Board dinner to mark the 25th anniversary of the flight of the first flight of the Gloster-WhittleE.28/39, 1 Carlton Gardens, London, 24 May 1966.

Correspondence etc re arrangements and arising.

WHTL A.276

1966

Central Flying School Association (Royal Air Force) Annual Reunion Dinner, Central Flying School, Little Rissington, 8 July 1966.

Correspondence etc rearrangements and arising.

WHTL A.276A

WHITTLE LIST

1981

Luncheon to mark the 40th anniversary of the first flight of the E.28/39, Royal Air Force Club, Piccadilly, London, 15 May 1981.

Menu and guest list.

WHTL A.277

1966

50th Annual Dinner, Society of British Aerospace Companies, Dorchester Hotel, London, 22 June 1966.

Programme only.

WHTL A.278

1985-1986

Opening of the Queen Elizabeth II Conference Centre, Westminster, 24 June 1986.

One of the Centre's named rooms was the Whittle Room.

Correspondence etc re arrangements and arising.

Original box no.38.

WHTL A.279-WHTL A.284

1990-1991

Events commemorating the 50th anniversary of the first flight of the Gloster-Whittle E.28/39.

Whittle had intended to visit the UK in May 1991 to attend a number of events but was forced to cancel the trip due to a slow recovery from an operation.

Correspondence concerning events to which Whittle was invited, including a dinner at RAF Cranwell, and other matters associated with the anniversary.

5 folders.

Original box no.49.

WHTL A.285

1972

Invitations declined.

Brief correspondence.

Original box no.75.

WHTL/A/7

PERSONAL CORRESPONDENCE

WHTL A.286-WHTL A.342

1946-1994, nd

WHTL A.286-WHTL A.311

1946-1989, nd

Individuals.

WHITTLE LIST

Arranged alphabetically.

WHTL A.286-WHTL A.287
1970-1972, 1976
General A.C. ("Bill") Craigie.

Craigie had a distinguished career in the United States Air Force, holding some key posts associated with the technological development of military aircraft, as well as being the first US military pilot to fly a jet aircraft. He and Whittle were long-standing friends.

Mostly re social arrangements and personal matters.

2 folders.
Original box no.39.

WHTL A.288-WHTL A.300
1950-1973
Miss M.C. Phillips.

Mary Phillips was Whittle's secretary from 1938 to C.1949. In recognition of her loyalty and efficiency Whittle arranged to pay her an annuity to run during their joint lives.

Correspondence concerning personal matters and the annuity. Some correspondence with solicitors and other individuals connected with Mary Phillips is included.

13 folders.
Original box no.67.

WHTL A.301
1960-1985, nd
J.H. McCarthy Reynolds.

Reynolds was a friend of Whittle's from his early days in the RAF [?RAF Felixstowe]. He was Air Ministry Overseer at the Gloster works during the jet engine work in the 1930s.

Mostly re personal matters.

WHTL A.302-WHTL A.304
1961-1989, nd
R.G. Voysey.

Voysey joined Power Jets Ltd as an engineer in January 1940.
Mostly re personal matters.

3 folders.
Original box no.19.

WHITTLE LIST

WHTL A.305-WHTL A.306
1980-1988, nd
R.D. Dudley-Williams.

Sir Rolf Dudley-Williams had been a fellow RAF cadet with Whittle. With J.B.C. Tinling he successfully found the financial backing which enabled the formation of Power Jets Ltd in 1936. He was a director of the company until 1944.

Personal letters from Dudley-Williams to Whittle, 1980-1983; correspondence with Dudley-Williams' wife, Helen, before and after his death in October 1987; copies of obituaries for Dudley-Williams.

2 folders.

WHTL A.307-WHTL A.311
1946-1987, nd
Miscellaneous correspondence with friends and associates.

Contents of a file inscribed "Personal correspondence".

5 folders.
Original box no.50.

WHTL A.312-WHTL A.319
1956-1985

Charities.
Correspondence, with financial records, relating to his support for a number of charitable organisations. Included is correspondence with the Charities Aid Fund and the Charities Aid Foundation through which Whittle made his contributions.

8 folders.
Original box 45.

WHTL A.320-WHTL A.329
1950-1973, nd
Authors.

Whittle received many requests from authors of books and articles for his views, reminiscences, permission to use quotes etc, and for assistance in checking factual details. The publications cover Whittle's work on the jet engine in various contexts. There are a few requests from publishers for articles by Whittle.

Correspondence, with a few drafts.

10 folders.
Original box no.11.

WHTL A.330-WHTL A.336
1948-1994

WHITTLE LIST

Legal affairs.

Correspondence etc, mostly with solicitors in the USA and the UK, concerning Whittle's legal affairs, including the purchase of property, his will, his divorce from his first wife,

WHTL A.330-WHTL A.333

1948-1980

"Bungalow - Coventry", contents of a file so inscribed.

Correspondence and papers chiefly relating to Whittle's purchase of a bungalow for his parents. Included also are later letters to Whittle from his mother (WHTL A.33), some other family correspondence and a copy of a letter from Whittle to a newspaper in which he details the gifts he made to his parents and other family members.

Whittle had received some negative publicity concerning the financial situation of his parents which had been contrasted with his own supposed wealth.

4 folders.

Original box no.73

WHTL A.334-WHTL A.335

1963-1972

"Chagford general", contents of a file so inscribed.

Original box no.11.

WHTL A.334

1963-1972

Correspondence re the employment of a housekeeper at Whittle's home and related matters.

WHTL A.335

1963-1972

Correspondence relating to Whittle's involvement in the Chagford Swimming Club.

Whittle was an Honorary Vice-President of the club.

WHTL A.336

1976-1994

Correspondence with solicitors re Whittle's divorce from his first wife and his will.

Original box no.40.

WHTL A.337-WHTL A.342

1971-1989, nd

Autographs.

WHTL A.337-WHTL A.341

1980-1989, nd

WHITTLE LIST

General requests for autographs.

WHTL A.337-WHTL A.338

1980-1989, nd

“Autographs sent”, contents of a file so inscribed.

Letters to Whittle only.

2 folders.

WHTL A.339-WHTL A.341

1983-1988, nd

“Unanswered autograph requests”, contents of a file so inscribed.

3 folders.

Original box no.11.

WHTL A.342

1971-1972

Correspondence re a request by the Royal Air Force Benevolent Fund for Whittle to autograph a number of special RAF philatelic commemorative covers and related correspondence.

The covers commemorated the 30th anniversary of the first UK jet flight, the money raised going to the RAF Museum Appeal Fund.

Original box no.35.

WHTL/A/8

POLITICS

WHTL A.343-WHTL A.353

1950-1974, nd

Contents of a file inscribed “Politics”.

In the years after the end of World War Two Whittle publicly expressed strong views on immigration and over-population, believing in the benefits of planned emigration to Commonwealth countries. He was also Chairman of the Migration Council, 1950-1951. The bitter experience of Power Jets’ nationalisation led him to oppose nationalisation of industry as a whole and to give his support to the Conservative Party - an “about-turn”, as he had for many years espoused Socialist views. Whittle publicly supported his friend Rolf Dudley Williams, the Conservative candidate for Exeter, in the 1955 General Election. This was the subject of much press comment, as was his election address at Smethwick in 1964.<p>

Original box no.10.

WHTL A.343-WHTL A.348

1950-1951

Correspondence, typescript drafts of articles and speeches, copies of memoranda and notes of discussions and meetings, with other papers concerning immigration and related issues during Whittle’s Chairmanship of the Migration Council.

WHITTLE LIST

Included is a copy of a letter from Whittle to C.R. Attlee with a copy of the latter's reply (WHTL A.346) and a copy of a letter from Whittle to Sir Anthony Eden (WHTL A.347).

6 folders.

WHTL A.349-WHTL A.350

1955

1955 General Election.

Correspondence and papers relating to Whittle's support for Rolf Dudley Williams, the Conservative Party candidate for Exeter at the 1955 General Election.

Included is a typescript draft of Whittle's speech at a Conservative Party rally at Exeter. (WHTL A.349).

2 folders.

WHTL A.351-WHTL A.352

1964-1965

1964 General Election.

Correspondence and papers re Whittle's election address at Smethwick during the 1964 General Election. Included are a typescript of the address and letters of support from members of the public and political organisations.

The Smethwick campaign was highly controversial, being fought mainly on the issue of immigration.

2 folders.

WHTL A.353

1971-1974, nd

Miscellaneous correspondence etc.

Various topics are covered. Included are copies of letters to newspaper editors.

WHTL/A/9

FINANCIAL PAPERS

WHTL A.354-WHTL A.456

1961-1989

Whittle was a director of Chagford Investments Ltd and appears to have been a director of Ladywood Investments Ltd which handled his financial and property interests in Jamaica. Ladywood House, Jamaica, was owned or part-owned by Whittle. Whittle's friend, Henry Ballantyne of D. Ballantyne Brothers & Co. Ltd, was a co-director of Chagford Investments Ltd and probably of Ladywood Investments Ltd also.<p>

Original boxes no.s 63, 64

WHTL A.354-WHTL A.392

1966-1988

WHITTLE LIST

Ladywood Investments Ltd.

Contents of various files, the inscriptions on which are given below. The material chiefly comprises Whittle's correspondence concerning the company's business, with financial papers.

WHTL A.354-WHTL A.355

1966-1972

"Ladywood Investments - cottage 2".

2 folders.

Original box no.66.

WHTL A.356

1968-1969

"Ladywood Investments - HB".

Original box no.66.

WHTL A.357-WHTL A.358

1968-1973

"L.I. Tax".

2 folders.

Original box no.66.

WHTL A.359-WHTL A.360

1969-1980

"Ladywood Investments - Ironshore".

2 folders.

Original box no.66.

WHTL A.363-WHTL A.362

1969-1973

"L.I. & L.H. accounts "69-"73".

2 folders.

Original box no.74.

WHTL A.363-WHTL A.367

1969-1975

"L.I."

5 folders.

WHTL A.368

1972-1973

Unmarked file.

WHITTLE LIST

Accounts and correspondence relating to Ladywood Investments Ltd.

WHTL A.369-WHTL A.371

1973-1975

“L.I. & L.H. accounts “73-”75”.

3 folders.

Original box no.67.

WHTL A.372-WHTL A.375

1974-1976

“L.I. 75/76”.

4 folders.

Original box no.67.

WHTL A.376

1975-1976

“L.I. 76/77”

Original box no. 67.

WHTL A.377-WHTL A.378

1976-1980

“L.I. accounts and statements 76/77/78”.

2 folders.

Original box no.67.

WHTL A.379-WHTL A.382

1977-1978

“L.I. 77/78”.

4 folders.

WHTL A.383-WHTL A.384

1980-1981

L.I. accounts & statements “80”.

2 folders.

Original box no.73.

WHTL A.385-WHTL A.390

1979-1988

“L.I. 79-85”.

6 folders.

Original box no.73.

WHTL A.391-WHTL A.392

WHITTLE LIST

1981-1985

Unmarked file.

Accounts etc relating to Ladywood Investments Ltd.

2 folders.

Original box no. 73.

WHTL A.393-WHTL A.411

1968-1976

Ladywood House.

Contents of various files, the inscriptions on which are given below. Correspondence and financial papers.

WHTL A.393-WHTL A.395

1968-1975

“Ladywood House Accounts”.

3 folders.

Original box no.73.

WHTL A.396-WHTL A.397

1968-1976

“Ladywood House - RH/DM”.

2 folders.

Original box no.66.

WHTL A.398-WHTL A.401

1975-1976

“L.H. sale”.

4 folders.

Original box no.74.

WHTL A.402-WHTL A.411

1969-1976

“Homecare [Jamaica Ltd]”.

Homecare was the company which managed Ladywood House for Whittle.

10 folders.

WHTL A.412-WHTL A.416

1965-1987

Other interests in Jamaica.

Contents of various files, the inscriptions on which are given below. Correspondence with financial and legal papers.

WHTL A.412-WHTL A.414

WHITTLE LIST

1965-1970

“Rose Hall (HB & general Jamaica)”.

3 folders.

Original box no.75.

WHTL A.415

1968-1972, 1987

“Roy Trust”.

Original box no.74.

WHTL A.416

1972-1975

“Bay Roc Cottage no.2 -acquisition & disposal”.

Original box no.74.

WHTL A.417-WHTL A.436

1961-1987

Chagford Investment Holdings Ltd.

Sir Rolf Dudley Williams was also a director of the company. Chagford was set up chiefly to provide finance for the turbo-drill project (see B.272-B.574).

Correspondence, with financial and legal papers.

WHTL A.417-WHTL A.421

1961-1976

“C.I.H. Shares (HB)”.

5 folders.

Original box no.67.

WHTL A.422-WHTL A.427

1961-1976

“C.I.H. Shares & gifts”.

6 folders.

Original box no.33.

WHTL A.428-WHTL A.433

1962-1987

“Armitage & Norton & C.I.H.”.

6 folders.

Original box no.73.

WHTL A.434-WHTL A.435

1962-1970

WHITTLE LIST

“C.I.H. Shares - FW”.

2 folders.

Original box no.75.

WHTL A.436

1971-1979

“Allen & Overy”.

Original box no. 79.

WHTL A.437-WHTL A.456

1972-1989

Miscellaneous papers.

Contents of various files, the inscriptions on which are given below.

Correspondence and financial papers etc concerning Whittle’s personal financial affairs other than his Jamaican interests and Chagford Investment Holdings Ltd.

