

A part of SAIC's Integrated Simulation Center, the Common Trainer allows U.S. Army personnel to train for countless scenarios faced while driving a variety of vehicles.

Thriving on VISION

CENTRAL FLORIDA RESEARCH PARK IS HOME TO THE NATION'S LARGEST CLUSTER OF MODELING, SIMULATION AND TRAINING COMPANIES.

By Justin Campfield



»» Each day in Orlando, thousands of people drive through the manicured entrance of a park that draws visitors from all over the world, pumps billions into the local economy and was created with an uncannily prescient vision of the future. Walt Disney World? Think again. The Central Florida Research Park.

Opened in the early 1980s and located adjacent to the University of Central Florida (UCF), the research park has built a reputation in technology circles for world-class research and product innovation while quietly operating in the shadow of Orlando's tourism industry. Relatively few people outside of techies in Central Florida understand the sophistication of the work taking place there, but even fewer understand how two fortuitous decisions — one made in the early 1980s and the other earlier this year — have not only kept the heart of the research park in tact, but have also ensured its prosperous future.

The research park got its start, on paper at least, when the Florida Legislature created the Orange County Research and Development Authority in 1979. With a mission to strengthen interaction between government, business and the university, while providing high value jobs, the research park, ironically enough, received a boost from the poor economy of the early 1980s. In 1982 the authority was able to purchase the 1,027 acres that now comprise the park at a discount because the residential development slated for the property went bankrupt.

But while the park had the fortune of good timing when it came to purchasing the land, its next move would become even more fortuitous.

In 1968, more than a decade before the research park broke ground, the U.S. Navy established the Orlando Naval Training Center as one of three primary basic training bases. One of the lesser-known components of the base was the Navy Training Devices Center, an early modeling, simulation and training program. As

fortune would have it, the introduction of this industry to Orlando coincided with the start of classes at UCF, then called Florida Technological University.

"From day one, the university and the Navy worked together on all of the different disciplines that go into making a simulator training program," says Joe Wallace, the research park's executive director for the last 22 years. When the research park got its start, a major priority was to convince the Navy to move its modeling, simulation and training activities there.

"One of the first things we did was to give the Navy 40 acres, so the people at the training center could come out and work with the university," says Wallace. "By that point the military had been working with the university, but they had to do so across town, so we said, 'look, you are working with the university anyway. If you accept our offer, you can come out and build your complex here and be right next to the university.' They loved it. That was what really put the research park on the map."

With the Navy onboard, the research park quickly became the focal point of what is now the world's largest modeling, simulation and training cluster. Today, the industry employs approximately 17,000 people in the region, including 1,600 U.S. Department of Defense employees, and more than \$5 billion worth of business is generated by the 100-plus Orlando-based companies.

But luring the Navy to the research park did more than just provide the park with an anchor tenant and foster the creation of a cluster, it helped save the modeling, simulation and training industry in Orlando altogether.

Wallace is certain that the industry would have left Orlando when the mid-1990s BRAC (Base Realignment and

COURTESY SAIC



THE CENTRAL FLORIDA RESEARCH PARK AT A GLANCE

RECOGNITION: The Association of University Research Parks has named the Central Florida Research Park one of the world's ten largest parks in terms of employees

COMPANIES: 116

EMPLOYEES: 10,000, with an annual payroll of \$820 million

INDUSTRIES:

behavioral sciences
computers and software
engineering
lasers and optics
medical devices
modeling, simulation and training
wireless communications

BUILDINGS: 56, 3.5 million sq. ft.

AMENITIES: six fiber optic networks, two hotels, bank and restaurant

FUTURE: Build out expected in 2010 with an estimated 16,000 to 18,000 employees

Closure) process led to the shuttering of the Naval Training Center near downtown Orlando.

"Had we not gotten the Navy to join us at the research park, when the Naval Training Center closed it would have taken the modeling, simulation and training industry with it," says Wallace. "The Navy would have relocated the

"THIS CO-LOCATION HAS EVOLVED INTO THE PERFECT ENVIRONMENT FOR SHARING BOTH CHALLENGES AND SOLUTIONS IN THE MODELING, TRAINING, AND SIMULATION FIELDS."

— CAPT. HARRY ROBINSON, COMMANDING OFFICER, NAWCTSD

Navy Training Devices Center and industry would have been forced to follow to wherever it ended up."

For at least one key figure in the creation of the research park, formalizing the relationship between the military and UCF was the right approach.

"We identified the right industries to anchor the research park and the right relationships with the university," says Orange County Mayor Richard Crotty, who as a member of the state legislature in the 1970s amended legislation creating the park to solidify the relationship between it and UCF. "The two facilities side-by-side create a center of activity that has a huge economic impact for our entire region."

That center of activity today includes a slew of military acronyms — PEO STRI, JTIEC, NAWCTSD and PMTRASYS are

just a few examples — that means an economic engine for the entire region.

"All of the modeling and simulation departments of the services are represented in Orlando, including the U.S. Coast Guard, with the emphasis on providing training to the war fighter," says Captain Harry Robinson, Commanding Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD). "To my way of thinking, this co-location has evolved into the perfect environment for sharing both challenges and solutions in the modeling, training, and simulation fields. Solutions developed for a military mission requirement, for instance, can often be included in products offered by private industry to their commercial customers — and vice versa."

