

April 2016

Cleveland Community College Case Study



Revolutionary Program. Revolutionary Equipment.



The Future of Mission Critical Operations Education

The place: rural North Carolina, about 40 miles outside of Charlotte in a small town called Shelby. Population: 20,276. At first glance it's an unlikely place to be the home of the future of mission critical operations – but nothing could be further from the truth.

It all began in fall 2013 when the U.S. Department of Labor Employment Training Administration provided a \$23 million dollar grant to establish The National Consortium for Mission Critical Operations or NCMCO. Cleveland Community College, along with other academic and industry partners is leading the development of a comprehensive Mission Critical Operations academic program. This grant is the largest ever awarded to North Carolina Community Colleges.

Data Aire, a pioneer in mission critical cooling, is a part of this ground-breaking program being founded at Cleveland Community College. The new program is uniquely positioned to serve the mission-critical personnel needs of the exploding data center industry in the region – which includes several leading companies.

Having been at the forefront of precision cooling design and development for over five decades, Data Aire is no stranger to “revolutions”. They are a natural fit for the program, as their popular gForce line of CRAC units have a proven track record of reliability, energy efficiency and customization flexibility.

It's All About the Cloud

So why Shelby, North Carolina? Jonathan Davis, Project Manager, Mission Critical Operations explains:



“North Carolina has been a hotspot for mission-critical operations. We have seen an influx of data centers into this area, so much so that some call it the data center corridor. We have Google, we have Facebook, Disney, Apple, Wipro and AT&T – just to name a few of the data centers that are within a

50-mile drive from Cleveland Community College. So one reason that I think that these facilities are located in North

Carolina is our abundance of land, our abundance of utilities and power and the cost of those utilities and power. We sit in the isothermal plane, so we don't have drastic weather."

Meeting Industry Demand

Cleveland Community College had a strong partnership with a local Industry Association and worked with them on developing a comprehensive training program for mission critical operations to fill the growing need for mission critical operators in the field. They quickly realized they needed a grant...a large one. That's when the US Department of Labor stepped in and provided a \$23 million dollar grant with \$13 million going to Cleveland Community College – the lead in the consortium.



Critically Diverse Curriculum

Mission Critical Operations is now a multi-faceted discipline, and applies to more than just data centers. "Mission critical operations is comprised of courses in engineering automation, HVAC, information technology, safety systems and codes, facilities management and more", says Project Manager Jonathan Davis. "All of that blended together

to create a hybridized curriculum to train mission-critical operators to work in data centers, 911 call centers, hospitals, critical laboratories and any other mission-critical space. We're talking careers and jobs that are often fast-paced, demanding and require high levels of both mechanical aptitude and brain power."

Why Data Aire?

With data centers, manufacturing processes, testing labs and applications of any size – even indoor agriculture facilities – comes the all-important need for ultra-precision environment control. After a rigorous research and selection process, Data Aire gForce CRAC units were chosen not only for the Mission Critical program, but for the main campus data center itself. Their criteria? Data Aire equipment is reliable, has low decibel ratings, is ultra-efficient, matches load and demand with ease and interfaces with existing building automation systems. Data Aire units have proven to be popular with faculty, staff and students alike:

- "We have several Data Aire gForce units around on the campus that we work with. I also understand that they were placed into the new World Trade Center that was built, so I'm assuming that they're going to be the top in the industry and it's definitely something I want to be part of and learn more about." *James Baldwin, Mission Critical Student*
- "With this program and with Data Aire's equipment, I believe we're going to be able to help each other in the long run by communicating back and forth different situations where we can continuously optimize performance." *Russ Hamilton, HVAC Instructor*
- "We purchased at least five Data Aire CRAC units for our data centers; they were recommended by our engineers and designers that we had working on this project for their value and their reliability. They are also very intuitive from the interface." *Jonathan Davis, Project Manager*

The Future of Mission Critical

Enthusiasm about the program and equipment is high at Cleveland Community College. Industrial Systems Instructor Rodney Cobb explains: "I feel that this program is groundbreaking and that other colleges and universities will

be inspired by what we're doing and that we will meet the demand of the major data centers in this area. I'm excited that other colleges and universities will pick up on what we're doing."

Jonathan Davis agrees: "We really have seen a lot of interest from other colleges and universities not only in North Carolina and South Carolina, but across the state in implementing a mission-critical operations program. Part of

our grant is to develop sustainability in outreach processes to extend mission-critical training and to really put it out there, so over the next academic year, that's really going to be a strong focus of ours, is really expanding the reach of mission-critical operations."

To learn more about the Cleveland Community College Mission Critical Operations Program or Data Aire Products, call 1-800-347-2473 today or visit at DataAire.com.



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