LANDING CRAFT, AIR CUSHION
An integral component of the U.S. Navy’s amphibious fleet

Textron Marine & Land’s Landing Craft, Air Cushion (LCAC) is the cornerstone of the U.S. amphibious modernization program and a revolutionary means for the U.S. Navy and Marine Corps to land at more than 80 percent of the world’s shorelines. Developed, manufactured, and supported by Textron Marine & Land, LCAC is in worldwide use by the United States Navy. As evidenced by successful operations in Somalia, Bangladesh, Liberia, Haiti and Kuwait, LCAC is combat-proven. It has also proven invaluable in times of disaster, including tsunami and hurricane relief operations.

Unparalleled Versatility
The LCAC can traverse snow, marsh, ice, tundra and sand. Traveling at 50-knot speeds in Sea State 2, LCAC operates at a range of 250 miles while maintaining 10 percent fuel reserves. On land, it can traverse obstacles as high as four feet. Designed to function in extreme temperatures, LCAC withstands climates ranging from the Arctic cold to Sahara heat.

Cargo is easily loaded onto the LCAC via the bow and stern ramps, allowing roll-on/roll-off capability. The LCAC transports up to 150,000 pounds (68,040 kg) of cargo while in overload mode. Use of deck tie-down rails ensures stability of heavy loads during transit. Whether operating from the well deck of an amphibious transport ship, through the surf zone or beyond the beach inland, LCAC provides unparalleled over-the-horizon performance.

Multimission Capable
Beyond its basic mission of transporting personnel and equipment from ship to shore, LCAC has become a multimission craft. As a troop carrier, LCAC can be outfitted with a personnel transport module that carries up to 180 people or troops. In civil emergencies, its extensive cargo capacity enables delivery of lifesaving supplies and equipment to otherwise inaccessible sites. As a Medevac, LCAC’s speed ensures rapid response and timely extraction.

Defining State-of-the-Art
The first LCACs were delivered in 1984 with a service life design of 20 years. Following decades of fleet service, the LCAC will operate well into the 21st century with markedly improved performance and increased life span due to a Service Life Extension Program (SLEP). With SLEP, LCAC will continue to define state-of-the-art, with improvements that include an expanded performance envelope; reduced operating and maintenance costs and crew workload; and an extended service life from 20 to 30 years. Moreover, SLEP allows improvement in combat readiness by aligning systems capability with other U.S. Armed Forces during joint operations.

The SLEP program was launched following significant design and development. It entails installation and testing of modifications to the LCAC. These efforts include development and installation of main engine upgrades; design, development and testing of a new skirt system; and modifications to the buoyancy box of the craft. Other work consists of upgrading the communications, navigation and electronics systems, as well as modifications to the fuel system to improve trim characteristics.

Designing for the Future
Textron Marine & Land Systems continues to push the limits of Air Cushion Vehicle design with development of the next-generation LCAC called Ship to Shore Connector or SSC. In partnership with the U.S. Navy, the unique center of knowledge at TM&LS has been employed to refresh the technology in order to design a craft with increased reliability and maintainability, as well as meet the increasing payload requirements for the 2015 Marine Expeditionary Battalion.
**LANDING CRAFT, AIR CUSHION SPECIFICATIONS**

**HULL**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Off-cushion</th>
<th>On-cushion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>81 feet, 10 inches</td>
<td>91 feet, 9.5 inches</td>
</tr>
<tr>
<td>Beam</td>
<td>46 feet, 9 inches</td>
<td>47 feet, 10 inches</td>
</tr>
<tr>
<td>Height above ground</td>
<td>19 feet, 2 inches</td>
<td>25 feet, 10 inches</td>
</tr>
<tr>
<td>Cushion depth</td>
<td>5 feet</td>
<td></td>
</tr>
</tbody>
</table>

**Deck area**

- Off-cushion: 67' x 27' (1,809 square feet)
- On-cushion: 68' x 28' (2,028 square feet)

**WEIGHT**

- Maximum allowable craft weight: 389,984 pounds
- Design payload: 120,000 pounds
- Overload payload: 150,000 pounds

**POWER**

- Propulsion: Four ETF40B gas turbines, each rated at 3,955 SHP max continuous
- Propellers: Two four-bladed, 11.75-foot-diameter reversible, variable pitch propellers
- Lift System: Four 63-inch-diameter double-entry, double-discharge centrifugal lift fans
- Control: Variable pitch propellers, rotatable bow thrusters, and aerodynamic rudders

**PERFORMANCE AT DESIGN PAYLOAD**

- Speed, Sea State 2: 50 knots
- Speed, Sea State 3: 35 knots
- Speed, Over Land: 25 knots

**CREW/SEATING**

- Operating crew: 5 members
- Starboard cabin seating: Upper - craftmaster, engineer, navigator, wave commander and troop commander; Lower - 7 troops
- Port cabin seating: Upper - loadmaster; Lower - deck engineer & 16 troops

**COMMUNICATIONS/NAVIGATION**

- Navigation (SLEP configuration): Integrated NAV system with EGI (embedded global positioning system with inertial navigation system)
- Radar: 25 Kw surface search radar
- Radios: 2 UHF/VHF, HF and Man-on-the-Move