

Section 1

PEO LS INTRODUCTION

“We must capitalize on innovation that realizes how to leverage the capabilities of all new systems at a pace that maintains the advantage over our adversaries.”

—General Robert B. Neller, 37th Commandant of the Marine Corps

In this seventh edition of the Program Executive Officer Land Systems (PEOLS) Advanced Technology Investment Plan (ATIP), PEO LS identifies and prioritizes the Top Technical Issues for each program within PEO LS. The goal of this ATIP is to inform, influence, and align Science and Technology (S&T) investments. The methodology used to develop the ATIP is the focused and repeatable ‘Concept to Capability Process’ (depicted in figure 2-1), which is designed to encourage communication from the early stages of concept development, throughout the process to the actual capability resulting from the initial investment. The key to this process is stakeholder engagement within the S&T Enterprise, industry, and academia. The concept developer must understand the ‘realm of the possible’ when it comes to developing concepts and requirements. Once developed, requirements become the backbone of program capabilities. Together, these efforts support the ultimate transition of critical and affordable capabilities to the Warfighter.

This year’s ATIP theme is **Innovate-Adapt-Win**. The Commandants Planning Guidance 2015, written by the former Commandant, General Joseph F. Dunford Jr, and amended in FRAGO 01/2016, Advance to Contact, by the current Commandant, General Robert B. Neller, clearly states that the Marine Corps must innovate for the future, adapt to overcome, and always win. The focus for this edition is to search for innovative solutions to address the current and future needs of the Marine Corps. PEO LS is looking for those innovations, those solutions,

and those game changing technologies that will empower our Marine Corps to be dominant on the future battlefields in defending our nation.

PEO LS is responsible for managing multiple Acquisition Category (ACAT) I, II, III & IV programs that are critical to the support of the Warfighter. PEO LS’ effort is concentrated on resources to balance Marine Corps modernization and sustainment of assigned programs. These programs include: the Marine Corps’ #1 ground program the Amphibious Combat Vehicle (ACV); the Assault Amphibious Vehicle (AAV7A1); the Joint Light Tactical Vehicle (JLTV); the Mine Resistant Ambush Protected (MRAP) family of vehicles; the Common Aviation Command and Control System (CAC2S); the P-19R fire truck; a Flat-Rack Refueling Capability; the Ground/Air Task Oriented Radar (G/ATOR); the Lightweight 155 M777 Howitzer; the Medium Tactical Vehicle Replacement (MTVR); and the Logistics Vehicle System Replacement (LVSr). Additionally, PEO LS manages several legacy systems to include the Internally Transportable Vehicle (ITV), as well as the High Mobility Multipurpose Wheeled Vehicle (HMMWV). The monetary value of these programs across the Future Years Defense Program (FYDP) is approximately \$6.5 Billion.

Published annually, the PEO LS ATIP is much more than an information source for PEO LS technology efforts. It has been a catalyst for opening communication and collaboration between “3 Circle” partners (Combat Developer, Materiel

Developer, and the S&T Developer) internal to the Marine Corps and also external Department of Defense organizations. This year's ATIP was developed in direct collaboration with the Office of Naval Research (ONR), Army's Tank Automotive Research, Development and Engineering Center (TARDEC), Defense Advanced Research Projects Agency (DARPA), Naval Warfare Centers and other government agencies, as well as with industry and academia. It is published as an open source document to allow those outside the DoD to offer solutions that might otherwise be missed.

As today's fiscally austere budgets continue to decrease, the Marine Corps must continue to find ways to procure the best equipment for the defense of the nation. This edition, as in editions past, must find ways to enhance our warfighter's capabilities by:

- ▶ **1. Identifying and defining the top technical challenges** that must be resolved within each program. These challenges are vetted and are advertised in the ATIP to alert and assist industry and Government regarding the S&T needs of major ACAT programs within PEO LS.
- ▶ **2. Resolving capability gaps** and technical issues. By identifying and publishing the technical issues, PEO LS is delivering input and assistance to the S&T Enterprise, industry, and academia to close capability gaps.
- ▶ **3. Informing, influencing, and aligning S&T investment** by identifying the S&T needs of PEO LS and **supporting the technology insertion and transition into their POR.**

The overall technology requirements for PEO LS programs are as follows:

- ▶ Reliable and efficient electrical power generation to supply energy for our modern force
- ▶ Increased survivability while maintaining mobility

- ▶ Government owned and operated modeling and simulation capability that can accurately predict cost and performance
- ▶ Open plug-and-play communications architecture in Marine Corps vehicles



Mr. Bill Taylor addressing PEO LS.

“We have been doing a much better job of identifying our requirements, now we need industry to bring us their best ideas to meet those requirements.”

