

VITA

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A. Academic Education

1967 B.A. Natural Sciences Tripos Part I and II (Theoretical Physics), Class I. University of Cambridge, England. Cambridge Open Scholar 1964-1966, Lord Kelvin Scholar 1966-1967.

M.A. (Honorary) University of Cambridge, 1971.

1970 Ph.D. Meteorology (Thesis title - Cumulus Convection). Imperial College, London
(Advisor: Professor F.H. Ludlam).

B. Professional Employment and Activities

1967-1970	Research fellowship, University of London.
1970-1971	Post-doctoral research fellow, Atmospheric Science, Colorado State University
1971-1974	Assistant Professor, Atmospheric Science, Colorado State University.
1972	Field Meteorologist, Venezuelan International Meteorological and Hydrological Experiment.
1974-1977	Research Associate and Affiliate Professor, Department of Atmospheric Science, Colorado State University.
1974	Convection Subprogram Scientist and Airborne Mission Scientist for GARP Atlantic Tropical Experiment.
1977-1979	Associate Professor, Department of Atmospheric Science, Colorado State University.
1979-present	Atmospheric Research, Vermont.
1980,1983,1990	Visiting scientist, National Center for Atmospheric Research.
1981-1987	Visiting professor, State University of New York, Albany.
1982	Visiting professor, University of Sao Paulo, Brazil.
1983-2010	Visiting scientist, European Center for Medium Range Weather Forecasts.
1985-2008	Visiting scientist, NASA Goddard Space Flight Center.
1987-1989	External Examiner, Dept. of Meteor., Univ. of Nairobi, Kenya.
1988-1998	Consultant, NCEP, Washington.
1991	Visiting professor, CAPS, University of Oklahoma.
1993-2000	BOREAS Science Team
1995-1999	Mackenzie basin GEWEX Study external advisory panel
1999-2006	LBA Science Steering Committee
2000-2006	ISLSCP science steering group
2004-2008	GEWEX Hydrometeorology Panel, ISLSCP representative
2007-2009	CMMAP external advisory panel
2011-present	Consultant, NSF EPSCoR RACC, BREE, UVM

C. Membership of Professional Societies

Fellow: Royal Meteorological Society
Fellow: American Meteorological Society
Fellow: American Association for the Advancement of Science
Fellow: American Geophysical Union
President, Vermont Academy of Science and Engineering (2005-2007)

D. Awards, Honors and Prominent Committees

L.F. Richardson Prize (Royal Meteorological Society): 1974.
Member: Cloud Physics Review Panel: 1973.
NRC GATE Panel Coordinator for Convection Modeling and
Parameterization Studies: 1974 to 1977.
Alfred P. Sloan Research Fellow: 1976 to 1977.
Chairman UCAR SPEC GATE Group Review Panel: 1976 to 1977.
SESAME Thunderstorm Scale Working Group: 1976.
American Meteorological Society Special Award: 1977 (for GATE).
American Meteorological Society Meisinger Award: 1978.
AMS Committee on Tropical Meteorology and Tropical Cyclones: 1983-1986.
NRC ISCCP Panel: 1987-1990
ISLSCP Science Panel: 1994-2004
Chairman: NASA GSFC Code 910 Visiting Committee: 1994-1996.
Canadian GEWEX International Scientific advisory Panel: 1995-2000
UK Meteorological Office Scientific Advisory Committee: 1996-1998.
NRC Panel on Climate Change Feedbacks: 2001-2003
Robert E. Horton Lecturer in Hydrology, American Meteorological Society, 2004
Jule G. Charney Award, American Meteorological Society, 2007
Bert Bolin Award, American Geophysical Union, Global Environmental Change, 2016

E. Publications. (*Denotes invited contributions)

See <http://alanbetts.com/research> Citation analysis at
<https://scholar.google.com/citations?user=ZISvYxkAAAAJ&hl=en>

Betts, A. K. and J. F. R. McIlveen, 1969: The Energy Formula in a Moving Reference Frame. *Quart. J. Roy. Meteor. Soc.*, **95**, pp. 639-642.