WHTL A.437-WHTL A.438

1972-1973

“Cyprus”.

Chiefly re Whittle’s interest in purchasing a house in Cyprus.

2 folders.

Original box no.73.

WHTL A.439-WHTL A.441

1972-1979

“Williams & Glyn’s [Bank Ltd]”.

Re various interests, including Ladywood Investments Ltd and Chagford Investment Holdings Ltd.

3 folders.

Original box no.75.

WHTL A.442-WHTL A.446

1978-1979

“Watergate Landmark”.

Re the purchase of a property in Alexandria, Virginia, USWHTL A.

5 folders.

Original box no.65.

WHTL A.447-WHTL A.448

1982-1987

“Royal Bank Jersey”.

WHITTLE LIST

2 folders.
Original box no.38.

WHTL A.449-WHTL A.450
1983-1988
"Capel".

2 folders.
Original box no.37.

WHTL A.451
1985-1987
"Dean Witter AAA".

Original box no.38.

WHTL A.452-WHTL A.453
1986-1988
"Foundation".

Re the possibility of setting up a charitable trust called "The Sir Frank Whittle Foundation".

2 folders.

WHTL A.454
1974-1977
Papers relating to tax returns.

WHTL A.455
1978-1986
Brief correspondence concerning insurance policies.

WHTL A.456
1987-1989
Contract notes.

WHTL/A/10 PRESS CUTTINGS.

WHTL A.457-WHTL A.463
1944-1993, nd

Cuttings from various newspapers, scientific magazines etc.
Included are a few photocopies.

7 folders.
Original boxes no.s 41, 43 and 76.

WHTL/A/11

WHITTLE LIST

MISCELLANEOUS PAPERS

WHTL A.463A-WHTL A.473
1948-1992

WHTL A.463A
1948
Whittle's National Registration Identity Card.

WHTL A.464
1976-1978.
Papers relating to Whittle's emigration to the USA in 1976.

Original box no.50.

WHTL A.465
1980-1990
Ring-bound notebook .

Miscellaneous notes and calculations concerning personal finances, with drafts of letters, and rough drafts or notes on "greenhouse effect".

WHTL A.466
1975
Subscriptions to the Royal Automobile Club.

Brief correspondence etc.

WHTL A.467
1976-1991.
Menus and programmes from commemorative or institutional dinners.

Contents of a file.

WHTL A.468
1979-1988
Copies of medical examinations with correspondence.

Most of the material appears to relate to Whittle's RAF pensions tribunal in 1979; later correspondence concerning non-RAF medical examinations is included, with a copy of Whittle's birth certificate.

WHTL A.469
1990-1992
Correspondence re the theft of Whittle's credit card.

Original box no.50.

WHTL A.470-WHTL A.471

WHITTLE LIST

Papers used for learning Spanish.

2 folders.

Original box no.37.

WHTL A.472-WHTL A.473

Copy of Public Record Office list of papers deposited by Whittle.

2 folders.

WHITTLE LIST

WHTL/B RESEARCH AND DEVELOPMENT

B.1-B.579
1926-1993, nd

WHTL/B/1 DEVELOPMENT OF THE JET ENGINE

B.1-B.169
1926-1966, nd

See Section A in particular for further material relating to Whittle's work on jet propulsion.

B.1-B.161
1926-1966
Correspondence and papers.

The material relates to the work of Power Jets Ltd and its relations and collaborations with The Air Ministry, British Thomson Houston Company, The Royal Aircraft Establishment and the Rover Company and other organisations. There is also documentation of the activities of prominent individuals in these organisations and relations between them, technical matters relating to the development of Whittle's jet engine, and Power Jets' financial and legal affairs including the nationalisation of the company. The material is almost all typewritten and chiefly consists of Whittle's memoranda and notes of interviews, conferences, conversations and visits (by him and also by others to Power Jets); correspondence (mostly carbon copies); copies of Whittle's diary entries for particular periods; reports and technical papers (some by Whittle); legal agreements; papers re meetings of the Directors of Power Jets Ltd and the general running of the company.

Typescript notes on small pieces of paper are attached to a few documents. The notes give brief summaries of the content of these documents or highlight significant points in the text.

A few papers document events earlier than that of their own creation. These have been kept with the material found in the same file.

The papers were found in files, most with titles inscribed on the covers which are reproduced below. Many of the files formed, or were intended to form, a chronological sequence which has been preserved in B.1-B.127. The papers at B.128-B.161 do not appear to have been part of this sequence.

WHTL B.1-WHTL B.6
1930-1936, 1944
"History Papers".

Included are correspondence to Whittle from engineering companies and scientists in response to his suggestions regarding gas turbine engines (WHTL B.1-WHTL B.2);

WHITTLE LIST

correspondence and papers relating to the circumstances leading to the formation of Power Jets Ltd (WHTL B.4-WHTL B.5); and a typescript by Whittle entitled "Description of a Proposed Weapon for Use by Aircraft against Aircraft" (WHTL B.3).

6 folders.
Original box no. 15.

WHTL B.7-WHTL B.10
1936
"History 1936".

Correspondence and papers relating to the formation of Power Jets Ltd and the early activities of the company.

Included at WHTL B.10 is a copy of a typescript memorandum by Whittle entitled "The Theories and Inventions forming the basis of developments undertaken by Power Jets Ltd".

4 folders.
Original box 17.

WHTL B.11-WHTL B.13
1937-1939
"History 1937".

Included is a typescript draft of a paper by Whittle entitled "Rotational Flow in Axial Flow Turbines and Compressors", dated 1 March 1939.

3 folders.

WHTL B.14-WHTL B.15
1937, 1946
Contents of an unmarked file.

One letter only dated 1946.

2 folders.
Original box no. 23.

WHTL B.16-WHTL B.32
1938-1939
"1938 and 1939".

Included are the following: at WHTL B.16 and WHTL B.19 are copies of Whittle's diary entries for 1938 at WHTL B.16; typescript memorandum by Whittle (25 October 1938) on "The Jet Propelled Interceptor Fighter"; typescript by Whittle entitled "Rotational Flow in Axial Flow Turbines and Compressors" (2 June 1939) at WHTL B.24.

WHITTLE LIST

17 folders.
Original box no. 17.

WHTL B.33-WHTL B.49
1940-1941
“History Papers & Notes 1940”.

One letter only is dated 1941.

17 folders.
Original box no. 17.

WHTL B.50-WHTL B.74
1941
“1941”.

Included are 2 typescripts by Whittle with the following titles: ‘summary of the Present State of Supercharger Development’ at WHTL B.60 and “Power Jets” Tasks in Relation to the Production Supercharger” at WHTL B.64.

25 folders.
Original box no. 32.

WHTL B.75-WHTL B.96
1942
“1942”.

At WHTL B.86-WHTL B.87 are the contents of a separate file, found in the one inscribed as above, inscribed “W.2.WHTL B. adapted for straight through combustion “ and “The Rover Company Ltd 8th May 1942”. This material includes photographs mounted onto cards, with captions, of engine units showing adaptations.

22 folders.
Original box no. 18.

WHTL B.97-WHTL B.108
1943
“1943”.

12 folders.
Original box no. 18.

WHTL B.109-WHTL B.117
1944
“1944”.

Included at WHTL B.112 is typescript record by Whittle of a party at Buckingham Palace which he attended, March 1944.

WHITTLE LIST

10 folders.
Original box no. 15.

WHTL B.118-WHTL B.123
1945
"1945".

6 folders.
Original box no. 15.

WHTL B.124-WHTL B.127
1946
"1946".

Included are papers relating to Whittle's lecture tour of the USA in June-September.

4 folders.
Original box no. 15.

WHTL B.128-WHTL B.136
1941-1942
Typescript carbon copy of part of Whittle's diaries covering the period June 1941-
April 1942.
Included are summaries for each month. There are also brief manuscript annotations
by Whittle. Paginated "572"- "786".
9 folders.
Original box no. 16.

WHTL B.128-WHTL B.131
1941
June - December 1941.

4 folders.

WHTL B.132-WHTL B.136
1942
January - April 1942.

5 folders.
Original box no. 16.

WHTL B.137-WHTL B.148
1940-1966, nd
"Papers, notes and correspondence from 1930s - 60s", contents of a file so inscribed.
There are no papers earlier in date than 1940.
12 folders.
Original box no. 36.

WHTL B.137-WHTL B.143
1940-c.1946.

WHITTLE LIST

This papers are similar in type and distribution to the contents of WHTL B.1-WHTL B.136.

Included are the following: typescript draft, with revised version, by Whittle (24 May 1942) entitled "A Note on Production, Design, Development and Research, with special reference to Aircraft Gas Turbine Power Plants", at WHTL B.139-WHTL B.141; typescript by Whittle (7 December 1943) entitled "Cosmic Rays" at WHTL B.143.

7 folders.

WHTL B.144-WHTL B.146
1947-1958.

Miscellaneous material mostly relating to work on gas turbines and jet engines.

3 folders.

WHTL B.147-WHTL B.148
1966, nd.

Included are typescript drafts etc of short articles by Whittle, mostly on gas turbines; and an undated 1p typescript entitled "The Break Up of the Team", a brief account of the circumstances surrounding the break up of the team of engineers of Power Jets and Whittle's own resignation from the Board in January 1946, at WHTL B.148.

2 folders.

WHTL B.149-WHTL B.151
1940-1949

Contents of an unmarked file.

The papers are similar in type to the contents of WHTL B.1-WHTL B.136 and WHTL B.137-WHTL B.142.

3 folders.

Original box no. 92.

WHTL B.152-WHTL B.161
1926-1944

Copies of scientific reports, papers etc by the Royal Aircraft Establishment.

Some reports relate to work on gas turbines.

WHTL B.152-WHTL B.157
1926-1939

Contents of a file inscribed "RAE & Metro[politan] - Vick[ers]".

6 folders.

Original box no. 40.

WHITTLE LIST

WHTL B.158-WHTL B.161

1943-1944

Contents of a file inscribed "RAE reports".

4 folders.

Original box no. 72.

WHTL B.162-WHTL B.168

1939-1950

Notebooks.

Hardback notebooks containing manuscript notes, calculations, experimental results, graphs and figures mostly in Whittle's hand relating to the various stages of the work on the jet engine. Where there are significant notes etc on particular Whittle engines (W.1.A, W.2 etc) the names of the engines are given. A few intercalated pages are found in some notebooks.

Dates are inscribed inside the covers of most of the notebooks.

Original boxes no.s 5 and 8.

WHTL B.162

1939-1940

Notebook, 1939-1940.

W.1, W.1.A[also written "W.1."a"] and W.2 engines.

WHTL B.163

1939-1941

Notebook, 1939-1941.

W.2.A and W.2.B engines.

WHTL B.164

1941

Notebook, 1941.

W.1.A, W.1.X engines.

Many notes are in a hand (or hands) other than Whittle's.

WHTL B.165

1941-1942

Notebook, 1941-1942.

W.1.A and W.2.B engines.

Included are notes under a heading "Bomber".

Used from both ends.

WHTL B.166

1942-1943

Notebook, 1942-1943.

Included are notes under the heading "Bomber".

WHITTLE LIST

WHTL B.167

1943-1945

Notebook, 1943-1945.

Included are notes under the headings 'supersonic Aeroplane'.

WHTL B.168

1945-1950

Notebook, 1945-1950.

Included are diary notes near the back.

WHTL B.169

1930-c.1950

Patents.

Copies of specifications for Whittle's patent applications relating to gas turbines and jet propulsion; brief correspondence (chiefly covering letters) and related documents are included.

1box.

Original box no. 24.

WHTL/B/2

LATER INTERESTS IN JET-POWERED FLIGHT AND CIVIL AVIATION

WHTL B.170-WHTL B.271

1948-1993, nd

WHTL B.170-WHTL B.253

1948-1980

Correspondence and papers.

WHTL B.170-WHTL B.175

1948-1953

"WHTL B.O.A.C. (& Comet)", contents of a file so inscribed.

From 1948 to 1952 Whittle held an advisory post with British Overseas Airways Corporation in connection with its development of gas turbine engined aircraft. The duties involved travelling over the Corporation's air routes to gain experience of the running of an airline, making visits to aircraft industries in other countries, and generating favourable publicity for the Corporation. His relationship with WHTL B.O.A.C. appears to have soured towards the end and he left its employment with a number of grievances.

Correspondence, memoranda etc.

6 folders.

See E.6-E.20 for further material relating to Whittle's work for BOAC.

Original box no. 23.

WHTL B.176-WHTL B.239

1960-1968

WHITTLE LIST

Legal case: Societe Rateau and Rene Anxionnaz v Rolls Royce Ltd and the De Havilland Aircraft Company

Societe Rateau, a French company, began an action against Rolls-Royce Ltd in November 1960, claiming infringements of their patents relating to jet engines. The plaintiffs later joined the de Havilland Aircraft Company to their action. Whittle appeared as an expert witness in support of Rolls-Royce who also made a counter-claim for revocation of the patents.

Original box no.28.

WHTL B.176-WHTL B.185

1961-1966

“FW draft proof of evidence and other papers”, contents of a file so inscribed.

Typescript drafts, with manuscript revisions, of Whittle’s incomplete Proof of Evidence (WHTL B.176) and related papers; further typescript drafts by Whittle and other papers pertaining to his participation in the case.

10 folders.

WHTL B.186-WHTL B.189

1962

Typescript draft of complete proof of evidence with manuscript revisions.

4 folders.

