

MSET

MISSISSIPPI ENTERPRISE FOR TECHNOLOGY DISCUSSION PANEL



Panelist

Terry Stiles

Associate Director in Supply Chain Management at Raytheon Technologies

Jack Norris

Director, State and Local Government Affairs at Ingalls Shipbuilding, a division of HII

Bob McCummins

Portfolio Manager – Maritime Systems Division at Leidos

Mark Cottle

Director, Global Supply Chain for ASBU at Northrop Grumman



GOALS

- Cultivate the defense industrial base (DIB) and government industrial base (GIB)
- Increase equity and inclusion
- Increase awareness of and compliance with foreign ownership, control or influence
- Improve cybersecurity of the DIB and GIB
- Facilitate innovation for the DIB and GIB
- Strengthen the supply chain
- Capture market data in key industries



APEX

ACCELERATORS

For more information:

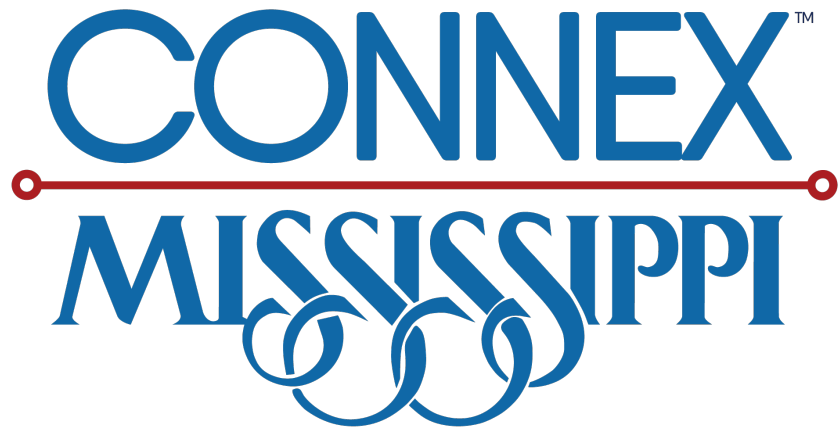
Carol Harris

Director

Minority and Small Business Development Division

(601) 359-2386

charris@mississippi.org



Powered by **MMA** *MEP*

The U.S. Supply Chain Connection Solution

Sandy Crist
Executive Director
Manufacturing Extension Partnership
Sandy@mma-web.org

Abigail Barnes
Program Coordinator
Connex Mississippi Marketplace
Abigail@mma-web.org

CONNEX – The U.S. Supply Chain Solution



- Connects over 160,000 U.S. Manufacturers and suppliers in an accurate, searchable solution
 - Developed with industry collaboration and built by i5 Services over last 11 years
 - Shortens supply chain. Source local first- only U.S. manufacturers
-
- Quickly find suppliers based on manufacturing capabilities
 - Partners: National Association of Manufacturers (NAM), over 250 State & Regional Organizations & Associations, MEP Organizations and more
 - National and state solution with custom installations in 22 states, regions & industries: UT, KS, MI, FL, OK, MO, VA, WY, NE, TN, TX, CT, NJ, MA, AL, AAM, etc.

NEW SUPPLY CHAIN TOOL FOR MISSISSIPPI MANUFACTURERS!

CONNEX Mississippi is an Online Platform Connecting MS Manufacturers & Suppliers With New Business Opportunities and Procurement Solutions

Small Manufacturers/ Suppliers:

- Post your capabilities, equipment, certifications and more to get discovered and find new business opportunities!

Large Manufacturers/ OEMS/Primes:

- Quickly find the perfect supplier every time
- Post RFQs/RFPs/RFIs
- Visualize Supply Chain Risk

CONNEX
MISSISSIPPI

LAUNCHING
June 14, 2023!!

MS manufacturers receive free access thanks to the following sponsor:



- **FREE** Mississippi access
- Promotion (\$500.00 value)
 - Free National access to view and interact with ALL U.S. Manufacturers
 - Sign up by August 14th
 - Post needs for ALL U.S. suppliers to see!
 - Respond to buyers needs from across the U.S.

