Virginia is home to the Nation’s largest ship construction and ship repair industrial base. With a skilled workforce of more than 29,000 and the finest modern facilities, Virginia shipyards can efficiently handle the full range of vessel needs in conjunction with total port operations.

*Spirit of Norfolk at Colonna’s Shipyard*
Established in 1946, the A.N.A. shipyard is located at the sheltered mouth of the Western Branch of the Elizabeth River, close to the main harbor entrance. The yard specializes in in-house repairs of coastal and harbor vessels, as well as voyage repairs to ocean-going ships. Facilities include four marine railways with capacities up to 1,000 tons, a dockside 100-ton crane, and pierside accommodations for vessels up to 300 feet in length and 20 feet of draft.

The plant has 2,500 lineal feet of piers, mobile crane service and personnel berthing facilities. Compressed air is available at 6,500 cfm and 100 psi; potable water at 60 psi, salt water at 120 psi; shore power at 480, 240, 120 VAC and 120 VDC.

A.N.A. is a fully integrated shipyard with the capability of performing structural, mechanical and electrical repairs of all types. Special capabilities include fabrication of large steel and aluminum subassemblies; overhaul of electric motors, controllers and shipboard electrical systems; overhaul of propulsion systems and steering systems; optical alignment and kort nozzle repairs. In addition, the yard has a wide experience in wood and fiberglass construction and repair.

BAE Systems Norfolk Ship Repair

BAE Systems Norfolk Ship Repair, a division of BAE Systems Ship Repair, is a full-service shipyard on the Southern Branch of the Elizabeth River that has served the Port of Virginia in the maritime industry since 1915. An ISO 9001 certified company, BAE Systems Norfolk Ship Repair has enjoyed the reputation as the largest private-sector shipyard in South Hampton Roads and one of the largest ship repair facilities on the East Coast of the United States. In 2007, it earned a “Creating Excellence Award” in career development and technical education from the Commonwealth of Virginia for its robust and improved apprentice program, one of only a few in the region.
At present, BAE Systems Norfolk Ship Repair maintains a skilled workforce of approximately 1,500 people working in 20 diversified trade shops and departments. This workforce and state-of-the-art facilities, improved with over $70 million in capital investments since 1999, provide a comprehensive capability for ship repair, conversion and modernization, enabling the company to serve most of the world’s oceangoing vessels on site.

BAE Systems Norfolk Ship Repair has extensive crane service, four operational piers totaling over 3000 feet of berthing space, and two drydocks, including:

- The “Titan”, with a 52,534 long-ton lifting capacity, is one of the world’s largest and most modern floating steel drydocks. It measures 950 feet (290 meters) long, 192 feet (59 meters) wide and 160 feet (49 meters) between wingwalls. The Titan is moored to the east side of the 1,280 foot-long Pier 1, used to service ships as long as 1,200 feet.

- The “Old Dominion” is a steel drydock with a 14,000 long-ton lifting capacity, which is berthed at the north side of Pier 6. It measures 569 feet (173 meters) long, 122 feet (37 meters) wide and 99 feet (30 meters) between wingwalls.

The company also offers a full range of repair services for ships located away from the shipyard. Vessels that do not require entry into a repair facility, or have limited time to do so, can remain at their present location, and BAE Systems Norfolk Ship Repair’s mobile “ship repair teams” will travel to these vessels to perform the required services.

BAE Systems Norfolk Ship Repair is also able to leverage its ship maintenance capabilities in a variety of industrial conversion, repair and construction services. Specializing in industrial plant construction, repair and conversion, the company’s Industrial Conversion and Repair Division provides around-the-clock response to meet customer needs. Services are available 24 hours a day, seven days a week, throughout the United States. Visit www.baesystems.com/shiprepair for more details.

BAE Systems Norfolk Ship Repair

BAE Systems Norfolk Ship Repair
BAE Systems is a global defense, security and aerospace company with approximately 107,000 employees worldwide. The Company delivers a full range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services.