WHTL B.190-WHTL B.200

1963-1968

“General correspondence”, contents of a file so inscribed.

Whittle’s correspondence, mostly with solicitors acting for the defendants, re his involvement in the case.

11 folders.

Original box no. 27.

WHTL B.201-WHTL B.238

1962-1967

Copies of various legal documents, including technical papers, particulars, opinions etc, with a small amount of correspondence.

A draft of a technical document by Whittle is at WHTL B.236.

38 folders.

WHTL B.239

1963

Transcripts of court proceedings: evidence, speeches, judgement.

WHITTLE LIST

Documents are numbered 1-14.

Whittle's evidence is at 1-6.

WHTL B.240-WHTL B.243

1959, 1965-1976

Correspondence and papers chiefly relating to "jet noise".

Correspondence etc with engineering scientists and newspaper editors. Cuttings of letters to newspapers by Whittle and other related newspaper cuttings (all 1959) are included.

The sonic boom is a topic covered.

4 folders.

Original box no. 77.

WHTL B.244-WHTL B.245

1968

Roll-Royce Ltd's application for a US patent covering the layout of its RB 211 engine.

Whittle assisted the company in its application by providing an affidavit. Correspondence and papers, including a copy of Whittle's affidavit.

2 folders.

WHTL B.246-WHTL B.251B

1973-1977

Supersonic aircraft.

In August 1974 Whittle was invited by Sir Stanley Hooker to visit the Bristol Engine Division of Rolls-Royce Ltd. While there he learned of the company's interest in developing a new version of the Olympus 593 engine for a 'super Concorde' or a second generation of supersonic travel. To explore the possibility of future Anglo-American co-operation on second generation supersonic travel Whittle made three trips to the USA in a personal capacity (18 December 1974 - 23 January 1975 and 11 February - 27 April 1975, and one earlier than these), to visit engine manufacturers and (on the two later visits) deliver lectures. Whittle was also interested in the run-up to the launching of Concorde and accepted an invitation to be a passenger on a trans-Atlantic "technical flight".

Original box no. 41.

WHTL B.246-WHTL B.248

1974 -1977

Correspondence arising from the December 1974 - April 1975 visits, with reports etc by Whittle.

Almost all the material dates from November 1974 - November 1975.

WHITTLE LIST

3 folders.

WHTL B.249-WHTL B.251

1973-February 1976

Correspondence and papers concerning Concorde.

Correspondence re arrangements for Whittle's return trip from Heathrow to Gander, Newfoundland, on a Concorde "technical flight", 27 August 1975, and arising; correspondence, especially with John Grierson who was also on the flight, concerning Concorde's future prospects and other matters; correspondence re an article by Whittle for 'supersonic Age', The British Aircraft Corporation's magazine.

At WHTL B.251 are a manuscript draft headed "draft letter to Telegraph, not sent" and a manuscript draft on ozone depletion in the upper atmosphere.

Almost all the material dates from August 1975 to February 1976.

3 folders.

WHTL B.251A-WHTL B.251B

1974-1976

Contents of a file inscribed "AST [advanced supersonic travel]".

Whittle attempted to promote the idea of advanced supersonic travel in the USA. He gave a talk on the subject in New York on 21 April 1975 (see E.24-E.34 for further material concerning this USA visit). He returned to the USA again in August/September the same year, visiting NASA to discuss its supersonic research programme.

Correspondence and papers, chiefly relating to the August/September visit and arising.

2 folders.

Original box no.14.

WHTL B.252-WHTL B.253

1979-1980

Consultancy with Booz Allen & Hamilton Inc.

In 1979 Whittle accepted a consultancy position with the company which was involved in aircraft technology in the USA. He resigned the post in February 1980.

Correspondence etc.

2 folders.

Original box no. 38.

WHTL B.254-WHTL B.262

1973-1993

WHITTLE LIST

Notebooks and sketchbooks.

Notebooks containing manuscript calculations, graphs and figures in Whittle's hand, chiefly relating to jet-powered flight; some pages relate to the turbo-drill for the oil industry and, possibly, other topics. Intercalated pages are found in most of the volumes. The sketchbooks contain pencil figures and diagrams of aircraft [?engines] and other parts of aircraft by Whittle.

In some of the volumes there is an absence of headings indicating either general or specific topics covered.

WHTL B.254

1973-1974

Hardback notebook inscribed "Approx Sept '73-Sept '74" inside cover.

Calculations etc on supersonic flight and oil drilling are included.

Paginated "1" - "64".

Original box no. 9.

WHTL B.255

1974

Hardback notebook inscribed 'start 26/9/74' inside cover.

Calculations etc re Concorde, the Olympus engine and 'second generation' supersonic flight.

Paginated "1" - "280".

Original box no. 9.

WHTL B.256

May 1987-1993

Hardback notebook.

Included are calculations on "Turbo-jet with ram bypass" and notes under a heading "Global warming and ozone data" (p.37).

Paginated (used pages) "1" - "58".

Original box no. 5.

WHTL B.257

1979-1989

Spiral bound notebook.

Calculations, notes and drafts on various tests and experiments on engines, including drafts of papers (or a single paper) on the "WW5" and the "WW6" (June 1979-c. February 1983).

WHITTLE LIST

Included also are notes and drafts of letters concerning financial affairs and personal business (c.1986-1989).

Original box no. 42.

WHTL B.258

May 1980-1989

Spiral bound notebook.

Calculations, notes and drafts etc on engines, May 1980-1987.

Included is an undated draft relating to Whittle's early years in the R.A.F. and the beginning of the jet engine project in the mid-1930s. There are also notes and draft letters re financial affairs and personal business, C.1988-1989.

This notebook appears to be a continuation of WHTL B.257.

Original box no. 42.

WHTL B.259

Spiral bound notebook.

Calculations, notes and drafts etc, probably related to those in WHTL B.257-WHTL B.258.

A few notes on financial matters are included.

Original box no. 52.

WHTL B.260

Large notepad.

Calculations, notes etc.

Original box no. 42.

WHTL B.261-WHTL B.262

Contents of 2 softback tracing paper sketchbooks.

Manuscript calculations are found in places.

A few figures possibly relate to the turbo-drill for the oil industry.

2 folders (each comprising the contents of one of the original volumes).

Original box no. 42.

WHTL B.263-WHTL B.271

1947-1988, nd

Miscellaneous papers.

Reports, memoranda etc with brief correspondence concerning various matters connected with jet engines and civil aviation.

WHITTLE LIST

9 folders.

Contents of original boxes 37, 92, 95, 96.

WHTL/B/3

TURBO-DRILL FOR THE OIL INDUSTRY AND RELATED INTERESTS

WHTL B.272-WHTL B.574

1951-1988, nd

WHTL B.272-WHTL B.499A

1951-1988

Correspondence and papers.

WHTL B.272-WHTL B.337

1952-1965

Work on the turbo-drill for N.V. de Bataafsche Petroleum Maatschappij (BPM) and the Shell Group.

From 1953 to 1957 Whittle held the post of Specialist in Mechanical Engineering with N.V. de Bataafsche Petroleum Maatschappij, one of the principal operating companies in the Royal Dutch / Shell Group, and worked on the development of a new turbo-drill, known as the "W.1". In 1958 he became a consultant to the Shell Group and the following year secured from the company the assignment to him of the relevant patents. His consultancy ended in 1961.

Included are drafts of technical papers by Whittle, technical drawings and photographs.

There is some material relating to research on the same topic undertaken by Whittle after leaving BPM.

WHTL B.272-WHTL B.276

1952-1958

'shell - personal', contents of a file so inscribed.

Correspondence, memoranda etc re various matters connected with Whittle's employment by N.V. de Bataafsche Petroleum Maatschappij.

Whittle's contract, involvement in projects, relations with the company and other personal matters are covered. His typescript "Diary of appointment with Shell" is at WHTL B.276.

5 folders.

Original box no. 41.

WHTL B.277-WHTL B.284

1953-1957

'shell - misc. technical', contents of a file so inscribed.

Typescript reports, "diary summaries" and memoranda by Whittle, with brief correspondence relating to meetings, talks and tours.

WHITTLE LIST

Whittle's duties included foreign trips, mostly to the USA, in connection with the company's turbo-drill project.

8 folders.

Original box no. 57.

WHTL B.285-WHTL B.303

1953-1959, chiefly 1953-1956

General correspondence and papers, contents of an unmarked file.

Included are typescript memoranda, technical papers and reports by Whittle and minutes of meetings.

19 folders.

Original box no. 88.

WHTL B.304-WHTL B.306

1953-1960

'shell - gas turbines', contents of a file so inscribed.

Correspondence and papers re various possible uses of gas turbines in the oil industry.

3 folders.

Original box no. 93A.

WHTL B.307-WHTL B.311

1955-1957

"Marine transportation and pipelines", contents of a file so inscribed.

Correspondence with Shell Tankers Ltd, with related papers, concerning the feasibility of offshore loading platforms for tankers, 1957.

At WHTL B.311 is correspondence etc re Whittle's ideas on the possible development of submarines for transporting oil, 1955.

5 folders.

Original box no. 93A.

WHTL B.312-WHTL B.325

1955-1958

"Bit scheme", contents of a file so inscribed.

Correspondence and papers re Whittle's reaming bit designs for the turbo-drill.

13 folders.

Original box no. 93A.

WHTL B.326-WHTL B.327

1956-1957, 1963-1965

"Erosion tests", contents of a file so inscribed.

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Correspondence and papers re Whittle's work on turbine blade erosion.

The small amount of material 1963-1965 appears to relate to work on blade erosion for Rolls-Royce Ltd.

2 folders.

Original box no. 88.

WHTL B.328-WHTL B.332

1956, 1962-1964

'seals', contents of a file so inscribed.

Correspondence and papers re research on turbo-drill seals.

Material dated 1956 relates to work for N.V. de Bataafsche Petroleum Maatschappij; material dated 1962-1964 covers work for Bristol Siddeley Engines Ltd.

5 folders.

Original box no. 93A.

WHTL B.333-WHTL B.337

1958-1960

'shell research', contents of a file so inscribed.

Whittle became a consultant to Shell Research Ltd in 1958.

Correspondence and papers relating to his consultancy work on gas turbines in the oil industry.

5 folders.

Original box no. 93A.

WHTL B.338-WHTL B.471

1959-1987

Work for Bristol Siddeley Whittle Tools Ltd.

In September 1959 Bristol Siddeley Engines Ltd (BSE) became interested in the turbo-drill project and collaborated with Whittle in re-designing the drill. Bristol Siddeley Whittle Tools Ltd (BSWT) was formed in 1963 for the commercial exploitation of the drill to be manufactured by BSE, Whittle being a director and Deputy Chairman. Chagford Investments Ltd, of which Whittle was also a director, had a stake in the BSWT and Whittle assigned licence rights to BSE. In 1967 BSE was taken over by Rolls-Royce which was less committed to the drill project due to financial constraints. The work came to an end in 1972 when Rolls-Royce liquidated its stake in BSWT.

WHTL B.338

1959-1964.

"Mohole", contents of a file so inscribed.

The Mohole Project, directed by the National Science Foundation, involved drilling through the Earth's crust, using a turbo-drill, to sample the mantle. Bristol Siddeley

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Engines Ltd, for whom Whittle was now working, were asked by the project contractors to provide data about their turbo-drill but the outcome of this enquiry is unclear.

Correspondence re Whittle's interest in the project.

Original box no. 86.

WHTL B.339-WHTL B.393

1959-1972

"Turbo-drill history (non-tech)", contents of 4 files so inscribed.

General correspondence and papers concerning the BSE / BSWT turbo-drill project and the business arrangements behind it. Included are legal documents, memoranda, minutes, drafts or copies of technical papers by Whittle and technical drawings.

Original boxes nos 62, 69, 80 and 82.

WHTL B.339-WHTL B.371

1959-1968.

At WHTL B.367-WHTL B.371 are technical drawings, 1963-1968, which were found in 2 separate internal files: WHTL B.367-WHTL B.368 in a file inscribed "Gearbox"; WHTL B.369-WHTL B.371 in a file inscribed "Highfield Scheme - assemblies & misc."

33 folders.

WHTL B.372-WHTL B.393

1969-1972.

Included at WHTL B.378 is a photocopy of a 22pp typescript by Whittle entitled "Turbo-drill. A General Review - October 1969".

22 folders.

WHTL B.394-WHTL B.471

1960-1987

Various topics.

Contents of a number of original files concerning various developments in the turbo-drill project and related work. The material covers the Whittle / Bristol Siddeley Engines Ltd / Bristol Siddeley Whittle Tools Ltd project unless otherwise stated. Inscriptions found on the files are given below. Included are correspondence, technical drawings, drafts of technical papers by Whittle, memoranda, reports etc and a few photographs.

WHTL B.394

1960-1962

"BPM".

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Correspondence with Bataapse Internationale Petroleum Maatschappj N.V. re Whittle's request for technical information (to assist with his early work in collaboration with Bristol Siddeley Engines Ltd) and other matters.

Original box no. 85.

WHTL B.395-WHTL B.398

1960-1963

"Turbo-drill control ram".

Correspondence and papers relating to the design and testing of control rams.

4 folders.

Original box no. 84.

WHTL B.399-WHTL B.401

1960-1963

"Turbo-drill - turbine blades".

Correspondence and papers relating to the design of turbine blades.

3 folders.

Original box no. 84.

WHTL B.402-WHTL B.404

1961-1966

'string filling & telescopic valve".

Correspondence and papers chiefly re 'string filling" devices.

