

DR. IAN R. MCNAB

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Professional History and Research Interests

Dr. McNab was born and educated in Britain and moved to the United States with his family in 1975. He holds a Ph.D. in Applied Sciences (Magnetoplasmdynamics, 1974) from the University of Reading and a B.Sc. (Honors Physics, 1960) from the University of Leeds.

From 1995 to 2013 Dr. McNab was a scientist and manager at the Institute for Advanced Technology (IAT) at the University of Texas in Austin. His positions included Institute Director (Acting), Chief Scientist, and Director of the Electromagnetic Systems Division. He was involved in IAT's research programs on electromagnetic and pulsed power technology on behalf of the University and Institute sponsors, including the US Army, Office of Naval Research, Air Force Office of Scientific Research, Defense Advanced Research Projects Agency.

From 1990 to 1994, Dr. McNab was the Vice President for the Major Systems Division at Maxwell Laboratories, Inc., San Diego, CA, where he was involved in electrical pulsed energy systems and development programs for the US and Allied Governments, universities and industry.

From 1984 to 1990, Dr. McNab worked at Westinghouse in Sunnyvale, CA where he was the Technical Director for electromagnetic and pulsed power programs. From 1975 to 1983, Dr. McNab was employed by the Westinghouse Research Center, Pittsburgh, PA, where he was a scientist and manager working on R&D programs in liquid metal pumps, advanced current collection, tribology for sliding contacts, homopolar generators, and capacitor and rotating machine-powered electromagnetic systems.

Prior to moving to the US, Dr. McNab worked at the International Research and Development Co. in Newcastle, England from 1960 to 1975, where he was involved in research on magnetoplasmdynamic (MPD) generators, metal-plated carbon fiber brush technology for superconducting generators, development of pulsed laser components, and thermoelectric and thermionic direct conversion techniques for electric power generation.

Dr. McNab is a Fellow of the IEEE, the Institute of Physics (UK) and the British Interplanetary Society. He has published 140 scientific papers, including 40 in the IEEE Transactions, and is author/co-author on 15 US and UK patents. He has been a member of the Steering Committee of the International EM Launcher Symposia since 1982 and was a member of the IEEE Pulsed Power and Plasma Sciences Committee for nine years.

Dr. McNab has served as a professional consultant for many organizations in the US and overseas and has given presentations at many conferences. He was awarded the Peter Mark Medal for Outstanding Contributions to Electromagnetic Technology in 1990 and the Lavrentyev Medal for Accomplishments in Electromagnetic Technology from the Russian Academy of Sciences (Siberian Branch) in 2003.