

INTM

INNOVATION
SOURCING
NETWORK

How To Do More Business With General Dynamics Mission Systems: The ISN

Presented By:

Bethany Allen,
Operations Lead

Mark Raczynski,
Tech Director

GENERAL DYNAMICS
Mission Systems

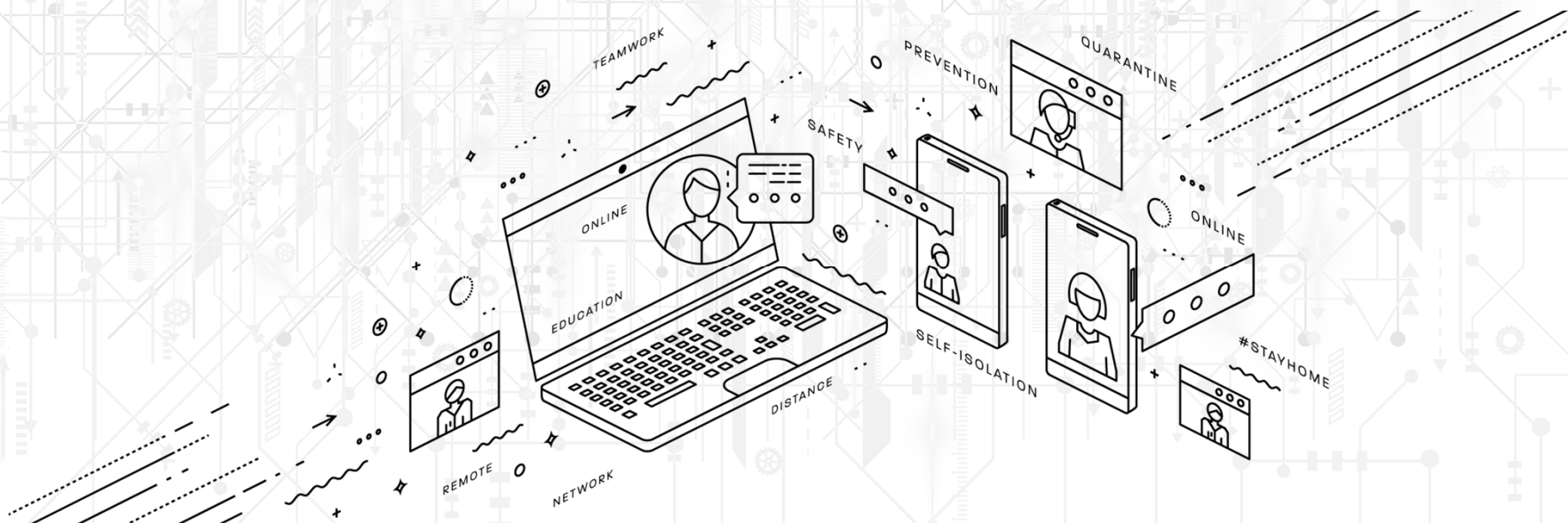
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Agenda

- What is the Innovation Sourcing Network (ISN)™ ?
- Tools for Suppliers
- Active Suppliers
- Prospective Suppliers
- Future Tool Enhancements
- Local Success Story:
 - ❖ Electro Magnetic Applications, Inc (EMA)

What is the ISN™?

- Department within Supply Chain
- GD Mission System's entry point for new suppliers
- We share new opportunities with current suppliers
- We promote small businesses and seek out emerging technologies
- We create tools to connect the enterprise with our supply base



ISN™ Toolbox

SUPPLIER SEARCH + Supplier 360

TECH SCOUTS

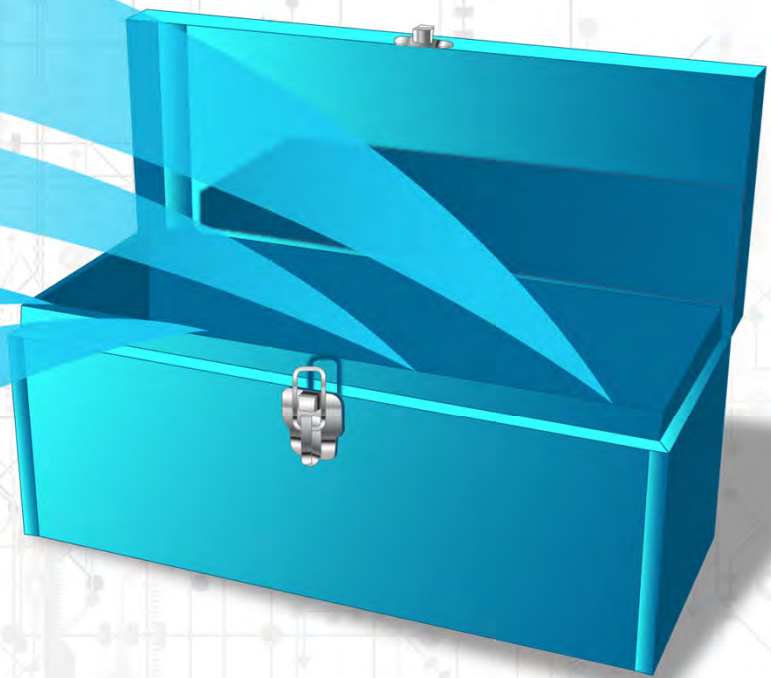


INNOVATION SOURCING NETWORK TV



+ SUPPLIER DOCUMENT LIBRARY

IN SUPPLIER NEWSLETTERS
INNOVATION SOURCING NETWORK



Who is considered a Current Supplier?

