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Inspection2000

display mounted in their helmets from a camera under their mask that would allow them to see through fire and smoke.

"There is so much work being done with NASA-derived and Department of Defense-derived infrared technology that we are looking into the possibility of executing a Space Act Agreement with a commercial vendor that has a very small camera that is suitable for use by firefighters," said Harold Moffitt, NASA shuttle flight controller and lead for infrared imaging technology. "We can take their camera, repackage it, and apply NASA/JSC expertise in infrared imaging applications to develop a commercially viable product that could also be flown on the space shuttle and the International Space Station."

An infrared camera on display during Inspection is scheduled to be flown during STS-100 next April to provide ISS crewmembers with the capability of finding hot spots, cold spots and leaks within the station modules as well as providing them with night vision capability. The next step is to put a camera into a housing and put it into the orbiter payload bay to provide the astronauts with night vision capability. An infrared camera could be in firefighters' hands late next year.

Many NASA centers and facilities took advantage of Inspection to make technical points of contact. Stennis, Kennedy, Ames, Glenn, Dryden, Marshall and Goddard had numerous exhibits at the event. Approximately 64 exhibits were provided by other NASA centers, universities, and industry.

JSC's White Sands Test Facility had a prominent exhibit in Bldg. 9 featuring its work on meteoroid and orbital debris

protection, hypervelocity impact testing and fire hazards associated with oxygen systems. WSTF personnel are working with professionals in many industries to apply their expertise, train employees and develop new products.

"We're working with the medical industry to improve the design of medical regulators, the aerospace industry to help train employees in the maintenance of oxygen systems, and the American Society for Testing and Materials to develop and teach courses on how to design and operate oxygen systems safely," said NASA WSTF Projects Engineer Miguel Maes.

Inspection2000 featured exhibits of interest to everyone from the aviation enthusiast to the educator. Many visitors took advantage of guided tours of various JSC sites, a new addition to this year's event.

NASA's Super Guppy aircraft used for transporting station components as well as the Shuttle Training Aircraft, the 747



NASA JSC Photo 2000e28307

Ed Powers, left, discusses growing plants in space with John Gruener.

Shuttle Carrier Aircraft and the T-38 aircraft used for training shuttle astronauts were all on display at Ellington Field. Educators attending the event discovered the latest in JSC learning technologies from a Web-based simulation developed for K-12 students

to design, build and run robots in a virtual environment on line to the intelligent math tutor, a Web or CD-ROM tool for self-paced learning of college or pre-college math.

Lynda Garrett and Alice Snyder, science teachers at Gamble Rogers Middle School in St. Augustine, Fla., attended all three days of the event.

"We've learned a lot of information to take back to our students in Florida," said Garrett. "It's been a wonderful experience. Everyone has been so willing to explain things to us in terms that we can take back to the students."

"It was just incredible to be up in Mission Control this morning after the docking knowing that there are astronauts actually living in the space station," added Snyder. "It's an amazing thing." Snyder attended the event for the third year.

Making its debut in conjunction with Inspection2000, the University Engineering Summit attracted 35 attendees including vice presidents of research, deans of engineering schools, and professors. The purpose was to let the university engineering community know about NASA's research projects and to explore how government and academia might better work together to develop the nation's workforce.

"The agency has initiated a program to engage more closely with the university community, not just for research but to develop the workforce of the future – the scientists and engineers who will take us out in space exploration," said Dr. Bonnie Dunbar, JSC assistant director for university research and affairs. "This conference was one of the milestones on that road. We're very pleased with the outcome. The participants want it to continue to happen, we're not going to let it end here, and we're looking forward to growing it in the future."

Scores of volunteers, some of the 1,983 who volunteered to make the event a success, are now following up on the hundreds of requests for additional information from Inspection2000 guests.

"We received 600 Technical Assistance Requests," said Charlene Gilbert, Inspection2000 chair and acting director, Office of Technology Transfer and Commercialization. "Through everyone's hard work and support, the event was a success. The guided tours were new this year, and they were practically sold out every day. All of the operations ran smoothly, and we didn't have any close calls or safety incidents. Even though attendance was lower than we desired, it was our target audience. We had professionals from companies such as Continental Airlines, Baker Hughes, Nike, Coty, Wells Fargo and Nippon Steel. Most of the TARs are asking for specific technology information, and we received some very good leads during Inspection2000." ■



NASA JSC Photo 2000e28314



NASA JSC Photo 2000e28308



NASA JSC Photo 2000e28306



NASA JSC Photo 2000e28313

1. AI Goodman takes a virtual reality tour.
2. Lorraine Benavides discusses the medical kits carried aboard the space station with Vinodbala Shah.
3. Dr. Roger Marion and Elizabeth Roland examine the latest in sensor-based systems and related technologies used for space flight and ground-based clinical, medical, and surgical needs.
4. Dr. Rengchy Lor and Carl Koontz examine photographs of how station components are loaded aboard the Super Guppy.