

University of Toronto Archives



James M. Ham Fonds

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BIOGRAPHICAL NOTE:

James M. Ham, the 10th President of the University of Toronto, first came to the University as a student of Electrical Engineering in 1939. It was a role in which he excelled, graduating in 1943 with the highest marks ever awarded to a student in the Faculty of Applied Science and Engineering. His achievements were recognized with several awards including the Engineering Institute of Canada Prize and the British Association for the Advancement of Science Medal. He spent the remainder of the war in the Royal Canadian Navy and then returned to the University to be a lecturer at the Ajax Campus for 1945-46. He again left the University in September 1946 to study at the Massachusetts Institute of Technology where he specialized in computer control. He graduated with his Science Masters in 1947 and his Science Doctorate in 1952. During his time at M.I.T., he held various research fellowships and designed a combined analogue computer. After spending a year teaching as an Assistant Professor, he returned to the University of Toronto as Associate Professor of Electrical Engineering where he was responsible for teaching and researching feedback control systems, an area of study vital to automation and automatic control.

He rose through the ranks quickly, becoming full professor in 1959, head of the department in 1964, Dean of the Faculty of Applied Science and Engineering in 1966, Dean of the School of Graduate Studies in 1976 and finally President in 1978. During his five-year term as President, he oversaw a University coping with the first real constraint on public funding in decades. At a time when the role of the University was under public scrutiny and questioning, Ham was a relentless advocate for the University as a place of knowledge. His philosophical bent meant that he supported a liberal arts education against the growing trend in professional schools. Universities were not “in the business of preparing students for jobs but for careers... The nation is dependent on the quality of imagination and understanding brought to bear on the whole human adventure...” This he stressed in an interview with a Globe and Mail reporter in 1981.

Apart from his formidable administrative career at the University of Toronto, Ham was active in many professional engineering associations. Early in his career, he established and chaired the first five years of the National Research Council, Associate Committee on Automatic Control (1959-1964). He also served on the N.R.C. Executive Committee (1969-1974). During the Engineering Centennial of Canada, his expertise was sought out to chair a Technical Program Committee (1985-1987). After his term as President of the University, he was busy founding the Canadian Academy of Professional Engineers, for which he served in the positions of Vice-President (1988-1989) and President (1990-1991). This active involvement speaks to both his dedication to and influence on the engineering profession in Canada.

Ham’s expertise and knowledge was not exclusively applied to university administration or engineering associations. His appointment as Chairman to the Royal Commission on Health and Safety of Workers in Mines, (1974-1976), opened up new avenues of interest. After submitting, what was then considered a groundbreaking critical report on mine safety, his services were sought by various government bodies. These include, to name only a few:

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Chair, Industrial Disease Standards Panel, Ministry of Labour, Ontario (1985-87); Member, Advisory Committee Ontario Nuclear Safety Review, 1987-1988; Member, Technical Advisory Panel on Nuclear Safety, Ontario Hydro 1990-1993. It was his work in this field that led him to take up a Fellowship at the Brookings Institution in Washington D.C. to do a comparative study on public policy with respect of health and safety in Canada and the United States. Due to Ham's failing health, the book based on his research was never completed.

Dr. James M. Ham was recognized for his contributions to higher education, the engineering profession and his public service by being given several honorary degrees and public awards. In 1980 he was made an officer of the Order of Canada. James Ham died of complications from Parkinson's disease September 16 1997 at the age of 76. At his funeral service, Professor Emeritus Gordon Slemon noted that "Jim Ham has been a leader in Canadian Engineering. He has made a difference. He will be missed."

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SCOPE AND CONTENT

1921- 2006 11.34 m. (60 boxes) multi-media

The greatest part of this finding aid includes records from three largest accessions: B1997-0010, B1998-0002 B1999-0012 These have been arranged and described in series and ether document mainly Ham's work as a student, a teacher and his professional activities as an engineer There is also correspondence and memorabilia that document his personal relationships with family members. Although some series do touch upon his administrative posts at the University of Toronto and his advisory roles on government bodies, most of Ham's activities in this regard can be found in the official archives of that body or office.

Several smaller accrual were received between 2001 and 2023. They include the following:

B2001-0024 - Records consist of few pieces of personal correspondence mainly to Mary Ham related to the death of James Ham, mementos and one sound recording of the commemoration service for E.J. Pratt. Also includes to files on donations to scholarship funds made in Ham's memory.

B2002-0005 - Records in this accession relate to several series established in B1997-0010, and include personal correspondence, clippings, memorabilia, notebooks and scrapbooks. Also includes many diplomas and honours, artifacts, slides and photographs. Of particular note is documentation relating to J.M. Ham's trip to India as a representative to the World University Services in 1953 as well as personal correspondence with family while a student at MIT in 1946-47.

B2008-0017 - Correspondence, diary, talk documenting the career of Dr James Ham, past University of Toronto president. Included is a copy of a diary from 1949 kept by Ham while traveling in England and Europe. There are also documents collected by his wife, Mary Ham, relating to her late husband's role in the Canadian Institute of Advanced Research.

B2012-0027 - Family correspondence relating to trips Prof Ham took including his 1960 trip to Moscow for the 1st International Congress of the International Federation Automatic Control, a trip to the United Kingdom in 1966 and the Balkans in 1971 for a meeting of the Institute of Electrical and Electronic Engineers. There is also family correspondence for trips he took together with his wife Mary to Scotland and Banff, Vancouver however most of the family correspondence documents the sabbatical year the family took to Cambridge in 1960 - 1961. Also included in this accession is one photo taken at the IFAC meeting in Moscow.

B2018-0022 - Personal family correspondence including letters to James Ham (Jim) from family while a student at MIT; Jim's letters home to his parents from India in 1953; letters from Mary to Jim while Mary was in Finland, 1954 and Jim in Jamaica, 1954. There is also two versions of a trip journal by Jim for his trip to Europe in 1949.

