Digital Technology Used to Manufacture Columbia-Class Patterns

One of the oldest shops in the shipyard is experiencing a digital transformation. The decades-old Pattern Shop is using drawingless designs and a digital environment to manufacture patterns to support Columbia-class construction.

The fixed cleat is the first Columbia pattern to be manufactured in the Pattern Shop. The drawingless pattern was made by patternmakers Ashley Stachura (M71), Robert Marshall (M71) and Robert Hamilton (M71) using a 3D printer and a computerized numerical control (CNC) machine.

Software used by the machine works by maintaining a digital link between the pattern model tool paths. If patternmakers update the pattern model on their computers, the tool paths used for machining automatically adjust to the change. Ultimately, the digital link enables pattern makers to work more efficiently and accurately when making pattern models.

Traditionally, patterns are manufactured from wood. However, temperature, humidity and general use during the mold making phase can negatively impact the dimensional accuracy of patterns over time, which prompted the need for refurbishment.

Instead of wood, the fixed cleat pattern is made of a polyurethane material that has excellent dimensional stability and durability. This material allows for better dimensional accuracy and requires less refurbishment than its wooden counterpart, improving quality while saving time and money.

“Pattern makers are excited about using 3D modeling and digital work methods,” said Zach Hudgins (M71), Pattern Shop supervisor. “3D modeling, programming and machining are and will continue to be integral to the future of the Pattern Shop.”

Spaulding to Join NNS’ Leadership Team

In a letter to shipbuilders on Aug. 14, Newport News Shipbuilding President Jennifer Boykin introduced Rick Spaulding as vice president of Business Process Standardization, effective Sept. 2.

Spaulding comes to NNS from Ingalls Shipbuilding. Read Boykin's letter on page 5.

HII Launches New Ethics and Compliance App

As part of Ethics and Compliance Awareness Month in August, Huntington Ingalls Industries launched a new app to help employees “always do the right thing.”

The HII Ethics and Compliance app is available for free download by searching “HII Ethics” in Google Play and Apple App stores. Through the app, employees can review the company's Code of Ethics and Business Conduct, make an Ethics on the Spot Award nomination, and/or access the OpenLine. For questions and feedback regarding the app, email Compliance@hii-co.com.

Implementation of Lean at NNS

In alignment with the NNSFORWARD Strategy, Newport News Shipbuilding has established an office to help implement Lean – a process improvement method that streamlines workflow and removes waste – across the company.

“Lean provides the people who deal with the processes every day an opportunity to have a say in how that process is improved,” said Dannon Butts, director of Industrial Engineering and Business Transformation.

The Lean Program Office is working with Operations to implement the strategy using Kaizen workshops and five work streams – team concept, mutual trust...
Implementation of Lean at NNS

CONTINUED FROM PG 1

...and accountability, adherence to schedule, material flow, and support of craftsmen and craftswomen.

“These work streams will help us support our people so they can focus on the work at hand – building the best Navy ships the world has ever known. And doing it safely, efficiently and without frustration,” said Jason Sutton, director of Structural Fabrication and Assembly. “Our main objective is to remove the frustrations that the craftsmen and craftswomen deal with every day.”

NNS kicked off its Lean efforts in SFA with Kaizen events and culture workshops, shipbuilders are already seeing positive results. “In the Ring Module Shop, shipbuilders have worked to reduce a 10-month build cycle on a submarine module to less than eight months. Another group identified 33 non-value-added welding steps that were reduced to two,” Butts said. Lean will be adopted in other production areas in the coming months and years.

“The goal was to print and assemble a robotic arm that could scan 3D-printed part geometries while using a software package called Arduino. The electronics platform is able to read inputs – like a light on a sensor, a finger on a button or a Twitter message – and turn it into an output.

The final product was a five-axis robotic arm made completely of 3D-printed parts. The parts, made out of ABS plastic, were printed on the two Ultimaker printers. TATRA stands about 2 feet tall and weighs about 8 pounds. For both interns, it was an opportunity to apply techniques and concepts they learned in school to real-world experiences.