3 folders.

Original box no. 70.

WHTL B.405-WHTL B.411

1963-1967, 1974

"Floating platform".

In 1963 Whittle began to explore the possibility of developing floating structures for offshore oil drilling, an idea that had interested him during his time working for Shell. He and his colleague Henry Ballantyne, from Chagford Investments Ltd, set up Ballantyne and Whittle Investments Ltd for the purpose of exploiting the idea. The project was outside Whittle's collaboration with Bristol Siddeley Engines Ltd but, by 1974, had not received the hoped-for financial backing.

Correspondence and papers.

8 folders.

Original box no. 85.

WHTL B.412-WHTL B.414

1964-1966

"Bits (development)".

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Whittle's suggested development of rock bits more suitable for the turbo-drill was treated by Bristol Siddeley Engines Ltd as part of the overall project.

Correspondence and papers, including photographs.

3 folders.

Original box no. 93A.

WHTL B.415-WHTL B.425

1964-1969 (almost all 1966-1969)

"Turbo-drill division".

Following its takeover of Bristol Siddeley Engines Ltd in 1967, Rolls-Royce Ltd established a "Turbo-drill Division" to work on their side of the project.

Correspondence with minutes, reports etc concerning the financial, business and technical progress of the project.

11 folders.

Original box no. 88.

WHTL B.426

December 1965-1967

"Control - speed signalling".

A few letters and papers re methods for signalling speed of the drill from the borehole.

Original box no. 72.

WHTL B.427-WHTL B.433

1965

'seals'.

Copies of minutes of technical meetings, reports etc re turbo-drill seals.

7 folders.

Original box no. 57.

WHTL B.434-WHTL B.435

1965-1967

"Ram hydraulics".

Correspondence and papers.

2 folders.

Original box no. 80.

WHTL B.436-WHTL B.441

1966

"T.D. Development - general".

Various papers concerning general aspects of the turbo-drill work.

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6 folders.
Original box no. 80.

WHTL B.442-WHTL B.448
1967
“Turbo-drill development 1967”.
Various papers concerning general aspects of the turbo-drill work.

7 folders.
Original box no. 88.

WHTL B.449-WHTL B.450
1967-1970
“6 and a half inch drill”.

Papers re investigations of turbo-drills with diameters of 6 and three quarters inches and 6 and a half inches.

2 folders.
Original box no. 82.

WHTL B.451-WHTL B.464
1966-1969, 1972-1976
“Turbo-drill 1972/3/4”.
Correspondence and papers relating to general matters connected with the turbo-drill, including the termination of the project and subsequent efforts to revive it.

Note that the date span of the material does not correspond to the dates given in the inscription on the file.

14 folders.
Original box no. 53.

WHTL B.465-WHTL B.468
1966-1967
“Field Trials - summaries and photographs”.
Photographs, technical drawings and draft reports etc.

4 folders.
Original box no. 53.

WHTL B.469
1967-1969
“D & S Diamond bits”.
Correspondence etc re drill bits.

WHTL B.470-WHTL B.471
1975, 1984-1987
Later correspondence with solicitors.

WHITTLE LIST

The correspondence relates to legal and financial matters connected with Chagford Investment Holdings subsequent to the termination of the turbo-drill project.

Almost all the material is dated 1986-1987.

2 folders.

Original box no. 70.

WHTL B.472-WHTL B.499A

1951-1988, nd

Miscellaneous papers relating to Whittle's work on turbo-drills.

Included are correspondence, drafts of technical papers by Whittle, technical drawings and a few photographs.

The material was found in unmarked files and, to a large extent, in a disarranged state.

29 folders.

Original boxes no.s 36, 43, 53, 81, 87

WHTL B.500-WHTL B.507

1956-c.1970

Notebooks and drafting blocks.

WHTL B.500-WHTL B.504

1956-c.1970

Untitled hardback notebooks.

The notebooks are in Whittle's hand and contain calculations, notes, graphs and diagrams. No dates are inscribed in them. In some are loose pages or intercalated material.

5 volumes.

Original box no. 13.

WHTL B.505-WHTL B.507

1956-c.1970

Contents of softback drafting blocks.

Pages of diagrams with annotations and calculations. No dates are inscribed on them. The material was originally found loose inside the drafting block covers.

3 folders, the contents corresponding to the 3 original volumes.

WHTL B.508-WHTL B.533

1954-1976

Papers relating to patent applications by Whittle.

For the turbo-drill and other oil industry innovations.

WHTL B.508-WHTL B.513

1963-1971

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Various papers concerning patent applications for a “floating structure”, with correspondence.

Contents of a file.

6 folders.

Original box no.80.

WHTL B.514-WHTL B.533

1954-1976

Contents of 4 files inscribed “turbo-drill patents”.

Papers, including patent specifications and a few drafts of technical papers by Whittle, with correspondence, relating to patents for the turbo-drill development.

20 folders.

Original box no.s 34, 80 and 83.

WHTL B.534-WHTL B.574

1956-1970

Technical drawings.

Reproductions of drawings by Whittle and colleagues at Bristol Siddeley Whittle Tools Ltd.

Most of the material was found in inscribed files, the inscriptions being reproduced below.

Original box no.s 55, 56.

WHTL B.534-WHTL B.535

1956-1967

“Drawings and measurements for the engine”.

2 folders.

WHTL B.536-WHTL B.538

1960-c.1967

“Assemblies”.

3 folders.

WHTL B.539

1963-1969

“Turbine”.

WHTL B.540-WHTL B.543

1963-1969

‘stationary parts’.

4 folders.

WHITTLE LIST

WHTL B.544

1964

“Highfield Schemes bits”.

WHTL B.545

1965-1966

“AX RAD P.R.”

WHTL B.546

1965-1966

“Highfield Schemes axial cable”.

WHTL B.547-WHTL B.548

1965-1967

“Ram”.

2 folders.

WHTL B.549-WHTL B.550

1965-1967

“A Seal”.

2 folders.

WHTL B.551

1965-1969

“B Seal”.

WHTL B.552

1966

“Highfield Schemes dw/dr indicator”.

WHTL B.553-WHTL B.556

1966-1967

“Highfield Schemes stabilisers & subs”.

4 folders.

WHTL B.557

1966-1968

“D Seals”.

WHTL B.558-WHTL B.559

1966-1967

“Highfield Ram Drawings”.

2 folders.

WHTL B.560-WHTL B.561

1966-1969

WHITTLE LIST

“Lower Stoneguard subs”.

2 folders.

WHTL B.562-WHTL B.563

1966-1968.

“L.S. Shaft, exit shaft, no. 1 bearing”.

2 folders.

WHTL B.564-WHTL B.565

1967-1968

“Highfield 8”; Tool Re-design (Mk II etc)”;

2 folders.

WHTL B.566-WHTL B.571

1969-1970

Technical drawings relating to proposals for a 6 and three quarter inch direct geared turbo-drill.

The material was found in an unmarked file.

6 folders.

WHTL B.572-WHTL B.574

1962-c.1969

Miscellaneous technical drawings.

3 folders.

WHTL/B/4

OTHER RESEARCH

WHTL B.575-WHTL B.579

1943-c.1988

WHTL B.575-WHTL B.578

1943-1955

Possible developments in German submarine design.

Early in 1943 Whittle began to give advice on technical matters in connection with the interrogation of German prisoners of war. His expertise as an aeronautical engineer was considered to be applicable in assessing the possibilities of German submarine development and a Naval Intelligence Officer requested that he should write a paper on the subject. Whittle became concerned that Germany had developed a new type of fuel to power a faster type of submarine and also communicated his anxiety directly to Sir Stafford Cripps, Minister for Aircraft Production. Cripps passed Whittle's paper to P.M.S. Blackett for comment, with G.I. Taylor and E.C. Bullard also giving their views on it. In May 1943 Whittle met the Admiralty scientists to discuss the matter and, although there was general agreement as to the

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soundness of Whittle's reasoning, Blackett was "pessimistic as to whether the naval engineers could be made to take much notice." By December Whittle was unable to spend any further time on the subject due to his responsibilities for developing the jet engine.

The papers described here are the contents of a single file inscribed 'submarines'.

Original box no.s 13 and 25.

WHTL B.575

29 April 1943

"A Note on Possible Lines of Development in German Submarine Design (revised)".

10pp typescript carbon copy of Whittle's paper (referred to above); 1p typescript of amendments to the paper and covering letter.

WHTL B.576-WHTL B.578

1943-1955

Correspondence and papers.

Whittle only seems to have been seriously involved in attempts to ascertain German submarine development in 1943. The later material relates to subsequent developments which caused Whittle to return to the subject.

The material consists of Whittle's correspondence with various government scientists, ministers etc., memoranda of meetings and telephone conversations and other papers. Included are typescript remarks and comments on Whittle's paper by government scientists, with correspondence and further comments arising; and a diary of Whittle's dealings with the Admiralty in connection with possible submarine development (WHTL B.578).

3 folders.

Original box no. 25.

WHTL B.579

1988

Research at the US Naval Academy.

Whittle was NAVAIR Research Professor at the US Naval Academy, Annapolis, 1977-1978, and a part-time Research Professor there, 1978-1979. His work included the compilation of a text book on gas turbine design (see C.11-C.35) and research on aerodynamics.

WHTL B.579

1988

"Catalogue of Sir Frank Whittle's Boundary Layer Experiments";, compiled and edited by Midshipman First Class James L. Johnson "88" US Naval Academy."

Printed pamphlet (originally ring-bound) so entitled. It relates to experiments carried out by Whittle between summer 1977 and winter 1979 at the Academy's low speed

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aero-research facility. The project explored the use of boundary layer blowing and roller wings for maximum lift and reduced wake drag.

The foreword states that “Whittle’s interest in the project dwindled” but his work had been organised in a manner which allowed follow-up work to be done by others. Johnson’s work appears to have been the first such attempt and the text includes many of Whittle’s original notes.

Original box no.47.

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WHTL/C PUBLICATIONS

WHTL C.1-WHTL C.64
1931-1992, nd

Arranged chronologically.

WHTL/C/1 DRAFTS

WHTL C.1-WHTL C.50
1931-1989, nd

A chronological sequence of drafts and related papers for publications or works intended for publication.

Undated drafts are at WHTL C.42-WHTL C.49. Off-prints and newspaper cuttings are at WHTL C.50.

WHTL C.1

1931 or 1932.

“The Case for the Gas Turbine”.

29pp typescript draft with manuscript additions and corrections, inscribed “1931 or 1932” on first page; typescript note by Whittle, dated 1968, stating this draft was written in either 1931 or 1932, though the article was not published as intended. Original box no. 36.

WHTL C.2

1939

“Theory and Experiments on Rotational Flow in Axial Flow Turbines and Compressors”.

20pp typescript draft with manuscript revisions, inscribed “Jan 26 1939” at end. Original box no. 36.

WHTL C.3

1943

“A Note on Similarity”, a short paper on the use of Reynolds No. and Mach No.

4pp typescript draft with manuscript revisions, inscribed “6.4.43” on first page; letter to Whittle from S. Goldstein concerning his paper, with reply. Original box no. 13.

WHTL C.4

[?1945]

Foreword to a publication about Roll-Royce Ltd’s contribution to the development of jet-powered flight.

WHITTLE LIST

Copy of 1p typescript of Whittle's foreword; further typescript pages of text for the book etc.

WHTL C.5

1948

"On Invention".

6pp typescript carbon copy inscribed "May 1948" on first page.
Original box no. 25.

WHTL C.5A

1950

"Flying High", review by Whittle of "Between Earth & Sky", by Auguste Piccard, London 1950.

Proof.

Original box no. 52.

WHTL C.6

1951

"Civil Aviation: a Peep into the Future".

4pp typescript carbon copy inscribed "News of the World" and "5th October 1951" on first page.

Original box no. 25.

WHTL C.7

1958

"Britain and the Jet Age".

4pp typescript inscribed "15 December 1958" at end.
Original box no. 25.

WHTL C.8

1959

"The Outlook for Oil".

5pp typescript carbon copy inscribed "25 Sep 1959" on first page.

Original box no. 25.

WHTL C.8A

1960

"The Commercial Jet Age - Anticipation and Realisation", "Airlanes", September 1960.

2pp typescript carbon copy dated 25 July 1960; correspondence re publication.

WHTL C.8B

WHITTLE LIST

1960-1961

Letter to "The Daily Telegraph" on flood control in Devon, November 1960.

The letter generated considerable interest and a number of responses.

Correspondence with Sir Rolf Dudley Williams, MP for Exeter, prior to the publication of Whittle's letter; correspondence arising and press cuttings.

Original box no.94.

WHTL C.9

1974, nd

"The Outlook for Energy", letter to "The Daily Telegraph", September 1974.

Correspondence publication with typescript carbon copies of the letter and an earlier version; letter to Whittle arising from publication.

Contents of a file inscribed "newspaper articles". Included are 2 letters, 1974 and nd, arising from other letters to newspapers by Whittle. These were also found in the aforementioned file.

Original box no. 45.

WHTL C.10

1975-1976

"The Evolution of the Internal Combustion Turbine with Special Reference to the British Contribution", "Gas Turbine World" (USA), 1976.

Correspondence publication; 12pp typescript draft of unedited version of the article with manuscript revisions.

Original box no. 94.

WHTL C.11-WHTL C.35

1981

"Gas Turbine Aero-thermodynamics, with Special Reference to Aircraft Propulsion", Oxford 1981.