Also included in a ticket to Queen Elizabeth's Coronation in 1953.

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B2019-0007 - Family photo album documenting James Ham's childhood into early adulthood including his time working for Ontario Hydro as a student and his time in the Navy during World War II. There is also one family trip diary describing a car trip he took with his wife Mary and their two children to the Northwest Territories in 1971. There are selected slides documenting his trip to the USSR in 1960. There is also a selection of colour slides taken during trips to Asia including an official U of T trip to China in 1980 as well as a 2nd trip to China and Korea with Mary in 1982. Finally, there are photos of the plaque unveiling to commemorate the 50th anniversary of the founding of Ajax Campus, 1994

B2023-0029 - Correspondence from family and friends to Jim Ham while he was a student at MIT (1947-1949). There is also a small number of letters from Jim to family members, including three as a child to his mother (1926-1928). One file of memorabilia, photographs and letters relates to his time in the Naval Service at the end of World War II (1944-1945). Finally, there is a certificate from July 1979 that made Ham a lifetime member of the Royal Ontario Museum, shortly before the ROM and the University separated. Ham was President at the time that the two institutions parted ways.

Accessions: B1997-0010, B1998-0002, B1999-0012, B2001-0024, B2002-0005, B2008-0017, B2012-0027, B2018-0022, B2019-0007, B2023-0029

Access: Open except for restriction in Series 7 Office of the President and Series 14 Health. See series descriptions for details.

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SERIES 1 APPOINTMENTS AND HONOURS

1942-1992 0.79 m

This series includes mainly correspondence relating to Ham's various academic and administrative appointments, mainly at the University of Toronto and relating to his many honours and awards bestowed on him throughout his career. There is an abundance of congratulatory correspondence relating to his appointment as President of the University of Toronto in 1978 and subsequently letters of regret and good wishes at his resignation in 1983. Files are arranged by appointment or award chronologically. B1999-0012 also has several diplomas (B.A.) and awards as well as a hand-written list of positions and appointments held by Ham at the University from 1965 to 1983.

B1997-0010/001
B1998-0002/001 (01)-(06) and /003
B1999-0012/001(01)-(02), /003 (01)-(12)

SERIES 2 PROFESSIONAL ACTIVITIES

1944-1994 0.86m

This series documents Ham's activities in professional engineering and academic associations, his extensive work on public boards and committees in the areas of occupational health and safety, science policy and the effects of technology as well as his work as a consultant on matters of engineering and higher education. Records include correspondence, minutes, planning documents, reports and financial remuneration records. They are chronologically arranged by activity i.e. Committee, board, contract etc.

Included are records relating to his trip to the U.S.S.R. in 1960. He was one of the first scientists to visit the Soviet Union under a National Research Council exchange. There is some limited records documenting his role in the Royal Commission on the Health and Safety of Workers in Mines (1974-75), Royal Commission on the "Ocean Ranger" Marine Disaster, (1982-85) and the Ontario Nuclear Safety Review (1987-88). Original records for these bodies reside at the Archives of Ontario.

There are extensive files documenting the following two bodies and these have been filed after the general files:

National Research Council - Associate Committee on Automatic Control: Ham was instrumental in founding this committee and served as Chairman from 1959-1964.

Engineering Centennial of Canada: Technical Program Committee; Ham served as Chairman from 1985-1987.

Box B1997-0010/002 - /005
B1998-0002/001(07)-(10)
B1999-0012/001(03)-(04)
For further description see File Listing, Appendix 1.

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SERIES 3 **GENERAL CORRESPONDENCE**
1945-1997 0.25 m

This series consists of general correspondence mainly of a professional nature arranged chronologically. It relates to Series II, Professional Activities, since it documents Ham's activities and professional relationships both outside and within the University community. Some of the correspondence discusses administrative matters within the University and thus reveals something about Ham's various University positions.

B1997-0010/006 and /007
B1998-0002/001(11)-(17)
B1999-0012/001(05)

SERIES 4 **ADDRESSES AND TALKS**
195- - 1997 0.6 m

This series contains records relating to Ham's numerous speaking engagements at conferences, seminars, convocations, meetings of professional groups, luncheons, briefs to committees and government bodies. Files contain notes, working drafts and final copies of talks, as well some related correspondence. Early in his career, addresses were mainly academic in nature relating to his research in automatic control. Throughout his later administrative career, his wisdom and knowledge was sought out on issues relating to higher education, engineering as a profession, occupational health and safety, science and technology and the role of the University in society. Arrangement is chronological according to the date the paper was presented.

B1997-0010/008 - /010
B1998-0002/001(18)-(19).

SERIES 5 **ARTICLES, REPORTS AND PAPERS**
1943 - 1983 0.21 m

This series includes manuscripts, drafts, research notes and correspondence relating to published and unpublished articles, research reports and papers. It documents Ham's early engineering research relating to automatic control as it applies to stereo mapping and steel mills. Notes and correspondence relating to his patent on an apparatus for general electronic integration, which evolved out of his doctoral thesis, can also be found in this series. Later works relate more specifically to his work in higher education, the engineering profession and issues relating to technology. Included is an essay entitled The Megalock: an Essay on the Technological Evolution of Form through Growth, which he wrote in 1974 but it was never published. He writes in his introduction that the essay "is designed to stimulate dialogue between humanists and engineers on the nature and puzzles of

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technology”. He goes on to say that it is useful to engineers who are “prepared to free their minds of the entrapping clutter of specialised technical knowledge.” The ideas espoused in this essay speak to his uniqueness as an engineer and educator. Arrangement is chronological.

