

Appendix A: ATIP Overview / Background / Purpose

Overview

This PEO LS ATIP focuses on an overarching strategy of “engagement” within the established S&T process to better leverage all available resources to resolve Program Manager (PM) technology issues. It employs the PEO LS S&T “Concept to Capability” process to identify and prioritize the Top Technical Issues identified by each PM within PEO LS. This prioritized list of High Priority Technologies helps to inform S&T investment planning, align potential stakeholder support and leverage all available resources. By delivering technologies essential to resolve identified program technical issues, the ATIP will achieve the desired end state to “Focus the Future Faster” in support of our warfighters.

Background

Mission: The PEO LS mission is to meet the warfighters’ needs by devoting fulltime attention to Marines Corps weapon systems acquisition, while partnering with Marine Corps Systems Command, in order to develop, deliver and provide life-cycle planning for all assigned programs. The PEO LS ATIP will assist PEO LS in accomplishing this mission by supporting resolution of Program Top Technical Issues. These programs include:

- Amphibious Combat Vehicle (ACV)
- Joint Light Tactical Vehicle (JLTV)
- Marine Personnel Carrier (MPC)
- Logistics Vehicle System Replacement (LVSr)
- Medium Tactical Vehicle Replacement (MTVR)
- Common Aviation Command and Control System (CAC2S)
- Ground/Air Task-Oriented Radar (G/ATOR)
- Lightweight 155MM Howitzer (LW 155)
- Assault Amphibious Vehicle (AAV)
- High Mobility Multipurpose Wheeled Vehicle (HMMWV)

Purpose

The purpose of the PEO LS ATIP is to establish a repeatable “Concepts to Capability” process designed to:

- Identify and Prioritize Top Technical Issues within PEO LS Programs
- Inform, Influence and Align S&T Investments
- Resolve Capability Gaps & Technology Issues
- Support Technology Insertion and Transition into PoRs