CONNEX
MISSISSIPPI

Powered by **MMA MEP**



Collins Aerospace

Pratt & Whitney

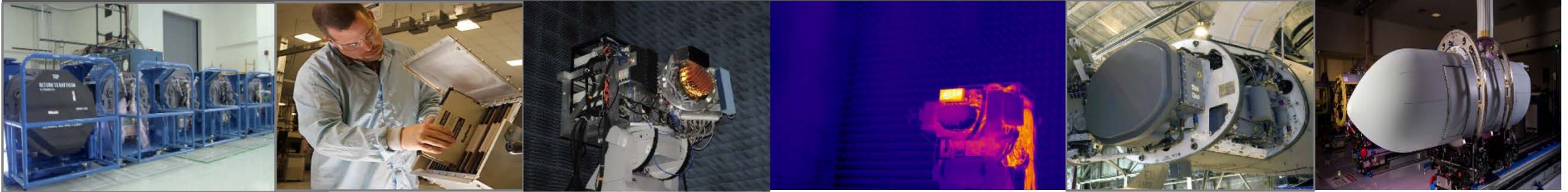
Raytheon



Forest Consolidated Manufacturing Center Site Overview

Forest Consolidated Manufacturing Center

Vision – Delivering Excellence Every Day



Technology specific factory leveraging common investment across the product lifecycle

Manufacturing & Sustainment

MODULE AND UNIT ASSEMBLY AND TEST

CLASSIFIED MANUFACTURING AND TEST CAPABILITY

BONDING AND COATING CAPABILITIES

SAP ERP SYSTEM, PAPERLESS MFG SYSTEMS

FIBER OPTIC ASSEMBLY AND TEST

COMPUTER AND SOLDER TRAINING CENTER

ANTENNA ASSEMBLY AND TEST

FAILURE ANALYSIS CAPABILITIES

ELASTOMER POTTING

POD INTEGRATION FACILITIES WITH AUTOMATED GUIDED VEHICLES

Differentiators

- Highly-skilled and cost competitive
- Highly-automated
- Technology and product focused

Contact:

Terry Stiles
Forest CMC Supply Chain Site Lead
Terry.L.Stiles @ rtx.com

Delivering Excellence Every Day
Consolidated Manufacturing Center
Forest



2023 Winner!
“Next Generation Jammer”
Coollest product made in Mississippi
Mississippi Manufacturers Association (MMA)



Delivering Excellence Every Day through People, Relationships, Innovation, Processes and Results

About Leidos



KEY STATISTICS



SMALL BUSINESS

Over the past government fiscal year, Leidos awarded over

\$1.6B

in contracts to **small businesses**.

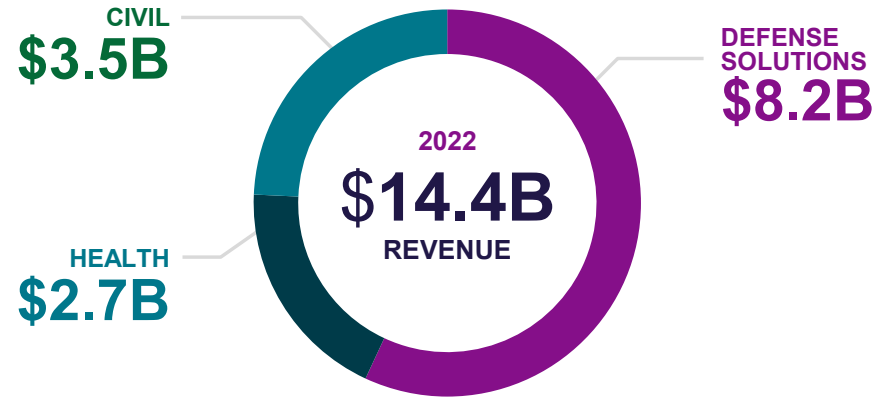
40%

U.S. spend goes to **small businesses**.

The Leidos Small Business Program is audited by the Defense Contract Management Agency (DCMA).



MARKETS



Our business is aligned into three reportable segments (Defense Solutions, Civil and Health). Included in our Defense Solutions segment are the defense and intelligence markets, which are economically similar in nature.