—Mr. Taylor, PEO LS

PEO LS Organization

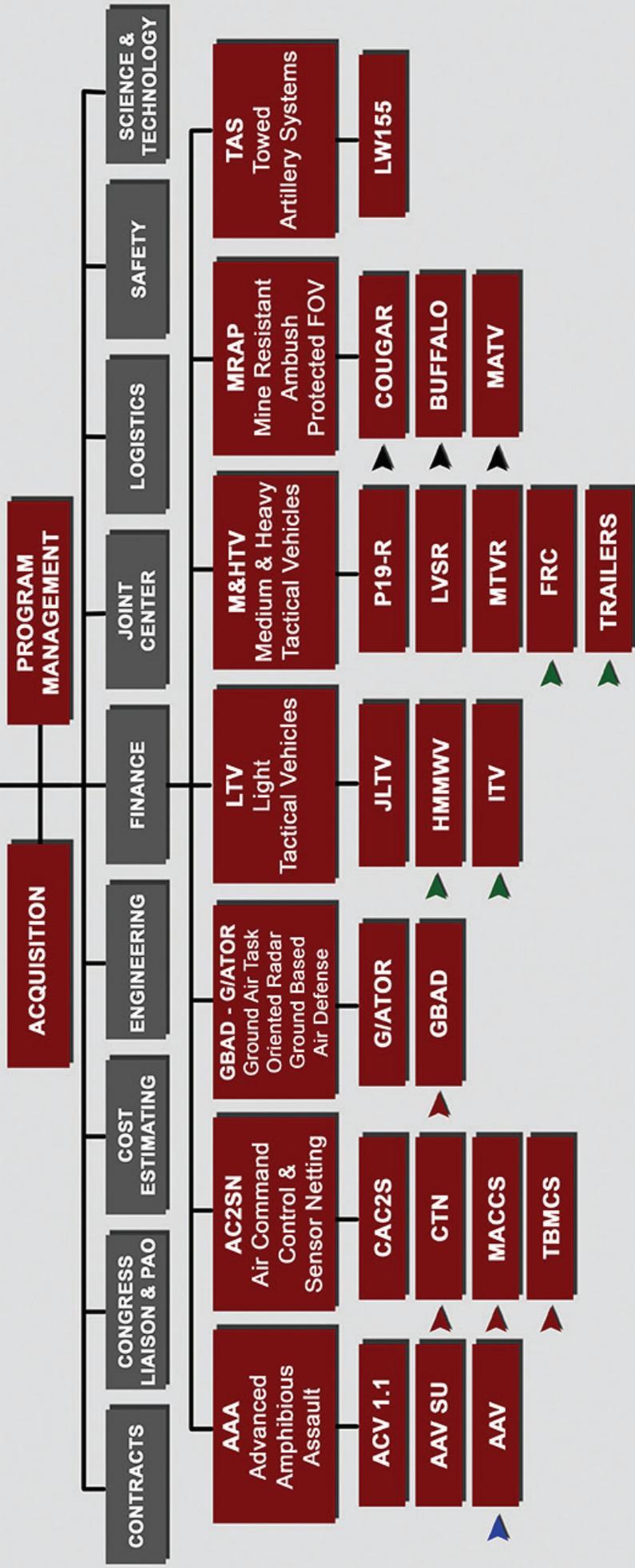
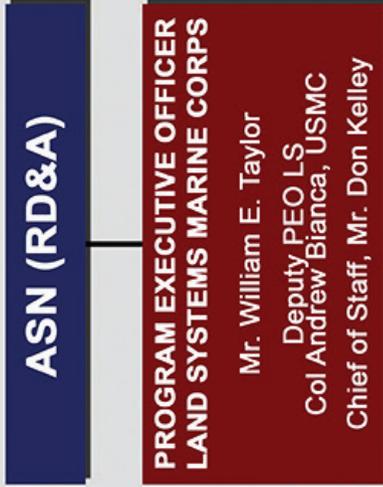
Program Executive Officer Land Systems—located at historic Hospital Point, Building 2210, Marine Corps Base Quantico, VA—is the Corps' first Program Executive Office. PEO LS is a separate command that reports directly to the Assistant Secretary of the Navy for Research Development and Acquisition (ASN (RDA)). PEO Land Systems' integral relationship with the Marine Corps Systems Command (MCSC) leverages infrastructure, competencies, and technical authority.

Right Page: PEO LS Organization
Following Page: PEO LS State of the Portfolio

PEO LAND SYSTEMS MARINE CORPS

IT'S ALL ABOUT THE WARFIGHTER

ORGANIZATIONAL VIEW



PEO LAND SYSTEMS MARINE CORPS

IT'S ALL ABOUT THE WARFIGHTER

STATE OF THE PORTFOLIO



	A	B	C	FRP	SUSTAINMENT
	MATERIEL SOLUTION ANALYSIS	TECHNOLOGY DEVELOPMENT	ENGINEERING & MANUFACTURING DEVELOPMENT	PRODUCTION & DEPLOYMENT	OPERATIONS & SUPPORT
ACAT I	<p>AoA</p>	<p>Preliminary Design Review</p>	<p>Critical Design Review</p> <p>ACV 1:1</p> 	<p>LRIP Decision Review</p> <p>IOT&E</p> <p>JLTV Army Lead Service</p> <p>IOC</p> <p>G/ATOR</p> <p>CAC2S PHASE II</p>	<p>CAC2S PHASE I</p> <p>MTVR</p> <p>HMMWV</p> <p>FOC</p>
ACAT II					<p>LVSr</p> <p>LW 155</p>
ACAT III			<p>AAV SU</p> 		<p>ITV</p> <p>MRAP</p> <p>CTN</p>
ACAT IV				<p>P-19R FIRE TRUCK</p> 	<p>FRC</p> <p>MTVR TRAILER</p> <p>MCCS</p>
OTHER					<p>GBAD (Legacy)</p> <p>AAV (Legacy)</p>