B1997-0010/011
B1998-0002/001(20).
B1999-0012/001(06)

SERIES 6 TEACHING

1943-1977 0.54 m

Records relating to his teaching activities in the Department of Electrical Engineering at the University of Toronto are found in this series. This includes lecture notes, problem sets and solutions relating to courses in Computer Control, Optimum Control Systems, Electrical Control, Feedback Control and Calculus. There is also course outlines, notes, lectures and references related to the Evolution of Technology (HPS 480) course given at the Institute for the History and Philosophy of Science and Technology which he helped to develop and taught in the mid 1970s. Finally there is a complete set of notes for a course he taught in Electrical Mathematics for the Department of University Extension, 1943-1944.

Files are arranged chronologically by course.

B1997-0010/012 - /014
B1999-0012/001(07)

SERIES 7 UNIVERSITY OF TORONTO. OFFICE OF THE PRESIDENT

1978-1983 0.4 m

This small series relate to Ham’s role as President. Most of the series contains Ham’s personal notes and recollections with regard to personnel, meetings on University planning, research, finances, as well as meetings with senior administrative officers such as the Vice-Provost. There is also some correspondence, memos and copies of reports that have been annotated by Ham as well as records relating to the presidential retreat in 1980.

Also included in this series are files relating to the running of 93 Highland, the President’s residence. An events and receptions logbook was maintained throughout his tenure and there are files on household accounts and one personnel file. It is evident from these records that his wife Mary was intricately involved in managing the house and organising events.

Access: President’s files : B1997-0010/015. Closed for 75 years.
93 Highland files : B1997-0010/016. Open except for Personnel file.

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SERIES 8 THE BROOKINGS INSTITUTION

1983-1984 0.2 m

After leaving the University of Toronto in 1983, Ham was given a Fellowship in Science and Public Policy at the Brookings Institution in Washington D.C.. This series documents the research project undertaken by Ham in the area of occupational health and safety. It includes correspondence with various governmental bodies relating to Health and Safety, mainly in Ontario, the project outline submitted as part of his application, as well as an outline for a proposed book entitled The Rhetoric and Reality in Regulating Occupational Health and Safety in Canada and the United States. Due to Ham's failing health, this book was never written. Perhaps most interesting are a set of notebooks containing notes taken by Ham while conducting interviews with Health and Safety administrators throughout the United States and Canada.

B1997-0010/017.

SERIES 9 APPOINTMENT BOOKS

1957-1995 0.13 m

This series consists of appointment books noting meetings and engagements of both a professional and personal nature. There is a complete run from 1963 to 1993 as well as a second set for the years 1967-1969 while he was Dean of Engineering. Arrange chronologically, with the Dean Appointment books filed at the end.

B1997-0010/018 -/019

B1998-0002/001(21).

SERIES 10 EDUCATION

1939-1952, 1997 1.41 m

This series consists of a fairly complete set of student course notes compiled by Ham while an undergraduate in Electrical Engineering at the University of Toronto from 1939-1943 and as a graduate student at the Massachusetts Institute of Technology, 1946-1952. Included are lecture notes, laboratory notes, research notes, problem sets and solutions. Material related to his ScM. and ScD. theses can also be found, along with a copy of his doctoral thesis.

Arrangement is by course, chronologically.

B1997-0010/020 - /027

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B1998-0002/001(22)

B1999-0012/001(08)-(09)

For a detailed list, See File list Appendix 2.

SERIES 11 NON-PROFESSIONAL ACTIVITIES

1932-1995

0.23 m

This series documents Ham's activities which he considered non-professional such as his involvement in such groups as: the Student Christian Movement; the World Council of Churches; the World University Service for which he attended a meeting in India in 1953; his representation on committees such as House Committee of Hart House (1954-1957), Students' Administrative Council (1955-1957), Housemaster Ajax Campus (1945-1946). There are also files relating his Engineering Alumni 4T3, to his time in the Navy (1944-45), his public schooling at Oakwood Collegiate (1933-34) and Runnymede Collegiate (1938-39), his activities as a student at MIT as well as a file on the Philosophers Club (1943) at the University of Toronto. Also included is a manual written by Ham for the Ontario Science Centre on The Operation of the John Campbell Jacquard Loom.

Arranged chronologically.

See B1997-0010/027 (03)- (29)

B1998-0002/001(28)

B1999-0012/001(10)-(13)

SERIES 12 PERSONAL CORRESPONDENCE

1955-1996

0.16 m

This series is almost entirely made up of letters of condolence to the Ham Family at the death of Jane Ham, a daughter who was tragically killed by a truck on her way to school. A note written by Mary Ham describing the event and her daughter's special needs, can be found in a file preceding the correspondence. There are few other items of a personal nature including a letter by Mary Ham to her husband during an Easter holiday at the cottage in 1985 as well as correspondence with the Ham's Chinese friend Xiansheng Li. There is the odd piece of correspondence with friends from the 1960s and matters relating to the Ham's Boathouse (1955).

B1997-0010/028

B1999-0012/001(14)-(20).

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SERIES 16

ARTIFACTS

1966-1985 0.13 m

One red brick from the Old School of Practical Science which was demolished in September 1966; plaque presented to Dean Ham by the Engineering Alumni, 1973; plaque – Teaching Award given to Ham by the Student Administrative Council and the Association of Part-Time University Students, 1984-85; typical keys to University buildings, a. 197-.