HONORS



MARQUEE CUSTOMERS

- ▶ Department of Defense
- ▶ Department of Energy
- ▶ Department of Homeland Security
- ▶ Department of Health and Human Services
- ▶ NASA
- ▶ Department of Veterans Affairs
- ▶ Department of Transportation
- ▶ National Intelligence Community
- ▶ National Cancer Institute, NIH

ENVIRONMENTAL, SOCIAL AND GOVERNANCE



CULTIVATE INCLUSION



ADVANCE ENVIRONMENTAL SUSTAINABILITY



PROMOTE HEALTHIER LIVES

Maritime Capabilities and Enabling Technologies Summary



Autonomy

- ▶ Single platform and collaborative team autonomy
- ▶ Distributed hierarchical autonomy
- ▶ Open systems architecture
- ▶ COLREGS behaviors
- ▶ Mission behaviors

Platforms

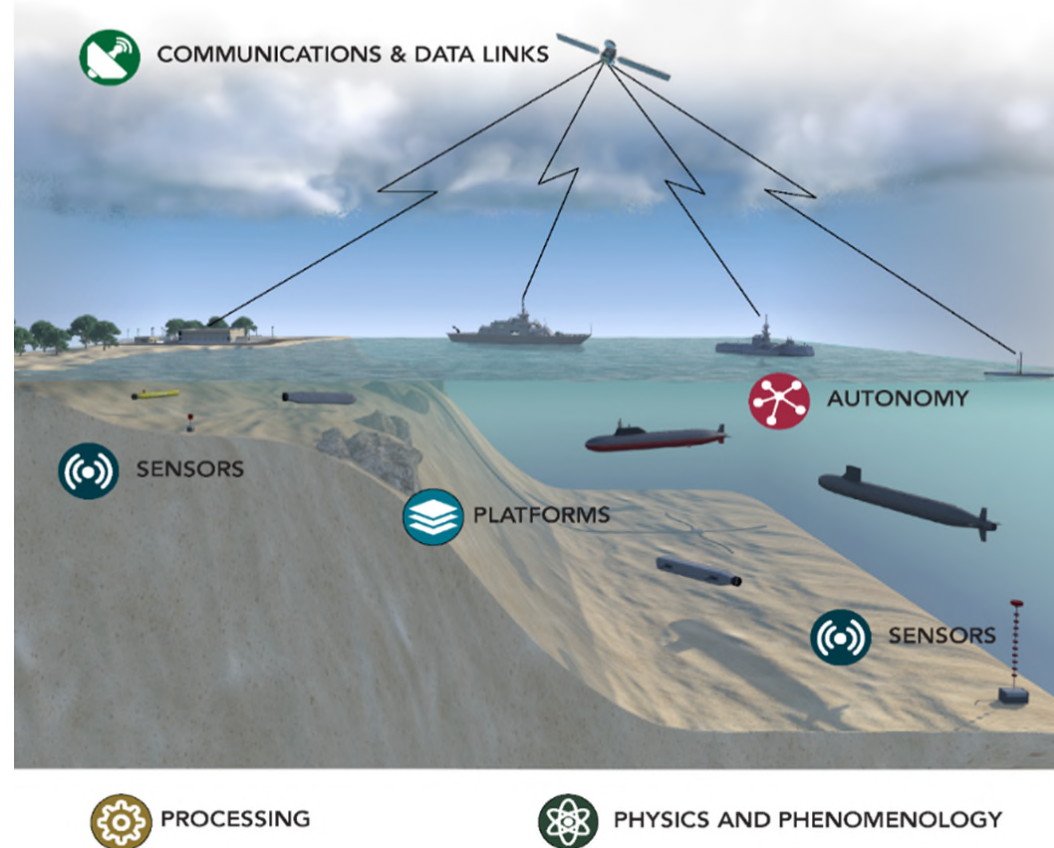
- ▶ Unmanned vessels
- ▶ Command and control
- ▶ Navigation
- ▶ Signature control

Sensors

- ▶ Below water sensor modalities
- ▶ Above water sensor modalities
- ▶ Command and control

Physics and Phenomenology

- ▶ Propagation modalities
- ▶ Interference and noise
- ▶ Targets



Communications & Data Links

- ▶ Modalities: radio frequency, acoustic, and optical
- ▶ Features
 - Waveforms
 - Terminals
 - Antennas
- ▶ Data exfiltration
- ▶ Command and control
- ▶ Mobile ad hoc networks
- ▶ Software defined radios
- ▶ Data reduction and compression
- ▶ Information assurance and anti-tamper
- ▶ Reliable protocols
- ▶ Disconnected, intermittent, and limited capability

Processing

- ▶ Detection, classification, localization, and tracking
- ▶ Fusion
- ▶ Communications
- ▶ Automation

