DEPUTY CHIEF *of* STAFF, G-4

LOGISTICS STRATEGIC PLANNING GUIDANCE

U.S. ARMY LOGISTICS **SUPPORTING MISSION SUCCESS**

SEPT 2015

39th Chief of Staff of the Army
Initial Message to the Army

We have the most skilled, ethical, and combat hardened Army in our Nation's history. No matter where we are around the world, America's Soldiers are displaying courage, commitment and character. We are demonstrating unparalleled competence and agility. And no matter the challenge, no matter how complex the environment, or how dangerous the situation, our Soldiers fight and win.

I am honored to lead this remarkable team.

I have three priorities:

#1. Readiness: (Current Fight) Our fundamental task is like no other – it is to win in the unforgiving crucible of ground combat. We must ensure the Army remains ready as the world's premier combat force. Readiness for ground combat is – and will remain – the U.S. Army's #1 priority. We will always be ready to fight today, and we will always prepare to fight tomorrow. Our most valued assets, indeed, the Nation's most valued assets, are our Soldiers and our solemn commitment must always be to never send them into harm's way untrained, poorly led, undermanned, or with less than the best equipment we can provide. Readiness is #1, and there is no other #1.

#2. Future Army: (Future Fight) We will do what it takes to build an agile, adaptive Army of the future. We need to listen and learn – first from the Army itself, from other services, from our interagency partners, but also from the private sector, and even from our critics. Developing a lethal, professional and technically competent force requires an openness to new ideas and new ways of doing things in an increasingly complex world. We will change and adapt.

#3. Take Care of the Troops: (Always) Every day we must keep foremost in our minds our Soldiers, Civilians, and their Families. Our collective strength depends on our people - their mental and physical resilience is at our core. We must always treat each other with respect and lead with integrity. Our Soldiers are the crown jewels of the Nation; we must love them, protect them, and always keep faith with them.

I am honored and proud to serve with you. Thank you for your service and commitment to a cause larger than yourselves.

Army Strong!

MARK A. MILLEY
General, United States Army
39th Chief of Staff of the Army

FOREWORD

Our nation faces a complex, uncertain environment today and into the foreseeable future. In August 2015, General Milley was sworn-in as the 39th Chief of Staff, Army. The CSA's priorities of Readiness, the Future Army, and Taking Care of the Soldiers, Civilians and their families provide the framework for resolving the challenges facing our Army. In the near term, the Army must contend with the fiscal uncertainty posed by the Budget Control Act and the potential for operating under a Continuing Resolution, both of which impact the Army's ability to fight and win. The senior Army leadership is making difficult decisions to preserve constrained and diminishing resources, such as restructuring and expediting unit inactivations to balance end strength, readiness, and modernization. In support of these efforts, we will make the tough decisions needed to prudently invest in current and future logistics capabilities which retain the essential competencies, across all three Army Components and our Defense Industrial Base, to provide the strategic readiness required to execute the Army's mission.

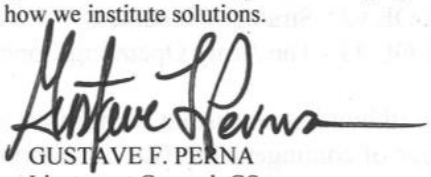
Our role is to provide expert logistics advice to the Secretary of the Army, the Army Chief of Staff, and the Assistant Secretary of the Army for Acquisition, Logistics, and Technology [ASA (ALT)]. We must balance current readiness requirements within both the Operating and Generating Force with the future Army requirements and emerging concepts for the Army of 2025 and Beyond. As a primarily CONUS-based force, the Army must improve our expeditionary capabilities, be strategically adaptive, and maintain campaign qualities to ensure we can fight and win as an integral part of the Joint Force. We must identify and retain essential current capabilities while simultaneously investing in a future which improves our Army's capability to remain rotationally-oriented and surge ready. We will remain focused upon accomplishing the Army's Title 10 logistics requirements for the Joint Force as part of the critical foundational sustainment the Army provides for every Combatant Commander.

This ***Logistics Strategic Planning Guidance*** (LSPG) is my assessment of the strategic environment, guidance to the G-4 leadership and staff on logistics priorities, and direction to continually pursue opportunities for adjusting our thinking in order to make smart decisions in support of Army and Joint Force readiness. The LSPG provides a framework by focusing on **three lines of effort:**

- **LOE #1 - Leader Development**
- **LOE #2 - Strategic Readiness**
- **LOE #3 - Army Operating Concept (Force 2025B)**

Our collective plans, programs and policies must be integrated into key Army resourcing processes such as the Program Objective Memorandum (POM) and Total Army Analysis (TAA). The Sustainable Readiness Model (SRM) will be the guidepost upon which we will provide readiness to Army units. I expect the G-4 team to execute our mission in accordance with my guidance and to communicate these lines of effort in every supporting forum. To amplify my guidance, I have included the G-4 Management Decision Execution Package (MDEP) Prioritization Guidance (Annex A), Sustainment Program Executive Group (SS PEG) Programming Guidance (Annex B), and the Demand Reduction Strategy (Annex C).