“I also had a chance to work with the real engineers on their projects and model and print some things for them,” Johnson said. “It’s satisfying to see other people use the things you design and build.”


VCS Team Honored for Safety Poster Design

The second-shift Virginia Class Submarine Program X33 crew that submitted the winning safety poster design for the 2019 “Nobody Gets Hurt Today” campaign was recently honored with a barbecue dinner.

The crew worked together to design a poster featuring a hard hat, safety glasses and gloves that reads, “Don’t be down and out, be a safety stand out! Nobody gets hurt today!” The poster now hangs across the VCS campus.

E32 Interns Rise to the Challenge

Scouring for miniature screws and experimenting with plastic fingers are just a few of the highlights for E32 interns Tallak Meland and Taylor Johnson during their summer in Research and Development at Newport News Shipbuilding.

Meland, a rising senior at Yale University, and Johnson, a rising senior at LeTourneau University, assisted in the operation of the department’s 3D metal printer as well as designing and printing 3D fixtures for a material testing system. Under the direction of Engineering Manager John Ralls, they were challenged to construct a fully functional, 3D-printed arm they affectionately named TATRA (Tallak and Taylor’s Robotic Arm).

Security is Vital at NNS

Newport News Shipbuilding has released several Take 5s to educate employees about the important role of security at the shipyard. Learn more about the types of information that require protection and safeguarding on MyNNS.
United Way Kicks Off 2020 Campaign

United Way of the Virginia Peninsula kicked off its 2020 campaign Aug. 14 at the Newport News Marriott at City Center.

As chairwoman of the 2020 campaign, Newport News Shipbuilding President Jennifer Boykin announced a $1 million contribution to the United Way on behalf of Newport News Shipbuilding and Huntington Ingalls Industries, and challenged shipbuilders and the community to increase its campaign participation.

“We run toward a challenge, not away from it,” she said.

This year’s goal is set at $5.5 million, an effort to exceed the 2019 goal that totaled $5 million. NNS’ 2020 United Way campaign will begin in February. Additional information will be published in future editions of Currents and in NNS employee communication channels.

Send questions to UnitedWay@hii-nns.com.

CFA Engagement Champions Host Barbecue

Component Fabrication and Assembly (CFA) shipbuilders and their families spent Saturday, Aug. 3, at Newport News Park for a barbecue.

The event, hosted by the CFA engagement champion team, included food, music, raffles and activities for children. A similar event was held for the Pipe Shops last year, but this year’s event was open to all CFA employees. Competition was particularly stiff during the cornhole tournament, with Terry Gray (X42) and Gevonn Young (X42) winning first place.

CFA Welding General Foreman Rob Teel, one of CFA's 13 engagement champions, said it was great for employees to network outside of the shipyard and meet each other's families.

“You spend more time with your coworkers than you do with your family. But unless you do things like this, what do you really know about your coworkers other than what they do on the job?” he said.

Teel also was grateful for the support of CFA's management team's support of the event.

Jasmin Davis (X32), who also is a member of the engagement champion team, said the barbecue gave shipbuilders a chance to introduce their families to what they do at work every day. “My superintendent and my daughter had a conversation. That's so crazy, but I think it's cool,” she said.

Davis added that getting to know each other can make it easier to work together. “Don't be afraid to engage with your peers,” she said. “You really get a chance to see them in a different light.”
Unlock Your YubiKey Without Calling the Service Desk

The Service Desk is experiencing an increase in calls from employees locked out of their workstation due to locking their YubiKey by entering an incorrect PIN. Shipbuilders who lock their YubiKey can quickly unlock it by following five easy steps:

1. Go to a coworker who is logged in on their NNS computer. After they have closed any applications that would violate need to know, have them launch Intercede MyID but not login.

2. Plug in the locked YubiKey and select it from the card options displayed. Click "Reset PIN" at the bottom right corner.

3. Log into Intercede MyID with the security phrases you initially set when you registered your YubiKey and click "Continue."

4. Enter a new PIN and click "Continue."

5. The screen should then read, "Successfully Completed" to confirm you have reset your PIN.

The steps listed above allow employees to unlock their YubiKey faster than calling the Service Desk.