Betts, A. K., 1970: Cumulus Convection. Ph.D. Thesis, University of London, 151 pp.

Riehl, H., and A. K. Betts, 1972: Humidity Observations with the 1972 U.S. Radiosonde Instrument. *Bull. Amer. Meteor. Soc.*, **53**, pp. 887-888

Betts, A. K., 1973: Non-Precipitating Convection and Its Parameterization. *Quart. J. Roy. Meteor. Soc.*, **99**, 178-196.

Betts, A. K., 1973: Precalibration of the VIZ-NWS Radiosonde. *Bull. Amer. Meteor. Soc.*, **54**, pp. 222-223.

Betts, A. K., 1973: A Composite Mesoscale Cumulonimbus Budget. *J. Atmos. Sci.*, **30**, pp. 597-610.

Betts, A. K., and F. J. Dugan, 1973: Empirical Formula for Saturation Pseudoadiabats and Equivalent Potential Temperature. *J. Appl. Meteor.*, **12**, pp. 731-732.

Betts, A. K., 1973: A Relationship Between Stratification, Cloud-Depth and Permitted Cloud Radii. *J. Appl. Meteor.*, **12**, pp. 890-893.

*Betts, A. K., 1973: Draft of the Convection Subprogram for the GATE. Prepared for the International Scientific Management Group for the GARP Atlantic Tropical Experiment, 88 pp.

Betts, A. K., 1974: The Scientific Basis and Objectives of the U.S. Convection Subprogram for the GATE. *Bull. Amer. Meteor. Soc.*, **55**, pp. 304-313.

Betts, A. K., 1974: Reply to comments on "Non-Precipitating Cumulus Convection and its Parameterization." *Quart. J. Roy. Meteor. Soc.*, **100**, pp. 469-471.

Betts, A. K., 1974: Further Comments on "A Comparison of the Equivalent Potential Temperature and the Static Energy". *J. Atmos. Sci.*, **31**, pp.1713-1715.

Betts, A. K., F. J. Dugan and R. W. Grover, 1974: Residual Errors of the VIZ Radiosonde Hygristor as Deduced from Observations of Subcloud Layer Structure. *Bull. Amer. Meteor. Soc.*, **55**, pp. 1123-1125.

Moore D.A. and A.K. Betts, 1974: Diagnostic Tests of Models for the Thermal Structure of the Non-precipitating Convective Boundary Layer. Atmos. Sci. Paper No. 217, Colorado State Univ., Fort Collins, CO 80521. 70pp. (US ISSN 0067-0340). Available from <http://alanbetts.com/research> .

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*Garstang, M., and A. K. Betts, 1974: A Review of the Tropical Boundary Layer and Cumulus Convection: Structure, Parameterization, and Modelling. *Bull. Amer. Meteor. Soc.*, **55**, pp. 1195-1205.

Betts, A. K., 1974: Thermodynamic Classification of Tropical Convective Soundings. *Mon. Wea. Rev.*, **102**, pp.760-764.

*Betts, A. K., 1975: Review of Analytical Methods in Planetary Boundary Layer Modelling" by R.A. Brown. *Bull. Amer. Meteor. Soc.*, **56**, pp. 478-479.

*Betts, A. K., and D. R. Rodenhuis, 1975; Report on the Field Phase of the GATE Scientific Programme. Chapter 6, Convection Subprogramme. GATE Report No. 16, WMO-ICSU.

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Betts, A. K., 1976: The Thermodynamic Transformation of the Tropical Subcloud Layer by Precipitation and Downdrafts. *J. Atmos. Sci.*, **33**, pp. 1008-1020.

Betts, A. K., 1976: Modeling Subcloud Layer Structure and Interaction with Shallow Cumulus Layer. *J. Atmos. Sci.*, **33**, pp. 2363-2382.

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- Betts, A.K. and J.H. Ball, 1994: Budget analysis of FIFE-1987 sonde data. *J. Geophys. Res.*, **99**, 3655-3666.
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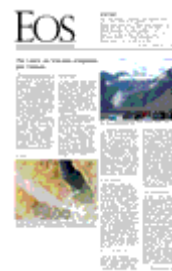
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