Amphibious Vehicle Test Branch

Overview

MCTSSA/APBI

24 Jan 2019

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.
Agenda

• Mission
• History
• Who we are/support
• Why we need the AVTB?
• Areas of Expertise
• Test Support Resources
• Ongoing/Future projects
• Questions

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Conduct test and evaluation of expeditionary combat vehicle systems and equipment in order to enable informed acquisitions decisions
History/Command Relationships

- Established in 1943
  - Conducted Developmental Testing of every Marine Corps amphibious vehicle
  - LVT-3, LVT-4, LVT-5, LVT-7/AAV, EFV, HTR, MPC, AAV-SU, and ACV
- Historically has been subordinate to AAS Bn, PM AAA, SIAT and MCTSSA
- Much more than amphibious vehicle testing at Camp Pendleton
  - Ability to test at other DoD locations (MCLB Barstow CA, Fort Greely AK, Vandenberg AFB CA)
  - Examples: AMK970 Rail Impact Testing at MCLB Barstow and EFV testing at CRTC Alaska
AVTB History

1945
LVT-3 Water Mobility tests

1949
LVT-3 command variant & water speed testing

1952-55
LVT-P5 for personnel, H6 direct/indirect fire, and
R1 recovery testing and development
LVT-5 air intake/exhaust system upgrades;
designated LVTP5A1

1964
LVT-5A1 dozer mod kit tests

1966
Vehicle fire suppression system development
and testing ISO combat requirements

1971
LVT-7 T&E support

1974
LVTP7 Survivability Assessment

1977
LVT-7 MCM kit tests

1982
LVT-7 engine, transmission, weapons,
and overall maintainability
upgrade testing; designated LVT-7A1

1988
Up-Guns Weapon Station Testing

1945-1955
1st land performance test of LVT-5

1952
LVT-3  command variant & water speed testing

1962
LVT-E1 countermine tests and fleeting support

1966
Vehicle fire suppression system development
and testing ISO combat requirements

1971
LVT-7 T&E support

1974
LVTP7 Survivability Assessment

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LVT-7 MCM kit tests

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Who we are/support

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Why we need AVTB?

- Only certified amphibious test facility within the DoD
- 75 years of providing testing and analysis of expeditionary combat vehicle systems
- Unique capabilities and equipment facilitates testing of an assorted portfolio of equipment
- Cutting-edge technology incorporated into test facilitation
- A diverse workforce of Marines, Gov’t Civilians and Contractors provides a plethora of expertise
- Habitual relationships established with other DoD facilities to provide off-base testing
- Ability to utilize all assets inherent to I Marine Expeditionary Force
- Contractual department facilitates equipment/personnel non-organic to the Branch
### Areas Of Expertise

<table>
<thead>
<tr>
<th>Vehicle Performance Evaluation</th>
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<tbody>
<tr>
<td>Amphibious Water Performance</td>
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<tr>
<td>Automotive Performance</td>
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<tr>
<td>Water Tactical Mobility</td>
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<tr>
<td>Land Tactical Mobility</td>
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<tr>
<td>Communications</td>
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### Representative Test Environments

<table>
<thead>
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<tbody>
<tr>
<td>Day / Night</td>
</tr>
<tr>
<td>Surf Zone</td>
</tr>
<tr>
<td>Open Ocean/calm water</td>
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<td>Various Sea States</td>
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Test Support Resources

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Ongoing/Future Projects

**Ongoing**
- Amphibious Combat Vehicle Increment 1.1
- Joint Light Tactical Vehicle
- Autonomous Amphibious Assault Vehicle
- Medium Tactical Vehicle (7-Ton) Rail Impact
- Blue Force Tactical Network (HF/UHF Data Networks)

**Future**
- Amphibious Combat Vehicle Increment 1.2
- Armored Reconnaissance Vehicle
- Unmanned Swarming Amphibious Assault Craft
- Utility Tactical Vehicle Replacement
- Amphibious Surf Capability Vehicle

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Questions?