- Companies we've purchased from in the past
- Companies with a Fully-Onboarded, Active Supplier 360 (S360) Account
- Companies who have access to their S360 profile



Supplier 360 (S360)

- Our web-based supplier management platform
- Built in Salesforce



S360 Access

<https://gdmissionsystems.com/about-us/suppliers/s360>

S360 Email:
S360@gd-ms.com



GENERAL DYNAMICS
Mission Systems

LAND SEA AIR SPACE CYBER ABOUT NEWS & EVENTS CAREERS CONTACT

search



Supplier 360

NEW SUPPLIER MANAGEMENT PLATFORM IS NOW LIVE

General Dynamics Mission Systems Supply Chain Management Systems is pleased to announce the arrival of **Supplier 360**. This new tool combines supplier on boarding, supplier relationship management and supplier compliance in to one seamless workflow.

WHAT ARE THE BENEFITS OF THIS CHANGE?

- Centralized supplier information across all General Dynamics Mission Systems procurement systems (CIMA and PROIII will be integrated in January 2020)
- Electronic communication and process workflow
- Web based portal that allows suppliers to directly onboard and update with self-service feature

[CLICK HERE TO ACCESS THE S360 PORTAL](#)

[SUPPLIER ACCOUNT ACTIVATION REQUEST FORM](#)

GENERAL DYNAMICS
Mission Systems

Welcome to
Supplier 360!



TRAINING DOCUMENTATION

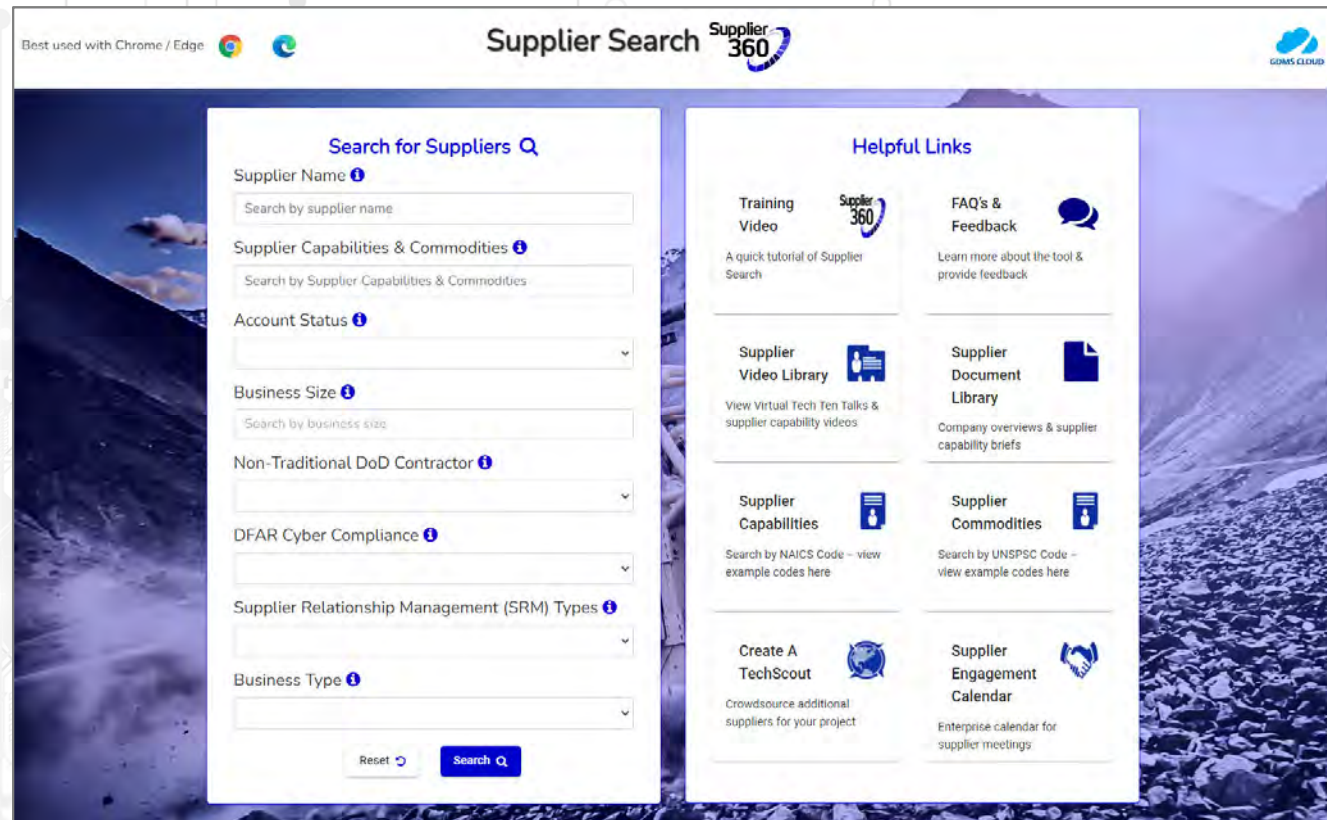
- [S360 Supplier Onboarding Instructions](#)
- [S360 Reqs and Certs Instructions](#)
- [S360 Supplier Account Maintenance Training](#)

