Inland Tenders and the U.S. Marine Transportation System

The inland tenders play a key role in the Coast Guard’s support of the U.S. Marine Transportation System (MTS).

U.S. MTS by the Numbers

- **361** Ports (commercial)
- **25,000** Miles of navigable channels
- **20,000** Bridges (crossing waterways)
- **50,000** Federal ATON (buoys, beacons, ranges)

Annual Economic Value

- **$5.4 trillion** of economic activity
- **30 million** U.S. jobs sustained

Sources:
1) United States Coast Guard Maritime Commerce Strategic Outlook, October 2018
Current State of the Inland Tender Fleet

• 35 cutters in nine subclasses perform the inland aids to navigation (ATON) mission

• The average age of the fleet is more than 55 years
  • Inland construction tenders (WLIC) built in 1944 (1), 1962 (8), 1976 (4)
  • River buoy tenders (WLR) built in 1960 (6), 1964 (10), 1990 (2)
  • Inland buoy tenders (WLI) built in 1945 (1), 1954 (2), 1963 (1)

• Issues:
  • Rapidly increasing maintenance costs
  • Decreased operational availability
  • Habitability concerns
Primary Mission: ATON

“The Coast Guard shall— … (4) develop, establish, maintain, and operate, with due regard to the requirements of national defense, aids to maritime navigation, icebreaking facilities, and rescue facilities for the promotion of safety on, under, and over the high seas and waters subject to the jurisdiction of the United States”

– 14 U.S. Code § 102
Coast Guard Primary Duties
Distinct ATON Mission Sets

Inland Construction Tending

River Buoy Tending

Inland Buoy Tending
Secondary Missions

Inland tenders also provide a federal presence on the inland waterways for the following missions:

- Ports, waterways, and coastal security
- Search and rescue
- Marine environmental protection
- Marine safety
Current WLR Distribution
Current WLIC Distribution
Current WLI Distribution
## Operationally Critical Characteristics

<table>
<thead>
<tr>
<th>Criterion</th>
<th>River Buoy Tender</th>
<th>Inland Construction Tender</th>
<th>Inland Buoy Tender</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Objective: 170 ft.</td>
<td>Objective: 150 ft.</td>
<td></td>
</tr>
<tr>
<td>Draft (end-of-service-life, full load)</td>
<td>Threshold: ≤ 5 ft. 6 in.</td>
<td>Objective: ≤ 5 ft.</td>
<td></td>
</tr>
<tr>
<td>Maneuverability</td>
<td>Ability to approach, establish, discontinue, and maintain floating ATON and fixed ATON structures that are located in 4 ft. of water up to 20 ft. from “good” water (≥ 5 ft. depth) without touching the riverbed or seafloor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>Open Water – Threshold: 11 knots, Objective: 13 knots</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Endurance</strong></td>
<td>Threshold: 11 days</td>
<td>Threshold: 7 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Objective: 15 days</td>
<td>Objective: 10 days</td>
<td></td>
</tr>
<tr>
<td><strong>Mission Execution</strong></td>
<td>Up to USCG 4NR buoy (deck cargo capacity 275,000 lbs.)</td>
<td>Up to 60 ft. pile (deck cargo capacity 100,000 lbs.)</td>
<td>Up to USCG 1992-type 6x20 LR buoy (deck cargo capacity 30,600 lbs.)</td>
</tr>
</tbody>
</table>
Alternatives Analysis (AA) materiel analysis completed
  - Full AA completion anticipated in 2020

Program life cycle cost estimate refined

Sustainment planning and acquisition strategy development underway

Continued engineering trade studies/analysis underway to ensure future request for proposal (RFP) requirements are technically feasible and affordable
Analysis

- Three WCC mission-specific variants based on:
  - Coast Guard Ship Design Team/ U.S. Army Corps of Engineers Marine Design Center design analysis
  - AA materiel solution analysis
  - Working deck user jury
  - Market research (including requests for information (RFIs))

- Maximizing commonality among the river buoy/inland construction tenders will facilitate sustainment and reduce life cycle costs

*From top: notional Coast Guard indicative designs of the river buoy tender, inland construction tender, and inland buoy tender*
Primary Areas of Concern

- Dimensional constraints/ability to maintain draft with necessary loads
- Ability to meet speed requirement
- Ability of working deck to meet operational needs
- Availability of construction cranes to meet operational needs
- Designing and building for supportability
- Quality timely delivery
The WCC Program plans to acquire three variants:

- **Acquisition of two monohull variants with maximum commonality for river buoy and inland construction tenders**
  - Configurations are identical except for hull lengths, working deck layouts, and deck equipment, including cranes designed for their mission set
  - Anticipate at most seven vessels delivered in one year
- **Parallel acquisition for a monohull inland buoy tender**

*From left: notional Coast Guard indicative designs of the inland buoy tender, inland construction tender, and river buoy tender*
River Buoy/Inland Construction Tender Acquisition

- Not commercial
- Small business set-aside
Inland Buoy Tender Acquisition

• The Coast Guard is examining whether commercial vessels will meet inland buoy tender requirements

• Vessel must be able to meet the top-level requirements, or be able to meet these requirements with minor modifications to the vessel

Information about prospective inland buoy tender vessels can be sent to wcc@uscg.mil
Path Forward

• **Continue refinement of specifications**
  • Draft river buoy/inland construction tender specifications and indicative designs released in October 2019
  • Draft inland buoy tender top-level requirements released in November 2019
  • Release of inland buoy tender requirements anticipated in 2020

• **Finalize Alternatives Analysis**

• **Finalize fleet mix analysis to determine number of cutters**

• **Finalize Acquisition Plan**

• **Inland tender visit for industry (TBD)**

• **Release draft RFPs (2020)**
## Desired Fielding Schedule

<table>
<thead>
<tr>
<th>Notional Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>River buoy/inland construction tender RFP release</td>
</tr>
<tr>
<td>2021</td>
<td>Inland buoy tender RFP release</td>
</tr>
<tr>
<td>2021</td>
<td>River buoy/inland construction tender contract award</td>
</tr>
<tr>
<td>2022</td>
<td>Inland buoy tender contract award</td>
</tr>
</tbody>
</table>
| 2025          | Initial operational capability  
*Achieved following post-delivery availability, test and evaluation, and certification that the first hull of each WCC variant satisfices all key performance parameters, or threshold requirements without which the ATON mission cannot be performed* |
| 2030          | Full operational capability  
*Achieved when the capability has been fully fielded; may change based on quantity needed and production rate* |
Questions?

Visit booth 347 to speak to WCC program members and learn more about our ships’ missions