Prominent military installations in the research park include NAWCTSD; the Air Force Agency for Modeling and Simulation; the Army Simulation, Training and Instrumentation Command; U.S. Army Research Institute; Simulator Systems Research Unit; and the U.S. Marine Corps Ground Program.

The National Center for Simulation's (NCS) Russ Hauck says that it is easy to see what draws the Department of Defense and companies alike to the research park.

"Having the research park here, and to work with government and academia in a setting where you can walk across the street and meet with client, partner, teammate or contractor, is really of great value," says Hauck, director of the research park-based NCS. "That environment is really conducive to doing business."

And while the research park has certainly benefited from having UCF so close, UCF President John Hitt says that the perks have traveled both ways.

"The Research Park provides exceptional research opportunities and high-wage, high-tech jobs for our

students and graduates," says Hitt, whose university has, within the last few years, both crossed the \$100 million-mark in external research funding and cracked *Intellectual Property Today's* patent scorecard top ten. "Many undergraduates and graduate students pursue research in modeling and simulation, optics, nanotechnology and a variety of other fields with companies in the park. In addition, more than 400 UCF students and graduates are employed there.

"Faculty members also benefit from the close proximity of the park. Many of our faculty members have either started their own companies in the Research Park or work closely with the high-tech companies based there," adds Hitt.

But while a flood of military installations and the emergence of the modeling, simulation and training cluster began to make the research park's prominent standing in the technology world look unshakable, an unthinkable act threatened to strike it at its very core.

On September 10, 2001, the military's installations in the research park were considered safe and secure. But one day later all that would change. Suddenly, Wallace says, the very features that made the research park so attractive for the military was the very thing that could have forced them to leave.

"The concept of openness and access that convinced the Navy to move to the research park in 1988 worked perfectly for 13 years," says Wallace. "And then, on 9/11, obviously the world changed. The military then found themselves in a park without a gate and in an open environment. In the process of moving them from the Naval Training Center to the park, we had gotten them off of a secure base.

The Defense Department reacted to the new post-9/11 environment by issuing security requirements, scheduled to take affect in 2010, which are markedly increased for all U.S. military installations. At the time, the research park did not meet those requirements.

That is where the second decision came in, and according to Wallace, it was a collective one that included a potent collection of state legislators, county and


city mayors, university presidents, the Metro Orlando EDC, and business and community leaders.

Despite a challenging economic environment that forced the state to slash millions from its budget, a group of Central Florida leaders began a push for a state allocation to save the military installations at the research park. Those efforts paid off during the 2009 legislative session in the form of a \$29 million allocation to build a new 118,860-square-foot building that allows many of the military's research park operations to be consolidated into a single, more secure facility, as well as providing Pentagon-requested security enhancements throughout the park. New security measures include the likes of vehicle-resistant fencing and gates, additional electronic monitoring and a commercial vehicle inspection station.

"We are very grateful to those who worked so hard to help us meet the 2010 Department of Defense requirements to provide the necessary secure working facilities for our Federal employees," says NAWCTSD's Capt. Robinson. "This will allow us to transfer Federal workers from commercially leased facilities into a more controlled and secure environment and to expand our capabilities in the research, development, and acquisition fields."

With the state funding secured and a groundbreaking ceremony for the new building already completed, the research park's Wallace finally has the time to allow himself to think about what could have happened.

"When you look at Orlando's other two major clusters, tourism and medicine, they are not going to move anywhere," says Wallace. "But our oldest cluster, modeling, simulation and training, could move with the stroke of the federal government's pen. While nothing is ever assured, let's just say I don't have to worry about that as much anymore."

Fortunately, a couple of key decisions made at pivotal times have ensured that that pen won't be writing anything but O-R-L-A-N-D-O for a long, long time. 

RESEARCH PARK COMPANY SNAPSHOTS

DME Corporation, a \$68 million, wholly owned subsidiary of Astronics, specializes in providing aviation safety and lighting products and airfield solutions to both private aviation industry and military customers.

VaxDesign Corporation, an emerging biotechnology company, has pioneered methods to test pharmaceuticals and vaccines in the lab that provide results functionally equivalent to tests on human subjects. The growing company relies on relationships with the university and within the research park to support commercialization of their products and processes.

With more than 400 employees and operations in thirty states, **JHT Incorporated** has come a long way since its modest beginnings in 1990. Initially established to provide training programs to the Pentagon, the company has expanded to include technical data management, construction, management and operations support and environmental and marine sciences. The broad range of work the company performs for its clients includes research in marine ecosystems for the National Oceanic and Atmospheric Administration, using gaming technology to educate students and workers.

Kaplan University brought hundreds of new jobs to the region earlier this year when it opened its 124,000-square-foot facility in the research park. The building houses personnel and information technology representatives who support more than 44,000 of Kaplan University's online students.

The latest addition to the park is the **UCP of Central Florida's East Orange/Bailes Campus**. Opened in August, the new 35,000-square-foot facility is UCP's sixth location in the region. In addition to serving children with cerebral palsy and other developmental disabilities, this facility will serve as a research and development ground in the search for new ways to integrate technology and art into daily lesson plans. The building's 21 classrooms are equipped with the latest in educational technology, such as a full complement of computers and a virtual reality room.