B1999-0012/001Art

B1999-0012/002Art

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Appendix 1: File list for Series 2 - Professional Activities

B1997-0010 /002

- (01) Consulting - general, 1951-54
- (02) Consulting, 1952
- (03) CNE, Japanese display, Aug 1956
- (04) N.R.C. Exchange, Trip to U.S.S.R., 1960
- (05) Sabbatical Leave, Cambridge England, 1960-1961
- (06) Consulting - Hunting Associates, 1961-1965
- (07) Institute of Electrical and Electronic Engineers, 1965
- (08) International Federation on Automatic Control, 4th Congress, Poland 1969
- (09) Royal Society, 1970
- (10) World Federation of Engineering Organizations, 1971-1979
- (11) National Research Council of Canada, 1972
- (12) Consulting - Quebec, Engineering Education, 1974
- (13) Royal Commission on Health and Safety of workers in Mines, 1976
- (14) Royal Commission on Health and Safety of Workers in Mines, 1976
- (15) Atomic Energy of Canada, 1976-1978
- (16) Canadian Institute for Advanced Research, 1980-1995
- (17) Shell Canada, director 1981-1991
- (18) Association of Commonwealth Universities, 1982-1983
- (19) Corporate Higher Education Forum, 1983
- (20) Royal Commission of the Ocean Ranger Marine Disaster, 1983-1985
- (21) Industrial Disease Standards Panel, 1983-1989
- (22) Occupational Health and Safety, 1984
- (23) Institute of Electrical and Electronic Engineers, 1984
- (24) Consulting - University of Western, 1984
- (25) Report on Occupational Health and Safety, Ministry of Labour, 1985

B1997-0010 /003

- (01) Noranda Research Technology Review Board, 1984-1986
- (02) IPPANI Planning Committee. 1985
- (03) Ontario Research Foundation, 1986
- (04) Varsity Arena Project, 1986
- (05) Centre for Technology and Social Development, 1986
- (06) NRC Associate Committee on Artificial Intelligence, 1986
- (07) Institute of Donations and Public Affairs Research, 1986
- (08) Technical Advisory Panel on Nuclear Safety, 1987-1994
- (09) Canadian Academy of Engineering, 1988-1991
- (10) Canadian Academy of Engineering, 1989-1993
- (11) Premier's Council on Health Safety, 1990
- (12) University of Victoria, administrative review, 1990-1991

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Appendix 1: File list for Series 2 - Professional Activities

- (13) Engineering Centennial Board - Technical Program Committee -
Correspondence, 1983-1987
- (14) - Source Documents, 1984
- (15) - Minutes of the Consultative Committee, 1984-1987
- (16) - Minutes of the Executive, 1985-1987
- (17) - Theme Lecture, 1985-1987
- (18) - Minutes of the Co-ordination Committee, 1985
- (19) - Agenda, 1986
- (20) - Theme Lectures, 1986-1987

B1997-0010 /004

- (01) - Theme Lectures, 1987
- (02) - Theme Lectures, 1987
- (03) - Letters to Participants, 1987
- (04) - General, 1987
- (05) National Research Council - Associate Committee on Automatic Control -
1959
- (06) - Proceedings of Meetings, 1959
- (07) - Proceedings of Meetings, 1960-1963
- (08) - Correspondence, 1960-1961
- (09) - Industrial Visitation Scheme, 1962
- (10) - Meeting, agenda and notes, 1962
- (11) - Visitor to meetings, 1962
- (12) - 1962
- (13) - Seminar, McGill University, 1962
- (14) - Correspondence 1962-1963

B1997-0010/005

- (01) - Membership, 1962-1965
- (02) - Research Grants, 1962-1964

B1997-0010/005

- (03) - International Federation on Automatic Control, 1962-64
- (04) - Sub-committee on Computers in Control, 1962-1963
- (05) - Summer School, 1962-1963
- (06) - Dr. Ballard – correspondence, 1963
- (07) - IFAC (Bibliography), 1963
- (08) - Publicity, 1963
- (09) - Industrial Relations, 1963
- (10) - Executive Committee Meeting, 1963-64
- (11) - Budget, 1963-1965

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Appendix 1: File list for Series 2 - Professional Activities

- (12) - Management Conference, 1964
- (13) - IFAC, 1964-1965
- (14) - Agenda of Meetings, 1964-1965
- (15) - National Conference on Automatic Control, 1965
- (16) - Annual Report, 1965
- (17) - Working Group Status, 1965
- (18) - Education Committee, 1965

B1998-0002/001

- (07) Technical Services Council, 1944
- (08) Ass. of Professional Engineers, American Institute of Electrical Engineers, 1944-1945
- (09) Canadian Association of Engineers, Centennial Convention, 1987
- (10) Impressions of the USSR – Notes, 1960

B1999-0012/001

- (03) Nominations Committees, 1990-19992
- (04) Correspondence re. Health and Safety, 1985-1986

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Appendix 2: File List for Series 10 - Education

B1997-0010 /020

- (01) Summary of Lecture Notes, 2ND year undergraduate, 1939-1940?
- (02) Notes, Dynamics, Theory of Mechanics, Mechanics of Machinery, Mechanics of Materials, Physical Metallurgy, 1940-1941
- (03) Electrical Transmission of Energy, Fall 1941 and Winter 1943
- (04) Lab Notes, Mechanical Engineering, Machine Design, 1941-1942
- (05) Lab Notes, Electrical, 1941-1942
- (06) Course notes, Mechanical Engineering, 1941-42
- (07) Course notes, Mechanical Engineering, 1941-1942
- (08) Problem notebook, Electrical Design Laboratory, 1941-1942
- (09) Radio Laboratory, winter 1942

B1997-0010 Box /021

- (01) Student Paper, Summer School, 1942
- (02) Communications Laboratory, 1942-1943
- (03) Automatic Control Design Lab, 1942-43
- (04) Automatic Control Design Lab, 1942-43
- (05) Lab notes, Electrical, Fall 1942
- (06) Lab notes, Communications, 1942-43
- (07) Notes, Electrical Transmission of Energy, Communications Networks, Circuit Analysis, 1942-43
- (08) Course notes, Engineering Economics, Winter 1943
- (09) Lab notes, Electrical, 1943
- (10) Notes, Differential Equations, Control Mapping, 1943
- (11) Illumination Laboratory, 1943
- (12) ACCA Data, Communications Data, 1943
- (13) Unidentified course notes, 1943?
- (14) Electromagnetic Theory, 1943-1944