Supplier Search



Search Results Highlight:

- Capabilities
- Business Size
- Certifications
- Compliance Standings
- Non-Traditional DoD Contractor Status
- Website & Contact Info



The screenshot shows the Supplier Search website interface. At the top, it says "Best used with Chrome / Edge" and "Supplier Search Supplier 360". The main search area is titled "Search for Suppliers" and includes several filters: Supplier Name, Supplier Capabilities & Commodities, Account Status, Business Size, Non-Traditional DoD Contractor, DFAR Cyber Compliance, Supplier Relationship Management (SRM) Types, and Business Type. Each filter has a search input field. At the bottom of the search area are "Reset" and "Search" buttons. To the right of the search area is a "Helpful Links" section with eight links: Training Video, FAQ's & Feedback, Supplier Video Library, Supplier Document Library, Supplier Capabilities, Supplier Commodities, Create A TechScout, and Supplier Engagement Calendar. Each link has a brief description and an icon.

Capability Search Fields

Best used with Chrome / Edge

Supplier Search 360

Search for Suppliers Q

Supplier Name ⓘ

Search by supplier name

Supplier Capabilities & Commodities ⓘ

Search by Supplier Capabilities & Commodities

Account Status ⓘ

Business Size ⓘ

Search by business size

Non-Traditional DoD Contractor ⓘ

DFAR Cyber Compliance ⓘ

Supplier Relationship Management (SRM) Types ⓘ

Business Type ⓘ

Reset Search

Helpful Links

Training Video ⓘ

Supplier 360

FAQ's & Feedback ⓘ

Supplier Video Library ⓘ

Supplier Document Library ⓘ

Supplier Capabilities ⓘ

Supplier Commodities ⓘ

Create A TechScout ⓘ

Supplier Engagement Calendar ⓘ

1. NAICS Codes field

* NAICS Codes

compu

Available Options

Computer Facilities Management Services : 54...

Computer Storage Device Manufacturing : 334...

Computer Terminal and Other Computer Periph...

Computer and Office Machine Repair and Main...

Custom Computer Programming Services : 54...

Electronic Computer Manufacturing : 334111

Selected Options

Computer Systems Design Services : 541512

Computer Training : 611420

Computer and Computer Peripheral Equipment an...

2. Supplier Capabilities field

- Pulling from UNSPSC Codes
- UNSPSC = Our Commodity Codes

Supplier Capabilities

Compu

Available Options

Computer Equipment and Accessories 4321

Computer accessories 432116

Computer data input device accessories 432118

Computer data input devices 432117

Computer display accessories 432120

Computer displays 432119

Capability Search Fields

3. Capability Key Terms field

- Don't currently have access to this field in S360 profile
- Provide keyword list in ISN Sign Up Form
- 500 characters to list capability keywords

Keyword
Example →

ISN Search Terms

DevSecOps,Artificial Intelligence,Machine Learning,cloud native,kubernetes,random forest,neural networks,NLP,microservices,CI/CD,UX/UI,DO-178C,software development,deep learning,K-Means,VxWorks,full-stack,API,programming,reinforced learning,AWS,GCP,Azure

Sign Up for the Innovation Sourcing Network

We collaborate with many different stakeholders through the Innovation Sourcing Network. Please choose the collaboration methods that best describes how you want to connect to the ISN and completely fill out the form.

CONTACT US

EMAIL US

Media & Brand Use: All media inquiries should be directed to the Public Affairs office.

Innovation Sourcing Network policy is to not address specific requests for information about employees (including email and telephone numbers), detailed information on programs or products or employee verification.

BASIC INFO

*Company Name

*Job Title

*First Name

*Last Name

*Email Address

*Website

Cage Code

DUNS Number

*Are you a Small Business?

*Are you a Non-Traditional Defense Contractor?

Provide a list of capability keywords so your company will be found in solution searches (500 character limit).

There are 11 commodity groups. Review the attached Commodities Chart for details.

Please select the commodity(s) your products fall into.

- ☐ Component And Assembly
- ☐ Composites
- ☐ HR Support Services
- ☐ Interconnect
- ☐ IT HW And SW
- ☐ Mechanical
- ☐ Operational
- ☐ Services
- ☐ Travel

*What type of business are you?

