

PERISCOPE & FLIGHT DECK

A NEWPORT NEWS SHIPBUILDING SUPPLIER PUBLICATION

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NORTHYARD PHOTO BY RICKY THOMPSON

WHAT'S NEW INSIDE:

- LATEST NEWS HIGHLIGHTS AT NNS (PAGE 2)
- NNS SUPPLIER ONBOARDING (PAGE 3)
- WELDING WORKMANSHIP TRAINING (PAGE 4)
- MAINTAINING PRESENT RESPONSIBILITY (PAGE 6)
- SUPPLIER INTEGRATION (PAGE 8)

LATEST NEWS HIGHLIGHTS AT NEWPORT NEWS SHIPBUILDING



VA GOVERNOR RALPH NORTHAM EXPANDS HIRING PARTNERSHIP WITH NNS

[Newport News Shipbuilding partners with Virginia](#)



CVN 79 REACHES 75 PERCENT STRUCTURAL COMPLETION

[John F. Kennedy Reaches 75 percent structural completion](#)



BRYAN CACCAVALE ANNOUNCED AS VP OF STRATEGIC SOURCING AT NNS

[HII-Announces-New-VP-of-Strategic-Sourcing-at-NNS](#)



HII DELIVERS VIRGINIA-CLASS SUBMARINE INDIANA

[HII-delivers-Virginia-Class-Submarine-Indiana-SSN-789](#)



MANAGEMENT

NNS SUPPLIER ONBOARDING

(ARTICLE BY YOLANDA HARRELL)

Newport News Shipbuilding is dedicated to developing strong partnerships with our supply base. We are constantly looking for new and existing suppliers to support our innovative strategic sourcing approaches for the construction of the Virginia Class (VCS) and Columbia Class (CLB) submarines, Carrier Overhaul and our most recent initiative announced, our potential two-ship buy for greater efficiency of our Ford Class carrier.

We seek suppliers that have:

- Financial stability;
- Facility capacity;
- Personnel with technical experience, as well as qualifications/certifications and established training programs; and
- The capability to produce the required products, materials and services.

Our suppliers must also have:

- The desire to collaborate with our organization;
- A strong manufacturing quality system;
- Capability to meet contractual and delivery requirements; and
- A strong ethics and compliance foundation



PHOTO BY RICK THOMPSON

The process to “on-board” as a supplier with NNS is:

- Register via our external supplier web site at <https://supplier.huntingtoningalls.com/sourcing/index.html>;
- Complete an interest form and submit it to either the prospective or existing supplier organization per instructions;
- The form is reviewed by the selected buying office(s); and
- NNS will determine next steps for alignments and opportunities

The onboarding process is simple and efficient. NNS Supplier Development strives to build a sound supplier base to meet the requirements for NNS to build the best ships in the world. For additional information, contact Yolanda Harrell at NNSSDCI@hii-nns.com

ENGINEERING

WHAT IS WELDER WORKMANSHIP TRAINING ALL ABOUT?

(ARTICLE BY GREG PIKE)

The purpose of the Navy's Welder Workmanship Training (WWT) program goes beyond just teaching basic welding skills. It is intended to ensure that each welder understands how to perform and measure critical parts of the process that nobody else may see. For example:

1. **How to verify weld joint fit up and surface preparation are correct just before welding is started.**
2. **How to apply preheat to the weld joint, if required, to avoid dangerous defects such as hydrogen assisted cracking.**
3. **How to check that each weld bead is made within the required preheat and interpass temperature range to ensure that the right mechanical properties are attained.**
4. **How to verify that the heat input of the weld does not exceed procedure limits on some materials, such high yield strength steel, to prevent loss of toughness.**
5. **How to perform visual inspection of each weld bead in each weld joint, which involves up to 25 different attributes and their acceptance criteria.**
6. **How to appropriately correct any defects that are found during in-process or final visual inspection.**

Every 3 years each welder must pass a written workmanship test with a minimum score of 75%.

Additionally, a written procedure is required detailing how the WWT program is administered. This procedure must be signed by the NDT Level III Examiner who is responsible for the program. The Examiner must also conduct an audit every 2 years to ensure that the program is adequate and the welders are following their training correctly. NAVSEA Technical Publication S9074-AQ-GIB-010/248 section 5.2.3.1 is the source of all these requirements.

To assist with meeting the Navy's copious qualification and procedure requirements, each NNS supplier is given free access to web-based software known as NavWeld and NavNDT. This software suite has a new feature that can generate a complete WWT procedure, ready for your Examiner's signature in minutes. This WWT procedure is intended to satisfy the template requirements of NNS PO Appendix K and EB Specification 4186, so it does not require submittal for approval.

(WELDER WORKMANSHIP CONT.)