However, employees who lose, damage or forget their YubiKey should call the Service Desk at 688-HELP for assistance. Frequently asked questions and additional information is available on the Multifactor Authentication MyNNS website.

NNS Hosting Blood Drives in August and September

Newport News Shipbuilding is hosting four upcoming blood drives in support of the American Red Cross. See details for each location below. A charge is provided for shipbuilders who donate.

**Friday, Aug. 30**
7:30 a.m. until 11:30 p.m.
Bldg. 909-2 (Second Floor Dining Area)
Contact Judy Fundak (K18) at 380-3011 or via email to schedule an appointment.

**Thursday, Sept. 5**
7:30 a.m. until 12:30 p.m.
Bldg. 520-6 (James River Room)
Contact Judy Fundak (K18) at 380-3011 or via email to schedule an appointment.

**Wednesday, Sept. 11**
7 a.m. until noon
Bldg. 600-1 (Conference Rooms B & C)
Contact Judy Fundak (K18) at 380-3011 or via email to schedule an appointment.

**Tuesday, Sept. 17**
8 a.m. until 1 p.m.
Bldg. 903 (Conference Rooms A & B)
Contact Christina Charnock (E70) at 688-7196 or via email to schedule an appointment.

Food Truck Roundup Planned for Aug. 28

Aramark Services and Newport News Shipbuilding Food Services will host a Food Truck Roundup at noon, Wednesday, Aug. 28, at Pier 3. Shipbuilders are invited to come out and support the vendors and fellowship with fellow employees.

For questions, contact Dwain Jenkins Sr. (K49) via email or at 688-7281 or Mickey Yeamans at (757) 285-0153 or Yeamans-Mickey@aramark.com.

West Avenue Garage Parking Reminder

Shipbuilders parking in the West Avenue Garage, located on West Avenue between 30th and 31st streets, are reminded to pay close attention to signage in the garage and only park in Newport News Shipbuilding-designated spaces. Any employee displaying a valid NNS hangtag can park in spaces numbered 70 through 100 located along the south wall of the first floor, NNS-marked spaces on the east and west walls of the fourth deck, the ramp leading to the fifth deck and the entire fifth deck of the garage. All other spaces are for Navy use only.

Employee vehicles parked outside NNS-designated spaces in the garage are subject to towing. NNS Security (O15) is closely monitoring this area due to the increase in parking violations in this garage. Enforcement will take effect immediately.

View a diagram of NNS-designated spaces in this garage on MyNNS or on the NNS to Go app. Employees who witness parking violations in this garage or other areas of the shipyard should contact Security at 380-4031.
August 14, 2019

Dear Shipbuilders,

As recently announced, we have restructured parts of the organization to reflect the rigor, speed and operational-focus required to successfully execute on our legacy programs while accelerating digital shipbuilding and other key business functions.

To further accelerate our improvement efforts, I am happy to welcome Rick Spaulding back to NNS to serve as vice president of Business Process Standardization. What I’m asking Rick to focus on first is the yard-wide implementation of program and production standards and the establishment of phased reviews as part of our execution operating system. In addition, he will lead best practice sharing across all HII shipyards.

Rick’s extensive knowledge of early fabrication and planning processes at both Ingalls and NNS make him a great addition to our team. He most recently served as vice president of Central Planning and Process Excellence for Ingalls Shipbuilding. Prior to that, he served as director of Central Planning for NNS where he spent 25 years supporting submarine design and planning, steel manufacturing, naval and commercial ship repair, commercial ship construction, planning, scheduling, labor resource, capacity and capital planning. Rick joined the company after graduating from the University of Michigan in 1983 with a bachelor’s degree in Naval Architecture and Marine Engineering.

Please join me in welcoming Rick back to Newport News and supporting him in his new role. This change is effective September 2, 2019, and Rick will report directly to me.