This LSPG is intended to provide the intellectual underpinning for driving logistics institutional transformation, concept and solutions alignment, and materiel change through Army resource planning and execution efforts. The inclusion of a new demand reduction strategy recognizes the need for a strong relationship between our S&T, acquisition, and requirements disciplines as we divest systems which do not support the future readiness of the force. **I charge every Army logistician leader to be bold, creative, and forward thinking in challenging how we do business.** We must challenge and institutionalize change in how we institute solutions.



GUSTAVE F. PERNA
Lieutenant General, GS
Deputy Chief of Staff, G-4

HQDA G-4 VISION

Recognized as the preeminent source on the Army Staff for relevant, value-added logistics expertise. Actively engaged in sustaining, preparing, resetting, and transforming the Nation's Army to provide expeditionary, decisive land power to the Joint Force.

EXECUTIVE SUMMARY

As domestic and international events continue to unfold and various players emerge, U.S. security policy must adapt to ensure that our use of military power, economic power, diplomacy, political power, and power projection is responsive in meeting challenges. For the Army, in an era of force structure reductions and resource shortfalls, these challenges are addressed through the development of strategies that will guide our Army for next several decades. These strategies encompass warfighting concepts which serve to identify capabilities and requirements that allow our Army to meet the obligations specified in the Defense Strategic Guidance, as well as U.S. Title 10.

The mission of the United States Army is to win in the unforgiving crucible of ground combat. Army forces will prevent conflict, shape security environments, and win wars while operating as part of our Joint Force[1] and working with multiple partners. The Army's contribution is providing a rotationally-oriented and surge ready force able to maneuver and employ capabilities to accomplish campaign objectives across the range of military operations using Regionally Aligned Forces (RAF) and mission tailored Forces.

In recognition of an increasingly complex world, the Army has undertaken several initiatives to ensure ready Army forces, now and in the future. In August 2014, TRADOC published a new Army Operating Concept (AOC) in alignment with Joint concepts. The Army is implementing a new Sustainable Readiness Model (SRM) to maintain the readiness of Forces within constrained resources. Our current and emerging sustainment plans, policies and resources must be perfectly nested within these efforts. The sustainment core capability structure of the Army Strategic Readiness Assessment (ASRA) will be the vehicle we use to constantly assess Army readiness and focus upon readiness improvement. To provide a framework for logistics efforts, I have developed G-4 lines of effort:

- LOE #1 - Logistics Leader Development
- LOE #2 - Strategic Readiness
- LOE #3 - The Army Operating Concept / Force 2025.

We will build upon current capabilities to improve responsiveness, agility and precision for a range of contingencies. Our sustainment strategy must divest the Army of aging systems, sustain and modernize existing platforms by continuing equipment Reset, and evolve with development

[1] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance"

of new capabilities through the investment in Science and Technology (S&T) and Research and Development (R&D) to exploit emerging technological breakthroughs. Our modernization decisions must focus on maximizing long-term returns from investments in technologies that reduce demand on logistics, maximize common materiel solutions, and enhance the readiness of our Army. Improved efficiency and responsiveness will be realized through advances in integrated sustainment networks, development of distribution-management tools for tracking supplies and equipment, investment in logistics Enterprise Resource Planning (ERPs) with business intelligence (BI) capability to enable informed decisions, and autonomous transport technologies. We will reduce life cycle sustainment costs by using data-driven, knowledge-enabled actions; embedded prognostics; and decision support and analysis capabilities such as CBM+. We will balance investment decisions within the guidelines of the Army Planning Guidance for the short-, mid- and long-term to mitigate risk within both the Operating and Generating Force. This will require a holistic approach and a careful balance of investment and divestiture decisions.

The geopolitical and evolving threat environment will continue to have significant implications for basing, readiness posture, and partner capabilities. The sustainment community has significant Title 10 responsibilities in support of the Joint force. The Army is at a crossroads as it emerges from over a decade of combat operations in Iraq and Afghanistan and we must be judicious as we transition from an "Army of execution" to an "Army of preparation". We will invest in capabilities and technologies which give our Soldiers decisive overmatch in any situation when they are placed in harm's way. Addressing future challenges will require an expeditionary, strategically adaptive and campaign-quality Army that prevents conflict, shapes the security environment and, when necessary, decisively wins conflicts to attain the strategic ends and policy goals that govern all military action. We must sustain the current force while balancing investments for the future.

As an expeditionary force, the Army must sustain the ability to rapidly deploy a force of any size into a theater of operations regardless of its maturity level, and the Army must continue to strengthen our expeditionary capabilities. Within a constrained resourcing environment, it is more important than ever that we work with the other Services to ensure capability and capacity to project a lethal Army force. Power projection platform investments are crucial as we assess the ability to deploy from fort to foxhole. Setting the theater, port opening, and sustaining the theater are critical missions for the land force and must be executed in any operational environment in order to support expeditionary maneuver. The associated implied and specified tasks for these missions are numerous and the Army G-4 will define required capabilities, identify risk, fight for appropriate resources, and determine mitigation strategies as necessary during every planning and resourcing venue.