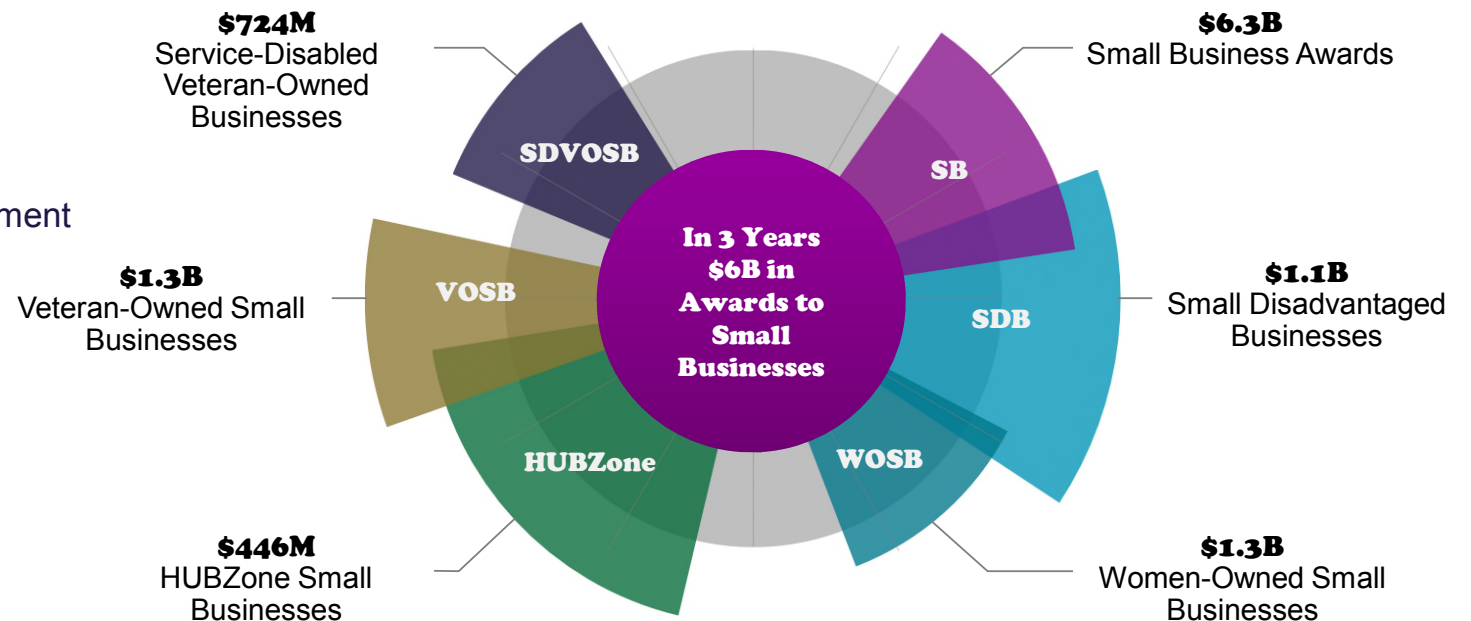
Leidos in Mississippi Focus

2022 Agency Roster for Leidos



- ▶ Dept of Agriculture
- ▶ Dept of Commerce
- ▶ **Dept of Defense**
- ▶ Dept of Energy
- ▶ Dept of Health and Human Services
- ▶ **Dept of Homeland Security**
- ▶ Dept of Housing and Urban Development
- ▶ Dept of Justice
- ▶ Dept of State
- ▶ Dept of Transportation
- ▶ Dept of Treasury
- ▶ Dept of Veterans Administration
- ▶ Environmental Protection Agency
- ▶ Federal Aviation Administration
- ▶ General Services Administration
- ▶ National Aeronautics and Space Administration
- ▶ Nuclear Regulatory Agency
- ▶ National Science Foundation
- ▶ Social Security Administration

Leidos in Mississippi Focus



FY2020 | FY2021 | FY2022

Small Business Program 2023 & Beyond



Engage

- SBA Awards & Nominations
- SB Talks - Agency Training Sessions
- Mutually Beneficial Industry Partnerships

Execute

- Near Real-Time SB Goal Monitoring
- Quarterly Goal Reviews
 - SB Vector Site
 - Prism (SBLO Central)



Differentiate

- SB Supplier Evaluations
- SB Coffee Chats
- Virtual Trade Fairs
- SB MRO and IT Channel Partners



Grow

- Mentor Protégé Program / SBIR/STTR
- Kahu/Leidos JV
- Small Business Tool Kit
- Indian Incentive Program



Leidos Small Business Tips



Do Your Homework

Visit our website to learn what we do, who our customers are and what we buy.