B1997-0010 Box /022

- (01) Servomechanism, Vol. 1, Course 6.605, 1946-47
- (02) Servomechanism, Vol. 2, Course 6.605, 6.606, 6.608, 1946-47
- (03) Servomechanism, 6.605, 1946
- (04) Lab notes, Servomechanism, 6.606, 1947
- (05) Lab notes, Servomechanism, 6.606, Feb.-June 1947.
- (06) Student Paper, 'The Dimension of Electromagnetic Quantities', 1946
- (07) Notes on the Theory and Solutions of Equations, 1946
- (08) Thesis Notes on Integral Equations, 1946
- (09) Survey of Research in various countries, July 1946
- (10) Transients in Linear Systems - Course 6.58, Problem sets, 1946-47

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Appendix 2: File List for Series 10 - Education

B1997-0010 Box /022

- (11) Advanced Calculus, Vol.1 Course M86, 1946-1947
- (12) Advanced Calculus, Vol.2 Course M37, 1947
- (13) Computation Book No. 1, April 29 1947

B1997-0010 Box /023

- (01) Computation Book, Thesis, No.1, Nov. 1946 - May 1947
- (02) Computation Book, Thesis, No.2, May 1947 - Sept. 1947
- (03) Research Notebook No. 1?, May 1947 - Feb. 1948
- (04) Problems, marked Summer 1947
- (05) Pulse Circuits, Course 6.623 Summer 1947
- (06) Notes, unidentified, ca. 1947
- (07) Masters Thesis, Sept. 1947
- (08) Course notes, Fundamentals of Electrical Engineering, 1947-48
- (09) Numerical Computation, Fall Term 1947
- (10) Machine Computation, 6.602 Fall 1947
- (11) Problem sets and solutions (1), Electrical Engineering, 1947-48
- (12) Problem sets and solutions (2), Electrical Engineering, 1947-48
- (13) Notes on staff seminars, 1947-1948

B1997-0010 Box /024

- (01) Notes, Network Analysis, E.A. Guillemin, Fall 1947
- (02) Scientific French, L57, Spring 1948
- (03) Research Notebook No.2 Feb 1948 -
- (04) Engineering Applications of Field Theory, Course 6.586 P. Moon, Spring 1948
- (05) Advanced Network Theory, Course 6.562, E.A. Guillemin, Spring 1948
- (06) Notes on Network Theory, by Ham 1948?
- (07) Course 6.19, Fundamentals on Electrical Engineering, Spring 1948
- (08) Course 6.683, Lecture Notes, Summer 1948
- (09) Network Theory (1), Course 6.561, Summer 1948
- (10) Network Theory (2), Course 6.561, Summer 1948

B1997-0010 Box/025

- (01) Notes, Mechanical and Electromechanical Systems, 1948?
- (02) Course 6.633, Electronic Circuit Theory, Summer 1948
- (03) Project notebook, 1948
- (04) Course 6.621, Microwave Circuits, Fall 1948
- (05) Transmission Lines, Fall 1948
- (06) Course 6.563, Synthesis of Optimum Linear Systems, Fall 1948
- (07) Course notes M381 Functions of A Complex Variable, Fall 1948

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Appendix 2: File List for Series 10 - Education

- (08) Course 6.511 Electric Power Systems Fall 1948
- (09) Scientific German, Fall 1948
- (10) Course 6.64, Dielectric Materials and Phenomena, Spring 1949

B1997-0010 Box /026

- (01) Course M62, Modern Algebra, Spring 1949
- (02) Course M382, Theory of Functions, Spring 1949
- (03) Course 6.582, Transients in Linear Systems, Spring 1949
- (04) Doctoral Examination, October 1949
- (05) Sc.D. Thesis Computation book 1, 5 Dec. 1949
- (06) M631 Integral Equations Winter 1950
- (07) Notes on Horn Design, 1950
- (08) Sc.D. Thesis notes, 1950
- (09) Course 6.581, Problem sets, Transients in Linear Systems, Fall 1950-1951

B1997-0010 Box /027

- (01) Course 5.56 1951-1952
- (02) Sc.D. Thesis, 1952

B1998-0002 Box /001

- (22) Academic Record Card, U of T, 1943

B1999-0012 Box /001

- (08) High School Entrance Certificate, 1934
- (09) Identification Card, MIT, 1951

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Appendix 3: File list for Series 13 - Photographs

B1997-0010 Box /001P

Photographs removed from files

- (01) Corporate Higher Education Forum 1983
- (02) Award Presentation - Association of Professional Engineers of Ontario, 1974
- (03) Photos from paper 'Automation State of the Art'
- (04) Canadian Chemical Engineering Conference, 1979
- (05) McMaster University Convocation, May 31 1980
- (06) Photogrammetric Computer, 1962
- (07) Integral Equation Machine, 1952

Miscellaneous photographs

- (08) Portrait, J.M. Ham, 1947
- (09) World University Service Seminar, 1953
- (10) Students in Electrical Engineering Laboratory, ca. 1964
- (11) Negatives of images in (10)
- (12) Portrait of University Deans with President Ham, 1979
- (13) Album - visit by Japanese dignitaries, 1982

B1997-0010 Box /002P

- (01) House Committee, Hart House, 1956-57
- (02) Mechanical drawing relating to research in Tandem Rolling Mills, ca. 1956

B1998-0002/001P

- (01) J.M. Ham: Youth 1921-1945
- (02) Public School Photographs 1928
- (03) J.M. Ham: High School class 1928 (2nd from right, top row)
- (04) J.M. Ham: Undergraduate 1942?
- (05) Snapshots: Department of Electrical Engineering 1956 (identified)
- (06) J.M. Ham: Portrait M.I.T. 1952
- (07) "The budding professor joins the U of T" 1952
- (08) J.M. Ham as graduate student late 1940's
- (09) "Visiting Russia as a guest of the Academy of Sciences" 1960
- (10) Passport Photo 1960
- (11) 1st year teaching: Ham in classroom 1962
- (12) J.M. Ham in classroom 196-
- (13) Department of Electrical Engineering Picnic 1964
- (14) Cuban Institute of Friendship with Peoples 196-?