Table of Contents

Strategic Environment

As domestic and international events continue to unfold and various players including Violent Extremist Organizations (VEOs) and Revisionist States emerge, U.S. security policy will adapt to ensure that our use of military power, economic power, diplomacy, political power, and power projection is responsive in meeting challenges. For the Army, in an era of force structure reductions and resource declines, these challenges are addressed through the development of strategies that will guide our Army for next several decades. These strategies encompass warfighting concepts that serve to identify capabilities and requirements that allow our Army to meet our obligations as specified in the Defense Strategic Guidance, as well as U.S. Title 10.

The Defense Planning Guidance[2] has not changed and remains focused on the rebalance to the Pacific as well as supporting our current overseas contingencies while facing the realities of the Budget Control Act. Additionally, the Army will soon be reduced to its smallest size in 74 years[3], resulting in an active duty end strength of 450K by the end of FY17 with proportionate reductions in the Guard and Reserve Forces. The Army recognizes these resourcing realities and is accelerating efforts to reduce and reorganize Army structure in both the Operating and Generating Force. However, our decisions on how to achieve our final end strength numbers need to ensure that we can still accomplish the Army's mission.

The shifts in the geopolitical landscape, including competition for power and resources, border disputes, ethnic nationalism, VEO ideologies and economic crises will affect the character of armed conflict. Although the ability to project power onto land from air, maritime, space, and cyberspace domains will remain vital to Joint Operations; the employment of land forces remains essential to achieve sustainable outcomes. Therefore, the concepts, programs, and initiatives that support this capability, such as Force Projection, Army Prepositioning, the European Activity Set (EAS), other activity sets, the Korean Enduring Equipment Set (KEES) and rotational capability, should remain in the forefront of every G-4 effort.

National security guidance requires the military to protect the homeland, build security globally, project power and win decisively. The *Joint Operational Access Concept* (JOAC)[4], the *Joint Concept for Entry Operations* (JCEO)[5], the *Joint Concept for Access and Maneuver in the Global Commons* (JAM-GC), and the emphasis on joint combined arms all make clear that Joint Forces will operate together to prevent conflict and shape security environments. Army forces need to be capable of deploying and operating on multiple, independent lines of operation, and maneuvering directly against objectives from strategic distances. TRADOC published the *U.S.*

[2] DOD Planning Guidance(January 2012), "Sustaining U.S. Global Leadership: Priorities for 21st Century Defense"
[3] Burns, Robert, Associated Press (24 February 2014), "Hagel Proposes Downsizing Army to Smallest Size in Decades"
[4] Department of Defense, The Joint Staff (17 January 2012), "Joint Operational Access Concept (JOAC)"
[5] Department of Defense, The Joint Staff (7 April 2014), "Joint Concept for Entry Operations."

*Army Operating Concep*t (AOC)[6] and initiated actions to determine force sizing needs such as the *Army 2025 and Beyond*[7], *Global Responsive Sustainment*, and the Army Staff, along with FORSCOM, is implementing the SRM to better prepare a smaller CONUS based Army.

We are exploring and testing these concepts in Army Wargames such as Unified Quest to ensure that the force structure and technology investments mandated by the realities of smaller budgets will produce a Future Army fully capable of responding to and winning wars. Some Army forces are already operating under the Regionally Aligned Force (RAF) concept to ensure interoperability, build relationships based on trust and common interests, enhance situational awareness about threats to international security, assure allies and partners, and deter enemies and adversaries. Army Special Forces and regionally aligned conventional forces will conduct security force assistance and engage in a broad range of theater security cooperation activities to ensure allies and partners are prepared to promote regional security, deter adversaries, or defeat mutual enemies. When needed, Army forces will reinforce shortfalls in partner forces' capabilities such as intelligence, fires, mobile protected precision fire power and access to joint capabilities.

The Army Mission

"The mission of the United States Army is to fight and win the Nation's wars through prompt and sustained land combat, as part of the joint force. We do this by organizing, equipping and training Army forces for prompt and sustained combat incident to operations on land; integrating our capabilities with those of the other Armed Services; accomplishing all missions assigned by the President, Secretary of Defense, and combatant commanders; and remaining ready while preparing for the future."[8]

To accomplish the mission, the Army must possess the ability to defeat enemy organizations; shape, access, gain, sustain and exploit physical control over land and resources; and exert influence over people by persuasion, threat, and force.