The NavWeld/NavNDT package also includes welding procedure and qualification records (WPS/PQR), a welder qualification record system, NDT procedures, and an NDT inspector qualification record system. (Sub-tier and Electric Boat suppliers also have access.)

Welders can make good looking welds without formal WWT, but for US Navy applications they must have it as part of their qualification. Navy spec welders must correctly apply complex requirements to ensure their welds do not contain hidden weaknesses. The lives of US Navy sailors and the success of their mission count on each weld working the way it was designed to.



Terry Cooley performs welding operations in the Ring Module Shop. Photo by Matt Hildreth



Tommy Morse is framed by a coaming on a John F Kennedy CVN 79 unit as he performs welding operations. Photo by Matt Hildreth.



Billy Williams Welds a Hanger. Photo by Matt Hildreth

COMPANY VALUES

INTEGRITY

SAFETY

HONESTY

ENGAGEMENT

RESPONSIBILITY

PERFORMANCE

MAINTAINING PRESENT RESPONSIBILITY (ARTICLE BY COMPLIANCE OFFICE)

Maintaining the highest standard for business conduct and ethics are part of the culture at Huntington Ingalls Industries, whether operating as a government contractor or a commercial marketplace, but being a government contractor comes with even greater expectations. NNS is required under both contracts with the government and corporate policies and procedures to have an effective and “ongoing business ethics awareness and compliance program.”

Maintaining such a program and having a “satisfactory record of integrity and business ethics,” in turn, is a crucial aspect in ensuring that NNS, as well as its parent, HII, is a “presently responsible” government contractor. Being *presently responsible* is a condition of receiving any contract from the U.S. government. As leaders we have to be accountable not only for what we say but how we act as a government contractor. What we say and what we do sets the tone for how others perform on the job as well. What we require from our suppliers, vendors, and outside contractors is the same, if not more, of what we require of ourselves.

Learn how you play a role in making sure we meet this requirement in being “presently responsible”.

“Always Do the Right Thing, Especially When No One is Looking.”

–Mike Petters, CEO of Huntington Ingalls Industries

August is Ethics and Compliance Awareness Month



Periscope and Flight Deck | October 2018

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ARE YOU MEETING YOUR ETHICS AND COMPLIANCE PROGRAM REQUIREMENTS?

JOIN US FOR THE DEFENSE INDUSTRY INITIATIVE'S BEST PRACTICES WEBINARS

An effective Ethics and Compliance Program is not only a requirement for government contractors, but also a great way to build a strong culture of integrity within your company. These free webinars will help companies of all sizes implement core elements of an effective ethics and compliance program.

THIS WILL BE AN OPEN AND INFORMAL FORUM WHERE THOSE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING THEIR COMPANIES' ETHICS AND COMPLIANCE PROGRAMS CAN:

- Share best practices and lessons learned
- Ask questions of other companies on program implementation

1Q-MARCH 14TH 2PM – 3PM EST	Mandatory Disclosure HOSTED BY: Kim Kaminski - BAE
2Q-MAY 9TH 2PM – 3PM EST	Mitigating Conflicts of Interest HOSTED BY: Steve Epstein / John Sassaman - Boeing
3Q-SEPT 12TH 2PM – 3PM EST	Small Business: How to Get Management's Attention HOSTED BY: Jason Frei - Boeing *When: Sept. 12, 2018*
4Q-DEC 12TH 2PM – 3PM EST	Remote Workforce: Connecting and Engaging HOSTED BY: Blair Marks - Lockheed Martin / Joy Hayes - SAIC *When: Dec. 12, 2018*

FOR MORE DETAILS AND TO REGISTER, GO TO:

[Small Business: How to Get Mgt.'s Attention](#)

[Remote Workforce: Connecting and Engaging](#)

DII DEFENSE INDUSTRY INITIATIVE
ON BUSINESS ETHICS AND CONDUCT

A Resource from The Defense Industry Initiative on Business Ethics and Conduct

SUPPLIER INTEGRATION (ARTICLE BY BRETT CASH)

Newport News Shipbuilding (NNS) is evolving into a Model Based Enterprise (MBE) by replacing many 2D construction and arrangement drawings with 3D model-based disclosures that better convey design intent, requirements, and instructions. This effort is part of the company's Integrated Digital Shipbuilding (iDS) program. NNS is also developing 3D model-based prototypes to potentially replace 2D fabrication (build-to-print) drawings in the future. Pilot projects are being performed to evaluate the quantitative and qualitative benefits of providing design data in this format. Implementation will be based on favorable business case analysis results. The architecture to support the flow of design data throughout the enterprise has been termed the "digital thread" and must support the entire lifecycle of aircraft carriers and submarines. This includes concept development, detailed design, material procurement, ship construction, inspection, testing, and fleet support activities. Below is an illustration of the digital thread at NNS.