Berkley Machine Works & Foundry Company, Inc.

The plant of the Berkley Machine Works & Foundry Company, Inc., is situated on Pearl Street, in Berkley, Norfolk. It has a frontage on the main 40-foot ship channel.

The plant is fully equipped with all modern machinery. There are modern machine and pattern shops, and aluminum, brass, iron and steel foundries.

Colonna’s Shipyard, Inc.

Colonna’s Shipyard, Inc. is a full-service ship repair facility located in the Port of Virginia. Founded in 1875, it is the oldest family-owned full-service private shipyard in the United States. The company’s reputation is built on a long tradition of quality workmanship provided by its highly skilled workforce, outstanding facilities, and solid management. The shipyard capabilities include two (2) floating dry-docks, 17,200 ton Captain Will and 2,800 ton Willoughby III, two (2) marine railways, eight (8) wetberths, a 1,000 ton Marine Travelift and the most well equipped shops in the region. Colonna's undertakes a wide range of in-plant repair, refit, overhaul and conversion projects on ships up to 800 feet (244m) in length.

Colonna’s is home to the world’s largest mobile boat hoist, a one thousand ton Marine Travelift. The Travelift, in conjunction with new piers and infrastructure, can drydock twelve (12) vessels simultaneously. Designed for rapid response – no wait service, the new Travelift system provides the ultimate in shipyard efficiencies.

Colonna’s Shipyard is situated on the Eastern Branch of the Elizabeth River occupying 50 acres of land with more than one mile of waterfront, including 80,000 sq. ft. of covered shop storage space. It is convenient to all port facilities and terminals in the Port of Virginia.

Lifting capabilities include one (1) 220 ton crawler crane and eight (8) mobile cranes up to a 60 ton lift capacity. Portable land cranes to 300 tons and floating cranes to 1,300 tons are available as needed.
The shipyard’s Down River Division will support ship repair needs anywhere in the world. All trades and necessary support equipment are ready to accomplish timely voyage repairs away from the shipyard. The shipyard’s production services are additionally supported by complete engineering, testing, and design capabilities.

**Steel America** – Steel America is a heavy fabrication and machining business affiliate of Colonna’s Shipyard. This organization offers a full range of heavy industrial maintenance capabilities including field machining, machinery and piping service departments. The fabrication shop facility is over 55,000 sq. ft. This shop is fully equipped with state-of-the-art CNC Thermal cutting table and the latest automated welding systems. The machine shop is equipped with cranes up to 100-ton lift capacity, CNC Lathes up to 90’ between centers as well as several manual lathes up to 95’ between centers and 140 inch swing. Steel America can provide CNC or NC Milling up to 200 ton unit capacity and is capable of loading up to 1,000 ton fabrications onto barges. See further capabilities at www.steelamerica.net.

**Davis Boat Works, Inc.**

Davis Boat Works has been providing marine repair services to commercial, industrial, pleasure and military vessels since 1958. Located in the Newport News Seafood Industrial Park at the mouth of the James River, and immediately off Interstate 664, the shipyard is easily accessible by both sea and land.

The unique feature of the shipyard’s operation is its 250 ton Marine Travelift, one of the few in commercial operation in the world. This allows great flexibility in that many vessels can be blocked on shore simultaneously and it reduces the requirement for dry-dock scheduling, making it ideal for emergency repairs. It also allows for virtually unrestricted access to the hull.
Davis Boat Works performs all phases of structural and mechanical repairs. The shipyard has a complete full-service machine shop and extensive expertise in coatings and applications. Compressed air, electrical service (440, 220, 208, and 120 VAC), potable water, and fire water are available for shore service.

Davis Boat Works has over 800 line. ft. of bulkhead space, 5 acres of vessel block area, and 17,000 sq. ft. of shop space.