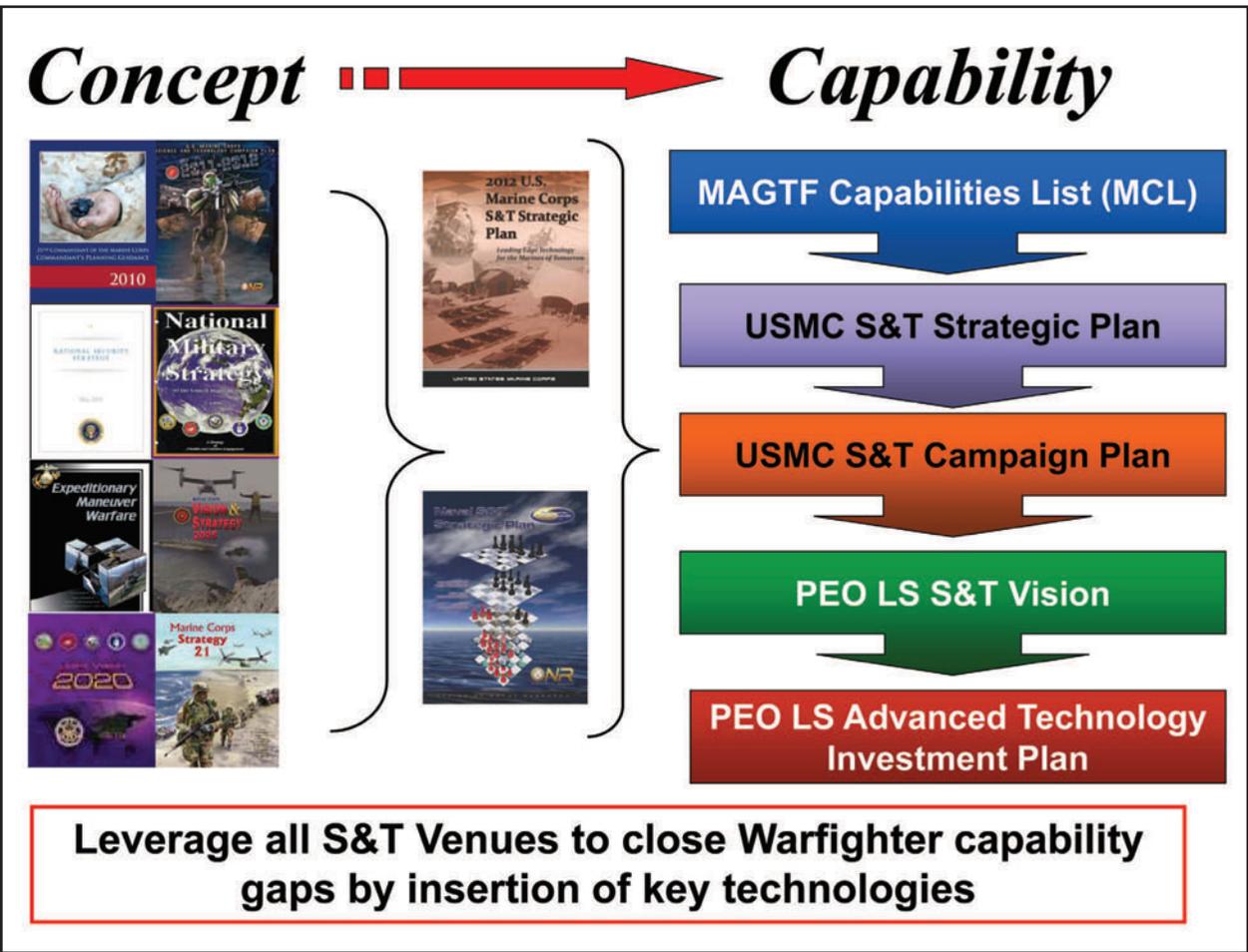


Figure 9 – ATIP “Concept to Capability” Alignment

The ATIP describes how PEO LS S&T developed and employs their “Concept to Capability” process to identify the top PEO LS PM technical issues, prioritize those technical issues to inform and align potential stakeholder support and leverage available S&T resources (Figure 9) in order to deliver/transition technologies essential to resolve those issues. The ATIP assists in the closure of identified technology gaps and the rapid transition of concept aligned technologies into PoR thereby “Focusing the Future Faster” in support of our warfighter.

PEO LS S&T Mission:

“Focus the Future Faster” in support of the warfighter by facilitating the rapid transition of advanced technologies into PoRs that close high priority capability gaps and resolve program technical issues.

PEO LS S&T Vision:

Provide state-of-the-art technology to the warfighter.

PEO LS S&T Strategic Goals:

- a. Partner with MARCORSSYSCOM to develop a prioritized list of technology focus areas to inform and align stakeholder support while maximizing available S&T resources.
- b. Leverage available S&T venues in support of PEO LS programs in order to resolve technology needs, transition capability into PoRs and rapidly close warfighter gaps.
- c. Develop and maintain a “Concept to Capabilities” process and associated procedures to identify and prioritize PEO LS Top Technical Issues with associated high priority technologies and Technology Focus Areas required to resolve Top Technical Issues identified within the process.
- d. Develop a PEO LS S&T technology investment strategy that provides guidance to S&T Developers (ONR, DARPA, ARL, etc.) and helps focus future S&T investments on PEO LS program technical needs.
- e. Actively engage the Marine Corps Warfighting Laboratory (MCWL) Technology and Experimentation Divisions to align efforts and leverage experimentation in support of PEO LS program technical issues.
- f. Actively pursue and facilitate Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs) with key S&T Enterprise members to leverage support for PEO LS Programs.

PEO LS S&T Objectives:

The PEO LS S&T objectives, roles and responsibilities and organization are focused to support concept aligned, capabilities based technology requirements in order to influence and inform the S&T investment process and support technology transition into PoRs.

There are six PEO LS Science and Technology objectives as identified below:

- **Identify** - Top Technical Issues across PEO LS Programs
- **Communicate** - Top Issues to Key Stakeholders and Inform Decision Makers
- **Align** - Top Issues with High Priority Capability Gaps and Technology Focus Areas
- **Engage** - All Applicable S&T Venues and Stakeholders to Leverage Resources
- **Resolve** - Identified Technical Issues
- **Transition** - Capability to PoR and Close Warfighter Gaps

PEO LS S&T Roles & Responsibilities:

The PEO LS S&T Director serves as the primary advisor for all PEO LS S&T policy and process issues. The PEO LS S&T Director maintains awareness of applicable S&T advances and requirements in order to resolve program technical issues. Additionally, the Director serves as a conduit for the flow of critical S&T information between all applicable S&T forums and PEO LS. The PEO LS S&T Director’s primary role is to ensure the timely delivery of technology solutions to the warfighter. In order to meet the PEO LS S&T objectives, the PEO LS S&T Director will accomplish the following tasks:



Figure 10 – PEO LS S&T Organization

- a. Actively engage across all relevant S&T forums, provide leadership, visibility, advocacy, and focus to develop and deliver technologies to meet current and emerging warfighter Requirements.
- b. Integrate S&T development efforts across PEO LS programs in order to reduce redundancies and mitigate technical risk.
- c. Advocate, promote and facilitate the use of PEO LS processes and structures to implement science, research, engineering, and investment efforts.
- d. Provide leaders and key representatives across PEO LS with insight and understanding of critical cross program needs, associated technical requirements and issues.
- e. Provide insight and understanding of PEO LS programs, requirements and capabilities to external stakeholders.
- f. Facilitate the development of partnerships and collaboration opportunities with external commands, offices, agencies, academia, and industry.
- g. Participate in the S&T Investment planning process through all established forums to include the Program Objective Memorandum (POM) process and the Deputy Commandant (DC), Combat Development & Integration (CD&I) warfighter Program Evaluation Board (PEB).

- h. Maintain an active role in the Marine Corps Expeditionary Force Development System (EFDS) process, focusing actions to inform the development of relevant Capabilities Development Documents (CDDs) and supporting requirements.
- i. Conduct liaison with relevant S&T forums (such as MCSC S&T Working Group) and programs to ensure collaboration and liaison within all “3 Circle” activities related to the combat developer, material developer and S&T developer organizations. (Figure 10)
- j. Serve as the PEO LS Core Member to the United States Marine Corps (USMC) S&T Integrated Product Team (IPT).
- k. Identify PEO LS S&T Representatives to serve as USMC S&T IPT Functional Working Group (FWG) members and to assist PEO LS Program Managers (PMs) in the transition of technologies into PoRs.
- l. Pursue Career Field Certification requirements in Systems Planning, Research, Development and Engineering – Science and Technology Management for all PEO LS S&T representatives.
- m. Ensure PEO LS S&T Representatives are well informed and fully able to leverage all available resources to address program technical issues and close warfighter gaps.
- n. Provide senior leadership with visibility into PEO LS Science and Technology workforce needs.
- o. Serve as PEO LS principal advocate for directing, educating and enhancing the PEO LS Science and Technology Representative workforce, resources, and all associated capabilities.
- p. Direct and oversee PEO LS representation and participation in the bi-annual USMC S&T Strategic Plan revision.
- q. Foster collaboration and cultivate a strong internal network of S&T professionals across PEO LS and Marine Corps Systems Command (MCSC).
- r. Develop, influence and support well focused and fully aligned Technology Transition Agreements.
- s. Accelerate the utilization of Science and Technology based innovations and technology solutions to resolve identified PoRs technical issues.
- t. Contribute to the broad spectrum of innovation and targeted technology transition initiatives to include Future Naval Capabilities (FNCs), Small Business Innovative Research (SBIR), Small Business Technology Transfers (STTRs), Joint Capability Technology Transfers (JCTDs), Manufacturing Technology (MANTECH) program, Rapid Technology Transitions (RTTs), Technology Insertion Program for Savings (TIPS), and the Technology Transition Initiative (TTI) processes.
- u. Participate in all relevant S&T venues (Figure 11) in order to provide supporting resources to resolve PEO LS PoRs technical issues. Engage with DoD agencies and organizations, Marine Corps Systems Command (MCSC), Navy Systems Commands, other Services, ONR, DARPA, academia and industry to coordinate supporting technology development priorities, planning, execution and transition. Maintain close ties to and be constantly informed on industry R&D, academic research and work related to program technical issues ongoing at Government laboratories.

Science & Technology Resourcing Venues	
Advanced Tech Demos (ATDs) w/Industry	Navy International Cooperative Program (NICOP)
Advanced Technology Program (ATP)	Navy Rapid Deployment Capability Program (RDC)
Coalition Warfare Project	OSD/DDR&E Direct Funding
Combatant Commander Command and Control Initiatives Program (C2IP)	Other Govt. Agencies (NASA, DARPA, CIA, etc)
Cooperative R&D Agreement (CRADA)	Partnerships for Innovation Program (PIP)
Discovery & Invention (D&I)	Quick Reaction Fund Program (QRFP)
Federally Funded R&D Centers (FFRDC)	Research Development Demonstration (RDD)
Future Naval Capabilities (FNC)	Rapid Technology Transition (RTT)
Innovative Naval Prototype (INP) Program	Reduction in Total Ownership Costs (RTOC)
Joint A/C Survivability Program Office (JASPO)	S&T Research (STTR)
Joint Capability Tech. Demonstration (JCTD)	Small Business Innovation Research (SBIR)
Manufacturing Technology (MANTECH)	Swamp Works
Marine Corps Technology Division	Tech Solutions
National Labs (Draper, Sarnoff, ORNL, etc.)	Technology Insertion Program for Savings (TIPS)
Naval Innovation Lab (NAIL)	Technology Transition Initiative (TTI)