Looking to the future, the Army will consider and support the CSA's three priorities. "The foundation of the Army rests in Army leaders who can adapt to the challenges posed by a complex future environment." [9] The force they lead – and care for - must be ready, with the capability to rapidly deploy, fight, and win whenever and wherever our national interests are

[6] Department of the Army, Headquarters, Training and Doctrine Command (7 October 2014), "TRADOC Pam 525-3-1, The U.S. Army Operating Concept, Win in a Complex World."
[7] Department of the Army, Headquarters, Training and Doctrine Command (August 2014), "The Force in 2025 and Beyond."
[8] Department of Defense, DoD Directive 5100.01, Section 3013 and 3062.
[9] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance"

threatened. Such a ready and modern Army must come from the Active Component (AC) and Reserve Components (RC), and must readily leverage the capabilities provided by Joint, Inter-organizational, and Multinational (JIM) partners. The Army G-4 will execute the CSA's priorities by ensuring that we internalize them and support them through executing the three distinct, but linked, G-4 Lines of Effort: Leader Development, Strategic Readiness, and AOC/Force 2025. "Although the Army is constantly adapting to prepare for the future, Soldier and civilian leaders across the Total Army must be able to apply the experiences and hard-earned lessons that have been learned over the last decade of war, and continue to foster adaptability and innovation in their formations. At the same time, fiscal realities require us to eliminate redundant and poorly performing programs while sustaining those that have proven most beneficial."[10]

Directed Army Planning Guidance and Priorities

The following overarching guidance on program priorities and funding is provided from **The Army Planning Priorities Guidance:**[11]

Short-Term. Accept Risk, Reorganize and Increase Readiness.

"The priority for resourcing in the near-term (FY 16-19) will be on **ensuring the full readiness of those forces that can expect to deploy and accomplish their mission upon notification**, with a secondary goal of achieving sufficient depth to meet immediate contingency demand."[12] Reconstitute capabilities and equipment needed for the emerging security environment from the cumulative effects of sustained high operational tempo, with its effects on Soldiers, civilians, families, leaders, equipment and infrastructure. Modernize and increase the capability of the Army Prepositioned Sets. Divest those capabilities and equipment for which no requirements exist and reallocate those resources to support the Korean Enduring Equipment Set, the European Activity Set, and other CSA initiatives. Be prepared to re-invest in modernization and continue to support the technology developments required for the future sustainment environment. Under the President's Budget, defer but do not stop modernization to cover immediate readiness needs of the force through FY19, with the goal of a smaller, yet capable and ready Total Army by FY18.

Mid-Term. Focused Investment, Informed by Concepts and Technology.

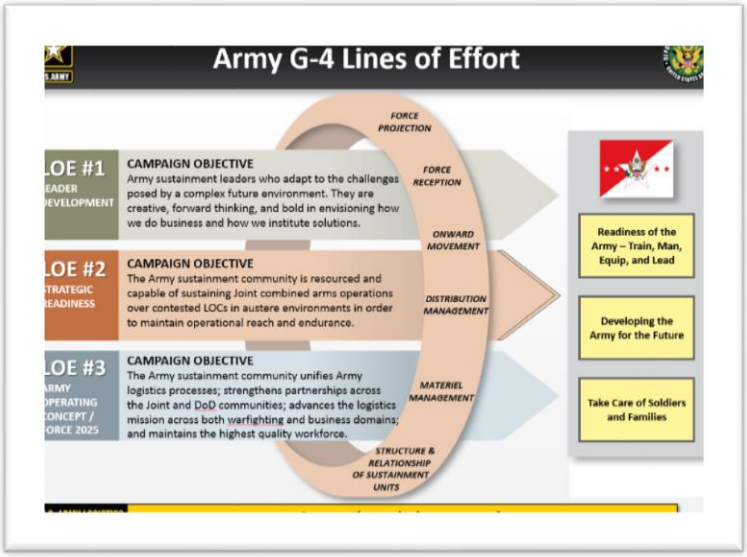
[10] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance"
[11] Department of the Army (29 October 2014) "Army Planning Priorities Guidance"
[12] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance", page 25.

"The priority for resourcing in the mid-term (FY 20-22) will be on ***rebuilding readiness*** across the Total Army, with the goal of achieving sufficient depth to resource the full duration of one sustained joint campaign. Readiness will shift away from tiered readiness for less than 20% of the force back to broader readiness across the Total Army, while reducing tension between military engagement and broader readiness for contingency sourcing requirements. ***The Army will resume its deferred modernization initiatives, making capital investments and modernization improvements*** that build on the previous efforts in Science & Technology and preservation of the ***organic industrial base***, with programs such as the Joint Light Tactical Vehicle (JLTV) and Armored Multi-Purpose Vehicle (AMPV)."[13]

Long-Term. Revolutionary, Concept-Based, Technology Informed Investments.

