COVID-19 Alert: The health, safety and well-being of our employees, customers, community and suppliers are our top priorities as we provide continued support and service to our US government and non-government customers. We are closely monitoring the COVID-19 situation and advising employees and stakeholders to take necessary precautions. Please visit <u>www.ga.com</u> and click 'Procurement' or 'Visitor Information' for announcements and additional information.

SupplierNewsletter



Spring 2020

SPOTLIGHT

DIII-D Researchers Use Machine Learning to Steer Fusion Plasmas Near Operational Limits

New technique allows sustaining fusion plasmas near peak performance in real time

San Diego, February 3 – Researchers at the DIII-D National Fusion Facility achieved a scientific first this month when they used machine learning calculations to automatically prevent fusion plasma disruptions in real time, while simultaneously optimizing the plasma for peak performance. The new experiments are the first of what they expect to be a wave of research in which machine learning–augmented controls could broaden the understanding of fusion plasmas. The work may also help deliver reliable, peak performance operation of future fusion reactors.

"These experiments are quite significant, because they illustrate why the fusion community has been so excited about machine learning," said DIII-D Director David Hill. "Although DIII-D has applied machine learning to real-time prediction of instabilities for decades, actual real-time control to prevent disruption using these massive data sets is very novel and exciting."

DIII-D is the largest magnetic fusion research facility in the U.S. and is operated by General Atomics as a national user facility for the U.S. Department of Energy's Office of Science. The heart of the facility is a tokamak that uses powerful electromagnets to produce a doughnut-shaped magnetic bottle for confining a fusion plasma. In DIII-D, plasma temperatures more than 10 times hotter than the Sun are routinely achieved. At such extremely high

temperatures, hydrogen isotopes can fuse together and release energy. (See Fusion Energy 101 explainer on our website for more detail on how fusion works.)

Read more about this exciting innovation at <u>http://www.ga.com/</u> <u>diii-d-researchers-use-machine-</u> <u>learning-to-steer-fusion-plasmas-</u> <u>near-operational-limits</u>

General Atomics researchers Brian Sammuli (left) and Jayson Barr (right) developed an innovative machine learning–based control system that can optimize fusion plasma performance far faster than previous methods. The system was trained using data from decades of research at the DIII-D National Fusion Facility in San Diego. Courtesy General Atomics ►

-INTRODUCTION-

Welcome back to the General Atomics (GA) Supplier Newsletter. We hope you enjoyed some much deserved recharging at the end of last year and that you're now fully into the swing of the new year.

Welcome to our Spring 2020 issue!

-QUALITY MATTERS-

Why "**pushing paperwork**" goes beyond just satisfying customer requirements

Supply chain traceability is an increasingly important issue, not just in government contracting, but in every industry. As the economy continues to globalize and the threats of counterfeit or substandard product rise, there is a greater need for transparency and regulations that support product quality and safety.

GA has been committed to ensuring the quality and safety of our products for over 65 years and we remain dedicated to fulfilling that commitment while meeting the global needs for our diverse product lines.

As a supplier to GA, we need your support in meeting that commitment. Not just in providing quality products and services on time; we also need your commitment to providing all contractually required documentation on time. Documentation is critical to maintaining supply chain traceability and after-market sustainability. Whether it's a Certificate of Conformance, Material Certification, First Article Inspection report, or another important record of conformance or traceability, receiving it on time and as requested truly matters.

When you deliver all requisite documentation, you enable GA to accept your product with confidence; confidence in its quality, conformance, safety and reliability. Supply chain traceability matters to GA and our customers.



SupplierNewsletter (Continued)

SUPPLIER FOCUS

Did You Know?

"What is that North American Industry Classification System (NAICS) code that is appearing in Orders from GA?"

"When I receive a solicitation from GA for Government-funded Orders, there's a new requirement to provide our business size in relation to the Size Standard for the presented NAICS code, why?"

This is a Federal Acquisition Regulation (FAR) Requirement at 19.102, 19.303, and 52.219-9(e)(7). GA complies with this requirement by requesting the company's size in relation to the size standard of the NAICS code applying to the solicitation and then providing that information on the Order. Proper identification of NAICS codes isn't just a requirement, it allows US Government agencies to collect, analyze and report statistics on industries operating in the country and their overall utilization.