ISN™ Webpages

GENERAL DYNAMICS
Mission Systems

LAND SEA AIR SPACE CYBER **ABOUT** NEWS & EVENTS CAREERS CONTACT

ABOUT US >

- Major Locations
- Our Mission
- Leadership Team
- Community Investment
- Environmental Health & Safety

ENGINEERING >

- Deep Learning Analytics
- Quantum
- User Experience

INTERNATIONAL >

SUPPLIERS >

- Doing Business with Us
- Small Business Resources
- Terms & Conditions
- Cybersecurity for Suppliers
- Innovation Sourcing Network
- TechScouts
- Connect With Our Innovation Sourcing Network Team

CYBER

PLATFORMS: SMARTER

We solve the toughest security and technology challenges facing our nation and its allies by building smarter mission-critical products and systems.

OUR STORY

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10

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Mission Systems



Innovation Sourcing Network™



Connecting People, Process & Technologies

Welcome to our open supplier innovation ecosystem, the Innovation Sourcing Network (ISN). ISN is an integral part of General Dynamics Mission Systems' Supply Chain Management organization that is focused on discovering emerging suppliers for our global supply chain needs. ISN identifies world-class technologies and organizations for early collaboration, evaluation of development opportunities, and forging partnerships for competitive advantage that advances our

[CONNECT WITH OUR INNOVATION SOURCING NETWORK TEAM](#)

VALUE

Value to our Customers

The ISN is General Dynamics Mission Systems' ecosystem that works collaboratively with industry to identify, harness, and integrate commercial innovation into our solutions that advance our missions.

Value to our Suppliers

The ISN is your forum to promote new capabilities to General Dynamics Mission Systems. The ISN is the single entry point for suppliers new to General Dynamics Mission Systems and where you will begin building your relationship with a large prime systems integrator.

TECHSCOUTS

Our TechScout process communicates our needs and technical opportunities with your organization. TechScout is critical to our supply chain process to source potential outside solutions. We need your innovative approaches to build partnerships that solve our customers' greatest challenges.

- Anti-Jam GPS Antennas
- Radar Detection
- Machine Learning
- Small Form Factor Capacitors for
- Neural Identification
- Power Management and Storage

[VIEW ALL TECHSCOUTS](#)



Seeking next generation ideas

Search

TechScouts

OPEN TECHSCOUTS

Our TechScout process communicates our needs and technical opportunities with your organization. TechScout is critical to our supply chain process to source potential outside solutions. We need your innovative approaches to build partnerships that solve our customers' greatest challenges.

- Anti-Jam GPS Antennas
- Thermotforming Machined Plastics



Seeking next generation ideas

WHAT ARE TECHSCOUTS?

TechScouts are requests for information associated with current needs and opportunities. They are released by the Innovation Sourcing Network (ISN)™ at the pace of business requirements. Listed below is an archive of TechScouts from the past 6 months for reference. Please only respond to open TechScouts.

HOW DO I HEAR ABOUT NEW TECHSCOUTS?

Via notify, ISN members by email of newly posted TechScouts. We encourage your technical teams to get our alerts so they can share the art of the possible. [Sign up for TechScouts here](#). If you have questions about the process or want to make sure your team is signed up, please send us an [email](#).

TechScouts Archive



COMPLEX SYSTEMS

- [Sensor Processing Technologies](#)



COMPONENT AND ASSEMBLY

- [Space-Based Circuit Boards for Training](#)



COMPOSITES

- [Extrusion Suppliers for Alloy](#)



HR SUPPORT SERVICES

- [Program Management Leadership Training](#)



INTERCONNECT

(None)



IT HARDWARE AND SOFTWARE

- [Training System for Satellite Engineering Telemetry](#)
- [Leave Of Absence Interactive Tool](#)
- [Enterprise Data Strategy/Workshop](#)



MECHANICAL

- [Optical Coating](#)
- [Nadcap-Approved Plating House](#)
- [Extrusion Suppliers for Alloy](#)
- [Missile Shipping and Storage Skid](#)
- [Thermotforming Machined Plastics](#)



OPERATIONAL

- [Anti-Jam GPS Antennas](#)
- [Optical Coating](#)