"In the long-term (FY 23 and beyond), the Army will have achieved *sufficient balance to mitigate risk across readiness, modernization and end strength.* Army modernization programs should begin to enhance key capabilities in the force and the ability to sustain it globally. While the Army will have protected investments in cyberspace and air/missile defense, the Army will potentially emerge undersized for the challenges it faces in the defense strategy. The Army will have achieved the Force 2025 and Beyond objective of becoming a leaner, more lethal, expeditionary and agile force than today."[14]

Logistics Lines of Effort



Army sustainment forces provide unique support to Joint Force Commanders and enable their freedom of action across the range of military operations. In the current fiscally constrained environment, the G-4 staff will make prudent recommendations to ensure the Army continues to provide the requisite capabilities to seize, retain, and exploit initiatives during globally integrated operations as outlined in the Capstone Concept for Joint Operations.

[13] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance", Page 26
[14] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance", Page 26

The fiscal realities require the Army to assume risk, but it must do so informed by the probable future operating environment and applied holistically to the Force. As the Logistics experts on the ARSTAF[15], we will consider both investment and divestment of our sustainment capabilities in the context of the National Security and Defense Strategies to determine the appropriate balance across all Components. Because we cannot afford to do everything, we must collectively focus efforts to achieve the greatest impact, and do this in the critical areas of **Logistics Leader Development, Strategic Readiness, and the Army Operating Concept and Force 2025**.

Our sustainment strategy to mitigate risk should start with divestiture of aging, legacy, and non-standard systems, followed by equipment Reset and Sustainment, modernization of existing platforms, leveraging the development of new capabilities, and technologies which advance the sustainment of the force. Our staff recommendations on how we support (using Active and Reserve components, Civilians, and Contractors) should also address who we support for the critical mission areas, including conventional forces and Special Operations Forces. We will support investment in and advocate for the most essential sustainment capabilities and enablers to provide equipment, infrastructure and training. In this manner, we will ensure that the Army is rotationally-oriented and surge ready - guaranteeing Army mission success to the Nation.

Leader Development

Leader development is achieved through the lifelong synthesis of the knowledge, skills, and experiences gained through the training and education opportunities in the institutional, operational, and self-development domains.[16] In the materiel domain, we must work together to develop logistics leaders who are masters of the logistics craft, challenge assumptions, and elevate their critical thinking skills by asking the hard questions. Logisticians are relied upon to deploy the Army, enable sustainment over operational distances, and, within each organization at every level, achieve the effects that will enable the Army to win.

We will develop logistics leaders holistically and ensure that they are well grounded in the skills that will ensure the success of the Army along the following themes:

-Force Projection / JRSOI
-Expeditionary Logistics
-Distribution Management
-Maintenance Management
-Command Supply Discipline

[15] Department of the Army, General Orders No. 2012-01, (11 June 2012) "Assignment of Functions and Responsibilities within Headquarters, Department of the Army, Deputy Chief of Staff, G-4."
[16] United States Army, *Army Training and Leader Development*, Army Regulation 350-1 (19 August 2014), page 2.

-Enterprise Resource Planning (GCSS-Army, LMP)
-Innovation
-Operational Contract Support

We will also ensure that field grade logisticians be given the opportunity to gain experience in and lead expeditionary logistics operations.

A critical enabler for well-developed Logistics Leaders will be GCSS-Army. Once in place, GCSS-Army will dramatically change how the Army manages our supply chain and tactical equipment fleets, and our leaders will be able to leverage its use and capabilities in order to successfully perform tactical and operational logistics both in garrison and on the battlefield.

Leader Development is a critical element for logisticians and I have developed a G-4 Logistics Leader Development Campaign, based upon the themes listed above, that is nested with CASCOM's Logistics Leader Development Strategy. The campaign plan supports the development of Army sustainment leaders who adapt to the challenges posed by a complex future environment – creative, forward thinking, and bold in envisioning how we do business and how we institute solutions.

Strategic Readiness

Readiness is the vital element of the Army mission. In support of this element, the Army is implementing the ***Sustainable Readiness Model*** to give the Army an immediate response capability, while managing risk to forces that may require additional preparation prior to employment. The G-4 staff will ensure our Sustainment policies support Army readiness to develop the solution which supports training and operational needs within a constrained budget environment. We must also support the programs and initiatives that increase strategic readiness including the **European Activity Set (EAS)**, **BCT Reorganization**, **the Aviation Restructure Initiative (ARI), and other Divestiture initiatives.**

We will continue policy development and program the resources to reinvigorate the **Deployment Readiness Exercise (DRE)** program to improve our capability to rapidly deploy. We will participate in processes which assess the Army's ability to rapidly deploy through the execution of **Emergency DRE/Sea Emergency DREs (EDRE/SEDRE)** and the ability to sustain forces in an Anti-Access/Area Denial (A2/AD) environment through the execution of Joint Logistics Over the Shore (JLOTS). We will ensure that these capabilities are supported by a viable **Army Prepositioned Stocks (APS) 2020** program and **Army Watercraft Strategy (AWS)**.

