

GEORGE LAWSON PICKARD
M.B.E., B.A., M.A. D. Phil. (Oxon.), DMS (Hon),
FRSC, FAAAS

Born: July 5, 1913, Cardiff Wales, U.K.
Died: May 1, 2007, Vancouver BC, Canada

EDUCATION

1920-32: Manchester Grammar School
1932-35: Hartford College, Oxford
B.A. 1935 1st Class Honours Physics
M.A. 1947
Scholarships:
Baring Science Scholarship, Hertford
University Scholarship, Manchester Education Committee
Kitchener Scholarship (for children of fathers lost in WWI)
1935-37 D. Phil. Clarendon Laboratory, Oxford, 1937
Thesis: *Some properties of Matter at Temperatures below 1o K.*
Supervisor: Prof. F.E. Simon, F.R.S.
Scholarship: Department of Scientific and Industrial Research

PROFESSIONAL EMPLOYMENT

(a) Air Ministry & Ministry of Aircraft Production, U.K.

1937 Junior Scientific Officer – Assistant to Dr. R.V. Jones, Chief Scientific Officer, Air Ministry. Infra-red detection of aircraft. Research contributed to later uses in heat seeking missiles and satellite surveillance.

1938-42 Scientific Officer, Royal Aircraft Establishment, Farnborough, England
Night vision, bombsight design & testing, low-level altimeter design. Work contributed to anti-submarine attack techniques and was later used to direct bombs on the Ruhr Dams (made famous in “Dam Busters” movie)

1942-47 Scientific Advisor to: Operations Research Section, Coastal Command, R.A.F. and Air-Sea Warfare Development Unit.
1944 Senior Scientific Officer
1947 Principal Scientific Officer
Honorary Squadron Leader, R.A.F.V.R.

Tactical and flight trials of weapons, radar, and navigation techniques. To test research flew over 1200 hours as scientific crew. Participated in 14 operational missions, including two crashes and one ditching. Inducted into the Goldfish Club for surviving a crash landing in the Atlantic during scientific air trials.

1946 Awarded M.B.E. Member of the Order of the British Empire “For services during WW II as Senior Scientific Officer, Ministry of Aircraft Production”.

Comments on George Pickard’s contributions to WW II:

“George Pickard worked with Operational Research for the Royal Air Force Coastal Command. In this work he achieved great success. Dr. Pickard’s brilliant work and personal efforts played a considerable part in improving the effectiveness of air operations and our victory over the German U/Boats. His skill at handling instruments, his courage and coolness in flying, his physical prowess (he had won college sculling races for several years in succession at Oxford), his common-sense outlook, his high sense of honour, and above all his thoughtful and unselfish concern for the comfort and safety of others won him the respect of both scientific colleagues and the flying personnel.” Dr. R.V. Jones, Chief Scientific Officer, British Air Ministry and Author *Most Secret War*

(b) University of British Columbia, Vancouver, Canada

Following WWII George Pickard applied to UBC to “*put my training and knowledge to constructive rather than to destructive use and to return to a sphere in which a freer interchange of ideas is possible than in military science in which secrecy restrictions prohibit discussion outside limited official circles.*”

G.L. Pickard, 1947

1947-79	Associate Professor/ Professor (54 -) Department of Physics
1949-79	Associate Professor/ Professor (54 -) Physics & Institute of Oceanography
	Lectured Courses in Physics & Physical Oceanography 1947-79
1958-79	Director Institute (later Department) of Oceanography
1979-07	Professor Emeritus, Oceanography & Physics
1983-07	Honorary Professor, Oceanography

Physical Oceanography Research Areas

1. Cold Water: Water masses and circulation in fjord estuaries and related coastal waters in British Columbia, Alaska, Chile, New Zealand, and Arctic

waters. First comprehensive studies of BC Fjords which later formed a base line for assessing the progress of climate change.

2. Warm Water:

- Western Equatorial Pacific and Western Coral Sea
- Coral reef and Lagoon areas, Great Barrier Reef