**University of Toronto Archives
James M. Ham Fonds**

Appendix 3: File list for Series 13 - Photographs

| | |
|-----------------|---|
| B1998-0002/001P | |
| (15) | Dean Ham: Portrait 1966 |
| (16) | Scout Camp – Coboconk, Ontario on Four Mile Lake August 24, 1966 |
| (17) | Old S.P.S. Building: to be torn down |
| (18) | IFAC: International Federation of Automobile Control Congress Warsaw 1969 |
| (19) | Ham receiving Honorary Degree? 197-? Specifics Unknown |
| (20) | Peru, 1972 - Machu Pictures? |
| (21) | Engineering Society – Presenting Ham with the Cannon at the Centennial Ball, Hart House January 17, 1973 |
| (22) | Portrait Proofs by Robert Lansdale 1975 |
| (23) | Ham: Press Conference re Royal Commission Report Release 1976 |
| (24) | J.M. Ham: Portrait Dean of Graduate Studies 1976 |
| (25) | University of Waterloo, Ontario Faculty of Engineering Science Gzowski Society Lecture 1977 |
| (28a) | Jane Elizabeth Ham 1962-1979 |
| (28b) | American Society for Metals – Ontario Chapter January 10, 1978 |
| (29) | Presidential Installation September 28, 1978 |
| (31) | The Balfours and the Hams: Installation Reception 1978 Hart House |
| (32) | President Ham: outside U.C. 1978 |
| (33) | Father Swan’s Installation, St. Michael’s September 29, 1978 |
| (34) | Hard Hat presentation to newly installed President by Engineering Society 1978 |
| (35) | J.M. Ham 1979 |
| (36) | At hockey game with Lieutenant Pauline McGibbon January 19 1979 |
| (37) | Portrait, 1979 (used for Canadian Chemical Engineering Conference Sarnia) |
| (38) | Christmas Part: Comptroller’s Office 1979 |
| (39) | Hart House Christmas Story December 1979 |
| (40) | President asks Santa for his Christmas wishes hart House Christmas 1979 |
| (41) | Ham with Dean of Forestry Occasion unknown 1979 or so |
| (42) | Portrait after 1980 |
| (43) | Nova Scotia Technical University 1980 |
| (44) | Director of Steel Canada boardroom 1980 |
| (45) | Graduation of Martha Ham 1980 |
| (46) | Greeting the Dalai Lama 1980 |
| (47) | Inspecting an Oil Rig in the North Sea 1980 |
| (48) | Royal Bank, Canada and the Pacific Reception October 29, 1980 |
| (49) | Trip to China 1980 – photos taken in Hong Kong Delegates from U of T included: Brian Holmes (Med.) David Strangway, Arthur Kruger, Gordon Slemon (Eng.) Gordon Chee |
| (50) | President ham with Shunian Zhang 1980 |
| (51) | Convocation – Massey College 1980-1981 |

University of Toronto Archives
James M. Ham Fonds

Appendix 3: File list for Series 13 - Photographs

- (52) A Wedding at 83 Highland Drive August 1981
- (53) Forestry Weyerhauser Lecture 1981
- (54) Convocation November 1981
- (55) Symposium on Information Technology and Society 1981

B1998-0002/001P

- (56) Korean Community 1981
- (57) Photos sent from Korean Traders Scholarship Foundations Korea Trip? 1981
- (58) Korea 1981
- (59) Korean Folk Village Trip to Korea 1981
- (60) Sichuan Medical College in Chengdu 1980 or 1981
- (61) Building relations with Universities in China Chengdu, 1981 Sichuan Province, Sichuan Medical University
- (62) Japan Consulate May 28, 1981
- (63) The Hams with Yoshihisa Okamatsu and Mandi Ricker 1981
- (64) Hart House Christmas 1981
- (65) Mary Ham with the Iveys – Reception for Mr. Gow sent by Bill Dowkes 1981 or 1982
- (66) Steacie Presentation 1982
- (67) Addressing the National Conference on Universities and Societies, Seoul South Korea 1982
- (68) Korea 1982
- (69) China 1982 Sichuan Medical College
- (70) China Trip 1982 University of Science and Technology of China

B1998-0002/002P

- (1) Mary Ham: Winter Garden 93 Highland Spring 1982
- (2) Dedication of the Philip Goldman Conference Room Faculty of Pharmacy (sent by Dean Baxter) April 1982
- (3) Dinner for Chairman of Ukrainian Studies Faculty Club February 1983
- (4) Presentation (Toronto Historical Board?) City Hall March 1983
- (5) Wycliff College Convocation 1983
- (6) Sir John Kennedy Medal Presentation April 26, 1983 Quebec City
- (7) J.M. Ham: Conference Industrial Accident Prevention Association 1983
- (8) J.M. Ham 1983
- (9) In President's Office 1983
- (10) Convocation, Unknown - Memorial University? 198-
- (11) Convocation, Unknown 198-
- (12) President Ham with Minister of Education, Bette Stephenson, Minister of Colleges and Universities 198-
- (13) IAPA – Ham, speaker 198-
- (14) Convocation at Ryerson University 198-
- (15) Convocation, unidentified 198-

