



MICHELSON, ROBERT C.

President *Millennial Vision, LLC and SEPDAC Inc.*

Principal Research Engineer, Emeritus *Georgia Tech Research Institute*

Adjunct Associate Professor (Ret.) *School of Aerospace Engineering*

Experience Summary

Most recently acting Vice President for Engineering at Techsphere Systems International (contracting through Millennial Vision, LLC) in charge of the design and engineering of all aspects associated with stratospheric and high altitude tropospheric unmanned airships. Has been Director and Principal Investigator (PI) for over 30 major projects during career at the Georgia Institute of Technology. Was GTRI Director for stratospheric airship programs and NASA Institute for Advanced Concepts project to develop an autonomous Mars surveyor for flight in the lower atmosphere of Mars. Other examples include: Director/PI for (1) DARPA Mesomachine program to develop a small free-flying/crawling robotic insect-like surveillance platform; (2) DOT's Traffic Surveillance Drone project; (3) DARPA program to show feasibility of a non-line-of-sight radio-acoustic sensor for bending radar signals using the Bragg principle to detect obstacle-masked targets; (4) the avionics suite for an Air Force Robotic Air-to-Air Combat vehicle; (5) a project to specify dual-mode IR/MMW seeker parameters for a lethal unmanned aerial vehicle (UAV) system; (6) evaluation of ground penetration radar for detection of buried natural gas leaks in urban utility systems; (7) development of a Sonar Scan Converter for the Navy; (8) creation of a Coherent Repeater to test foreign threat assets; (9) Army CDEC Indirect Fire Simulator for wargaming; (10) the development of a Ka-band Linear ECM Source (KABLES) for the Army; (11) construction of a transponder for flight test against Army threat simulators; (12) NASA's Sirenian Tracking Project, which involved remote electronic sensing of location and tracking of the aquatic mammal *Trichechus manatus*. Michelson has been invited lecturer on Micro Air Vehicle technology at both the von Karman Institute for Fluid Dynamics ('99 & '03) and the Royal Military Academy ('01) in Brussels. Mitre Technology Speaker ('98). Adjunct Associate Professor to the School of Aerospace Engineering teaching classes in avionics for UAVs and Micro/Mini Air Vehicle (MAV) Design. Visiting technology professor in five nations: Australia, Belgium, Norway, Sweden, and Turkey. Created the short course, "21st Century Aerial Robotics" and the digital signal processing lecture/demonstrations in "Principals of Modern Radar". Is also creator and organizer of the annual International Aerial Robotics Competition which is now in its 15th year. Prior to joining GTRI staff, participated in design and endo-atmospheric flight testing of computer-controlled space-based radar ocean surveillance systems while employed by the Naval Research Laboratory in Washington, D.C.

Positions of Leadership and Special Recognition

Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), Senior Member of the Institute of Electrical and Electronics Engineers. Presently Editor for Robotics Systems, IEEE Transactions on Aerospace and Electronic Systems. Full Member of the Scientific Research Society of North America, Sigma Xi, past President and member of the Board of Directors of Association for Unmanned Vehicle Systems International organization, has been appointed by the Office of the Assistant Secretary of the Air Force to represent the United States on the NATO Advisory Group for Aerospace Research and Development (AGARD) AAS-36 panel considering "Future Use of Unmanned Air Vehicle Systems in the Maritime Environment." In 1998 Michelson

received the Pioneer Award which is the highest level of recognition within the unmanned systems industry for technical contributions to advance the state-of-the-art and move the community forward into the new millennium. Michelson is the recipient of the "2001 Pirelli Award for the diffusion of scientific culture" given by an international Jury for the "best multimedia project coming from any educational institution in the world." For endeavors related to the Entomopter, he was also awarded the first €25,000 Top Pirelli Prize for the work deemed best from an international field of over 1000 considered. Michelson is listed in Who's Who in Engineering, Who's Who in America, and the upcoming 23rd edition of Who's Who in the World. Michelson is author of many publications and holds several patents related to micro air vehicle technology and energy storage