(c) Other Research Institutions and Professional Activities

- 1949-54 Visiting Oceanographer (various dates):
Scripps Inst. of Oceanography (US)
Woods Hole Oceanographic Institution (US)
Atlantic Oceanographic Group (Canada)
University of Washington Friday Harbor Laboratories
- 1949 Oceanographer, Joint Canadian-US Expedition to Bering & Chukchi Seas
- 1951 Member Physics 91 Curriculum Committee
- 1951-54 Chair, Physics 101 Curriculum Revision Committee, BC Dept. of Educ.
- 1951-58 Associate Oceanographer (summers), Pacific Oceanographic Group,
Fisheries Research Board of Canada
- 1955-67 Member, Committee on Geodesy & Geophysics, National Research
Council of Canada
- 1957-67 Canadian Delegation, International Union of Geodesy & Geophysics
1966 Toronto, 1960 Helsinki, 1963 Berkeley, 1967 Berne
- 1960-76 Member, Canadian Committee on Oceanography
- 1960-67 Member, Board of Management, B.C. Research Council
- 1960-68 Editorial Board, Journal of Marine Research
- 1961-66 Member, Sub Committee on Meteorology, National Research Council
- 1961-75 Canadian Delegation, Pacific Science Congress: 1961 Honolulu, 1966
Tokyo, 1971 Canberra, 1973 Guam, 1975 Vancouver
- 1962-75 Member International Coordination Group Tsunami Warning Service for
the Pacific Committee I.U.G.G.,
1968-75 Vice-Chair, Acting Chair 1970, 1972
- 1963-72 Member, Fisheries Research Board of Canada
- 1964 Member, Earth Science Curriculum Project, American Geological Institute
- 1967-76 Visiting Oceanographer, Section d'Océanographie, ORSTOM, Noumea,
New Caledonia, 1967, 1970, 1975-76
- 1969-77 Member, Canadian Committee for the Pacific Science Congress
- 1970 "Hudson 70" Round the Americas expedition: Chilean Fjords Section
- 1971-86 Visiting Oceanographer, Australian Institute of Marine Science, Townsville
1971, 1975, 1976, 1979, 1981-82, 1983, 1984, 1986
- 1973 Member, Working Group on Marine Science Curricula for Universities,
UNESCO
- 1973-79 Member, Board of Ocean Engineering Centre, BC Research Council

- 1973-77 Canadian Delegate, Scientific Committee for Oceanographic Research
- 1974 Consultant on Development of an Oceanographic Institution, Bangladesh
- 1974-79 Editorial Board, Marine Science Letters
- 1977 Visiting Scientist, New Zealand Oceanographic Institute
- 1979-85 Consultant, Seaconsult Marine Research Ltd.
- 1981-89 Member, Committee of Scientific Consultants, Research & Development, Department of National Defense, Canada
- 1984-85 Member, Steering Committee on Introduction of Salmonids to Chile, Hatfield Consultants, Vancouver.

PROFESSIONAL MEMBERSHIPS & DISTINCTIONS

(a) Membership in Professional & Learned Societies

- American Geophysical Union
- American Society of Limnology & Oceanography (Vice-President 1962-63)
(Pacific Section Sec-Treasurer 1952-53, President 1956-57.)
- American Institute of Physics Teachers
- American Association for the Advancement of Science (Elected Fellow 1959)
- B.C. Academy of Science (Secretary 1954, Vice-President 1955, President 1956)
- Canadian Association of Physicists
- Royal Society of Canada (Elected Fellow 1965)
- Canadian Meteorological & Oceanographic Society

(b) Academic Awards and Recognition

- 1959 Fellow, American Association for the Advancement of Science
- 1965 Fellow, Royal Society of Canada
- 1961 Honorary Life Member, Vancouver Aquarium
- 1965 Member, National Geographic Society,
- 1976 Recognized as one of four "Pioneers of Physical Oceanography in Canada"
- 1980 Doctor of Military Science (Hon.) Royal Roads Military College
- 1987 Recipient, John P. Tully Medal in Oceanography from Canadian Metrological & Oceanographic Society

(c) Other Awards

- 1946 M.B.E. Member of the Order of the British Empire
- 1962 University of British Columbia Big Block Faculty Recognition Award
- 1967 Canada Centennial Medal
- 1977 Queen Elizabeth Silver Jubilee Medal

PUBLICATIONS (Full list attached)

3 Papers on Low Temperature Physics

36 Refereed Papers on Physical Oceanography

2 Textbooks on Physical Oceanography

“Descriptive Physical Oceanography” Pergamon Press Ltd, Oxford

1st Edition 1963

2nd Edition 1975

3rd Edition 1979

4th Edition 1982 with W.J. Emery

5th Edition 1990 with W.J. Emery

6th Edition 2010 with L.D. Talley, W. J. Emery and J.H. Swift

Also as Oceanografia Fisica Descritiva (Trans by P.M. Silva)

Fundacao de Estudos do Mar, Rio de Janeiro, 1968

Also as Huraian Oseanografi Fizikal (Trans by Dr. Mohd. Nasir Saadon &

Rosan Yaakob, Universiti Periklanan Malaysia) 1993

“Introductory Dynamic Oceanography” with Steve Pond

Pergamon Press Ltd, Oxford

1st Edition 1978

2nd Edition 1983 (as “Introductory Dynamical Oceanography”)

Numerous Conference papers and reviews

BACKGROUND

Awards for rowing (Oxford) and sailing

Scuba Diver

Private Pilot License, Night Flying and Multi-Engine Endorsements, Instrument Rating

Married Lilian May Perry (St. Hilda’s College, Oxford) in 1938.

George & Lilian shared 60 years.

Two Children: Dr. Ann Pickard McAfee and Dr. Andrew Lawson Pickard