Respectfully,

Jennifer Boykin
President
Newport News Shipbuilding
**DATEBOOK**

**THROUGH SEPTEMBER 8**
Sign up for the Go the Extra Mile Wellness Online Challenge and track miles from Aug. 5 until Sept. 8 for a chance to win prizes. Participants can track their miles manually or sync a wearable device on Wellness Online. Any miles spent walking, running, biking or swimming count. Visit myquaddical.com/hii and log into Wellness Online to sign up. Everyone who completes the challenge will be entered into a drawing for a gift card.

**AUGUST 20**
What does your credit score say about you? Attend the “Improve Your Credit Score” from SmartPath to find out. Classes are available on Aug. 20 at 5:30 p.m. in Bldg. 4777-2 (RSF Conference Room), from noon to 1 p.m. in Bldg. 520-6 (James River Room), and 4:30 to 5:30 p.m. in the VASCIC auditorium. Visit nns.huntingtoningalls.com/smartpath-registration to register for the noon or 4:30 p.m. classes. Email BeWell@hii-co.com to register for the 5:30 a.m. class.

**AUGUST 21**
Attend a Female and Builder (FaB) Talk session titled “Communicating Effectively” at 4 p.m. at The Apprentice School (Second Floor, Student Commons). Shipbuilders will have the opportunity to openly discuss upward mobility in the shipyard and how they can help increase female representation in management development programs in the company. A Learning After the Whistle (L.A.W.) representative will also attend to share experiences, provide guidance and answer questions. The FaB Talk is open to all NNS employees. To RSVP, visit fabtalk.com.eventbrite.com. Contact Latasha Jarrett (O22) at 380-2005 for more information.

**AUGUST 22**
The “Spear and Gear” Toastmasters Club will host a meeting from 4:45 until 5:45 p.m. in Room 247 of The Apprentice School (Bldg. 1919). The event is open to all Newport News Shipbuilding employees and no RSVP is required. The event will provide a forum for employees to learn how to become more effective communicators and leaders. For more information, contact Jay Romulo (O31) at 380-3768 or Jamar Skyles (X44) at 534-3826.

**AUGUST 22**
Engineering and Design is hosting a Teaching, Enlightening, Aspiring (TEA) Talk event featuring Gary Figg, manager of the Professional Enhancement Enrichment Rotation (PEER) Program. The event is from 4:30 until 5:30 p.m. in VASCIC (2 West Dining Room). TEA Talk is a leadership development series that provides a forum for employees to hear personal stories from company leaders about how their personal lives have influenced their careers at NNS. No charge will be provided. To RSVP, sign up on the TEA talk website. For additional questions, contact Tanika Vasquez (E08) at 688-7916.

**AUGUST 24**
The Apprentice School chapter of the Society of Manufacturing Engineers is hosting the annual Cardboard Boat Regatta from 9:30 a.m. until 1 p.m. at Newport News Park. Teams and individuals will have the opportunity to build and race a cardboard boat. Food will be provided for participants, who can sign up ahead of time or show up the day of the event. All proceeds will benefit Shriners Hospitals for Children. To sign up or for more information, contact Jacob Bland (O51) at 688-3662 or via email.

**AUGUST 25**
Join Shipbuilders Together Realizing Inclusion, Diversity and Equality (STRIDE) from 11 a.m. until 3 p.m. for a social outing at Paradise Ocean Club in Hampton. The event is open to all shipbuilders. Contact Michael Kush (T55) at 534-0663 for more information.

**AUGUST 29**
The “Spear and Gear” Toastmasters Club will host a speech-a-thon meeting from 4:45 until 5:45 p.m. in Room 247 of The Apprentice School (Bldg. 1919). The event is open to all Newport News Shipbuilding employees and no RSVP is required. The event will provide a forum for employees to learn how to become more effective communicators and leaders. For more information, contact Jay Romulo (O31) at 380-3768 or Jamar Skyles (X44) at 534-3826.

**SEPTEMBER 5**
Join Shipbuilders Together Realizing Inclusion, Diversity and Equality (STRIDE) for an elevator pitch event from 4 until 6 p.m. in VASCIC (Room 219). Xavier Beale, vice president of Trades, and Julia Jones, director of Operations Integration, will be guest speakers. The event is open to all shipbuilders.