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Appendix 3: File list for Series 13 - Photographs

- (16) Convocation, undated and unknown 198-
- (17) "Launching a new career as Professor of Technology and Public Policy and Brookings Fellow in Science Engineering and Public Policy in Washington D.C." 1983
- (18) Northern Telecom \$500,000 donation to Establish James M. Ham Research in Program in Electrical Engineering (with Walter Light President And CEO of Northern Telecom) February 1984

B1998-0002/002P

- (19) Event unknown November 1984
- (20) Gold Medal Presentation Ceremonies APEO 1985
- (21) IEEE October 1985 Technological Change and Boundaries of the Engineering Profession
- (22) Industrial Disease Standards Panel 1985-1987 or 1988
- (23) Dinner for Vincent Bladen Spring 1986
- (24) Electrical Engineering Department Heads 1988
- (25) Order of Ontario April 18, 1989
- (26) Industrial Engineering 1989 (Ham with former Professor Roy Brown)
- (27) Reception at 83 Highland Ave. after J.M. Ham's Hon. Degree from U of T June 5, 1991
- (28) Pritchard, Connell and Ham 93 Highland Ave 1991
- (29) May and Martha Ham 1991
- (30) Autumn 1996
- (31) Heads of Department of Engineering 1964-present 1997
- (32) Photo Album – Royal Commission on Health and Safety at home of Jean Beaudry, Ottawa 1975
- (33) Photo Albums – Japan Trip 1982?
- (34) Photo Album – Shell Canada 1982

B1998-0002/003P

Drawing Scrapbook, 193-?

B1998-0002/004P

- (01) Portrait of recipients of the Order of Ontario, 1989
- (02) Photo Album – presented to Ham by Engineering Society in June 1973 when he completed his term as Dean; documents the Faculty throughout his time in the Faculty both as a teacher and administrator.

B1999-0012/001P

- (01) James M. Ham as a toddler, ca. 1922
- (02) Christ Church Choir, 1931
- (03) Mary Ham as a young woman ca. 194-

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Appendix 3: File list for Series 13 - Photographs

- (03a) Electrical Control Systems Lab, 1961
- (04) Demolition Day, SPS "School House", 1966
- (05) Women Engineering Students, 1971
- (06) Installation of President Ham, 1978
- (06a) Portrait of Ham, 1979
- (07) Hams in Korea, 1981
- (08) Ham receives Gold Medal, APEO, 1985
- (09) Ham with heart T-shirt, 199-?
- (10) Navy ship, possibly ship that Ham served on during WWII, 1945
- (11) Coloured slides of the Clean Air Car "Miss Purity", designed by Engineering students, 1970

B1999-0012/002P

- (01) Military Portrait [Ashley Crippen], ca. 1944
- (02) Color photograph of "Miss Purity", Clean Air Car including backing which details schematics and signed by some members of the engineering team., 1970
- (03) University of Toronto, Faculty of Applied Science and Engineering, Graduating Class, 1942-43

B1999-0012/003P

- (01) Caricature sketch of Ham as President by Berstaff, Erindale College 1979

**University of Toronto Archives
James M. Ham Fonds**

Appendix 4: Box Description for Accession B2002-0005

1945-2002 1.83 m multimedia

/001 Records in this box belong to several series found in B1997-0010, and include personal correspondence with family while studying at MIT in 1946-47, clippings and documents relating to Ham's trip to India with the World University Services in 1953, miscellaneous correspondence and memorabilia, clippings and scrapbook document his career. Also included is documentation on the Runnymede Wall of Fame to which Ham's name was added at a ceremony on May 4 2002.

/002 and /003 Diplomas, Awards and Honorary Degrees

/001P Miscellaneous photographs

- (01) Group portrait, Residence 728 Ajax Division, 1946
- (02) Group portrait, Residence 728 Ajax Division, House Committee, 1946
- (03) Photos of trip to India with World University Services, 1953
- (04) Colour portrait of J.M. Ham by Toll Photographs ca. 1980
- (05) - (11) Selected illustrations, mock up copies for publication Scientific Basis for Electrical Engineering, published in 1961

/002P Photo Albums

- (01) Conferring of Honorary Doctorate of Laws on James Ham from the University of Manitoba, May 22 1980? (dismantled for conservation)
- (02) Conferring Ceremony of the Honorary Doctorate of Laws, on Dr. James M Ham by Pyung Hee Lee, President of Hanyang University Oct. 21 1981
- (03) Luncheon at 93 Highland ave. in honour of the visit of Japanese women from the OSAKA YWCA. Spring 1982
- (04) Photographic Album presented to James and Mary Ham documenting Ham's time as President of the University of Toronto (with annotations by Mary Ham), Aug. 1983

/002P (05) Original Artwork - Fig.9.2 from James Ham and Gordon Slemon's textbook Scientific Basis for Electrical Engineering, published in 1961

**University of Toronto Archives
James M. Ham Fonds**

Appendix 4: Box Description for Accession B2002-0005

University of Toronto Archives

Ham, James M.

B2002-0005

/003P Lecture Slides

- (01) 13 Slides from the Human Operator research - late 1950s or early 1960s
8 slides - fairly general control material
- (02) - (04) Control Lecture Slides
- (05) Control System Lecture with engineering examples
- (06) Marconi - 20 slides illustrated lecture paper on Marconi, his equipment, the 1st Atlantic signal and his service to the Vatican
- (07) Early railway and bridge theme - some with captions
- (08) U.K Transportation Theme - Telford bridges, rail, ships
- (09) Random Technical - Roman hoist, high voltage and early aircraft
- (10) 1970s Engineering Laboratory Scenes, Intro to Stability Lecture, Clean Air Car
- (11) History of Technology - scenes of artifacts from China, Assyria, Jericho and dominantly Egypt
- (12) Control lecture slides (not connected to rest), Engineering systems and equipment and structures, early manufacturing, includes Kay's flying shuttle

/004P Oversize Portraits

- (01) Group portraits of participants at the World University Services meeting in India, 1953 - this is signed along the border by many of the participants
- (02) Proof of Ham Family portrait taken in home garden, ca. 195-
- (03) Portrait of six University of Toronto Presidents taken in 1990 and signed by each. Included is Evans, Connell, Ham, Bissell, Prichard and Sword.