Link to Sign Up Form

TechScout section



TechScout Format

TechScout | Supplier RFI



| | |
|------------------------------|--|
| Title | 20-004 Thermoforming Machined Plastics |
| Description | <p>General Dynamics Mission Systems is seeking a partner to fabricate various machined plastic components using Royalite R85/21 ABS-Blue PMS 280. Must have thermoforming and machine capability.</p> <p><u>Interested parties should email a response including:</u></p> <ul style="list-style-type: none"> Synopsis of company capabilities Point of Contact for an NDA DUNS Number and/or CAGE Code Current level of certification of cybersecurity compliance Answers to the below questions <ol style="list-style-type: none"> Does your company intend to utilize US based or off shore facilities to perform any activity required by this TechScout? Does your company expect to utilize foreign nationals in any capacity in support of this TechScout? <p><i>If you answered "YES" to either of the questions above, then:</i></p> <ol style="list-style-type: none"> Are you registered with the Directorate of Defense Trade Controls at the U.S. Department of State as a manufacturer or exporter of defense articles and services? Do you have an Export Control Program and resources that address U.S. export control regulations (i.e. EAR and ITAR) that may affect your business? <p>Once your ITAR and cybersecurity compliance is confirmed, we will execute an NDA and send qualified companies a set of drawings, specifications and quantities.</p> |
| Keyword(s) | Machined plastic, Royalite R85/21, Thermoform |
| Response Instructions & Data | <p>Responses will be accepted thru 2/5/2021</p> <p>General Dynamics Mission Systems Innovation Sourcing Network (ISN)™ is seeking respondents to the following TechScout request. This TechScout request does not contain U.S. export controlled technical data or proprietary information, and is approved by General Dynamics Mission Systems for public release and is in the public domain.</p> <p>Send email response to techscout@gd-ms.com</p> <p>TechScout responses should not contain any export controlled technical data or proprietary information.</p> <p>Response should include the following information:</p> <ul style="list-style-type: none"> Synopsis of company capabilities Point of Contact for an NDA DUNS Number and/or CAGE Code Current level of certification of cybersecurity compliance Answers to the above questions <p><i>In your response, please identify whether you or your company are located outside the U.S. If located outside the U.S., please identify any home country export controls that will apply to your response. If located in the U.S., please identify whether your company employs non-U.S. manufacturing or design facilities, or foreign nationals in your response.</i></p> <p><small>Any subsequent interaction between General Dynamics Mission Systems and a non-U.S. based TechScout respondent, or a U.S. based TechScout Respondent with non-U.S. manufacturing, design or foreign national employees must be reviewed and approved in advance for U.S. Export Compliance requirements by the General Dynamics Mission Systems Office of Import/Export Compliance prior to any such interaction.</small></p> <p><small>General Dynamics Mission Systems will not be responsible for, nor will it pay for any expense which may be incurred by the supplier in preparation of its TechScout response. Supplier acknowledges and agrees that this TechScout request does not commit General Dynamics Mission Systems to any course of action, including but not limited to, any purchase of supplier's</small></p> |

GENERAL DYNAMICS Mission Systems



NEW TechScout Request: Thermoforming Machined Plastics

Greetings General Dynamics Mission Systems Suppliers

The Innovation Sourcing Network™ is seeking a partner to fabricate various machined plastic components using Royalite R85/21 ABS-Blue PMS 280. Must have thermoforming and machine capability.

Interested parties should email a response including:

- Synopsis of company capabilities
- Point of contact for an NDA
- DUNS Number and/or CAGE Code
- Current level of certification of cybersecurity compliance
- Answers to the below questions

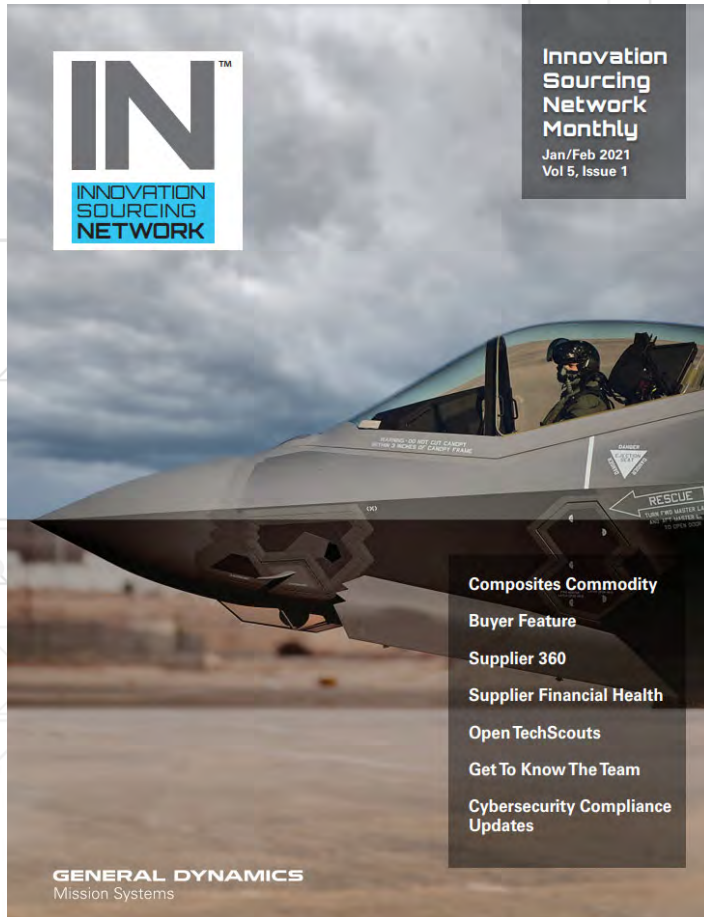
- Does your company intend to utilize US based or off shore facilities to perform any activity required by this TechScout?
- Does your company expect to utilize foreign nationals in any capacity in support of this TechScout?

If you answered "YES" to either of the questions above, then:

- Are you registered with the Directorate of Defense Trade Controls at the U.S. Department of State as a manufacturer or exporter of defense articles and services?
- Do you have an Export Control Program and resources that address U.S. export control regulations (i.e. EAR and ITAR) that may affect your business?