Don't Wait for the Award

If you see a major contract has been awarded, don't call asking for a spot on the team. It is likely too late. Instead, wait 12 to 18 months, then call.

Complete a Profile in our Database

Leidos meets with many small businesses and collects specific information for future reference. We maintain a vendor database to search for potential vendors if a need arises.

Capabilities Surpass Small-Business Status

Leidos looks for partners who complement our work, have past performance or customer relationships.

NETWORK, NETWORK, NETWORK.

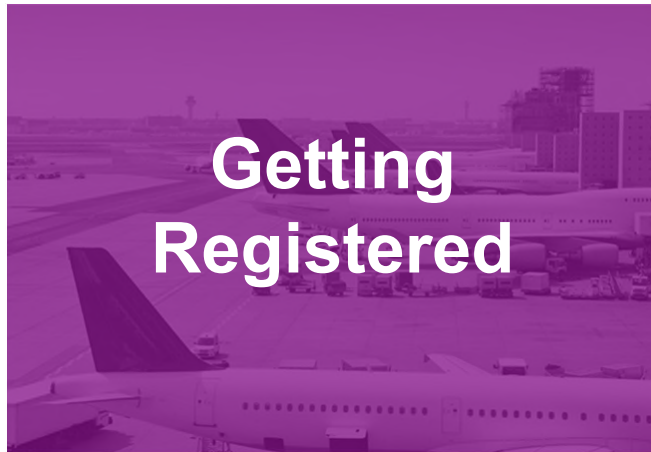
Supplier Selection

Our supplier selection criteria are based on specific customer requirements, with an emphasis on suppliers that offer strategic and competitive pricing, offer quality products and services, and focus on continuous improvement and commitment to performance in the delivery of goods or services.

Leidos is committed to conducting business with uncompromising integrity in accordance with the principles established in the Leidos Code of Conduct. We expect our suppliers to do the same, and we strongly encourage our suppliers to establish proactive and meaningful ethics and compliance programs within their organizations.

Please submit your company vendor information at
leidos.com/suppliers

Introduction to Internal Leidos Teams



- ▶ **Step One:** Forward an email to sbcomp@leidos.com
- ▶ **Step Two:** Include your company's capabilities statement
- ▶ **Step Three:** Your contact information
- ▶ **Step Four:** List any currently Leidos program you'd like to support
- ▶ **Step Five:** Submit your company vendor information at leidos.com/suppliers
- ▶ **Step Six:** A Small Business Team Member will follow-up to schedule a call
- ▶ **Step Seven:** Schedule an SB Coffee Chat



Iuka, Mississippi Site: Large Structures












- **Floor space: 320,000 ft² (29,729 m²)**
 - Clean room: 85,600 ft² (7,953 m²)
 - Open Capacity 150,000 ft² (13,935 m²)
- **Fiber Placement and Hand Lay Up**
- **Autoclaves**
 - 17.5 ft. Diameter x 50 ft. Length
 - 20 ft. Diameter x 83 ft. Length
- **Machining Centers**
 - 23m Belotti Machining Center
 - 5-axis CNC Water Jet
 - 3-axis Machining Center
 - 5-axis CNC Router
- **Automated Ultrasonic Inspection (AUIS)**
 - Horizontal and Vertical
 - 13 Degrees of Freedom
 - Modular: Wet, Dry and Radiographic NDI
- **Advanced ATL and AFP on one machine**



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Northrop Grumman: A Leader in Composite Automation Innovation