Textbook by Whittle. The genesis of the book was his work as NAVAIR Research Professor and part-time Research Professor at the US Naval Academy, Annapolis, 1977-1979. He discovered that his work on thermal cycles going back to the early years of jet engine design had not been included in textbooks for students. To remedy this Whittle wrote a "thesis" as part of his duties as Research Professor but this work gradually expanded following his lecture course on aircraft propulsion and the extension of his own theoretical work into new areas of aero-thermodynamics. He says in his preface that "the boldest of these ventures was a limited excursion into shock-wave theory (Section 4)".

See B.579 for further material relating to his work at the US Naval Academy.

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WHTL C.11-WHTL C.20

Manuscript draft with revisions.

10 folders.

original box no. 71.

WHTL C.21-WHTL C.27

Incomplete proof with manuscript revisions.

7 folders.

Original box no. 71.

WHTL C.28-WHTL C.33

Later proof with manuscript revisions.

6 folders.

Original box no. 71.

WHTL C.34-WHTL C.35

1979

Early version of the book completed at the US Naval Academy.

2 proofs with manuscript revisions.

Original box no. 40.

WHTL C.36-WHTL C.40

1987, 1990

Articles for "The Rolls-Royce Magazine".

Original box no. 75.

WHTL C.36-WHTL C.38

1987

"Breakthrough: A Brief Account of the Early History of the Jet Engine", April 1987.

The article appeared in a special issue of "The Rolls-Royce Magazine" which marked the 50th anniversary of the first run of Whittle's jet engine.

WHTL C.36-WHTL C.37

1987

Correspondence publication, with photocopy of a 10pp manuscript draft of the article, typescript version and proof.

2 folders.

WHTL C.38

1987

2 manuscript drafts (both 2pp) entitled "On the future" with related letter.

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The topic of the piece is possible developments in supersonic flight. One draft is inscribed with the date "19 March 1987". The letter indicates that this piece also probably appeared in "The Rolls-Royce Magazine", April 1987.

WHTL C.39

1990

Re-print of an article by Whittle entitled "A Look into the Future of Aviation".

WHTL C.40

1975

Letter from Whittle to P.H.J. Young.

The letter relates to Whittle's calculations for the climb and cruise of "Concorde". Found with the material in WHTL C.36-WHTL C.39.

WHTL C.41

1989

"50 Years of Jet Aviation" (probably published in the USA).

Whittle contributed an article to this publication and for this he appears to have used an amended version of "The Birth of the Jet Engine in Britain", a piece he wrote for "The Jet Age" (publication details unknown).

Brief correspondence publication; typescript list of amendments to the original article and manuscript lists of illustrations from it.

Original box no. 25.

WHTL C.42-WHTL C.49

Undated drafts.

WHTL C.42-WHTL C.43

"Article for American Airlines Book", contents of a file so inscribed.

File also inscribed 'second draft'.

Original box no. 66.

WHTL C.42

42pp untitled typescript draft with extensive manuscript revisions.

WHTL C.43

Revised typescript version of part of the article.

WHTL C.44-WHTL C.45

"The Advent of the Jet Aeroplane".

WHTL C.44

40pp typescript carbon copy.

WHITTLE LIST

WHTL C.45

Typescript amendments to the draft in WHTL C.44.

WHTL C.46

“The By-pass Jet Engine”.

6pp typescript draft with manuscript revisions; typescript carbon copy of revised version.

Original box no. 37.

WHTL C.47

“Random Thoughts on Invention”.

6pp typescript draft with manuscript revisions.

Original box no.25.

WHTL C.48

“The Case Against Large Aircraft”.

6pp typescript draft with manuscript revisions.

Original box no. 25.

WHTL C.49

‘some Comments on Studies of Atmospheric Pollution’.

12pp typescript so entitled.

Original box no. 66.

WHTL C.50

1965, 1974, nd

Off-prints and newspaper cuttings.

Original box no. 43.

WHTL/C/2

EDITORIAL CORRESPONDENCE

WHTL C.51-WHTL C.64

1950-1992

Correspondence with literary agents, publishers etc, with reviews of Whittle’s books and letters from colleagues and members of the public.

WHTL C.51-WHTL C.56

1950-1959

Contents of a file inscribed “Publishers and Agents”.

Correspondence etc, mostly with literary agents, relating to publication of books by Whittle.

WHITTLE LIST

Much of the correspondence concerns the publication of an American edition of "Jet"
(see WHTL C.57-WHTL C.62).

6 folders.

Original box no. 47.

WHTL C.57-WHTL C.61

1950-1973

"Jet: The Story of a Pioneer", London 1953.

"Jet" was Whittle's acclaimed account of his years developing the jet engine and his struggles against sceptical superiors and bureaucrats.

WHTL C.57-WHTL C.59

1950-1954

Correspondence relating to publication, with cuttings of reviews of the book.

The correspondents are principally former colleagues at Power Jets, other associates and Whittle's agent.

3 folders.

Original box no. 48.

WHTL C.60-WHTL C.61

1972-1973

Correspondence re a possible further USA edition of the book.

2 folders.

Original box no. 75.

WHTL C.62

1987

Proposed article for "Air World", published by Exxon International.

Correspondence re the magazine's request to Whittle for an article.

Original box no.75.

WHTL C.63-WHTL C.64

1991-1992

Miscellaneous correspondence with editors of publications.

The correspondence relates chiefly to refereeing and other assistance given by Whittle in publication matters.

2 folders.

Original box no. 12.

WHITTLE LIST

WHITTLE LIST

WHTL/D LECTURES AND BROADCASTS

D.1-D.50
1943-1989

WHTL/D/1 LECTURES

WHTL D.1-WHTL D.24
1943-1987, nd

Arranged chronologically.

Undated material is at WHTL D.20-WHTL D.24.

For further papers relating to lectures and speeches see Section E.

WHTL D.1
1943

“Biology”, 20 November 1943.

3pp typescript notes so entitled, date inscribed at the end.
Original box no. 70.

WHTL D.2
1945

“The Early History of the Whittle Jet Propulsion Gas Turbine”, The First James Clayton Lecture, Institution of Mechanical Engineers, 5 October 1945.

2pp typescript by Whittle documenting the proceedings of the day; photocopy of advance copy.

Original box no. 26.

WHTL D.3
1945

“The Advent of the Aircraft Gas Turbine”, Royal Institution of Great Britain (weekly evening meeting), 7 December 1945.

Offprint.

Original box no. 26.

WHTL D.3A
1949

“Centrifugal v. Axial Flow Compressors for Marine and Industrial Gas Turbines”, Stafford Works Engineering Society, 30 March 1949.

23pp typescript with figures.

WHTL D.4
1951

“The Advent of the Jet Aeroplane in Civil Aviation”, the Commonwealth Jet Conference, 25 September 1951.

WHITTLE LIST

13pp typescript carbon copy of synopsis of lecture.

Original box no. 25.

WHTL D.5-WHTL D.14

1954-1955

“Christmas Lectures (Faraday Lectures)”, Royal Institution, December 1954.

Original box no. 25.

WHTL D.5

Lecture 1: “The Uses of Petroleum”.

6pp typescript notes; 13pp typescript draft headed “Revised draft”.

WHTL D.6

Lecture 2: “Petroleum Geology”.

6pp typescript notes; 11pp typescript draft headed “Revised draft”.

WHTL D.7

Lecture 3: “Exploration, Production and Transportation”.

5pp typescript notes; 9pp typescript draft with manuscript revisions.

WHTL D.8

Lecture 4: “Engines and Their Fuels”.

The original title appears to have been “Power from Petroleum”.

4pp typescript notes; 13pp typescript draft with manuscript revisions.

WHTL D.9

Lecture 5: “Refining”.

6pp typescript notes; 7pp typescript draft with manuscript revisions.

WHTL D.10

Lecture 6: “Gas Turbines and the Oil Industry”.

6pp typescript notes; 14pp typescript draft with manuscript revisions.

WHTL D.11-WHTL D.13

1954-1955

Correspondence etc re preparation of the lectures, publication and other matters arising.

3 folders.

WHTL D.14

1954-1955

WHITTLE LIST

Newspaper cuttings and reprint relating to the lectures.

WHTL D.15

1975

“Oil Exploration”, The National War College, Washington DC, 20 January 1975.

15pp typescript transcription headed “AVEOP”.

WHTL D.16

1975-1977

“Designing the Second Generation SST: An Economical Aircraft Compatible with the Environment”, ASME Design Engineering Luncheon, New York, 21 April 1975.

17pp typescript draft with manuscript corrections; printed abstract; printed version of the talk entitled “A Look at Possibilities for the Second Generation S.S.T.”; letter.

WHTL D.17

1975-1976

“The Early History of the Jet Engine”, United States Air Force Academy, 13 March 1975.

This was an interview with Whittle in the form of a presentation with slides to Academy cadets.

28pp transcription and brief correspondence arising.
Original box no. 43.

WHTL D.18

1985

“Notes For GE Lecture, 18 February 1985”.

17pp photocopy of typescript notes, with manuscript revisions, so entitled.

WHTL D.19

1987

“Address to RR apprentices 19/11/87”.

4pp manuscript notes, with 4pp further notes (on different paper) found with them.

Original box no. 25.

WHTL D.20

n.d.

“The Aircraft Gas Turbine”.

20pp typescript so entitled, headed “Address to N.W.A.P.C.”; 4pp typescript headed “Note to Editor...a more complete account of the start of jet development in the US...”, found with the first typescript.

Original box no. 13.

WHITTLE LIST

WHTL D.21

n.d.

“Int. Conf. Reston 17 Oct”.

1p manuscript notes so entitled.

Original box no. 67.

WHTL D.22

n.d.

Miscellaneous manuscript lecture notes by Whittle, with a draft of a lecture by Hans von Ohain.

Original box no. 67.

WHTL D.23-WHTL D.24

n.d.

“Lecture material”.

Contents of a file so inscribed.

Original box no. 70.

WHTL D.23

n.d.

“R.I. Lecture”.

Slides, including photographic prints of turbo-jet engines and early jet aircraft.
“R.I. Lecture” inscribed on first slide.

WHTL D.24

n.d.

Typscript notes entitled “Geological Definitions”.

WHTL/D/2

BROADCASTS

WHTL D.25-WHTL D.50

1948-1989

WHTL D.25

1948

“Turbo-jet”, radio broadcast, no. 5 in the series “They Found the Secret”, BBC Midland Home Service, 22 April 1948.

The broadcast was made with Whittle’s co-operation.

28pp typescript draft script with manuscript revisions (not in Whittle’s hand).
Original box no. 79.

WHITTLE LIST

WHTL D.26-WHTL D.31

1956-1968

"The Frank Whittle Story", a proposed film to be made by Associated British Pictures. The film was to be based on Whittle's book "Jet: The Story of a Pioneer". After protracted negotiations the idea was dropped. Original box no. 41.

WHTL D.26-WHTL D.27

1956-1968

Correspondence etc re film outline and negotiations.

2 folders.

WHTL D.28-WHTL D.29

1957

Typescript entitled "Draft Story Treatment".

103pp. The cover is also inscribed "Copy no. 1" and "4th April 1957".

2 folders.

WHTL D.30-WHTL D.31

[?1957]

Typescript entitled "A Story Outline".

46pp. The cover is also inscribed "Copy No. 1A" and, on back, with pencil notes by Whittle.

2 folders.

WHTL D.32-WHTL D.40

1961-1976

"Contents of a file inscribed "Radio, TV, & films".

Original box no. 86.

WHTL D.32

1961-1962

'scrapbook 1936', BBC television programme, June 1961.

Brief correspondence.

WHTL D.33

1965

'sir Frank Whittle and the Jet Engine', no. 11 in the radio series 'stories from British History', BBC Home Service (Schools), 1 April 1965.

Copy of 13pp programme script with covering letter.

The programme was first broadcast on 30 May 1963.

WHITTLE LIST

WHTL D.34

1965-1966

BBC film documentary to mark the 25th anniversary of the first flight of the Gloster-Whittle E.28, date of broadcast unknown.

Whittle agreed to take part in the programme.
Brief correspondence re arrangements.

WHTL D.35-WHTL D.36

1968-1969

“Whittle and the Jet Engine”, the “Discovery” series, BBC Radio 4 (Schools), 21 May 1969.

The programme was based on the 1965 broadcast ‘sir Frank Whittle and the Jet Engine’ (see WHTL D.32).

Correspondence etc re Whittle’s assistance in editing the script and related matters. Included at WHTL D.35 is a 16pp carbon copy of the script.

2 folders.

WHTL D.37-WHTL D.38

1976

Programme about the development of the jet engine in the BBC television series “The Secret War”, 1977.

Whittle and Sir Stanley Hooker appeared in the programme.

WHTL D.37

1976

Correspondence re arrangements and Whittle’s contribution to the programme.

WHTL D.38

1976

20pp transcript of the programme entitled “Jets”, 9 August 1976.

WHTL D.39

1966-1973

Unaccepted invitations to participate in programmes.
Correspondence with various broadcasting organisations.

WHTL D.40

1970

Correspondence etc with A. WHTL D. Wilson, BBC Science Correspondent. The correspondence relates to Whittle’s assistance in the drafting of a chapter of Wilson’s book on scientific inventions.

WHTL D.41-WHTL D.42

1966-1968, 1975

WHITTLE LIST

“Jet Propelled”, BBC television programme, 19 May 1966.

The programme commemorated the 25th anniversary of the first flight trial of the Gloster Whittle E.28/39.