**Earl Industries, LLC**

Since its formation in 1984, Earl Industries, LLC has evolved into a strong, competitive position with capabilities in all areas of marine and industrial engineering and repair services. The company's 700+ employees have earned a well-deserved reputation for consistently accomplishing piping, mechanical, electrical, structural and coatings projects on time and at competitive prices.

Earl Industries' primary capabilities include:

- Engineering services by a degreed engineering staff that covers mechanical, electrical, chemical, and ocean disciplines
- Structural/pipe fitting services including certified ASME and Mil-Std welding and NDE/NDT procedures and personnel, sheet metal fabrication and installation, fluid systems overhaul, and complete air conditioning and refrigeration capability
- Mechanical services including diesel engine overhaul and maintenance, pump/valve overhaul, re-tubing of condensers and heat exchangers, bearing surface refurbishment, full rigging and lagging services
- Electrical services including design, modification, trouble-shooting, repair and overhaul. The company possesses a unique, proven process for the in-place cleaning and refurbishment of electrical rotating equipment. Additionally, the company possesses experience with installation of joint mission command and communications systems on multiple ship platforms
- Earl Industries' manufacturing capability includes a highly automated, mass production, specialty sheet metal operation that produces high quality consoles, ventilation systems and other specialty items
- Through the firm's Coatings Division (United Coatings), Earl Industries provides complete metal preservation services to include environmentally sound containment systems, abrasive blasting, ultra high pressure (40,000 psi) water blasting, and application of all types of coatings

In January 2004, Earl Industries established a waterfront presence through the acquisition of Moon Engineering Company, Inc. This state-of-the-art facility is situated on 60 acres of waterfront property located on Pinners Point in Portsmouth and is equipped with two concrete piers and one concrete wharf, as well as over 50,000 sq. ft. of covered and environmentally controlled shop and storage area. Pier No. 1 measures 799 ft. x 55 ft. Pier No. 2 measures 799 ft. x 48 ft. Earl Industries' wharf measures 207 ft. in length. Available water depth for berthing is over 30 feet at MLLW.
Earl Industries’ Waterfront Facility

Earl Industries’ highly efficient production force is technically skilled and experienced in all facets of ship and industrial repair, conversion and alteration. Company production shops include:

<table>
<thead>
<tr>
<th>Structural Fabrication Shop</th>
<th>Pipe Shop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheet Metal Shop</td>
<td>Electrical Shop</td>
</tr>
<tr>
<td>Outside Machinist Shop</td>
<td>Rigging Shop</td>
</tr>
<tr>
<td>Inside Machinist Shop</td>
<td>Insulation and Lagging Shop</td>
</tr>
<tr>
<td>Boiler/Heat Exchanger Shop</td>
<td>Paint Shop</td>
</tr>
<tr>
<td>Combustion Engine Shop</td>
<td>Tank Cleaning Shop</td>
</tr>
<tr>
<td>Hydraulics Shop</td>
<td>Valve Shop</td>
</tr>
</tbody>
</table>

Earl Industries has successfully completed hundreds of contracts for Government agencies including in-yard overhaul availabilities for the U.S. Navy, the Military Sealift Command and the Maritime Administration. Commercial marine customers include new ship builders, ship managers, and container and cargo ship operators. For a complete overview of Earl Industries’ facilities and production capabilities, please visit the company website at www.earl-ind.com.

Lyon Shipyard, Inc.

Lyon Shipyard, Inc. is a full service ship repair facility providing timely and efficient service to commercial and government vessels since 1928. Commercial customers include tug and barge operators, dredging and marine construction contractors, ferry and cruise ship operators, research vessels and commercial fishing companies. Government customers include the US Navy, US Army, the Coast Guard, and the Maritime Administration.
Located on the Eastern Branch of the Elizabeth River, Lyon occupies approximately 1500 linear feet of waterfront providing pierside repairs for vessels up to 500 feet in length with supporting bulkhead staging and work areas. Two floating drydocks and three marine railways accommodate a variety of vessels with a lifting capacity up to 4900 long tons.