A decade of war has damaged or destroyed many of our weapons systems. This degradation will require multiple years of supplemental funding *after the end of combat operations in Afghanistan* in order to support Reset operations. This continued equipment Reset will also maintain important capabilities in the Army's Organic Industrial Base (OIB) as well as emphasize the requirement for ongoing readiness initiatives. Among those initiatives is a single integrated network and vehicles that are survivable, mobile and lethal. In general terms, we must support staffing actions which will improve and procure equipment that is versatile and tailorable, yet cost-effective and affordable. We will also consider the full range of climate change effects.

In the commercial sector, many trends are affecting the industrial base that impact its vitality and sustainability. In the current uncertain fiscal environment, the OIB will provide improved operational availability of critical systems and, to do so, retain critical maintenance and manufacturing skills and capabilities necessary to meet the Army's enduring needs, while providing flexibility for future requirements. In 2012, the Under Secretary of the Army approved the **Army Organic Industrial Base Strategic Plan (AOIBSP)** to "promote the vision of a modern, reliable, cost effective and highly responsive enterprise which meets both wartime and peacetime requirements."[17] The AOIBSP provides the strategy and management framework needed to ensure that the Army's OIB remains viable, effective, and efficient as the Army draws down combat operations. All logistics stakeholders supporting the Program Objective Memorandum (POM) process shall integrate AOIBSP objectives into their planning and programming guidance in order to maintain and leverage the capability of the OIB to provide Army readiness.

Army Operating Concept/Force 2025

As stated in the AOC, "We must resource the Army to sustain Joint Combined Arms Operations over contested LOCs in austere environments in order to maintain operational reach and endurance."[18] We must develop our force projection capability, modernize the force, and leverage technology and energy innovation in order to support this concept and Force 2025.

The Army, as a CONUS-based expeditionary force, must have the ability to rapidly employ capabilities for any scenario at every degree of scale, survivability, mobility and lethality. The Army is reliant on the Navy, Air Force and the commercial sector for large scale strategic lift. To this end, the G-4 staff must influence our strategic mobility priorities among the Joint

[17] Department of the Army (25 October 2012), "U.S. Army Organic Industrial Base Strategic Plan (AOIBSP) 2012-2022"
[18] Department of the Army, Headquarters, Training and Doctrine Command (7 October 2014), "TRADOC Pam 525-3-1, The U.S. Army Operating Concept, Win in a Complex World."

Services to ensure we can deploy and maneuver in a timeframe meeting the Joint Force Commander's requirements.

As a power projection force, it is paramount that we improve our ability to rapidly deploy forces into any Theater of Operations no matter its maturity level. We must leverage every G-4 staff action to ensure our Army possesses capabilities to open ports (aerial & sea) anywhere and at any time. Army logisticians must also have the ability to open the theater, conduct Reception, Staging, and Onward Movement (RSO) operations and rapidly execute fuel, ammo and repair parts distribution operations for any duration of time. Also, to provide enduring Army readiness, the G-4 must develop policy and resource actions to maintain a national network of depots and arsenals to provide for essential equipment retrograde, reset, recapitalization and rebuild production operations.

Our advice and advocacy on modernization decisions must focus on maximizing long-term returns from investments in technologies that reduce demand (see Annex C), particularly for fuel and water, and improve intra-theater mobility and distribution. Modernization efforts must also reduce life cycle sustainment costs by using data-driven knowledge-enabled actions and decision support and analysis capabilities such as CBM+. We must consider and rapidly execute divestment of one-of-a-kind platform solutions. We will support an equipping strategy that improves combat effectiveness and training by maximizing common materiel solutions and incorporates multi-variant vehicles for a majority of the warfighting functions.

We will make every effort to maximize the long term return on investment gained from technology enhancements such as additive manufacturing (3D printing) and emerging map-based planning and decision making processes. Improved efficiency and responsiveness will be realized through advances in integrated supply networks, development of distribution-management tools for tracking supplies, and autonomous transport technologies. Logistics will be enhanced over the long-term when all combat systems incorporate technology enhancements such as highly reliable components made of advanced materials, system and component power management technologies, and materials that deliver greater protection at lighter weights. Concepts that support sustainment agility through production at point of need and demand reduction will be used to drive technology investment recommendations and support.

As a priority for the Army, we will support the Secretariat's pursuit of energy innovations which can be quickly embedded into unit operations. Current priority efforts including the Integrated Soldier Power Data/System (ISPDS), integrated starter generators (ISG), the improved turbine engine program (ITEP), and the development of contingency base micro-grids must be supported to reduce sustainment requirements. New concepts involving advanced energy sources (renewable and non-renewable) should be evaluated to reduce logistics and sustainability requirements for the Future Force, especially in forward operations.