Correspondence, mostly re matters arising from the programme. Included at WHTL D.41 are typescript drafts of the sequence in which Whittle appears.

2 folders.

Original box no. 45.

WHTL D.43-WHTL D.50

1967-1987

Contents of a file inscribed “BBC”.

Correspondence and contracts etc relating to various BBC broadcasts.

Original box no. 35.

WHTL D.43

1980-1981

“Frank Whittle: Jet Pioneer”, BBC television documentary, 11 May 1981.

Whittle appeared in the programme.

Correspondence etc re arrangements and arising.

WHTL D.44

1984

“Flying High”, BBC television programme, recorded 23 May 1984.

Whittle gave an interview for the programme.

Correspondence etc re arrangements.

WHTL D.45

1984

Radio documentary about Whittle’s life and work, BBC Radio Lincolnshire.

Whittle gave an interview for the programme.

Brief correspondence re arrangements.

WHTL D.46

1987

BBC “Breakfast Time” television interview about the jet engine, June 1987.

Letter and contracts etc.

WHTL D.47

1987

“Reaching for the Skies”, BBC television programme, recorded 5 June 1987.

Whittle gave an interview for the programme which was on Whittle’s part in the invention of the jet engine and the history of aviation.

WHITTLE LIST

Letter with contract etc.

WHTL D.48

1987

Radio interview for the "John Dunn Programme" BBC Radio 2, 8 June 1987.

The interview concerned the book Whittle - A True Story, by John Golley, Airline Publishing, 1987.

Letter and contract.

WHTL D.49

1989

"Market Leaders", BBC World Service, 10 February 1989.

Whittle appeared in the programme which was about Rolls-Royce and was part of a series featuring British industrial and commercial successes.

Photocopied transcript of programme script.

WHTL D.50

1967, 1977-1987

Miscellaneous correspondence etc re BBC broadcasts.

WHITTLE LIST

WHTL/E VISITS AND CONFERENCES

WHTL E.1-WHTL E.80

1942-1994

Arranged chronologically.

Invitations declined are at WHTL E.80.

WHTL E.1

1942

“FW’s USA visit 1942”.

Pocket diary so entitled inside cover.

The visit, from June to August, represented the beginning of Anglo-American collaboration on jet engine development. Whittle visited aviation companies and factories in several cities to talk to engineers and give technical advice.

Entries relate to engagements and itineraries. Cities Whittle visited included Washington, Boston and Los Angeles.

Original box no. 19.

WHTL E.2-WHTL E.5

1946

Tour of the USA, 17 June - 10 September 1946.

The trip was sponsored by British Information Services and the RAF Delegation. It was principally a lecture tour incorporating a series of fact-finding visits to aircraft factories, engine firms, laboratories and army air bases etc, with press conferences, radio broadcasts and social functions included. Among the organisations to which Whittle gave lectures were the National Association of Aeronautics Convention at Omaha and the Los Angeles Junior Chamber of Commerce.

Original box no. 26.

WHTL E.2

1946

“Report on Visit to USA: Part 1 - Lecture Tour”.

Carbon copy of 23pp typescript report (including appendices) so entitled.

WHTL E.3

1946

“Draft Report on Technical Visit: Part II - Technical”.

23pp typescript so entitled.

WHTL E.4

1946

WHITTLE LIST

Report by Whittle's Personal Assistant, S/O J.E. Shepherd.

S/O Shepherd accompanied Whittle on his tour as a secretary and also organised his travel arrangements and assisted at lectures and press conferences.

6pp typescript.

WHTL E.5

1946

List of engagements.

2pp typescript listing all Whittle's lectures, visits and other engagements.

WHTL E.6-WHTL E.20

1948-1951

Various tours in connection with work for the British Overseas Airways Corporation (BOAC).

The material chiefly consists of detailed reports by Whittle on all aspects of the trips. These contain his views on the progress of civil aviation facilities, jet engine development, potential flight routes, the possibilities for operation of the "Comet" and other issues relevant to BOAC's work.

Original box no. 24.

WHTL E.6

1948

Visit to Canada and the USA, 16 September - 5 October 1948.

The main purpose of Whittle's tour was to give an address to the 12th Annual Convention of the North Western Aviation Planning Council in Vancouver on 21st September. He also visited the Boeing Aircraft factory in Seattle and the BOAC offices in Chicago and New York.

4pp typescript report on the tour and 4pp typescript diary.

WHTL E.7

1948

Visit to Canada and the USA, 8 November - 7 December 1948.

The immediate reason for the visit was an invitation to Whittle to attend the Annual Dinner of the Royal Canadian Air Force Veterans Association on 11 November at which he delivered an address entitled "History and Future Prospects of Jet Propulsion". During his stay in the USA (Washington and New York) he was also able to assess the progress of American firms in developing gas turbines for civil aircraft.

10pp typescript report on the visit.

WHTL E.8-WHTL E.10

WHITTLE LIST

1949

Visit to the USA and the Bahamas, 3 November - 3 December 1949.

The visit was to enable Whittle to attend the ceremony at which W.1.X. engine was presented to the Smithsonian by the British Ambassador. Whittle also gave an address at the ceremony. The secondary purpose of trip was to discuss air traffic control methods with the CAA and ATA.

WHTL E.8

7pp typescript report of the visit.

WHTL E.9

1949

Address by Whittle given at the Whittle W-1-X Engine Presentation Ceremony, Smithsonian Institution, 8 November 1949.

4pp typescript.

WHTL E.10

1948-1951

“Impressions of flights from Nassau to Bermuda and Bermuda/New York”.

2pp typescript so entitled.

WHTL E.11-WHTL E.14

1950

Tour of Egypt, Pakistan and India, 12 January - 8 March 1950.

The tour included a second visit to Egypt before Whittle's return to London. Among the principal objectives of the tour, which included several lectures by Whittle, were to discuss implications of the operation of the “Comet” with Civil Aviation officials in the countries visited and to provide BOAC with favourable publicity.

WHTL E.11

1950

16pp typescript report.

WHTL E.12-WHTL E.13

Appendices to the report in WHTL E.11.

2 folders.

WHTL E.14

1950

Correspondence with Whitney Straight, Deputy Chairman of BOAC.

Brief correspondence re the progress of the tour (January-February 1950) with one letter written shortly before its commencement.

WHTL E.15

WHITTLE LIST

1950

Visit to Canada and the USA, 14 September - 10 October 1950.

Whittle made the visit at the invitation of the Chairman and the President of A.V. Roe (Canada) Ltd to review progress on their jet aircraft and engines. He also attended other meetings and gave interviews.

8pp typescript report; 2pp typescript "diary summary".

WHTL E.16-WHTL E.18

1951

Tour of Middle East, 4 December - 4 February 1951.

The tour included meetings with BOAC staff and representatives of IAL, discussions with Civil Aviation Authorities on the operation of jet aircraft and lectures by Whittle. Included were visits to Teheran, Baghdad, Damascas and Kuwait.

WHTL E.16

1951

24pp typescript report, with related letter.

WHTL E.17

Appendices to the report in WHTL E.16.

WHTL E.18

1951

4pp typescript "diary summary".

WHTL E.19

1951

Tour of Africa, 19 March - 28 May 1951.

The tour included visits to Khartoum, Nairobi and Capetown,

5pp typescript entitled "Points from Diary - African Tour", with manuscript annotations; 5pp typescript "diary summary"; 5pp typescript entitled "Purposes of the Tour".

WHTL E.20

1951

'summary of activities in BOAC'.

Typescript summary diary of Whittle's tours and other engagements, July 1948-June 1951.

WHTL E.21-WHTL E.23

1966

Visit to the Bahamas and the USA, 23 August - 6 October 1966.

WHITTLE LIST

There were various reasons for the trip, the principal one being to visit the Aerospace Research Laboratories at Wright-Patterson Air Force Base as the guest of Hans von Ohain, and to attend the Experimental Test Pilots' Symposium at Beverley Hills which was combined with a visit to Edwards Air Force Base.

Correspondence etc re arrangements and arising, including Whittle's report and newspaper cuttings.

3 folders.

Original box no. 87.

WHTL E.24-WHTL E.26

1970-1971

Visit to the USA, August - September 1970.

The purpose of the trip was to hold discussions with American Airlines in Tulsa, where he also gave a talk on the development of the jet engine, and also to meet representatives of the oil industry in connection with the turbo-drill project. American Airlines also sponsored a book on the history of civil aviation in the USA to be published in 1971 and Whittle agreed to contribute a chapter.

Correspondence etc re arrangements and the aforementioned book and other matters arising.

3 folders.

Original box no. 66.

WHTL E.27-WHTL E.34

1974-1975

Tour of the USA, 1974-1975.

The tour consisted of four separate visits: 15-30 October, 7-29 November 1974, 18 December 1974-23 January 1975 and 11 February-27 April 1975. Whittle's main objectives included: to promote Concorde; to deliver lectures; to explore the possibilities of an international joint venture to embark on an AST; to exchange technical ideas on airframe and engine development.

See also B.251A and B.251B for material relating to the latter part of the tour and Whittle's follow-up visit later that year.

Original box no. 38.

WHTL E.27-WHTL E.32

November 1974-1976

Correspondence, with programmes, itineraries etc, re arrangements and arising.

6 folders.

WHTL E.33

WHITTLE LIST

1974-1975

Manuscript draft reports and notes relating to the visits.

WHTL E.34

1975

“A Report on the Technical Aspects of Visits to the US”.

16pp typescript so entitled.

WHTL E.35-WHTL E.40

1976-1977

Visit to the USA and Canada, 8 September - late October 1976.

The USA part of the trip included lectures by Whittle to members of the British American Chamber of Commerce in Los Angeles and San Francisco. He also attended the Twentieth Symposium and Banquet of The Society of Experimental Test Pilots, Los Angeles, 23 September. The subsequent Canadian visit was a short lecture tour.

Original box no. 40.

WHTL E.35-WHTL E.39

June 1976-January 1977

Correspondence, with programmes etc, mostly re arrangements and arising.

5 folders.

WHTL E.40

1976

Postcards (September - October 1976).

The authors and recipients are unidentified.

Found with the material in WHTL E.35-WHTL E.39.

WHTL E.41

1977

‘spirit of St Louis’ Dinner’, National Air and Space Museum, 19 May 1977.

The dinner was to celebrate the 50th anniversary of Charles A. Lindbergh’s flight across the Atlantic.

Programme and seating list.

Original box no. 45.

WHTL E.42-WHTL E.45

1977-1987

Visits in connection with the United States Department of the Air Force, 1977, 1978, 1986.

WHITTLE LIST

Contents of a file.

Original box no. 39.

WHTL E.42

1977

United States Air Force Academy, Colorado, 12-15 October 1977.

Whittle gave an address entitled "Introduction to Aeronautics" on 13th October to an audience of cadets.

Correspondence etc re arrangements and arising.

WHTL E.43

October 1977-February 1979, 1981, 1985

Wright-Patterson Air Force Base, Ohio, 2 - 4 May 1978.

The visit included a joint lecture by Whittle and Hans von Ohain delivered at the United States Air Force Museum.

Correspondence re arrangements and arising.

The later correspondence (1985) relates to the publication of the verbatim transcript of Whittle's meeting with von Ohain at the Museum.

WHTL E.44-WHTL E.45

October 1986-January 1987

Wright-Patterson Air Force Base, Ohio, 18 - 20 November 1986.

The main reason for Whittle's visit was to give a talk, with Hans von Ohain, at the United States Air Force Museum on 19th November.

Correspondence etc, mostly re arrangements, with a few letters arising. Included at WHTL E.45 are 3pp manuscript notes for Whittle's talk.

2 folders.

WHTL E.46-WHTL E.47

December 1980-1981

Visit to UK, May 1981.

Whittle's trip was chiefly to attend the celebration of the 40th anniversary of the first jet-propelled flight in Britain, held in honour of Whittle. This event was sponsored by Esso and held at the Royal Air Force Club, Piccadilly, on 15th May. Among his other engagements was the Stephenson Bicentenary Lecture at The Institution of Mechanical Engineers on 9th June.

Correspondence etc, mostly re arrangements.

2 folders.

Original box no. 56.

WHITTLE LIST

WHTL E.48

1983, 1984

Visit to the National Air and Space Museum (USA), 1 May 1984.

Whittle's visit was hosted by British Aerospace Inc.

Brief correspondence re arrangements and concerning an earlier matter.

Original box no. 43.

WHTL E.49-WHTL E.51

1984-1985, 1990

General Electric Company's "Evendale Engineers" Day", Cincinnati, 18 February 1985.

Whittle gave a talk at this event: "The Coming of the Jet Age: Great Britain". Hans von Ohain presented the German side of the jet story.

Original box no. 51.

WHTL E.49-WHTL E.50

1984-1985, 1990

Correspondence etc re arrangements and arising, with typescript of von Ohain's talk.

Included are a few letters (1990) unrelated to the event.

2 folders.

WHTL E.51

2 sets of manuscript notes (4pp and 7pp) for Whittle's talk.

WHTL E.52-WHTL E.54

1984-1988.

Visit to the UK, 4 June - 16 July 1985.

A visit to Spain was included during this period. Whittle's principal engagement was a visit to Rolls-Royce Ltd, Bristol and Derby, 24-28 June 1985.

Correspondence re arrangements and arising. At WHTL E.53 is a transcript of an interview Whittle gave to BBC Radio Derby. At WHTL E.54 is a manuscript summary of the whole trip. The later correspondence, 1986-1988, is unrelated to the visit.

