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Simulation fixation

# Simulation fixation: Event reveals news, insights & future of Orlando's \$6B MS&T industry

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There are a lot of changes happening in the modeling, simulation and training industry — ranging from job opportunities to cool technology impacting several Central Florida sectors.

Much of that was on display earlier this month at the Orange County Convention Center, the site of the annual I/ITSEC 2019 — the world's largest industry trade show. The expo showcased two of the biggest trends: How virtual reality is growing in training systems and how modeling, simulation and training (MS&T) technology is spreading from defense contracting to other business applications, including in entertainment and health care.



RAYTHEON COMPANY

High-tech tools are spreading from defense contracting to commercial usage in the tourism and health care industries.

MS&T, valued at \$6 billion locally, plays a huge role in Central Florida's economy. Orlando is considered the world's capital for the industry, and the simulation operations of the U.S. Air Force, Army, Navy and Marine Corps are headquartered at Central Florida Research Park in east Orlando. These jobs in the area pay an average annual salary of \$100,000, a report by Chicago-based Cushman & Wakefield PLC (NYSE: CWK) showed, well above the Orlando area's average salary of \$44,900.

Here's a look at some key takeaways from I/ITSEC 2019:

### **Expanding local workforce**

Lockheed Martin Corp. (NYSE: LMT) already is Central Florida's eighth-largest employer, but it's not done growing.

The Bethesda, Maryland-based defense contractor employs 8,000 people between its two campuses in Orlando, and plans to add 1,000 more in the next four years, said Amy Gowder, vice president and general manager of Lockheed Martin in Orlando, at I/ITSEC on Dec. 2.

The company's local workforce grew from 5,000 to 8,000 between 2014-2019, Gowder said. The contractor plans to have a workforce of 9,000 by 2023. Roughly 70% of the company's existing positions are engineering or technical jobs, which pay more than the Orlando area's average annual salary. In that same five-year span, the company won \$10 billion in government contracts with local work.

### **VR capabilities come into focus**

The military demands increasingly sophisticated and immersive training simulations, which was reflected in the technology on display at I/ITSEC. Many of the simulators showcased there use virtual-reality (VR) headsets, a tool growing in popularity for multiple reasons.

Many traditional simulators use a setup of large screens to generate an environment for a military service member. But a VR headset can create that same environment while being portable. Portability is attractive to

military customers, said Harry Buhl, business development manager for Waltham, Massachusetts-based Raytheon Co. (NYSE: RTN), which has its simulation business based in Orlando.

The tech also was displayed by Orlando-based Bohemia Interactive Simulations, which showed off its VR-based helicopter simulator. Until recently, the resolution on VR headsets was too low to see the many buttons and controls in the cockpit, said Bohemia Chief Commercial Officer Pete Morrison. That's now changed, and Morrison predicts the use of VR for pilot simulators will increase. In addition to being more portable, it's less expensive than systems using domes, projectors and screens.

### **Appealing to more clients**

Global Technology Integrators LLC — an Orlando firm among the exhibitors at I/ITSEC — creates immersive effects for military training programs, including light, smoke and scents. The company has found demand for its services among civilian customers as well, namely Central Florida's \$75.2 billion tourism industry. Scents developed by GTI have been used in rides at Universal's Islands of Adventure and Universal Studios Florida.

Here, GTI President Tony Oxford shares with *OBJ* how products developed for military customers can have commercial applications:

**How are atmospherics used in military simulation and training?** Think of an electrical box that's in an aircraft. With scents, we can simulate the smell of a wire burning. Then after they get that, a little bit of smoke comes out of the control panel. Now they have the visual and they have the smell to alert them there's a potential problem and to make the adjustments.

**How different are demands from military and civilian customers?** In the military, lives are dependent on these products. When you talk about the civilian market, especially the market of entertainment and amusement, those businesses are revenue-dependent on their products working for

the people they serve. All it takes is one tweet to go out, and people don't go to the park or on the ride.

**Why have scents been such a successful part of the company?** It gives us more immersion into a scenario. Theme parks are doing the same push. How immersed can you get? Our brain works like a superhighway; you have all these interchanges. Our nose is the only direct route to our brain.

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### **About I/ITSEC 2019**

This year's I/ITSEC event was in Orlando from Dec. 2-6. Here's more on its size and scope:

20,000 attendees

500 exhibitors

\$51.34 million in economic impact

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**Alex Soderstrom**

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