



Inland Waterways and Western River Tenders

April 27, 2020

Fiscal Year 2020 Report to Congress



**Homeland
Security**

United States Coast Guard

Foreword

April 27, 2020

I am pleased to present the following report, “Inland Waterways and Western River Tenders,” which has been prepared by the U.S. Coast Guard.

Senate Report 116-125 accompanying the Fiscal Year 2020 Department of Homeland Security Appropriations Act (P.L. 116-93) requires the Coast Guard to provide details of the Coast Guard’s plans to acquire new vessels to replace the current fleet of inland waterways and western river tenders.

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:

The Honorable Lucille Roybal-Allard
Chairwoman, House Appropriations Subcommittee on Homeland Security

The Honorable Chuck Fleischmann
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable Shelley Moore Capito
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Jon Tester
Ranking Member, Senate Appropriations Subcommittee on Homeland Security.

I am happy to answer any further questions you may have, or your staff may contact my Senate Liaison Office at (202) 224-2913 or House Liaison Office at (202) 225-4775.

Sincerely,



Karl L. Schultz
Admiral, U. S. Coast Guard
Commandant





Inland Waterways and Western River Tenders

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I. Legislative Language

This document responds to the language set forth in Senate Report 116-125 accompanying the Fiscal Year (FY) 2020 Department of Homeland Security (DHS) Appropriations Act (P.L. 116-93).

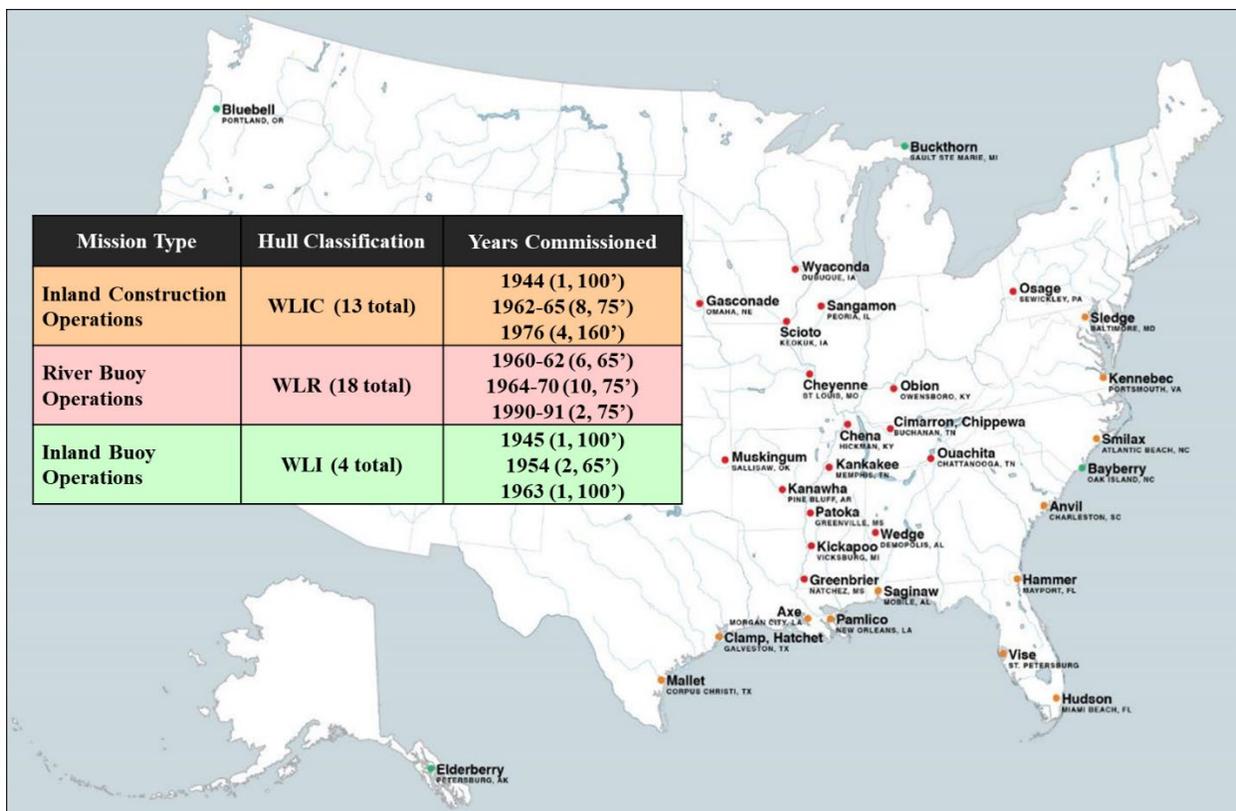
Specifically, Senate Report 116-125 states:

Inland Waterways and Western River Tenders.—The Committee continues to be concerned with the Coast Guard’s fleet of inland river tenders which help ensure the integrity of the structures, beacons, and buoys that support the U.S. Marine Transportation System. In addition to age concerns and equipment obsolescence issues, the fleet is unable to accommodate mixed-gender crews and presents other challenges, particularly to crew health. The recommendation includes the requested amount of \$2,500,000 to continue accelerating the Inland Waterways and Western River Tenders acquisition. The Department is directed to provide to the Committee an acquisition plan and requirements document not less than 90 days after the date of enactment of this act that details the Coast Guard’s plans to acquire new vessels to replace the current fleet.

II. Background

The inland tender fleet—consisting of 75-foot, 100-foot, and 160-foot inland construction tenders (WLIC); 65-foot and 75-foot river buoy tenders (WLR); and 65-foot and 100-foot inland buoy tenders (WLI)—is critical to the Nation’s economy. The fleet supports a safe and effective marine transportation system, which accounts for \$5.4 trillion of economic activity annually and sustains 30.7 million jobs. However, substantial increases in maintenance costs beyond the budgeted standard support level are driving the need to recapitalize this fleet that collectively averages more than 55 years in age. Throughout a 5-year span, the WLIC, WLR, and WLI maintenance costs were, respectively, 8 times, 19 times, and 3 times more than their budgeted levels. Figure 1 shows the types and distribution of the current inland tenders.

Figure 1: Current Inland Tender Types and Distribution



Each inland tender type has primary responsibility for maintaining a specific subset of aids to navigation (ATON) on critical parts of the marine transportation system. The 13 WLICs construct, repair, and maintain approximately 14,200 fixed ATON within inland waterways along the Eastern Seaboard and Gulf of Mexico. The WLICs are the only Coast Guard platform with the capability to drive and remove piles, to erect range towers and major lights, and to effect significant structural repairs to fixed ATON.

WLRs service short-range ATON on the western rivers. These 18 tenders set, relocate, and recover 8,000 to 12,000 buoys to mark navigable channels in these rivers as the water levels

change, and establish and maintain minor fixed aids (e.g., small skeleton towers), lights, and day beacons on riverbanks.

WLIs service short-range ATON along coastal and inland waterways. They maintain approximately 1,400 buoys that are beyond the capabilities of the nearest ATON team and that are located in areas either too shallow or otherwise too restricted for larger buoy tenders to reach. The four WLIs are located in Alaska, Michigan, North Carolina, and Oregon.

All inland tenders also are part of Coast Guard contingency plans and provide a federal presence for the inland waterways and western rivers, conducting ports, waterways, and coastal security; search and rescue; marine environmental protection; and marine safety missions. Any replacement of inland tender capability must account for these mission needs in addition to the ATON mission.

Despite the diversity of the current fleet, which comprises nine subclasses of cutters, the Coast Guard's Waterways Commerce Cutter (WCC)¹ acquisition program is planning for a replacement capability that focuses on standardization and on minimizing the number of cutter classes in order to acquire and sustain this critical fleet more cost effectively. However, accomplishing the current inland tender fleet's diverse ATON mission requirements with a smaller number of cutter classes presents design challenges, especially when considering the physical constraints imposed by the operating environments currently being serviced. Additionally, the wide geographic dispersion of the inland tender fleet presents support and logistics challenges due to limited access to Coast Guard and commercial maintenance support and repair parts. Any recapitalization of the current inland tender capability must take these challenges into account to meet the Coast Guard's operational and maintenance requirements.

¹ The WCC previously was referred to as the Inland Waterways and Western River Tender Program.

III. Program Status and Progress

The WCC Program entered the Analyze/Select phase of the DHS acquisition lifecycle framework following DHS approval on January 19, 2018. The Coast Guard has taken steps to accelerate the WCC Program by more than a year, following direction in the FY 2018 DHS Appropriations Act (P.L. 115-141). The Coast Guard is accelerating WCC acquisition primarily by conducting activities and studies concurrently (rather than sequentially) that will inform the development of the acquisition strategy and system specifications more expeditiously.