Well equipped shops are capable of precise work and experienced craftsmen provide a wide variety of skills including steel fabrication; machining; sheet metal fabrication; welding of various steel alloys, stainless steel and aluminum; surface preparation and painting; pipe fitting; ship fitting; machinery repairs; carpentry; electrical work; rigging; crane service and other specialized services as needed.

Lyon stands ready to respond to your needs promptly with service available around the clock at our facility or yours. Call us at 757-622-4661 or visit our website at www.lyonshipyard.com.

MHI Ship Repair and Services

MHI is an employee-owned company that has been involved in ship repair for over the past 50 years. Located in the main deep water harbor area, MHI services commercial vessels, oil tankers, Naval, Military Sealift Command, MARAD vessels and NATO vessels alike. As an ISO 9000 approved facility, MHI provides full ship repair services on an around the clock basis at either its new lay berth facility or off site. MHI’s mid town facility offers a 1,200 foot long pier with a 40 foot deep draft. Shore power, crane service, steam, potable water, fire protection, gases, phone lines, and project management office space is available.
MHI has a full compliment of cross trained filter/welders, machinists, marine electricians and tank cleaning experts. MHI provides service to both hull and machinery and is experienced in electronic and automated systems. No vessel problem is too small or too large. MHI responds to inquiries world wide and has a staff and agency network committed to customer satisfaction. The MHI team has recently merged with Tecnico, a local ship repair provider with offices in Norfolk, Fort Lauderdale, Florida, San Diego, California, and Chickasaw, Louisiana. Both teams are now under the umbrella of American Maritime Holdings. This combined highly skilled work force is an asset to any ship operator or owner. From components and subassemblies to deck machinery, MHI delivers.

Please visit us at www.MHI-shiprepair.com.

Newport News Shipbuilding

For 125 years, the ships built at Newport News Shipbuilding, like the American shipbuilders who built them, have served our nation in peace and war, in times of adversity and in times of abundance. The shipyard’s legacy of “Always Good Ships” includes the design, construction, overhaul and repair of more than 800 ships for the U.S. Navy and commercial customers.

Today, Newport News Shipbuilding, a division of Huntington Ingalls Industries, is the birthplace of the U.S. Navy’s nuclear fleet. The shipyard is the nation’s sole designer, builder and refueler of nuclear-powered aircraft carriers and one of only two companies capable of designing and building nuclear-powered submarines. Newport News Shipbuilding also provides fleet services for naval ships and has recently expanded its nuclear and manufacturing expertise into Department of Energy and alternative energy business ventures.
Located on more than 550 acres along two miles of waterfront in Newport News, Virginia, the Newport News shipyard employs more than 20,000 people, many of whom are third, fourth and fifth generation shipbuilders. It is the largest industrial employer in Virginia, and with more than 4,000 engineers, designers and technicians, is at the forefront of new ship technologies, specialized manufacturing capabilities and nuclear facility management.

The steel fabricating facilities include a fabrication shop covering 6.5 acres with automated steel handling and processing equipment. Some machines operate from direct input from the company's computer system. Steel subassemblies are produced in an 11-acre steel production facility (SPF).

A land level ship construction area features a 130,000 sq. ft. module outfitting facility (MOF). Other manufacturing facilities throughout the plant are equally expansive. The machine shops cover over 300,000 sq. ft. and contain more than 250 machines varying in size from small engraving machines to 42-foot boring mills. The 102,400 sq. ft. sheet metal facilities work metals from #22 gauge to 1/4-inch thick, and occasionally 1/2-inch thick. Equally extensive facilities are included in the plant for working all types of electrical and pipe work.

The 155,000 sq. ft. foundry is one of the largest in the United States. The foundry can pour steel up to 100,000 pounds, and can pour alloy steels (including HY-80 and HY-100), copper-nickel, aluminum, brass, and other non-ferrous alloys. Supporting the foundry is a 61,235 sq. ft. pattern wood shop. Large, complex patterns from this shop are used to produce castings for commercial and military ship customers. Newport News also offers forging and heat treating operations.