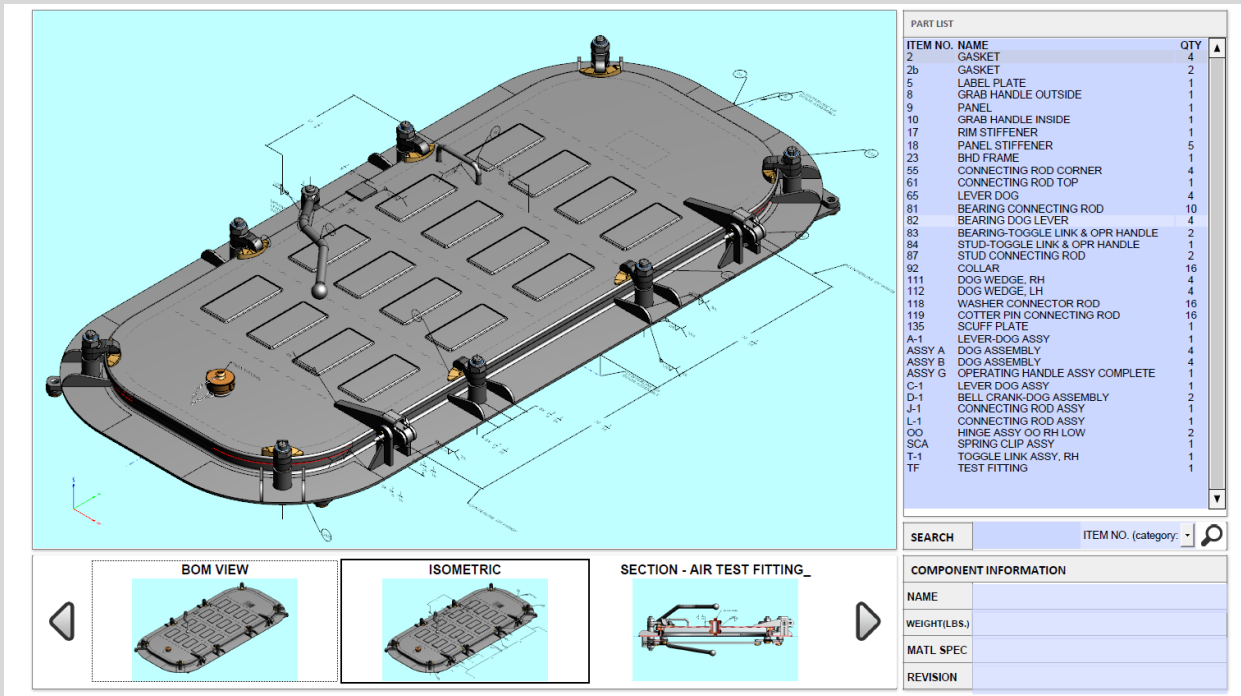
Digital Thread



(SUPPLIER INTEGRATION CONT.)

An important component of the digital thread is the shipbuilding supply base that provides the material and equipment needed to build the most technologically-advanced aircraft carriers and submarines in the world. NNS and its supplier partners must seek ways to improve first-time quality and schedule performance by leveraging digital technologies and supply chain innovation. The integration of NNS' suppliers into the digital shipbuilding strategy is important as the company seeks to transform its business operations. To begin testing the process, NNS is executing a pilot project on watertight doors. Watertight doors were chosen as an ideal candidate to prototype due to recurring quality issues and convoluted technical requirements/instructions. The doors are built to a Navy standard drawing and various sketches that are heavily modified by supplemental requirements and modification documents. This complexity can lead to confusion and costly mistakes.

The Project Team at NNS developed a 3D PDF prototype to replace the legacy 2D drawing package. The 3D PDF better conveys design intent and provides requirements that are clear, concise, and specific to the 26 x 66 door selected for the project. In addition, a STEP file has been provided to support Computer Numerical Control (CNC) machining capabilities. NNS hosted Technical Summits in March with each of the suppliers chosen for the pilot project to review the 3D PDF file. The feedback received was very positive. Below is a screenshot of the 3D PDF.



NNS is not alone in its digital transformation. There are companies across the globe that are realizing the value of adopting an MBE strategy. The National Institute of Standard and Technology (NIST) hosts an MBE Summit every year that includes technical presentations and papers on MBE concepts and technology. Below is a link to content from the last summit held back in April 2018:

<https://www.nist.gov/news-events/events/2018/04/model-based-enterprise-summit-2018>

If you have any questions, ideas, or are interested in working with NNS on Integrated Digital Shipbuilding, please contact Tim Haas by phone (757) 688-6069 or email Timothy.A.Haas@hii-nns.com.