Original box no 43 (a few papers also from Box 11).

WHTL E.55-WHTL E.58

1985-1988

Conference: 'strategic Defense Initiative: Perception and Reality', Russell C. Davis Planetarium, Jackson, Mississippi, 27-28 February 1986.

WHITTLE LIST

Whittle attended in the conference, participating in a panel discussion which also involved Hans von Ohain.

Included at WHTL E.57, WHTL E.58 is a small amount of material, found with the papers in WHTL E.55, WHTL E.56, relating to other visits or invitations.

Original box no. 47.

WHTL E.55-WHTL E.56
November 1985-May 1987
Strategic Defense Initiative Conference.

Correspondence etc re arrangements and arising. Included at WHTL E.56 are 2pp manuscript notes for a talk or discussion and a 2pp manuscript account of Whittle's visit.

2 folders.

WHTL E.57
November or December] 1987
Newspaper cuttings concerning a meeting of the Professional Technical Societies, Palm Beach Gardens.

Whittle spoke at the meeting.

WHTL E.58
1987-1988
Correspondence re an invitation from NASA, which Whittle declined, to speak at engineering colloquia, 1987 and 1988.

WHTL E.59
1986
Dinner in honour of Sir Arnold Hall on his retirement as Chairman of Hawker Siddeley Group, 17 June 1986.

Correspondence etc re arrangements and arising.

Contents of a file inscribed "Hawker Siddeley".

Original box no. 79

WHTL E.60
1986-1988
Visit to Ruston Gas Turbines Ltd, Lincoln, 28 June 1986.

The company had been developing and manufacturing gas turbines since 1946 when Whittle's Power Jets colleague G.B.R. Feilden went to work there. Feilden was also present during Whittle's visit which was made during a stay at RAF Cranwell.

WHITTLE LIST

Correspondence etc, mostly arising from the visit. There is also brief correspondence referring to another visit to the company by Whittle in June 1987.

Original box no. 38.

WHTL E.61-WHTL E.70

1987-1988

“UK visits 1987”.

Contents of a file so inscribed.

Original box no. 40.

WHTL E.61-WHTL E.65

27 May - 2 July 1987.

Whittle undertook a number of engagements on this trip, some of them functions commemorating the 50th anniversary of the first jet engine. He also attended the Old Cranwellian Association Annual Dinner and an anniversary of the Institution of the Order of Merit.

WHTL E.61

December 1986-October 1987

Event at Lutterworth, Leicestershire, 15 June 1987.

The day, at which Whittle was Guest of Honour, celebrated the 50th anniversary of the first run of his gas turbine engine which was then further developed at Lutterworth.

Correspondence etc re arrangements and arising.

WHTL E.62

1987

Old Cranwellian Association Annual Dinner (on the occasion of the Association's Diamond Jubilee), Cranwell, 20 June.

Letter of invitation and programme.

WHTL E.63

1987

85th anniversary of the Institution of the Order of Merit, 23 June.

Whittle attended as a Member of the Order of Merit. A Service in the Chapel Royal, St James's Palace, was followed by luncheon with the Queen at Buckingham Palace.

Correspondence re arrangements; newspaper cutting.

WHTL E.64

1987, March-September

Correspondence with The Institution of Mechanical Engineers.

WHITTLE LIST

Brief correspondence relating to the Institution's commissioning of a bust of Whittle. A sitting appears to have been arranged for a date during this visit to the UK.

See WHTL E.68 for further correspondence relating to this matter.

WHTL E.65

January-June 1987

Miscellaneous correspondence, with list of engagements etc, connected with Whittle's UK visit.

WHTL E.66-WHTL E.70

24 October - 24 November 1987.

The main reason for the trip was to present prizes at the Rolls-Royce Apprenticeship Prizegiving, though Whittle also carried out a number of other engagements.

WHTL E.66

1987

Guest Night in Whittle's honour, RAF Staff College, Bracknell, 27 October. Correspondence re arrangements and arising.

WHTL E.67

1987

Inauguration of new ESSO fuelling installation at Luton Airport, 11 November. Whittle attended as principal guest and formally opened the new facility. Correspondence re arrangements, with 2pp 'speech notes' for address introducing Whittle (probably by Sir Archibald Forster).

WHTL E.68

1987-1988

Functions organised by The Institution of Mechanical Engineers. Whittle attended the Aerotech '87 conference and exhibition, National Exhibition Centre, Birmingham, 30th October. He was also present at a reception at the Institution's London offices where a bust of him was unveiled, 12 November.

Brief correspondence re arrangements for both functions and arising; brief correspondence concerning another invitation which Whittle declined.

WHTL E.69

1987-1988

Visits and functions organised by Rolls-Royce plc, 16-19 November.

Whittle visited various Rolls-Royce premises and gave out prizes at the Rolls-Royce Apprentices Prizegiving at Filton, Bristol, on 19th November.

Correspondence etc re arrangements and arising.

WHTL E.70

1986-1987

WHITTLE LIST

Miscellaneous correspondence chiefly relating to with Whittle's UK visit.

Included are letters from his wife (one dated September 1986) and a list of engagements.

Found with the papers in WHTL E.66-WHTL E.70.

WHTL E.71

1988-1989

Visit to Pratt & Whitney Canada, Longueuil and Montreal, Canada, 31 October - 2 November 1988.

Whittle delivered the first lecture in the Elvie Lawrence Smith Lecture Series on 1 November.

Correspondence re arrangements and arising; 1p manuscript lecture notes; Canadian newspaper article on Whittle's development of the jet engine; printed report (from Pratt & Whitney publication) of Whittle's lecture; photograph of Whittle with Winnett Boyd and Paul Dilworth on a visit to A.V. Roe Canada, C. 1948-1950 (these details are inscribed on the back).

Original box no. 79.

WHTL E.72-WHTL E.77

1989

Celebration of the Golden Anniversary of Jet Powered Flight, Dayton, Ohio, 23 August 1989 and Sixth Annual Hawthorne Air Faire and History of Aviation Banquet, Hawthorne, California, 26 - 27 August 1989.

WHTL E.72-WHTL E.76

1989

Golden Anniversary of Jet Powered Flight.
Whittle delivered the Keynote Address on "The Birth of the Jet Engine in Britain".
The programme also included presentations from Hans von Ohain and other significant contributors to jet powered flight.
Original Box no. 44.

WHTL E.72-WHTL E.73

1989

Correspondence etc, mostly re arrangements.

2 folders.

WHTL E.74-WHTL E.76

1989

Printed matter relating to the symposium.

Included is a publication containing the symposium lectures.

3 folders.

WHITTLE LIST

WHTL E.77

1989

Sixth Annual Hawthorne Air Fair WHTL E.

Whittle was one of the recipients of the 1989 History of Aviation Awards.

Correspondence re arrangements and printed literature.

WHTL E.78

1990

26th Joint Propulsion Conference and Exhibit, Orlando, USA, 16 - 18 July 1990.

Whittle gave a lecture entitled "Birth of the Jet Engine in Britain" on 16 July.
Programme etc.

Original box no. 40.

WHTL E.79

1994

Garden party held during the "Air Force Weekend" of The British Officers' Club of Philadelphia, 23 or 24 September 1994

Whittle was honoured at the garden party.
Correspondence etc re arrangements.

Original box no. 35.

WHTL E.80

1967, 1972

Invitations declined.

WHITTLE LIST

WHTL/F SOCIETIES AND ORGANISATIONS

WHTL F.1-WHTL F.69

1946-1993, nd

AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

WHTL F.1

1975, 1986

Whittle was an Honorary Fellow.

Correspondence etc re the nomination of Hans von Ohain for an Honorary Fellowship of the Institute and general business.

Original box no. 76

AMERICAN SOCIETY OF MECHANICAL ENGINEERS

WHTL F.2

1978-1985

Correspondence and papers re Whittle's receipt of the R. Tom Sawyer Award from the Society on 26 October 1978 (certificate included); the nomination of others for Honorary Membership of the Society; speaking engagements and other matters.

Original box no.76.

CAMBRIDGE UNIVERSITY ENGINEERING ASSOCIATION

WHTL F.3

1963, 1975, 1976

Whittle became a member in 1963.

Brief correspondence relating to an exhibition in 1963 and other business.

Original box no. 67.

CHELSEA COLLEGE OF AERONAUTICAL AND AUTOMOBILE ENGINEERING

WHTL F.4

1971-1975

Whittle was a Patron, resigning in November 1975.

Correspondence, principally invitations to functions.

Original box no. 57.

FRANKLIN INSTITUTE

WHTL F.5

1974-January 1975

WHITTLE LIST

Whittle was an Honorary Member and a past recipient of the Franklin Medal. Correspondence etc re the Institute's Medal Awards Ceremonies, 16 October 1974, which Whittle attended as a special guest, and other business.

Original box no. 40.

GUILD OF AIR PILOTS AND AIR NAVIGATORS

WHTL F.6

1969-1976, 1987

Whittle was a Liveryman.
Correspondence etc.

Original boxes 33 and 50.

HIGH ALTITUDE POLLUTION PROGRAMME SCIENTIFIC ADVISORY COMMITTEE

WHTL F.7

1978

Whittle was a member of the Committee.
Papers relating to meetings of the Committee.

Original box no. 33.

INTERNATIONAL AEROSPACE HALL OF FAME

WHTL F.8-WHTL F.10

1977-1984

Whittle was a Member of the Board of Electors.
Material relating to Whittle's involvement with the American Association of Travel Agents is at WHTL F.10.

Original box no. 33.

WHTL F.8-WHTL F.9

1977-1983

Correspondence etc re elections to the Hall of Fame, invitations to ceremonies and other business.

2 folders.

WHTL F.10

1976-1984

Correspondence etc with the American Society of Travel Agents Inc.
The correspondence mostly relates to arrangements for the 46th World Travel Congress, New Orleans, 17 September 1976, at which Whittle was made a member of the Society's Hall of Fame.

Found with the papers in WHTL F.8-WHTL F.9.

WHITTLE LIST

JET PIONEERS' ASSOCIATION

WHTL F.11
1959-1974, 1992

Whittle was a Distinguished Member.
Correspondence etc chiefly re invitations to events.

Original box no. 71.

NATIONAL ACADEMY OF ENGINEERING (USA)

WHTL F.12-WHTL F.18
1978-1993, nd

Whittle was elected a Foreign Associate in 1979.
Various papers concerning the Academy's business, with brief correspondence, some of a personal nature.

7 folders.
Original box no. 35.

THE REACTIONARIES

WHTL F.19-WHTL F.34
1946-1992

The "Reactionaries" was an organisation formed in 1946 to maintain associations between former engineering staff of Power Jets Ltd.

Correspondence relating to re-union functions and general business, with newsletters etc.

Included at WHTL F.21 is a typescript draft of an article on Whittle and Power Jets by G.B.R Feilden.

16 folders.
Original box no. 85.

ROLLS ROYCE HERITAGE TRUST

WHTL F.35-WHTL F.36
1984-1989

Whittle was an Honorary Life Member and accepted the office of Honorary Vice-President in 1987.

General correspondence and papers.

2 folders.
Original box no. 48

WHITTLE LIST

ROYAL ACADEMY OF ENGINEERING (formerly The Fellowship of Engineering)

WHTL F.37-WHTL F.42
1976-1992

Whittle was made a Fellow in 1976.
Correspondence and papers re general business.

6 folders.
Original box no. 78.

ROYAL AIR FORCE TECHNICAL COLLEGE

WHTL F.43-WHTL F.48
1954-1981

The College was at Henlow, Bedfordshire, until 1966 when it was merged with the RAF College, Cranwell.

WHTL F.43-WHTL F.45
1954-1972
"RAF Technical College Cranwell".
Contents of a file so inscribed.

Correspondence etc re the institution of the Whittle Prize at the RAF Technical College, Henlow (see WHTL F.46-WHTL F.48), functions at the College attended by Whittle and other matters.
Included at WHTL F.44 is brief correspondence between Whittle and Wing Commander W.C. Vaughan concerning possible flaws in Einstein's Special Theory of Relativity.

3 folders.
Original box no. 93A.

The Whittle Prize.
WHTL F.46-WHTL F.48
1975-1981

The prize, instituted in 1955, was paid for by Whittle and awarded annually to a technical cadet at the RAF Technical College, Henlow.
Correspondence etc with the Ministry of Defence mostly re legal matters associated with changes to the terms of the Prize; included is brief correspondence concerning the preservation of Whittle's papers covering the early work on the jet engine.

3 folders.
Original box no. 78.

THE ROYAL SOCIETY
WHTL F.49-WHTL F.54
1968-1992, nd

WHITTLE LIST

Whittle was elected a Fellow of the Royal Society in 1947.

Original boxes 64 and 87.

WHTL F.49

Royal Society Fellow "Personal Record".
Typescript with a few manuscript additions.

WHTL F.50-WHTL F.54
1968-1992

Correspondence and papers relating to general business.
5 folders.

ROYAL SOCIETY OF ARTS

WHTL F.55-WHTL F.59
1985-1989

Whittle became a Member of the Faculty of Royal Designers for Industry in 1985.
Correspondence and papers re general business.

5 folders.

Original box no. 77.

THE SOCIETY OF EXPERIMENTAL TEST PILOTS

WHTL F.60
1975-1985

Brief correspondence re invitations to symposia and events.