Plant facilities include the largest dry dock (Dry Dock No. 12) in the Western Hemisphere. This dock measures 2,173 feet long, 250 feet wide. Depth of water over the entrance sill is 32'7". Removable intermediate gates can be placed in several positions in the dock, allowing both construction and repair work to be performed simultaneously.

Dry Dock No. 12 is serviced by a 1,100 metric ton capacity gantry crane, spanning the dock and adjacent final assembly work platen. The final assembly platen and a pre-assembly platen cover over 640,000 sq. ft.

Dry Docks No. 11 and 10, 1,100 feet and 962 feet in length, can also be used for new ship construction and for ship overhaul and repair. These docks are serviced by cranes with capabilities up to 84 tons. A 310-long ton capacity gantry crane, with a 440-foot span, also services these two docks.

Dry Docks No. 1, 2, and 4 are used for submarine and surface ship overhaul and repair. These docks are serviced by cranes with capability up to 56 tons.
Aircraft Carrier USS Theodore Roosevelt (CVN 71) arriving in Pier #3 for overhaul.

<table>
<thead>
<tr>
<th>No.</th>
<th>Length Inside Gate</th>
<th>Width at Entrance</th>
<th>Depth of Water Over Sill, MHW</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1</td>
<td>650'</td>
<td>92'</td>
<td>33'</td>
</tr>
<tr>
<td>No. 2</td>
<td>862'</td>
<td>106'</td>
<td>31'</td>
</tr>
<tr>
<td>No. 4</td>
<td>525'</td>
<td>72'</td>
<td>33'</td>
</tr>
<tr>
<td>No. 10</td>
<td>962'</td>
<td>125'</td>
<td>35'</td>
</tr>
<tr>
<td>No. 11</td>
<td>1,100'</td>
<td>137'</td>
<td>40'</td>
</tr>
<tr>
<td>No. 12</td>
<td>2,173'</td>
<td>250'</td>
<td>32'-7”</td>
</tr>
</tbody>
</table>

Dry Dock No. 11 and 10 have capabilities for every aspect of ship repair, from routine maintenance to extensive machinery and hull repairs.

A floating dry dock is also available with a lift capacity of 40,000 long tons. It is 640 feet long, has 140 feet clear width, is 77'6" high and has a 37'6" water depth over 5 foot keel blocks when submerged.
PIERS

In addition to the dry docks and outfitting berths, four piers in varying lengths and capabilities service Newport News Shipbuilding's waterfront area.

<table>
<thead>
<tr>
<th>Pier</th>
<th>Length (ft)</th>
<th>Width (ft)</th>
<th>Water Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2</td>
<td>982</td>
<td>70</td>
<td>45 &amp; 35</td>
</tr>
<tr>
<td>#3</td>
<td>1,038</td>
<td>92</td>
<td>45</td>
</tr>
<tr>
<td>#5</td>
<td>1,160</td>
<td>80</td>
<td>35</td>
</tr>
<tr>
<td>#6</td>
<td>850</td>
<td>82</td>
<td>35</td>
</tr>
<tr>
<td>#8</td>
<td>660</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>OB #1</td>
<td>1,371</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>OB #2</td>
<td>951</td>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>

With vast facilities and experienced shipbuilders, Newport News Shipbuilding has the skills and capabilities for every aspect of ship repair; from routine maintenance to extensive machinery and hull repairs.
OTHER FACILITIES

The shipyard is equipped with four diesel-electric locomotives with the necessary flat cars, dump cars, gondolas, box cars, trucks, track cars, trailers, etc. The yard has more than 18 miles of track.

Waterborne equipment includes a floating derrick of 67-ton capacity and two diesel tugboats of 350 and 4,000 HP.

Rubber-tired transporters with capacities ranging from 250 to 1,000 metric tons move large sub-assemblies throughout the shipyard.

Please visit our website at www.huntingtoningalls.com