On the basis of market research, design studies, and an independent analysis, the Coast Guard has determined that three WCC variants will meet mission needs best. Each variant will perform one mission set (river buoy tending, inland construction, or inland buoy tending). The Coast Guard is planning to acquire the WLRs and WLICs on one contract; these variants are expected to be common except for hull length, working deck layouts, and deck equipment, including the crane. The Coast Guard released the draft specifications for these variants in October 2019 to support one-on-one discussions with industry.

The Coast Guard also has determined that the WLRs and WLICs will be a small business set-aside. The Coast Guard made both the draft specifications release and small business set-aside decision much earlier than in the standard process; usually these are part of the draft request for proposal. The Coast Guard received positive feedback from industry regarding its release of timely information; during one-on-one discussions, potential industry partners expressed that this early information enabled them to plan better.

The WLIs will be procured separately from the WLRs and WLICs. The Coast Guard is examining whether commercial vessels will meet this variant's top-level requirements, which the Coast Guard released in November 2019.

The Coast Guard is working under an accelerated program schedule to reach an anticipated initial operational capability in the second quarter of FY 2025. Initial operational capability is achieved following post-delivery availability, test and evaluation, and certification that the first hull of each WCC variant satisfies all key performance parameters. Full operational capability, which will be achieved when the capability has been fielded fully, is anticipated for the second quarter of FY 2030, although this date may change on the basis of quantity needed and production rate.

The Coast Guard has participated in industry engagement to support the accelerated schedule. The WCC program has presented information and program updates at Sea-Air-Space and the International WorkBoat Show, and most recently conducted one-on-one industry meetings at the December 2019 International WorkBoat Show to continue market research on the river buoy tender, inland construction tender, and inland buoy tender.

Market Research/Design Studies

Because of the nature of the ATON mission, and the supportability challenges created by the ATON system's geographical dispersion, it is important that the solution or solutions meet

operational and maintenance needs efficiently and effectively and continue to do so for decades. Market research has included eight requests for information, released between February 2018 and January 2020, to gauge the level of interest from industry and the state of the market, including information regarding specialized equipment such as cranes and pile drivers.

Additionally, the Coast Guard must ensure that design specifications released to industry are technically feasible and affordable. The Coast Guard is developing indicative designs, and the Coast Guard and U.S. Army Corps of Engineers Marine Design Center are performing studies to understand cost and performance trade-offs better. These design studies and indicative designs informed the draft specifications and top-level requirements released to industry in 2019.

Alternatives Analysis and Acquisition Plan

The Naval Sea Systems Command is conducting the WCC alternatives analysis (AA) to make an independent, cost-informed assessment of different types and combinations of materiel and nonmateriel solutions that can complete the current fleet's missions effectively. The AA will include cost and performance trade-offs among the different types and combinations of materiel and nonmateriel solutions. The AA began in October 2018, following DHS approval of the WCC Program's AA study plan, and is scheduled for completion in the third quarter of FY 2020.

The AA included an analysis of cutter types to identify which cutter type or types (tug/barge, monohull, or a fleet consisting of both) would meet mission needs best. The results of this analysis expedited the program's ability to develop its acquisition strategy. This part of the analysis was completed in June 2019 and informed the program's decision to acquire three variants in order to lower performance risk. The program will maximize commonality among the variants to facilitate maintenance and to lower sustainment costs.

The acquisition plan for the river buoy tender and inland construction tender variants is scheduled for completion, including DHS approval, in the third quarter of FY 2020. The acquisition plan for the inland buoy tender is scheduled for completion by the end of FY 2020.

Operational Requirements

The Coast Guard developed a WCC operational requirements document (ORD) that identifies initial effectiveness requirements, including key performance parameters, required of the WCC to complete its primary and secondary missions. The WCC ORD was approved by the Coast Guard Assistant Commandant for Capability and entered the DHS Joint Requirements Council's validation process. Final approval of the ORD is scheduled for the third quarter of FY 2020. The ORD provides requirements for three variants, one per mission set. These requirements have been informed by market research, design studies, and an independent analysis.

Appendix: List of Abbreviations

Acronym	Definition
AA	Alternatives Analysis
ATON	Aids to Navigation
DHS	Department of Homeland Security
FY	Fiscal Year
ORD	Operational Requirements Document
WCC	Waterways Commerce Cutter
WLI	Inland Buoy Tenders
WLIC	Inland Construction Tenders
WLR	River Buoy Tenders