TONY JANNUS AWARD

WHTL F.61-WHTL F.65
1977-1993

Whittle received a Tony Jannus Award for Outstanding Contribution to Scheduled Air Transportation in 1969.
Correspondence etc re the annual award dinners and other business.

A.117-A.118 for related papers.

5 folders.

WINGS CLUB INC.

WHTL F.66-WHTL F.68
1980-1986

WHITTLE LIST

Whittle received the Wings Club's Distinguished Achievement Award, with Hans von Ohain, Sir Stanley Hooker and others, at a function in New York on 28 October 1980, and became an honorary member also that year.

Correspondence etc chiefly relating to Whittle's attendance at the aforementioned function. Included at WHTL F.66 are 2 photographs of Whittle with von Ohain, both inscribed on back "NBAA Kansas City Sept '80".

3 folders.

Original box no. 74.

SHORTER CORRESPONDENCE

WHTL F.69

1950-1986

Brief correspondence etc concerning Whittle's associations with various organisations.

WHITTLE LIST

WHTL/G CORRESPONDENCE

WHTL G.1-G.215
1944-1994,

INDIVIDUALS AND ORGANISATIONS

WHTL G.1-G.43

1954-1994

Arranged alphabetically.

WHTL G.1

1960-1964

Ernest Bass and Lord Brabazon of Tara

Brabazon was responsible for bringing to the Government's notice the use by many airlines of the gasoline-based J.P.4 jet fuel instead of the safer kerosene. His vigorous campaign, which received Whittle's support, led to a Government inquiry into the matter in 1961.

The correspondence concerns Brabazon's campaign and Bass's later involvement.

Original box no. 34.

WHTL G.2

1984-1986

British Airways

Matters covered include special flights for Whittle on Concorde, arrangements for visits and functions, and an article and a television programme featuring Whittle.

Original box no. 57.

WHTL G.3-WHTL G.5

1954, 1967-1973

M.L. Bramson

Bramson was the consulting engineer approached by Whittle in 1935 when he was seeking financial backing for his jet propulsion idea. The investment bankers O.T. Falk & Co. agreed to finance the project after Bramson's favourable technical report. He and Whittle became close friends.

Personal correspondence, including reminiscences and discussion of Whittle's turbo-drill project. Included also are copies of Bramson's original 1935 report and a later article documenting the events leading up to the involvement of O.T. Falk & Co.

3 folders.

Original box no. 87.

WHTL G.6-WHTL G.7

1989-1991

"Lord Dacre", Hugh R. Trevor-Roper, Baron Dacre of Glanton.

Mostly re the career of Sir William Stevenson about whom Dacre wrote an article in "The Sunday Telegraph", 19 February 1989. Some of the later correspondence discusses historical and contemporaneous individuals and events.

WHITTLE LIST

The correspondence began after Dacre's reading of an obituary of Stevenson which erroneously stated that he had helped to finance Whittle's jet engine project.

2 folders.

WHTL G.8

1968

Gordon Getty.

Younger brother of Sir John Paul Getty II.

Brief correspondence, chiefly concerning Getty's ideas on Relativity Theory.

Included is a typescript paper on the subject by Getty.

Original box no. 50.

WHTL G.9-WHTL G.13

1955, 1968-1975

W.R. Hawthorne.

Hawthorne was Master of Churchill College Cambridge and Head of the University of Cambridge's Engineering Department. His first association with Whittle was as a member of the latter's team (on loan from the Royal Aircraft Establishment) developing the jet engine.

Re Hawthorne's enquiry about Whittle's personal papers; arrangements for the opening of the Science Research Council's Turbomachinery Laboratory (25 May 1973), which Whittle attended; invitations to Churchill College and other Cambridge University functions; and the possible sale of signed drawings by Whittle. There is also some more general personal correspondence with Hawthorne and brief correspondence with other Cambridge engineering scientists.

One letter only is earlier than 1968.

5 folders.

Original box no. 35.

WHTL G.14-WHTL G.19

1970-1986

Raymond Holl.

Holl was an early member of the engineering team at Power Jets Ltd, later being transferred to the National Gas Turbine Establishment (NGTE). He and Whittle seem to have renewed their association in the 1960s.

Re various topics, including personal matters and matters concerning Holl's employment at the NGTE and elsewhere, aeronautical engineering in general, Power Jets and "The Reactionaries".

6 folders.

Original box no. 49.

WHTL G.20-WHTL G.27

1959-1985

S.G. Hooker.

WHITTLE LIST

Sir Stanley Hooker, while working for Roll-Royce Ltd, collaborated with Whittle on the development of the jet engine in the early 1940s. Later, while at Bristol Siddeley Engines Ltd, Hooker was involved in Whittle's turbo-drill project.

Re various topics, including canvassing for Hooker's candidature for Fellowship of the Royal Society; technical matters relating to jet engines (including technical notes); and Hooker's nominations for awards such as the 1968 Goddard Award of the American Institute of Aeronautics and Astronautics and the 1968 Churchill Gold Medal of The Society of Engineers. Included at WHTL G.27 are correspondence and papers concerning Hooker's death and the Royal Society Biographical Memoir of him.

8 folders.
Original box no. 49

WHTL G.28-WHTL G.30
1974-1975
E. Lagelbauer.

Lagelbauer, an American aviation engineer, was influential in gas turbine development in the USA. He sent Whittle details of his proposed gas turbine engine which would feature inter-turbine regeneration (ITR) and attempted to interest Rolls-Royce Ltd in the idea.

Re Lagelbauer's ITR idea. Correspondence with other individuals is included.

3 folders.
Original box no. 34.

WHTL G.31
1960-1966
A.E. Louks.

Louks was an RAF officer who appears to have been Whittle's friend from the latter's early years in the service.

Chiefly re some problems in physics and mathematics.

Original box no. 11.

WHTL G.32
1964-1966
Ministry of Defence.

"Re" a request for Whittle's assistance in providing material on the invention and development of the jet engine for a "time capsule". The time capsule was created by the Westinghouse Corporation for the World Fair.

Correspondence with the Chief Scientific Advisor, Sir Solly Zuckerman.

WHITTLE LIST

Almost all the correspondence is from 1964.
Original box no. 33.

WHTL G.33
1993-1994
National Air and Space Museum (USA).

Re various unrelated matters, including Whittle's offer to the museum to make copies of his engineering diaries from 1936 and 1937.

WHTL G.34
1975-1976
National Gas Turbine Establishment.

Correspondence with the Director, T.H. Kerr, chiefly re a possible addition to the display on early jet engine work at the University of Cambridge; and "re" the potential application of the 'sound cancellation' principle to aircraft.

WHTL G.35
1990
P. Parsons.

Parsons, an RAF Flight Lieutenant, invented and built an ultralight aircraft, given the name of "Covert Insertion and Recovery Vehicle, and sought Whittle's opinion on its feasibility.

Re the invention.
Original box no. 39.

WHTL G.36
1980, 1984-1986.
A. Pouring.

Pouring was Chief Executive (and Chief Scientist) of Sonex Research Inc. which was developing a new internal combustion engine. Whittle was invited to join the company's Science Advisory Board. He does not appear to have accepted but he did endorse the engine project.

Re the Sonex project and Whittle's possible involvement.

Only one letter is earlier than 1984.
Original box no. 46.

WHTL G.37
1987-1993

Rolls-Royce Inc.
Re an invitation to a function (Society of Experimental Test Pilots) and other matters.

Chiefly 1987-1988.

WHITTLE LIST

Original box no. 49.

WHTL G.37A
1985-1989
Rolls-Royce plc.

Correspondence with the company's Director of Public Affairs concerning requests for articles and arrangements for functions, with drafts and notes for articles by Whittle.

Original box no.77.

WHTL G.38
1974-1976
Royal Air Force Museum, Hendon.

Re the transfer of one of Whittle's early jet engines to the museum and the museum's interest in some sketches by Whittle to be sold at auction.

WHTL G.39-WHTL G.40
1959-1960.
Trans World Airlines Inc.

Whittle accepted an invitation from TWA to be a passenger on the inaugural flight (London to New York on 24 November 1959) of the Boeing 707 Intercontinental service. This was the first occasion Whittle had been a passenger in a jet airliner. After arriving in New York he remained there for four days as a guest of TWA.

Mostly re matters arising from the trip. Included are related newspaper cuttings and a printed article on Whittle.

2 folders.

Original box no. 12.

WHTL G.40A
1976-1987
United States Naval Academy.

Re arrangements etc for Whittle's employment as NAVAIR Research Professor, 1977-1978, and as part-time Professor, 1978-1979. There is also a small amount of correspondence concerning other matters.

Original box no.87.

See B.579 for research material connected with Whittle's professorship.

WHTL G.41
1961-1975
University of Cambridge Department of Engineering.

WHITTLE LIST

Correspondence chiefly with the Engineering Department re selection of material for an exhibition on Whittle's work. There are also a few letters concerning other business arising from Whittle's connections with the university.

Mostly 1961-1963.

WHTL G.42-WHTL G.43

1974-1975

P.H.J. Young.

Chiefly scientific correspondence (1975) relating to gas turbine thermodynamics, with a carbon copy of a letter (1974) by Whittle to the editor of "The Times" concerning the Olympus engine.

2 folders.

Original box no. 25.

WHTL G.44-WHTL G.69

1944-1975, nd

"INVENTORS"

Contents of 2 files so inscribed.

Correspondence, usually brief, with a large number of individuals who sought Whittle's advice or assistance in connection with their technological inventions or ideas. These relate to gas turbines, aviation and various other areas of technology.

Original box no. 86.

WHTL G.44-WHTL G.58

1944-1954.

15 folders.

WHTL G.59-WHTL G.69

1955-1975, nd.

11 folders.

INVITATIONS AND REQUESTS

WHTL G.70-WHTL G.75

1961-1976

Contents of a file so inscribed.

Chiefly invitations to functions such as official openings and requests to give speeches, write articles, forewords etc.

WHITTLE LIST

6 folders.

Original box no. 46.

LETTERS FROM CRANKS

WHTL G.76
1963-1974, nd

Contents of a file so inscribed.

Letters to Whittle from various individuals, some concerning scientific topics.

Original box no. 46.

MISCELLANEOUS CORRESPONDENCE

WHTL G.77-WHTL G.215
1944-1994, nd

A wide range of topics and matters are covered, both professional and personal. Included are invitations to visit organisations or give speeches, letters from members of the public (such as requests for autographs) resulting from Whittle's celebrity, correspondence with friends, former colleagues, associates etc. A small number of letters relate to Whittle's last years at Power Jets (R & D) Ltd.

Included are related papers.

Original boxes 39, 65, 76 and 88.

WHTL G.77-WHTL G.95
1946-1966.

19 folders.

WHTL G.96-WHTL G.119
1967-1972.

24 folders.

WHTL G.120-WHTL G.142
1973-1976.

23 folders.

WHTL G.143-WHTL G.166
1977-1987.

24 folders.

WHTL G.167-WHTL G.191

WHITTLE LIST

1988-1991.

25 folders.

WHTL G.192-WHTL G.206
1992-1994.

15 folders.

WHTL G.207-WHTL G.208
1944-1973

Miscellaneous correspondence kept separate for conservation reasons.

WHTL G.209-WHTL G.215
Nd.

7 folders.

WHITTLE LIST

WHTL/H NON TEXTUAL MATERIAL

H.1-H.12
1934-1970

WHTL H.1
1934

Whittle's slide rule with original case.

Inside the box is a typescript note signed by Whittle, 24 November 1975, stating that the slide rule was the one he used while at Cambridge University (1934-1936) and throughout the work on the jet engine development. He continued to use it until 1974.

WHTL H.2 -WHTL H.11
1954-1970

Rolls of large technical drawings etc.

The drawings, traced or printed, with a few colour prints, relate to the turbo-drill project undertaken by Bristol Siddeley Whittle Tools Ltd and Chagford Investments Ltd. Some are dated to an earlier period when Whittle was a consultant to the Shell Group. See B.272-B.574 for the main series of correspondence and papers covering the various stages of the drill project.

Many drawings are of the arrangement and parts of the drill itself. In some cases a large number of drawings are in one roll (or part). There are 10 parts. Many have no dates on them; the dates given refer to drawings on which dates are inscribed.

Original box no.94.

WHTL H.2
1964-1969
Part 1.

Approximately 111 drawings.
Unfit for production.

WHTL H.3
1957
Part 2.

6 drawings. On the outer wrapper is the inscription "Tankers - offshore loading".

WHTL H.4
1956
Part 3.

Approximately 60 drawings.

WHTL H.5
1957
Part 4.

WHITTLE LIST

5 drawings.

WHTL H.6
1966
Part 5.

2 drawings.

WHTL H.7
Part 6.

Roll could not be opened . A conservation note stated that the material inside was too fragile for the wrapping to be removed.
Unfit for production.

WHTL H.8
1970
Part 7.

6 drawings and prints.

WHTL H.9
Part 8.

Roll could not be opened. A conservation note stated that the material inside was too fragile for the wrapping to be removed.
Unfit for production.

WHTL H.10
1954-1956
Part 9.

5 drawings.

WHTL H.11
1969
Part 10.

1 drawing.

WHTL H.12
Two 16mm reels of film showing the De Havilland Comet.
1949-50.
Part 1: 16mm black and white film with sound, title "De Havilland Aircraft Co. Copy no. A De Havilland Diary".
Part 2: 15mm black and white film with sound, title "The Wonder Jet", A COI Production.

WHITTLE LIST

Part 3: Paperwork found in film can part 1: British Information Services film condition report, 1950.
Access copies are available.