Northrop Grumman Contribution to Composite Automation

1950's-1970's: Automated Filament Winding			2003 – Future	2007 – Future	2009 – Future	2014	2015+
 <p>1950's: Allegany Ballistics Laboratory Manufacturers First Filament-Wound Rocket Motor</p>	 <p>1971: Introduces S-glass/Epoxy & Kevlar/Epoxy Materials</p>	 <p>1978: Introduced Carbon/Epoxy Materials in Filament Winding</p>	 <p>Out of Autoclave Processing</p> <p>Northrop Grumman is advancing Out-of-Autoclave capability using its Ultrasonic Tape Lamination (UTL™) and other in-situ consolidation technologies</p>	 <p>Invented the Automated Stiffener Forming Machine (8 Patents)</p> <p>Automated Stiffener Forming (ASF) allows high rate production of uniquely designed complex parts, historically built by hand layup</p>	 <p>High Speed NDI</p> <p>Northrop Grumman developed high speed automated Non-Destructive Inspection (NDI) technology to increase throughput, detection fidelity and data evaluation</p>	 <p>High Speed Waterjet</p> <p>Water jet robotics holding fixture means no monuments and no Machining Restraint Fixture (MRF). Water jet robot bases saves 15-30 minutes per part in MRF alignment, scanning and removal</p>	 <p>Advanced Dockable Automated Manufacturing System (ADAMS)</p> <p>Combines both ATL and AFP in a single work cell. Capable of handling very large parts. Technology potential to change how we make large structures</p>
<p>1982: Invented Automated Fiber Placement</p>							
 <p>1982: Invented the Fiber Placement Process</p>	 <p>2002: Developed World's Fastest Fiber Placement Machine</p>	 <p>2005: Manufactured Largest One-piece Fiber Placed Part on Any Military Aircraft</p>					

Why Automation?

Improved Manufacturing Flow

- Reduced labor hours
- Higher through-put
- More effective use of staff

Improved Repeatability

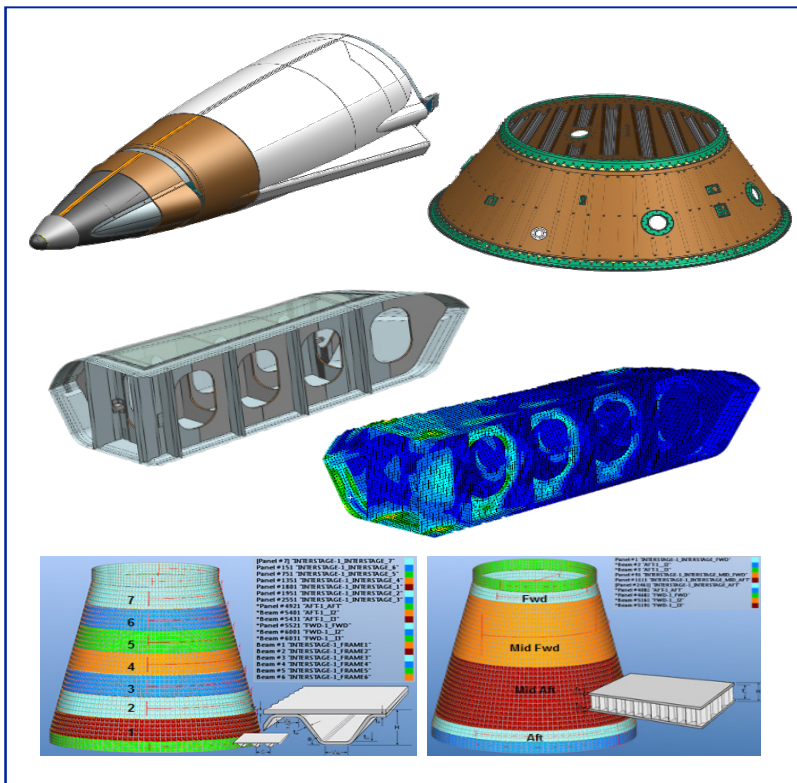
- Machine optimized performance
- Quality Improvement: accuracy/repeatability
- Reduced product scrap

Improved Cost Performance

ASBU Innovation and Automation Drives Our Competitive Advantage

Experienced in Design to Specification

Experienced in Design and Analysis of Advanced Composite Structures



Design and Analysis Expertise

- Design and analysis of composite structures for a broad range of launch vehicle and aircraft applications
- Optimization of composite structures
- Design for manufacturing - close integration between product design and process development
- Materials development

State-of-the-Art Tools

- **FE Analysis:** ABAQUS, MSC. NASTRAN, NX NASTRAN, ANSYS
- **Pre/Post Processing:** ABAQUS CAE/Viewer, MSC. Patran, Altair HyperMesh and HyperView
- **Structural Optimization:** HyperSizer, Altair OptiStruct and HyperStudy
- **Computational Fluid Dynamics:** Fluent
- **Solid Modeling and Drafting:** Catia V5, NX
- **Special Purpose Applications:** Composite pressure vessel design and analysis, damage simulation, CLT and micromechanics, fracture mechanics and fatigue