**SEPTEMBER 7**
Newport News Shipbuilding and Northrop Grumman Electronic Systems are celebrating their 29th annual exclusive park day at Kings Dominion from 10 a.m. until 8 p.m. Tickets can be purchased in advance for $26 at www.kingsdominion.com/save using the username and password “KDNNSB.” Tickets can also be purchased for $26.50 at any BayPort Credit Union location. Visit the NNS to Go app or see the July 29 edition of Currents for a chance to win free tickets for the event.

**SEPTEMBER 7**
Women in Shipbuilding Enterprise (WiSE) and Women of Steel will host a “Rosie the Riveter Rally” from 11 a.m. to 1 p.m. at The Apprentice School’s athletic field (Bldg. 601). All shipbuilders are invited to attend (including family and friends) and are encouraged to come dressed as “Rosie.” RSVP is not required. For questions regarding this event, contact Kathy Hansen (E44) at 534-3893.

**SEPTEMBER 7**
The 12th annual NNS 5K begins at 9 a.m. Participants are invited to join the pre-race fun with vendor tables, refreshments and entertainment for the whole family. Visit quadmedical.redpodium.com/nns-5k-2019 to register for the 5K. Shipbuilders who don’t want to race can still participate by volunteering. Sign up online to register as a volunteer.

**SEPTEMBER 12**
The “Spear and Gear” Toastmasters Club will host a meeting from 4:45 until 5:45 p.m. in Room 247 of The Apprentice School (Bldg. 1919). The event is open to all Newport News Shipbuilding employees and no RSVP is required. The event will provide a forum for employees to learn how to become more effective communicators and leaders. For more information, contact Jay Romulo (O31) at 380-3768 or Jamar Skyles (X44) at 534-3826.

**Night School Registration**
Underway; Deadline is Aug. 26

The application deadline for fall 2019 Night School is Aug. 26. All classes are scheduled to begin the week of Sept. 16 and end the week of Nov. 16. To view a list of classes and registration information, visit the Night School website. For questions, contact Latasha Jarrett (O22) at 688-8608.

**SEEKING SHIPBUILDERS**

Visit www.buildyourcareer.com to search for the latest NNS job openings.

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Req Number</th>
<th>Dept.</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry-level Outside Machinist</td>
<td>30542BR</td>
<td>X43</td>
<td>Newport News</td>
</tr>
<tr>
<td>Experienced Deck Electrician</td>
<td>28924BR</td>
<td>X31</td>
<td>Newport News</td>
</tr>
<tr>
<td>Experienced Fitter/Fabricator</td>
<td>29465BR</td>
<td>X11</td>
<td>Newport News</td>
</tr>
<tr>
<td>Experienced Inside Machinist</td>
<td>30506BR</td>
<td>X43</td>
<td>Newport News</td>
</tr>
<tr>
<td>Experienced Outside Machinist</td>
<td>30504BR</td>
<td>X43</td>
<td>Newport News</td>
</tr>
<tr>
<td>Experienced Refueler</td>
<td>30508BR</td>
<td>X43</td>
<td>Newport News</td>
</tr>
<tr>
<td>Outside Machinist Trainee</td>
<td>30486BR</td>
<td>X43</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Data Analyst 2</td>
<td>29115BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>Engineer Metrology 4</td>
<td>31093BR</td>
<td>O68</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Business Integration Engineer 3</td>
<td>28193BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Business Integration Engineer Systems 1</td>
<td>28196BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Business Process Engineer 3</td>
<td>28190BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Information Governance Lead Engineer 3</td>
<td>28182BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>iDS Information Governance Engineer 2</td>
<td>28186BR</td>
<td>X57</td>
<td>Newport News</td>
</tr>
<tr>
<td>Production Planner Scheduler 4</td>
<td>27004BR</td>
<td>X83</td>
<td>North Kingstown, RI</td>
</tr>
</tbody>
</table>

Employees are encouraged to use the “Current HII Employees” portal to apply. The company continues to offer cash bonus awards for referrals to select positions, visit www.huntingtoningalls.com/careers/refer-a-friend for more information.