Figure 11 – S&T Resourcing Venue Matrix

- v. Identify Science and Technology options suitable for addressing Warfighting Requirements through consultation within PEO LS, specifically program managers and their appropriate representatives and key stakeholders.
- w. Develop a PEO LS S&T technology investment strategy that provides guidance to S&T Developers (ONR, DARPA, ARL, etc.) and helps focus future S&T investments on PEO LS program technical needs.
- x. Actively engage the Marine Corps Warfighting Laboratory (MCWL) Technology and Experimentation Divisions to align efforts and leverage experimentation in support of PEO LS program technical issues.
- y. Actively pursue and facilitate Memorandums of Understanding (MOUs) and Memorandum of Agreements (MOAs) with key S&T Enterprise members to leverage support for PEO LS Programs.

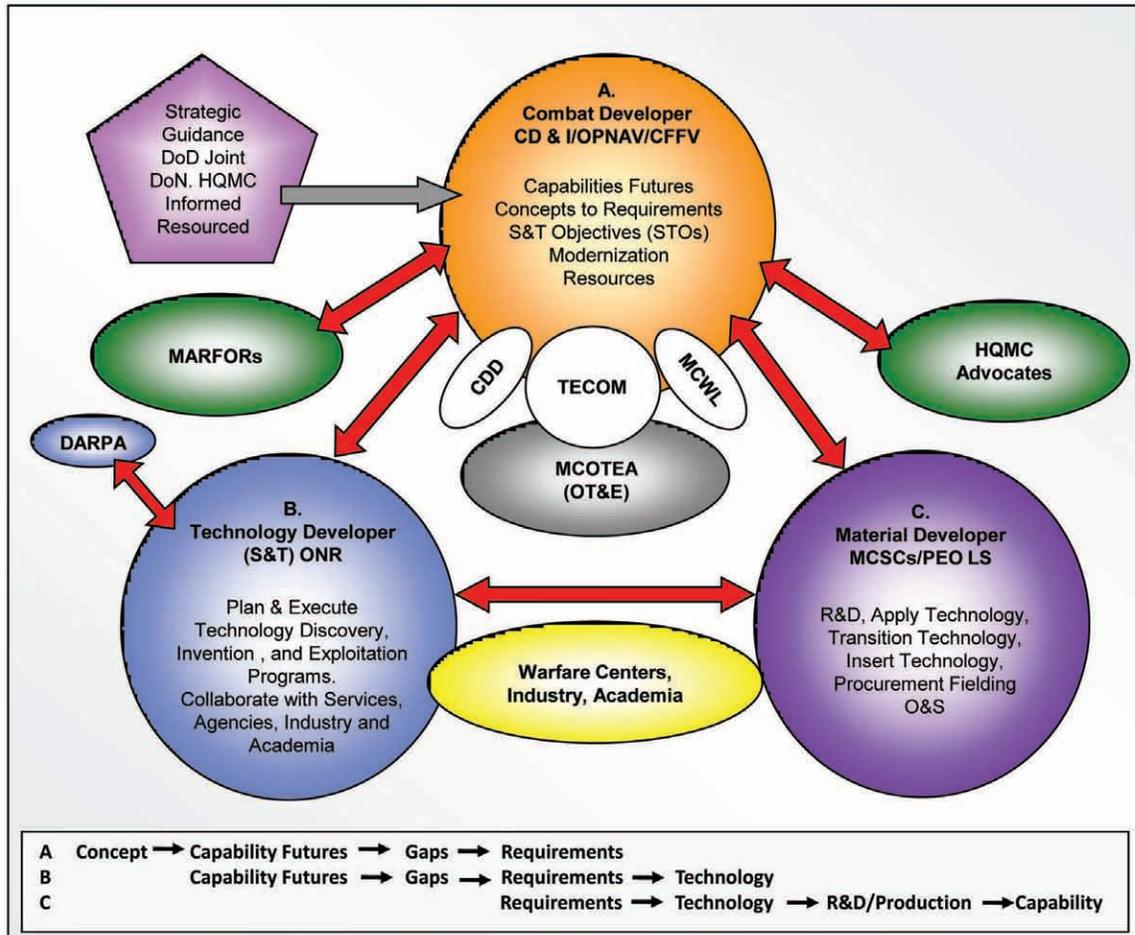


Figure 12 – Marine Corps S&T Enterprise “3 Circles”

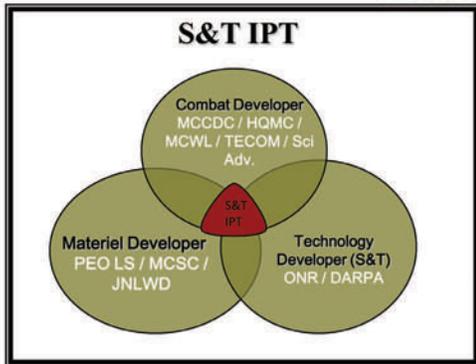
Marine Corps S&T Integrated Program Team

The Marine Corps S&T Integrated Program Team (IPT), illustrated in Figure 13, is chartered through the Deputy Commandant for Combat Development and Integration (DC, CD&I) as the Advocate for Marine Corps S&T. The DC, CD&I exercises S&T oversight responsibilities through the Commanding General, Marine Corps Warfighting Laboratory (CG MCWL) who serves as DC, CD&I’s designated Executive Agent (EA) for Marine Corps S&T (EA S&T).