New Supplier Involvement for NGAS – ASBU Global Supply

1) Send e-mail of interest to: GSCProcurement@ngc.com and include what areas you feel are most relevant for involvement

2) A Supplier Engineering focal will respond with introductory documents

3) Complete supplier survey including the following information:

Supplier leadership and key contacts

Quality Systems in place and/or under development

Certifications with copies of certificates and renewal dates

Previous experience in Commercial, Military, Non-Aerospace markets

Special awards or exceptional recognitions

Business Type / Socio-Economic Status

4) Ability to obtain cyber security controls authorization in accordance with FAR/DFAR requirements

5) Provide Line Card of Equipment, Capability Summary, Capacity Analysis and other vital information to distinguish abilities and focus

6) Complete Capability Survey – these capabilities are logged into a database via Supplier Capability codes, when an appropriate buy part is brought through the requisition process, your organization shows available for RFP/RFQ.

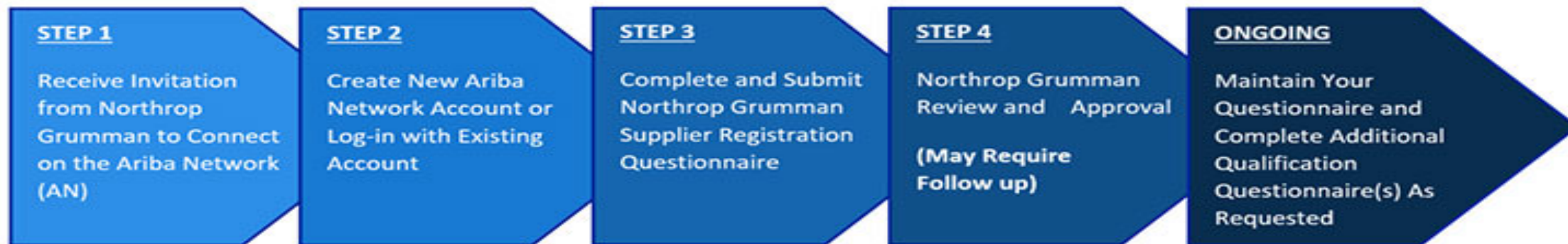
New Supplier Involvement Method for NG – Aeronautical Systems Sector

Visit:

<https://www.northropgrumman.com/suppliers/doing-business-with-northrop-grumman/#h-cybersecurity-resources-for-suppliers>



Complete Supplier Information Form
Register on SAP Ariba Network



STRENGTH IN NUMBERS

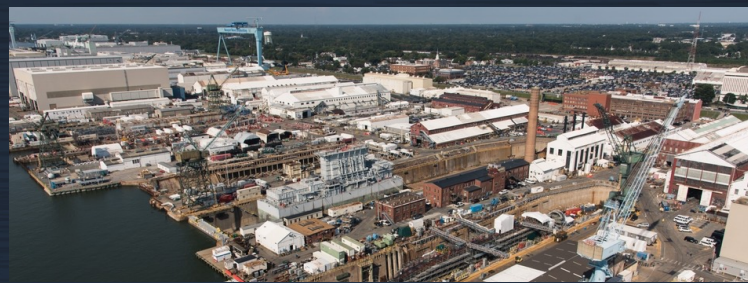
HII celebrating 43,000+ talented professionals world-wide



Ingalls Shipbuilding

Their Mission. Our Purpose.

Employing more than 11,000 people, HII's Ingalls Shipbuilding division is the largest manufacturing employer in Mississippi and a major contributor to the economic growth of Alabama. For 85 years, Ingalls has designed, built and maintained amphibious ships, destroyers, and cutters for the U.S. Navy and the U.S. Coast Guard.



Newport News Shipbuilding

Always Good Ships

Newport News Shipbuilding is the sole designer, builder and refueler of U.S. Navy aircraft carriers and one of two providers of U.S. Navy submarines. With approximately \$4 billion in revenues and more than 25,000 employees, they are the largest industrial employer in Virginia and the largest shipbuilding company in the United States.



Mission Technology

Mission Ready. All Domain.

HII develops integrated solutions that enable today's connected, all-domain force. Capabilities include CSISR systems and operations; the application of AI and machine learning to battlefield decisions; defensive and offensive cyberspace strategies and EW; unmanned autonomous systems; LVC training; fleet modernization; and critical nuclear operations.