University of Toronto Archives
James M. Ham Fonds

Appendix 4: Box Description for Accession B2002-0005

/001Art - /003 Art Artifacts

Various artifacts mainly awarded to James Ham for service. Included are several plaques of recognition, an ammeter presented by the Electrical Club in 1972, an "Iron Rod" presented at the 1977 Engineering Grad Ball, and a University of Toronto Centennial Award Cup from 1973. There is also a medal from the Universidad de la Habana. Other artifacts reflecting his career is the sign from his door when he was Royal Commissioner of Health and Safety of Workers in Mines and a ribbon, cap and Indian Flag he saved from his participation in the World University Seminar in 1953.

Audio visual records relating to the Ontario Royal Commission on the Health and Safety of Workers in Mines : 4 sound recordings (cassettes) and 1 video (VHS) 1975, 1989

/001S "Five Nights", aired on CBC Radio, Jan. 6 1975, 10:15 p.m.
Subject: Ontario Royal Commission on Mining

/002S "Maclear" aired CTV network, Feb. 13, 1975 9:30 p.m.
Subject: Mine safety

/003S "This Country in the Morning", aired on CBC Radio, Feb. 19 1975, 10:30 a.m.
Subject: Elliot Lake health and safety standards
Guest: Stephen Lewis

/004S "Exchange" aired on CBC Radio , March 1 1975, 6:10 p.m.
Subject: Health problems of mine workers

/005S " Nuclear Energy: Technology, complexity and choice" - Dr. J.M. Ham, n.d.

/001M "Dr. Ham on IRS", October 1989, 6 min. Produced by the Ontario Ministry of Labour. Shows Ham explaining the concept of the "Internal Responsibility System", an idea first espoused in the Report of the Royal Commission on the Health and Safety of Workers in Mines (see pages 146-181 of the Report)

University of Toronto Archives
James M. Ham Fonds

Appendix 5: Descriptions for Accession

B2001-0024 - 0.07 m (1 box and 2 items) 1938-1921 textual ; sound recording ; artifacts

Records consist of few pieces of personal correspondence mainly to Mary Ham related to the death of James Ham, mementos and one sound recording of the commemoration service for E.J. Pratt. Also includes to files on donations to scholarship funds made in Ham's memory.

See B2001-0024/001

B2008-0017 – 0.07 m (1 box and 1 file) 1949-2006 textual

Correspondence, diary, talk documenting the career of Dr James Ham, past University of Toronto president. Included is a copy of a diary from 1949 kept by Ham while traveling in England and Europe. There are also documents collected by his wife, Mary Ham, relating to her late husband's role in the Canadian Institute of Advanced Research.

See B2008-0017/001

B2012-0027 – 0.13 m (1 box) 1955-1966 textual ; graphic

Family correspondence relating to trips Prof Ham took including his 1960 trip to Moscow for the 1st International Congress of the International Federation Automatic Control, a trip to the United Kingdom in 1966 and the Balkans in 1971 for a meeting of the Institute of Electrical and Electronic Engineers. There is also family correspondence for trips he took together with his wife Mary to Scotland and Banff, Vancouver however most of the family correspondence documents the sabbatical year the family took to Cambridge in 1960 - 1961. Also included in this accession is one photo taken at the IFAC meeting in Moscow.

See B2012-0027/001

B2018-0022 – 0.07 m (1 box) 1946-1960 textual ; artifacts

Personal family correspondence including letters to James Ham (Jim) from family while a student at MIT; Jim's letters home to his parents from India in 1953; letters from Mary to Jim while Mary was in Finland, 1954 and Jim in Jamaica, 1954. There is also two versions of a trip journal by Jim for his trip to Europe in 1949.

Also included in a ticket to Queen Elizabeth's Coronation in 1953.

See B2018-0022/001

University of Toronto Archives
James M. Ham Fonds

Appendix 5: Descriptions for Accession

B2019-0007 – 0.07 m 1921-1994 textual ; graphic

Family photo album documenting James Ham's childhood into early adulthood including his time working for Ontario Hydro as a student and his time in the Navy during World War II. There is also one family trip diary describing a car trip he took with his wife Mary and their two children to the Northwest Territories in 1971. There are selected slides documenting his trip to the USSR in 1960. There is also a selection of colour slides taken during trips to Asia including an official U of T trip to China in 1980 as well as a 2nd trip to China and Korea with Mary in 1982. Finally, there are photos of the plaque unveiling to commemorate the 50th anniversary of the founding of Ajax Campus, 1994

See **B2019-0007/001 – textual**
 B2019-0007/001P for slides and photos
 B2019-0007/002P – album

B2023-0027 – 0.07 m 1926-1979 (pre-dominant dates 1944-1952) textual ; graphic

This small accession contains correspondence from family and friends to Jim Ham while he was a student at MIT (1947-1949). There is also a small number of letters from Jim to family members, including three as a child to his mother (1926-1928). One file of memorabilia, photographs and letters relates to his time in the Naval Service at the end of World War II (1944-1945). Finally, there is a certificate from July 1979 that made Ham a lifetime member of the Royal Ontario Museum, shortly before the ROM and the University separated. Ham was President at the time that the two institutions parted ways.

See: **B2023-0029/001 and /002**