You can identify NAICS codes and corresponding business size standards at: <u>https://www.sba.gov/document/support--table-size-standards</u> Thanks for helping us comply with important customer requirements.

POWERFUL PARTNERSHIPS

Small Business Outreach Events

GA's policy is to encourage to the maximum extent possible, the participation of small businesses, small businesses owned and controlled by socially and economically disadvantaged individuals and women-owned businesses, in its procurements. In support of that policy, GA will be participating in the following upcoming events:

DATE	EVENT	LOCATION
May 5-7, 2020	Annual Department of Energy Small Business Forum and Expo (Registration, Matchmaking, and Mobil App Sponsor)	Charleston Convention Center, North Charleston, South Carolina
August 31- September 2, 2020	Navy Gold Coast (Silver Sponsor)	Convention Center, San Diego, California

COMPLIANCE CORNER

Department of Defense releases the Cybersecurity Maturity Model Certification (CMMC)

At GA, we take industrial security and cybersecurity seriously. Vigilance has been our top strategy and we count on our suppliers for a comparable approach. As we've previously told you, the Department of Defense (DoD) has been working to introduce the CMMC; and, on January 30th, version 1.0 was released to the public. The CMMC will require contractors throughout the DoD supply chain to undergo third-party assessments according to the model; which is divided into five different levels of compliance that include escalating cybersecurity controls and maturity. The DoD is moving guickly to identify third party assessors and has appointed the Board to begin identifying them. In addition to the assessors, DoD is creating guides to document the requirements for each cybersecurity level. This new framework is an important first step that will be followed by additional work. Please visit the DoD CMMC website at https://www.acg.osd.mil/cmmc/ index.html and review the resources to begin assessing your readiness for CMMC. Also, stay tuned to http://www.ga.com/general-atomicscybersecurity for more information on how GA will implement CMMC across our supply chain and how it will affect you.

Windows CryptoAPI Spoofing Vulnerability

The U.S. Government has notified GA of a critical vulnerability (CVE-2020-0601) affecting Microsoft Windows® 10, Windows Server 2016 and 2019, and applications that rely on Windows for trust functionality. Impacted systems must be patched immediately to maintain compliance with continuous monitoring and correct system flaws as required by the National Institute of Standards and Technology Special Publication (NIST SP) 800-171 Rev. 1. Microsoft released a set of patches for the Windows platform on January 14, 2020. Please take immediate action to (1) patch any effected systems and

2020. Please take immediate action to (1) patch any affected systems, and (2) notify your subcontractors. The Microsoft patch is available here: https://portal.msrc.microsoft.com/en-US/security-guidance/advisory/CVE-2020-0601

Please prioritize patching any systems that are directly exposed to the Internet or regularly used by trusted users.

For more information, see <u>http://www.ga.com/Websites/ga/images/</u> procurement/CVE-2020-0601 Windows patch.pdf

ON THE HORIZON Enhancing the Supplier Registration Process

To register suppliers, GA uses the SAP Ariba[©] solution. This online registration system allows prospective and existing suppliers to provide GA with the information we need to do business with your company. All GA suppliers are required to use this system to complete initial registration and provide updates on an annual basis. You will receive automated notifications to alert you of expiring certifications that require attention.

In 2019, as part of our continuous improvement efforts and in response to your feedback, we made enhancements to the system that improved the look and feel of our electronic registration forms and created a central repository for all GA entities. We also eliminated the original "all or nothing" approach questionnaire and released more specific 'modular questionnaires' (MQs) to make the registration process quicker and easier. This coming year, we look forward to making further enhancements that we hope will improve your experience even more.



As a high technology and high concept provider of Defense and Energy solutions, GA is uniquely positioned for growth and success. Global progress through technology remains our mission; and, your commitments are not lost on us.

Remember to contact your Purchasing Representative about any questions regarding open Orders or your continued performance. Your Purchasing Representative is your primary point of contact.

Please advise your Purchasing Representative when contacted by other GA personnel. If you have any comments or questions about this publication, please contact us at SupplierEngagement@GA.com.