

Citation: Walter F. Dabberdt for the 2016 Luke Howard Award

Dr Walter F. Dabberdt has been recognised by the International Association for Urban Climate as recipient of the 2016 Luke Howard Award. In a career extending over almost 50 years, Walt has made outstanding research and service contributions to the international urban climatological community, particularly in the area of atmospheric dispersion in urban areas. In addition to his fundamental work on urban meteorology and dispersion, he has undertaken truly ground breaking work on boundary layer and mesoscale meteorology, fluid modelling, and in the development of innovative terrestrial observing systems. While he has also served the broader international scientific community, his major contributions have been in the fields of urban climate, meteorology and air quality.

Following his BS degree (1964) in meteorology from the New York State Maritime College and his MS (1966) and PhD (1969) degrees in meteorology from the University of Wisconsin at Madison, Walt undertook postdoctoral fellowships in turbulence and dispersion with the National Research Council and the Alexander von Humboldt Foundation. From 1970-1985 he undertook research at the Stanford Research Institute (now SRI International), where he became Associate Director of their Atmospheric Science Center. He spent the next 15 years at the National Center for Atmospheric Research (NCAR), becoming Surface & Soundings Systems Facility Manager and then NCAR Associate Director (*de facto* Chief Operating Officer). Walt joined the Vaisala Group at their Boulder, Colorado facility in 2000, where he was/is Director of Strategic Research, Chief Science Officer, and (currently) Corporate Science Adviser. In this role he has been instrumental in helping to shape a range of new-generation meteorological observing systems and approaches, many of which are particularly appropriate for the complex-geometry conditions found in urban street canyons and urban planetary boundary layers. Although mostly employed in research and industry, Walt's work through his many research papers has been an inspiration to many university educators and graduate research students over the last half century.

Walt Dabberdt's wide-ranging research interests have resulted in over 250 papers, reports, and journal publications. His urban research activities began at SRI, which was at that time the premier urban research laboratory in the United States. There he focused on observation and modelling of urban climate impacts on air quality, resulting in one of the first numerical urban-canyon layer dispersion models, described in publications during the 1970s in many top meteorology and air quality journals. During this period, he also published on urban surface characteristics and urban boundary layer stability. During the 1980s and 1990s, he teamed with Dr. W. Hoydysh on research and publications on highly innovative wind-tunnel simulations of urban street canyon meteorology and dispersion that led to new ways of thinking about air motions in urban areas.

Walt has served with distinction on numerous regional, national, and international panels and committees. In the US he was a member of the National Academy of Sciences Board on Atmospheric Sciences and Climate (BASC) and served on several study committees under the National Research Council (NRC) Board on Environmental Studies and Toxicology. He was Chair of the Environmental Prediction in Canadian Cities (EPiCC) research program, member of the International Science Steering Committee for the GURME Shanghai Air Quality Forecasting Program, and Chair of its International Science Advisory Committee for the Workshop on Urban Meteorological Observation Design. He was twice in US Delegations to World Meteorological Organisation Congresses and Executive Council meetings, and served as Chair of the American Meteorological Society

(AMS) Board on the Urban Environment. Walt is a Fellow of both the AMS and Royal Meteorological Society, and a lifetime National Associate of the NRC of the National Academies. As AMS President (2008), he both designated urban climate as the theme of its annual meeting and he initiated and led the International Forum of Meteorological Societies, currently with about 30 member-societies from six continents, which meets biennially to promote outreach, exchange, and collaboration. Walt is also the 2017 recipient of the AMS' Helmut E. Landsberg Award for urban meteorology. In 2016, the President of Finland bestowed on Walt recognition as Knight First Class in the Order of the Lion of Finland for building scientific relationships between Finland and the United States and China.

In summary, the International Association for Urban Climate resolves that the many significant leadership contributions of Walter Dabberdt to the international meteorological and urban climate community as listed above, along with his role in inspiring multiple generations of urban meteorologists through his significant research, befit him as a very worthy recipient of the Association's highest honour, the Luke Howard Award.

Respectfully,
Nigel Tapper
Chair, IAUC Awards Committee