KAT “Pride” Award
Awarded to Linda Taylor, NASA GRC

May 27, 2008

This award is presented by the team at Kinetic Art & Technology to outstanding individuals who demonstrate the value of teamwork. Such individuals recognize that by working together, a team is greater than the sum of its parts. Much like the great lion prides of the Serengeti, the key to success and survival is often a matter of working together.

Linda Taylor graduated with a Bachelors of Engineering degree in Electrical Engineering at Youngstown State University in 1988. She began her career at NASA after working for one year as a support service contractor in the Power Technology Division. She became part of the project team to develop an electromechanical actuation system to replace the hydraulic actuators used for thrust vector control on the Space Shuttle main engines. Ensuing work included Power-by-Wire, to develop a more electric aircraft, with an accompanying aircraft spoiler EMA program. Later efforts included super capacitor development for load-leveling in actuation systems, assisting with the Next Generation Launch Technologies (NGLT) actuator tasks, and working with the Stirling technology group to develop a Stirling power test bed and engine controller. Her current work is focused on the Constellation Crew Launch Vehicle Upper Stage Avionics power system and Power Systems Integration Group. During her career, she has overseen a number of grants, SBIR’s and commercial contracts.

Kinetic Art & Technology (KAT) was fortunate when Linda was selected as the Contracting Officer’s Technical Representative (COTR) for a NASA SBIR award titled “Application of Advanced Electromagnetic Arrays to High Efficiency, High Bandwidth, and Redundant Linear Actuators.” The original goal of this effort was for KAT to develop a very large actuator and controls system capable of meeting the requirements set forth by the NGLT partial ElectroMagnetic Actuator (EMA) specification for flight and thrust vector control actuation.

As NASA shifted focus towards Project Constellation, there became no clear need for an EMA on the order of that specified by the NGLT specification. When a Request For Information was released by NASA for an EMA for the Crew Launch Vehicle, Linda and the contracting officer were more than happy to allow KAT to adapt an existing aerospace actuator design to fill that need, better situating KAT for further opportunities with NASA. The actuator was then under development by KAT for a commercial aerospace application. In addition, Linda was active in looking for applications for the SBIR work within NASA. These are just a couple of examples of how Linda was an excellent partner to work with throughout the entire SBIR process.

Not only was Linda eager to see the SBIR work find its way into applications at NASA, but she has gone the extra mile. She has even gone to the length of calling other government agencies, with whom she had no previous contact, to introduce them to the work that was being done.

Tharon Hall, Systems & Controls Engineer on the program, says of Linda, “Linda has truly been a pleasure to work with. You can tell that she has had a lot of experience working with small innovative companies, and she understands the challenges that we face. I hope she continues to be involved with the SBIR program. Any company that has the opportunity to work with Linda as their COTR is very fortunate.”

For all the ways in which Linda Taylor has been a “team player”, KAT is pleased to offer this KAT “Pride” Award.

KAT, a corporation formed in 1990, develops concepts, techniques and designs for highly efficient and compact electromechanical systems. KAT’s developments have been funded by Small Business Innovation Research (SBIR) grants, along with private investment and commercial development contracts. The company has designed SEMA-based motors and generators for the U.S. Department of Energy, Department of Defense, NASA, and manufacturers within aerospace, automotive, and industrial markets. SEMA motors and generators, ranging from 3-inch to 33-inch diameter have been constructed and tested, further underscoring the value of SEMA technology in the commercial and military sectors. The power levels of these devices currently range from fractional horsepower to over 200 horsepower. SEMA-based Electric motors and generators have demonstrated precision, peak power and efficiency, along with modular design and unique packaging options.