



**For Immediate Release**

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## **GRC Teams with NVIDIA to Provide Fully Optimized Liquid-Immersion Cooled System to Support the Texas Advanced Computing Center's Frontera Supercomputer**

***GRC's ICeraQ™ will help power discoveries from the nation's top computational scientists working on the world's largest academic supercomputer***

**AUSTIN, TX – September 3, 2019** – [GRC](#) (Green Revolution Cooling), the leader in single-phase [immersion cooling for data centers](#), today announced its joint project with NVIDIA to help power a GPU-intensive computing subsystem for the [Texas Advanced Computing Center's \(TACC\) Frontera Supercomputer](#), the world's largest academic supercomputer.

"GRC is proud of its long history with TACC and we're delighted to have been able to collaborate once again with NVIDIA to help power the next generation of academic research," said Peter Poulin, CEO of GRC. "We look forward to strengthening our partnerships with both NVIDIA and TACC to continue to provide support for this important academic endeavor."

First announced in 2018 and built earlier this year, the new supercomputer will enable the nation's academic researchers to make important discoveries in all fields of science, from astrophysics to zoology, and further establishes The University of Texas at Austin's leadership in advanced computing. The GRC and NVIDIA subsystem is optimized for single-precision performance for TACC's multi-user environment.

"GRC and NVIDIA have developed a system that maximizes performance and efficiency," said Dan Stanzione, Executive Director, TACC at the University of Texas-Austin. "GRC's immersion cooling will enable us to operate in a high-intensity computing environment without having to worry about performance, reliability or thermal issues."

GRC worked closely with TACC and NVIDIA to design and build custom servers that leverage the cooling capacity of [GRC's ICeraQ™ solution](#), enabling TACC to maximize GPU density. NVIDIA's enterprise-class Tensor Core GPUs provide the computing power behind the system's accelerated computing nodes. GRC's ICeraQ™ system was chosen to support the GPU-intensive workloads due to its simplicity, virtually limitless cooling capacity, and energy efficiency.

Given the high density of the NVIDIA GPUs, motherboard and other components from Supermicro, and Mellanox InfiniBand cards for high-speed networking, using air-based cooling would have been complex and expensive. All available liquid-cooling options were considered

and GRC's liquid-immersion cooling was chosen due to its ability to increase GPU density without having to plumb water lines to every individual heat source (GPUs and CPUs) within each server. By immersing complete servers in GRC's ElectroSafe™ dielectric coolant, GRC's ICeraQ™ delivers a consistent thermal environment for every server component, while dramatically reducing the required cooling energy.

"We're excited to collaborate with GRC and TACC to support the fifth fastest supercomputer in the world," said Fred Allman, Director of Worldwide Supercomputing at NVIDIA, "NVIDIA and GRC have a long history of partnering, starting with the TSUBAME KFC system which was No. 1 on the Green500 ranking in 2013 and 2014."

TACC first partnered with GRC in 2009 and validated the cost-effectiveness of its liquid-immersion cooling solution in both energy and operations. During the initial engagement, TACC found that it only took about 300 watts to cool 10 kilowatts of power, yielding a 1.03 PUE even in the middle of a Texas summer.

## **About GRC**

GRC is the immersion cooling authority. The company's patented immersion cooling technology radically simplifies deployment of data center cooling infrastructure. By eliminating the need for chillers, CRACs, air handlers, humidity controls and other conventional cooling components, enterprises reduce their data center design, build, energy, and maintenance costs. GRC's solutions are deployed in thirteen countries and are ideal for new-age applications, including artificial intelligence, blockchain, HPC, and other Edge and core applications. They are environmentally resilient and space saving, making it possible to deploy the solution in virtually any location with minimal lead time. Visit <http://grcooling.com> for more information.