ISN Department Email:
techscout@gd-ms.com

ISN™ Supplier Newsletter



Prospective Suppliers

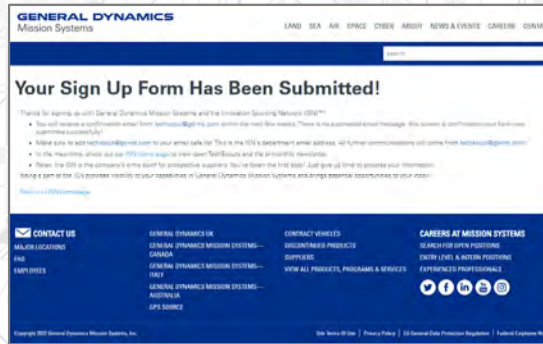
Complete ISN
Sign Up Form



Submission
Confirmation



Confirmation
Email

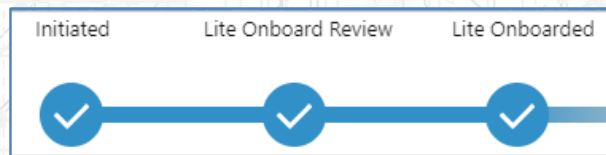


Prospective Suppliers

Supplier
Vetting

Lite
Onboarded

Confirmation
Email



Supplier
360





Best used with Chrome / Edge

Supplier Search **Supplier 360** GDMS CLOUD

Search for Suppliers Q

Supplier Name ⓘ

Supplier Capabilities & Commodities ⓘ

Account Status ⓘ

Business Size ⓘ

Non-Traditional DoD Contractor ⓘ


DFAR Cyber Compliance ⓘ


Supplier Relationship Management (SRM) Types ⓘ


Business Type ⓘ


[Reset](#) [Search Q](#)


Helpful Links


Training Video 
A quick tutorial of Supplier Search


FAQ's & Feedback 
Learn more about the tool & provide feedback


Supplier Video Library 
View Virtual Tech Ten Talks & supplier capability videos

Supplier Document Library 
Company overviews & supplier capability briefs

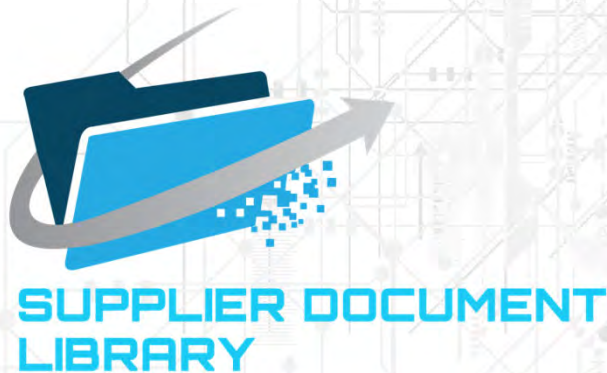
Supplier Capabilities 
Search by NAICS Code – view example codes here

Supplier Commodities 
Search by UNSPSC Code – view example codes here

Create A TechScout 
Crowdsource additional suppliers for your project

Supplier Engagement Calendar 
Enterprise calendar for supplier meetings

Virtual Tech Ten Talks (VT3s)



**TECH TEN
TALKS**

GENERAL DYNAMICS
Mission Systems
gdmissionsystems.com/isn

IN
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Sally O'Malley
Fancy Pants Supplies
9/21/2021

COMING
SOON

- **TechScouts and Newsletters will be sent through S360**
- **Current suppliers will have access to the Capability Keywords field**
- **Current suppliers will be able to attach capability documents to S360 profile**

*Keep your profile up to date so you're found in solution searches!
Keep your email addresses up to date so you receive TechScouts!*

On the web: www.gdmissionsystems.com/isn

ISN Department Email:
techscout@gd-ms.com

Mark Raczynski
(703) 399-5935
Mark.Raczynski@gd-ms.com

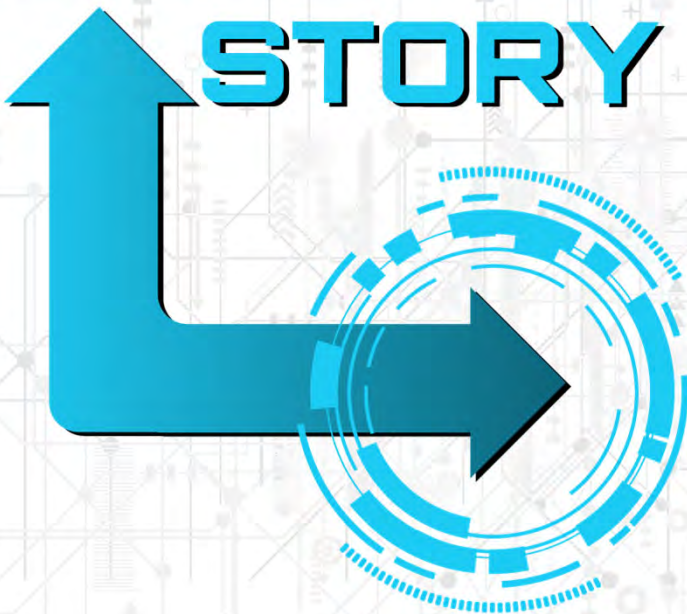
Bethany Allen
(413) 770-6708
Bethany.Allen@gd-ms.com



