

**BEFORE THE  
UNITED STATES HOUSE OF REPRESENTATIVES  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
SUBCOMMITTEE ON COAST GUARD AND MARITIME TRANSPORTATION**

**On**

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*Coast Guard Arctic Implementation Capabilities*

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**Testimony of**

**Matthew Paxton  
President  
Shipbuilders Council of America  
20 F Street NW, Suite 500  
Washington, DC 20001  
(202) 478-1222**

Thank you Chairman Hunter, Ranking Member Garamendi and members of the Subcommittee on Coast Guard and Maritime Transportation, for the opportunity for the Shipbuilders Council of America to testify at this important hearing regarding Coast Guard Arctic Implementation Capabilities. I am Matthew Paxton, President of the Shipbuilders Council of America, the largest national trade association representing the U.S. shipyard industry. The SCA, which has been in existence since 1920, represents 83 member shipyard facilities and 94 industry partner member companies that are part of the vital supply chain that make up the shipyard industrial base.

SCA member shipyards are located along the eastern seaboard, the Gulf coast, Great Lakes, on the inner river system, West Coast, Alaska and Hawaii. SCA's members build, repair and maintain America's fleet of 40,000 commercial vessels. These shipyards and suppliers also constitute the shipyard industrial base that builds and repairs the most advanced and lethal Navy fleet in the world and also builds every class of vessel for the U.S. Coast Guard, as well as numerous vessels for other government services and agencies.

My testimony this morning will focus primarily on the capability and capacity of the domestic shipyard industry to build and maintain the next generation of polar icebreakers. In addition, my testimony will speak specifically to the ability of the U.S. shipyard industry to deliver polar icebreakers as specified in the Coast Guard's "Polar

Icebreaker Acquisition Directorate” as presented at the Industry Day on March 18, 2016.<sup>1</sup> However, within the shipyard membership of this trade association there are differing views on how the Coast Guard might best acquire an updated polar icebreaking capability, so I will refrain from promoting any specific approaches.

The U.S. shipyard industry is certainly up to the task of building polar icebreakers and has the expertise, the capability, the critical capacity and the unmatched skilled workforce to build these national assets. In fact, in a letter sent to this subcommittee nearly 5 years ago, SCA member companies urged the Congress, the Coast Guard and the Administration to work together to quickly authorize and fund such a project to deliver these critical vessels to meet the nation’s future strategic icebreaking needs.<sup>2</sup> The U.S. shipbuilding industry is excited and eager for the opportunity to compete to build the Coast Guard’s next icebreakers.

While it is true that the U.S. shipyard industry has not designed and constructed a heavy icebreaker in the past forty years, since delivering the *Polar Star* in 1976 and the *Polar Sea* in 1978, we have delivered several other icebreakers during that period. The medium polar icebreaker *Healy* was put into service August 21, 2000, and is actually larger than the heavy icebreakers the *Polar Star* and *Polar Sea*. The *Nathaniel B. Palmer*, a smaller icebreaker specifically built for conducting scientific research for the National Science Foundation, was delivered in 1992. For icebreaking operations on the

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<sup>1</sup> Coast Guard polar icebreaker program industry day briefing entitled “Polar Icebreaker (PIB) Acquisition Program Industry Engagement,” slide 23.

<sup>2</sup> Letter from Shipbuilders Council of America to Subcommittee on Coast Guard and Maritime Transportation dated November 28, 2011, in support of testimony from Vigor Industrial before the Subcommittee hearing titled “Protecting U.S. Sovereignty: Coast Guard Operations in the Arctic,” on December 1, 2011.

Great Lakes, the *Mackinaw* was delivered to the Coast Guard on November 18, 2005, and commissioned on June 10, 2006. In addition, the commercial icebreaking anchor-handling tug supply vessel the *Aiviq* was delivered in 2012.

These icebreakers were built in U.S. shipyards in the Pacific Northwest, along the Gulf Coast and on the Great Lakes. I can tell you today there is strong interest in icebreaker construction from at least 10 shipyards located around the nation from the Northeast to California to the Northwest and again along the Gulf Coast and Great Lakes region. Again, because of this interest from member shipyards of the SCA who may be competing for this project, it would not be appropriate to comment on the various pros and cons of the numerous shipyards that are interested in building the next Coast Guard icebreaker. However, this level of interest across the U.S. shipyard industrial base will ensure a robust level of competition for this project, which is certainly good for the Coast Guard and for the nation.

The same situation is true amongst the supplier base for the shipyards. The 94 industry partners of the SCA have the capabilities, equipment and technology available to support the building of the Polar Icebreaker. There are multiple design solutions available that will create a competitive environment for all potential suppliers as they support the shipyards.

The domestic shipyard industry certainly has the capability and know-how to build the next generation of Coast Guard icebreakers. The Maritime Administration determined in a recent study on the Economic Benefits of the U.S. Shipyard Industry that there are nearly 110,000 skilled craftsmen in the Nation's private shipyards building and repairing America's military and commercial fleets.<sup>3</sup> The report found the U.S. shipbuilding industry supports nearly 400,000 jobs across the country and generates \$25.1 billion in income and \$37.3 billion worth of goods and services each year.. In fact, the MARAD report found that the shipyard industry creates direct and induced employment in every State and Congressional District and each job in the private shipbuilding and repairing industry supports another 2.6 jobs nationally. This data confirms the significant economic impact of this manufacturing sector, but also that the skilled workforce and industrial base is present domestically to build these ships and would not need to ramp up or reconfigure itself to build these strategic assets.

U.S. shipyards pride themselves on implementing state of the art training and apprenticeship programs to develop skilled craftsman that can cut, weld, bend and build truly first of kind vessels and the best Navy and Coast Guard in the world. There certainly is the capability within the workforce in our shipyard industry to build these icebreakers. For instance, the steel requirements for a heavy icebreaker rated at Polar Code 1, the highest icebreaking requirement, is steel thickness in the 50 millimeter range. Presently, U.S. shipyards building for the commercial containership market handle, cut, weld and form steels for these ships that are at 65 millimeter in thickness and of similar

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<sup>3</sup> "Economic Importance of the U.S. Shipbuilding and Repairing Industry". Maritime Administration (MARAD), November 2015

grade to the Polar Code requirement. In addition, many of our shipyards work in heavy steel construction beyond ships, building structures for nuclear power plants that are 3 to 4 inches thick. These are just a few examples of the critical skills that would be needed to build a polar icebreaker where members of our industry association have recent and relevant experience.

Any notion that our industry could not handle the engineering and manufacturing of steel hulls rated at the highest polar codes for icebreaking, just does not understand the capability of the domestic shipyard industry.

As a final recommendation to the committee, to build these ships in as timely and affordable manner as possible there must be precise and stable Coast Guard validated requirements. Validated and stable requirements are absolutely essential to a successful program. There is language in the House 2017 Defense Authorization bill requiring the Coast Guard provide Congress and industry with validated operational requirements in the near term and we believe that is a step in the right direction.

If there are validated and stable requirements in place, the time to construct a polar icebreaker, from the start of concept design and construction to delivery would be roughly 7 and a half years. This is exclusive of the time that government activities take during the acquisition process

Again, I would like to thank this Subcommittee for inviting me to testify alongside such distinguished witnesses. As a representative of our Nation's private shipyards, I can say, with confidence and certainty, that our domestic shipyards and skilled workers are ready and able to build the next generation of Coast Guard polar icebreakers.