As the EA for S&T, CG MCWL establishes and coordinates the Marine Corps S&T process, and in conjunction with the ONR Code 30 Department Head, provides DC, CD&I with the proposed Science and Technology Objectives (STOs) in support of Marine Corps concepts and requirements while focusing on emerging technology opportunities.

The S&T IPT supports the EA for S&T in exercising S&T oversight responsibilities and coordinating the S&T activities of the Marine Corps S&T process. The S&T IPT serves as a “common forum” that provides all organizations within the Marine Corps S&T community “3 Circles” with a voice in the overall S&T process (Appendix C, Ref D.13.).

S&T IPT & FWG Organizational Construct



Core Membership – Key Stakeholders

Technology Dev: Mr. George Solhan – Chairman

Executive Sec to EA S&T: Mr. Jim Lasswell

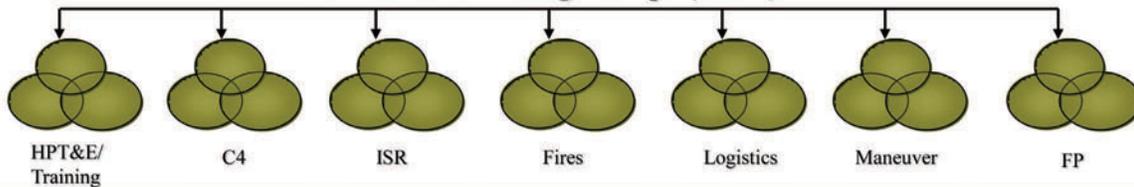
Technology Dev: Mr. Paul Gido - ACNR

Combat Dev: Mr. Len Blasiol

Material Dev: Mr. David Ungar, Mr. Mike Halloran

Additional Core: TBD to match charter construct

Functional Working Groups (FWG)



Maj Kibel	LtCol Manaco	Maj Scheidler	Maj Cunningham	Paul Neubert	Maj Walters	John Montemayor
Clarke Lethin	John Moniz	Martin Kruger	Dan Simons	Cliff Anderson	Major Short	Lee Mastroianni
LtCol Yates	Chris Zaffram	Marty Jackson	Bryan Freeman	Scott Story	Scott Story	Zaffram/John O'Donnell
Rich St. Amour	Fran Bonner	Rick Shrewsbury	Joe Lipinski	Tom Stevenson	Craig Harvey	Peter Manternach
Dan Wright	Mac McKinney	Maj Sadler	Jim Haig	Dan Wright	Greg Kesselring	Greg Kesselring

Combat Developer

Technology Developer (S&T)

Material Developer

Figure 13 – USMC S&T IPT FWG Organizational Construct