Looking Ahead

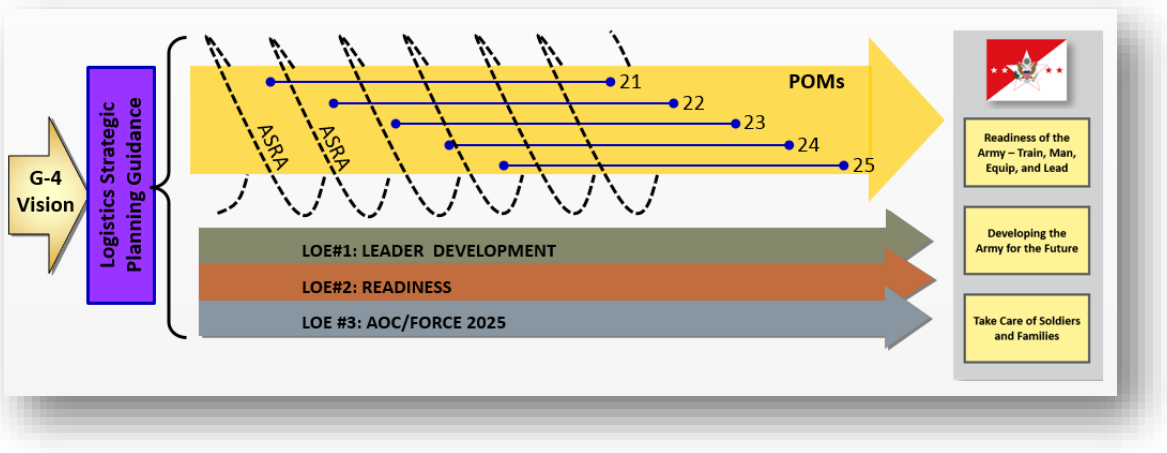
The fiscal realities demand a forward looking posture for Army Sustainment capabilities to accomplish the vision for the Army of the Future. Our solutions to these challenges must always be informed by our National Strategic documents to ensure we continue to provide the Army-unique support to the Joint Force Commander. To meet these challenges, we must focus our leadership efforts on the continuous assessment of four sustainment core capabilities and related Joint Capability Areas (JCAs), utilizing the Army Strategic Readiness Assessment (ASRA) framework. The ASRA is designed to assess near term readiness to shape and improve the future readiness of sustainment enablers. The ASRA framework consists of the following sustainment core capabilities:

- *Sustainment of Unified Land Operations (ULO).* Logistics Force Structure, Ground Unit Readiness, Aviation Unit Readiness, Equipment On-Hand (EOH) Readiness, Soldier Readiness, Supply Chain Health, BCT Re-Organization, Distribution and Materiel Management, Operational Energy, and Contingency Basing. Related JCAs are **JCA 4.2 Supply**, **JCA 4.4 Logistical Services**, and **JCA 4.5 Operational Contract Support.**

- *Force Projection.* Strategic Mobility, Force Reception, and Army Prepositioned Stocks and the related JCA, **JCA 4.1 Deployment and Distribution**.

- *Organic Industrial Base (OIB).* Capacity, Capability, Workforce, Facility Condition, and Munitions Storage Depots and the related JCA, **JCA 4.3 Maintain**.

- *Single Army Logistics Enterprise (SALE).* Logistics Modernization Program (LMP) and Global Combat Support System- Army (GCSS-Army).



These sustainment capabilities will drive our programming efforts so that they, in conjunction with our Lines of effort, will support the CSA's priorities.

As we move ahead, a number of enduring challenges will continue to pose formidable obstacles to our planning and execution processes. These include:

- *Strategic Logistics Capabilities*. Integration of logistics is executed at the tactical and operational levels, but depends on processes, systems, policies, programs, and organizations at the strategic level. G-4 will continue to be the proponent for advances in these areas. Innovation will be the driving force behind development of these strategic level capabilities and generate value by successfully exploiting new and improved technologies, techniques and services, and overcoming cultural and process barriers.

- *Acquisition and Sustainment*. Despite improvements over the past decade, the acquisition process (requirements, validation, funding, life cycle costing) to speed delivery of solutions must be constantly monitored for potential improvements. The G-4 must ensure sustainment planning is integral in every stage of the acquisition process, current and future. This will require a careful integration of resources across the funding PEGs.

- *Mobility and Force Closure*. Mobility requirements a decade from now may exceed anything we've known before, to include a need for a capability to move heavy loads to and within austere theaters with little to no receiving infrastructure. Working closely with the ARSTAF and other members of the strategic and intra-theater movement communities, the G-4 will aggressively advocate for capabilities that get our forces to the fight, supported by an enduring sustainment capability.

Conclusion

The Army is at a crossroads as it transitions from over a decade of combat operations in Iraq and Afghanistan and we must be judicious as we refocus from an Army of Execution to an Army of Preparation. We are divesting low priority programs while threats continue to grow. The realities of the dynamic environment in Iraq, Afghanistan, Syria, Western Africa and the Ukraine require us to sustain the force of today, but it should not be at the expense of focusing conceptually at developing logistics capabilities for the future. We must invest in capabilities and technologies to give our Soldiers a decisive advantage in any situation when they are placed in harm's way. We need technologies which provide predictive readiness, and unburden, protect, empower and sustain the Joint Warfighter.

