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JSC technology to be showcased at Inspection99

A remarkable new material known as fullerene fibers is just one of the promising new technologies to be exhibited at this year's Inspection99 November 3, 4 and 5.

The result of research from NASA JSC and Rice University scientists, fullerenes are potentially 30 to 100 times stronger than steel yet one-sixth its weight. Only visible using powerful non-optical "probe" microscopes, the fibers' tensile strength surpasses that of any known fiber. At a billionth of a meter in diameter it has electrical conductivity similar to metals and heat conductivity better than almost any other material.

It's these properties that make the fibers attractive as possible high-performance aerospace materials and composites. They also could lead to electronics with 10,000 more transistors on a chip than today's circuits, atomic-scaled mechanical systems or revolutionary energy storage devices.

Possibilities like that are what attract the thousands of business, industry, education and community professionals in exploring space-related technology at JSC's annual Inspection.

NASA-developed tools and breakthroughs to help conquer the challenges of human space flight are put on display during this three-day event. Many of the technologies exhibited at Inspection are available to businesses for improving their own processes or for licensing in the private sector.

Last year, more than 600 requests for further information were submitted by 328 organizations attending Inspection. Forty percent of those indicated a strong interest in licensing, commercializing, applying or using a JSC technology or in establishing a collaborative partnership or agreement with JSC. Popular markets from Inspection98 such as advanced materials, manufacturing, communications, software and medical technologies are just some of the areas that will be featured again at this year's event.

The event affords guests the opportunity to tour JSC facilities, examine new technologies derived from JSC's diverse engineering projects and talk with scientists and engineers about technical challenges.

With more than 270 exhibits planned for this year's Inspection99, organizers anticipate an increased attendance touring NASA's Ellington Field site, the Sonny

Carter Training Facility and the 18 buildings on site that are participating.

"Last year we had a record 2,700 guests from 45 states and 21 countries," said Charlene Gilbert, Inspection99 chair. "By adding more than 60 new exhibits and with the growing popularity of this event, we fully expect to top that this year."

Organizers expect the expanding array of technologies on display this year to help many of the guests find solutions to their challenges or pique their interest in promising technologies that may be suitable for commercialization.

Past Inspections led to the commercial development of the Multi-Quick Connector for the offshore petroleum industry, an innovative Echocardiography Laboratory at the Texas Children's Hospital modeled after Mission Control, and an axial heart pump designed in partnership with the Baylor College of Medicine.

Attendance at Inspection has grown every year, and to keep that trend going, organizers are reaching out to new markets, some of which are neighbors to JSC.

"This year we are focusing much more on attracting industry and high-level educational establishments, such as colleges and universities," added Gilbert. "We really want our local petroleum, information technology and manufacturing businesses to be aware of the resources NASA has available to them and to take advantage of this opportunity to see them firsthand."

Each NASA center will be participating in the event, including many robotics, automation and virtual reality technology exhibits from Ames Research Center. The Commercial Space Centers for Food Technology and Space-based Materials Technology will also be a part of the event.

"The Commercial Space Centers are JSC partnerships with universities to develop various technology specialties," said Gilbert. "Tapping the academic institutes provides NASA with another avenue for promoting commercialization." ■

Employees who would like to get involved with Inspection99 should contact their Directorate Point of Contact for details. Information about Inspection99 is posted on an electronic board accessible from the internal JSC Web site, <http://www4.jsc.nasa.gov/scripts/InspectionDay/JobBoard/index.cfm>



Teachers get inside look at attractions.

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X-37 passes tests in Neutral Buoyancy Lab.

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Liberty Bell 7 finally recovered from Atlantic.

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