

3.00 PEO LS High Priority Technologies

“Our ground combat and tactical vehicle strategy is focused on the right mix of assets, balancing performance, payload, survivability, fuel efficiency, transportability and cost. In particular, the Amphibious Combat Vehicle is important to our ability to conduct surface littoral maneuver and seamlessly project Marine units from sea to land in permissive, uncertain and hostile environments. We remain firmly partnered with the U.S. Army in fielding a Joint Light Tactical Vehicle that lives up to its name while also being affordable.”

-General James F. Amos, Commandant of the Marine Corps, November 2, 2011

Once the individual PEO LS Program’s technology requirements/issues were identified, analysis was conducted to determine commonality across other PEO LS Program of Records (PoR). The result of this analysis is the PEO LS High Priority Technologies (Figure 3). These High Priority Technologies were then compared and contrasted with the “Top Down” listing of key S&T technology investment areas from the Office of the Secretary of Defense (OSD); Office of the Under Secretary of Defense Acquisition, Technology and Logistics (AT&L); DoD, Director Research and Engineering (DDR&E); Defense Advanced Research Projects Agency (DARPA); ONR/Naval Research Lab (NRL); United States Army (USA), DoD Agencies, and Industry. The priority list of Top PEO LS Program Technology Issues was then mapped to the appropriate technology focus area resulting in the PEO LS “S&T Focus Areas” (see Figure 4).

By Prioritizing the technologies, highlighted in Figure 3 on the following page, the PEO LS S&T Representatives are able to align their technology subject areas with appropriate S&T Venues and “Top Down” technology investment areas. This also informs S&T Stakeholders of how (and where) to invest their S&T dollars to meet PEO LS S&T High Priority Technology Requirements. This cooperative engagement with agencies such as ONR/NRL, MCSC, OSD AT&L, DDR&E, USA Tank Automotive Research, Development and Engineering Center (TARDEC), DARPA, and other services creates a synergistic partnership that helps “Focus the Future Faster” for the warfighter. This partnership is further enhanced by the collaborative engagement between PEO LS S&T Representatives in Program Reviews, S&T conferences, resourcing meetings, Joint Technology Partnership Conferences, S&T Venues, and Technology Process Forums.

PEO LS High Priority Technologies

Technologies that Reduce Size and Weight:

- Lightweight Materials, Components etc.
- Integrated/Consolidated C4ISR

Technologies that Enhance Reliability, Availability & Maintainability (RAM):

- Health Monitoring
- Wireless Diagnostic/Prognostics
- Modeling and Simulation Tools to “design-in” Reliability

Technologies that Improve Power Margin:

- Energy Storage
- Batteries (denser/lighter)
- Power Management
- On-Board and Exportable Power

Technologies that Increase Survivability:

- Lightweight Armor
- Fire Suppression Technologies
- Anti Roll Technologies
- Crash Survivability
- Collision Avoidance
- Blast Resistant Seating
- Seat Belts

Technologies that Enhance Mobility:

- Suspension
- Axles
- Transmission
- Engine
- Tire Technologies

Technologies that Enhance Safety:

- Air Conditioning
- Driver and Crew Vision
- Toxic Fume Reduction Technologies
- Noise Reduction Technologies
- Vibration Reduction Technologies

Technologies that Enhance Fuel Economy :

- Alternative Power Sources
- Alternative Materials
- Fuel Additives
- Tire Technology

Technologies that Enhance Platform C4ISR Functions:

- Common Data Architecture
- Power/Thermal Management
- Standard Interfaces
- Common Displays

Figure 3 – PEO LS High Priority Technologies