**INNOVATION
SOURCING
NETWORK**



SUCCESS STORY



TechScout | Supplier RFI



gdmissionsystems.com/TSN

21-006 – Lightning Suppression Design Consultant

| | |
|------------------------------|--|
| Title | Lightning Suppression Design Consultant |
| Description | <p>General Dynamics Mission Systems is seeking a lightning suppression system at Navy Submarine Base Kings Bay, GA. Recommendations are needed for reducing the damage to equipment from lightning strikes. Due to the nature of the location and equipment, a site visit will likely be required. Employees must be U.S. Citizens. Suppliers need to be compliant to all 110 NIST cybersecurity requirements as called out by DFAR 252.204-7012.</p> <p>Interested parties should email a response including:</p> <ul style="list-style-type: none"> • Synopsis of company capabilities and process • Contact for a Non-Disclosure Agreement • DUNS Number and/or CAGE Code • Answers to the below questions <ol style="list-style-type: none"> 1. Is there an evaluation cost? 2. Access to government site will require security clearance. Do you currently hold any clearances, or if not, experience working on government sites? 3. Confirmation: are you compliant to all 110 NIST cybersecurity requirements? 4. Does your company intend to utilize U.S. based or offshore facilities to perform any activity required by this TechScout? 5. Does your company expect to utilize foreign nationals in any capacity in support of this TechScout? <p>If you answered "YES" to questions 4 or 5, then:</p> <ol style="list-style-type: none"> 6. Are you registered with the Directorate of Defense Trade Controls at the U.S. Department of State as a manufacturer or exporter of defense articles and services? 7. Do you have an Export Control Program and resources that address U.S. export control regulations (i.e. EAR and ITAR) that may affect your business? |
| Keyword(s) | lightning suppression, design, lightning damage reduction |
| Response Instructions & Date | <p>Responses will be accepted thru 4/30/2021</p> <p>General Dynamics Mission Systems Innovation Sourcing Network (ISN)™ is seeking respondents to the following TechScout request. This TechScout request does not contain U.S. export controlled technical data or proprietary information and is approved by General Dynamics Mission Systems for public release and is in the public domain.</p> <p>Send email response to techscout@gd-ms.com</p> <p>TechScout responses should not contain any export controlled technical data or proprietary information.</p> <p>Response should include the following information:</p> <ul style="list-style-type: none"> • Synopsis of company capabilities and process • Contact for a Non-Disclosure Agreement • DUNS Number and/or CAGE Code • Answers to the above questions <p><i>In your response, please identify whether you or your company are located outside the U.S.. If located outside the U.S., please identify any home country export controls that will apply to your response. If located in the U.S., please identify whether your company employs non-U.S. manufacturing or design facilities, or foreign nationals in your response.</i></p> |

Becoming a Supplier to GDMS

Justin McKennon – Principal Scientist I
Justin@ema3d.com



EMA Overview

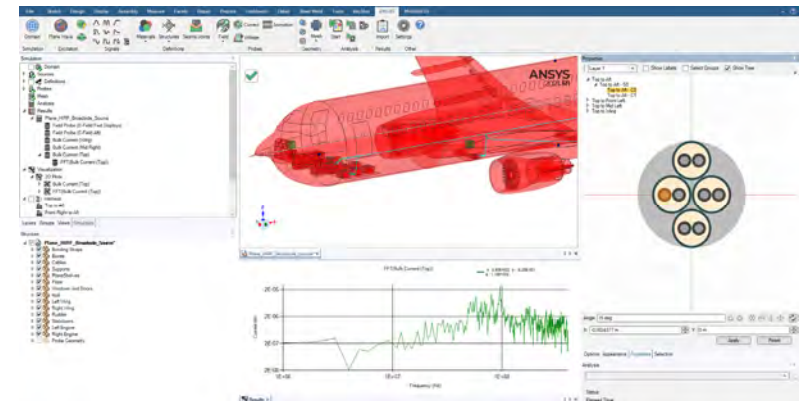
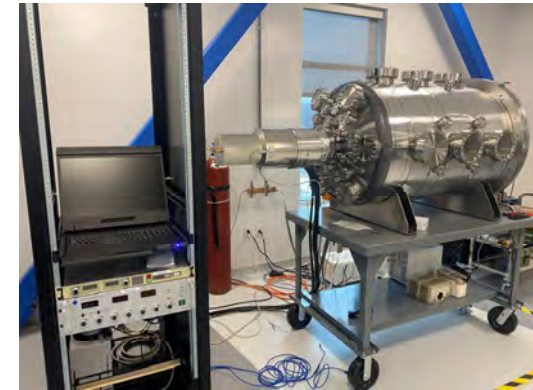
- EMA opened its Pittsfield, MA office in 2019
- Shortly thereafter, EMA joined the Berkshire Innovation Center network and located its office and test lab inside the BIC
- The BIC provides EMA with a wealth of capabilities – a modern and exciting storefront, meeting space, and powerful connections across the State in a variety of disciplines
- EMA's core lines of business involve consulting, software development and sales and test/measurement, typically all centered around electromagnetic effects
- EMA's staff comprises many of the world's foremost experts across the various disciplines that make up the field of electromagnetic effects
 - EMA has pioneered the use of simulation and served as key contributors to countless aerospace, space and defense projects across the industry throughout its storied existence