Complementary Technologies | Mission-Focused



NSC

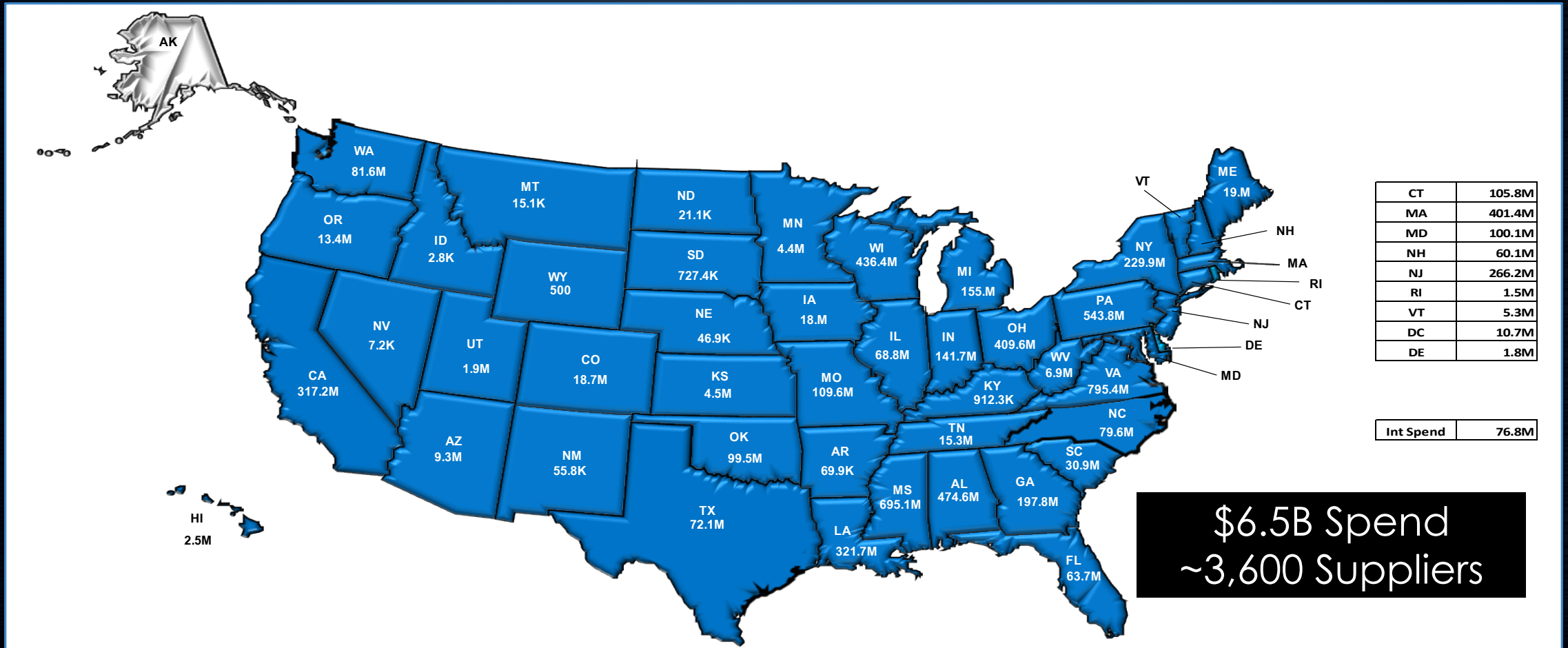
DDG

LPD

LHA



Ingalls Spend – 2018-2022*



Do you want to be a supplier for Ingalls Shipbuilding?

<https://spars.huntingtoningalls.com/procurement/index.html>

For more information, contact:

Joan Branson | Manager / SBLO Socio-Economic
Business Program

Ingalls Shipbuilding a division of Huntington Ingalls
Industries (HII)

228-935-5545 | joan.branson@hii-ingalls.com

Tregnel Thomas | SBLO Socio-Economic Business
Program

Ingalls Shipbuilding a division of Huntington Ingalls
Industries (HII)

228-935-3159 | tregnel.thomas@hii-ingalls.com

Look for:

How to do Business with Ingalls Shipbuilding

Select the option:

1. Supplier Information Form and complete the form and submit electronically. The submittal of this information will place your business on Ingalls Shipbuilding's Potential Supplier Database.

and / or select the option:

2. Suppliers Guide

The guide is a complete listing of the type of material and services with contact information to the Purchasing Agents and the Managers in order to support the facility and programs at Ingalls Shipbuilding.