EMA Overview

HQ - Denver, Colorado

Pittsfield, MA Office



/ EMA Overview



EMA Receives \$429,000 M2I2 Grant for New SERE Test Facility



March 17, 2021 – Pittsfield, MA, USA – Electro Magnetic Applications, Inc. received a \$429,000 grant from the Massachusetts Manufacturing Innovation Initiative (M2I2) this St. Patrick's Day. This grant will aid in the development of the new Space Environment and Radiation Effects (SERE) commercial test facility being built in the Berkshire Innovation Center (BIC) located in Pittsfield, MA. This will be the first facility in the world capable of testing materials in a replicated space environment, as well as design and manufacture systems that can generate the energy sources that can replicate a space environment without ever leaving earth.

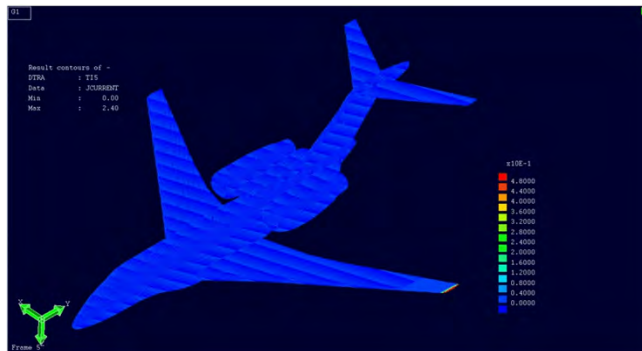
Housing and Economic Development Secretary Mike Kennealy visited the BIC with Pittsfield Mayor Linda Tyler, Massachusetts legislative leaders, and state officials to announce the awarded grant to EMA. The M2I2 grant will be used to help in making the BIC the epicenter for space materials research and testing.



EMA/GDMS

- Most small businesses, EMA included, have very deep expertise in particular areas
 - Most of EMA's work involves working on complex and specific problems
 - Expertise in these areas is not common across the aerospace and defense industry, as there are few experts in general globally
 - EMA leverages its expertise as a key supplier to many defense industry companies
- EMA first became aware of GDMS' TechScout – "21-006 – Lightning Suppression Design Consultant" through the BIC
 - One of the many benefits the BIC network affords member companies involves identifying opportunities through an understanding of what certain companies can do
 - In EMA's case, the company has unparalleled experience and expertise related to lightning and various environmental effects, which directly aligned with the TechScout solicitation
- EMA reached out to the TechScout team, who connected it with the program folks at GDMS who needed help





EMA/GDMS

- In this case, GDMS had been seeing some issues with electronics – upsets, damage, etc. – when lightning or storms were in the area
- Both direct strike lightning and nearby lightning (where it doesn't directly strike an object) are both known as major causes of equipment damage and upsets in buildings, aircraft, and many other related areas
- Having worked on similar projects in the past, EMA knew that its background in this area could help GDMS identify and solve its problems
- EMA described its experience, the common types of things it looks for when surveying situations where lightning (nearby/direct) damage is suspected as a possible cause and how that damage can be caused
- The GDMS team provided context as to the specific issues it was running into and some of what it had deduced could be going on
- After meeting a few times, the GDMS team decided that EMA was the right partner to help it solve these issues and EMA began the relatively simple onboarding process to become a GDMS supplier
 - Cybersecurity forms and a few other security related forms were filled out and within about 2 weeks EMA was officially onboarded as a supplier
- EMA was brought on site and was able to successfully identify the causes of GDMS' problems and help recommend solutions to prevent them from occurring in the future



Small Businesses in the Defense Industry

- The Defense industry is large and requires companies to establish very broad teams of engineers (etc.) to fulfill their various contracts
- Small businesses like EMA play a critical part in the success of these programs by providing on-demand expertise and an ability to step in on short notice and address difficult problems
 - Major contractors like GDMS have programs that require such a wide range of skills and positions that it can be difficult at times to cover every single need or difficult issue that can arise, particularly in areas such as electromagnetic effects
- To be successful in the Defense industry as a small business, you must endeavor to find and target the types of programs that could use your services
 - This can be difficult to find the right people to talk to
 - One of the major benefits of both EMA and GDMS both being in the Berkshires is having personal relationships with folks within the company
 - GDMS has always been incredibly helpful in working with EMA when needing to get information into groups that could have an interest or a need across the entire GDMS company, not just Pittsfield





Δ EMA