Over the next two decades, Army soldiers and aviators using some weapon systems designed in a previous century will engage adversaries that are adept in using our strengths to their advantage. The Nation has traditionally reduced its armed forces after a war, even in domestic and international environments that promise no certainty of future prediction. Nonetheless, the

Army can and must provide the forces that will fight and win the Nation's wars when called.[19] We know the future will be complex, volatile and dangerous. Addressing future challenges will require an expeditionary, strategically adaptive and campaign-quality Army that prevents conflict, shapes the security environment and when necessary, decisively wins conflicts to attain the strategic ends and policy goals that govern all military action.[20] We must sustain the current force while balancing investments for the future.

---

[19] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance", page 26-27
[20] Department of the Army (April 2014) "2014 Army Strategic Planning Guidance", page 27

ANNEX A

Sustainment Prioritization Guidance to HQDA

General

To ensure we properly align Army resources to provide for the Sustainment of the Army, we must properly assess risk and identify mitigation strategies to best prioritize our Sustaining PEG resources and advocate across PEGs for allocation of needed resources to achieve our logistics objectives. One of the Department of the Army (HQDA) strategic tools currently utilize by the G-4 to prioritize Army resources is the Long-range Investment Requirements Analysis (LIRA) process which provides a strategic view of Army material investments across four PEGs over a 30 year period. Our primary responsibility is to ensure the Army is always at its highest state of readiness possible using the resources available, historically funded at less than 5% of Army Total Obligation Authority (TOA). This limited allocation of resources requires prudent decisions to minimize any risks to our Sustainment program.

Our G-4 investment decisions and recommendations for sustainment capabilities should achieve acceptable levels of readiness by maintaining equipment fleets in a "band of excellence." As we continue to disengage from Combat Operations, our ability to use Overseas Contingency Operations (OCO) funds to achieve these goals will continue to diminish; forcing new urgency on achieving readiness within the programs for which we compete in the POM process. Our strategy for sustainment resources should provide for alternative investment and divestiture decisions, provide a basis for insights on costs and savings associated with changes in acquisition profiles, help us apply a coherent basis for trade-off analysis among competing programs, and let us maintain the ability to respond quickly to program turbulence.

Purpose

The objective of prioritization is to ensure the Army applies its scarce financial resources to field the most capable force possible. To meet this objective, prioritization for the G-4 must take a capabilities-based approach. A good prioritization scheme states the overall importance of a capability to the Army, the amount of capability that varied funding levels may purchase and the risks associated with funding a capability at a level below its critical requirement. Our strategy will rank order G-4 capabilities IAW the business rules outlined in this annex. Effectively, G4 priorities will elevate certain capabilities throughout the Future Years Defense Program (FYDP), driving changes to the 1-N Management Decision Package (MDEP) prioritization list.

SS PEG Guidance

a. The Army Planning Guidance (APG) provides a link between the Army Strategic Plan (ASP) and the Army Programming Guidance Memorandum (APGM). This Annex is similar in relationship to the APGM as it links to the G-4 Logistics Strategy and provides input to G-48 for the development of the SS PEG Programming Guidance Program Objective Memorandum

(Annex B). This Annex will provide PEG, integrators, MDEP managers, resource managers, commands and programs with HQDA G-4 priorities.

b. Assuming the SS PEG will again be allocated at or near the historical level of 5% of the Army TOA, we must approach G-4 prioritization efforts with the intent of maximizing Army Readiness by judiciously allocating our Sustainment PEG resources across our supporting MDEPs. We must accept a moderate level of risk as we plan support to systems transitioning from Acquisition and Production to Sustainment. Our goal is to achieve a band of excellence with the fleets for which we are responsible while minimizing reliance and planning on OCO funding offsets to our Programs.

Risks to Sustainment Programs

Our planning and prioritization efforts must consider the planned Force Structure reductions approved by the Secretary of the Army. These reductions have a direct impact on the Sustainment PEG with respect to fleet sizes and composition, the Aviation Restructure Initiative, the APS Strategy through 2020, Operational Energy requirements and approved Focus Area Group decisions. While the G-4 is not the approving authority for maintaining Non-Standard Equipment (NSE), we must be vocal in review forums lead by the Army G-3 to either recommend NSE items either become an Army Program of Record or divest the items. At a minimum, we must consider the following:

a. Sustain existing and transitioning systems to include Non-Standard Equipment (NSE) with hardware, software and technical support.

b. SDT for Redistribution, BCT Reorg, Force Modernization and War Reserves.

c. OCONUS munitions support and growing Demil stockpiles.

d. UH60A A-L Recap requirement reliance on OH-58D divestment

e. Compliance with International Agreement for former WRSA-K Retrograde.

f. Increased risk if the U.S becomes a signatory to Oslo Cluster Munitions Treaty ($1.7B Liability).

g. Synchronization of Army-wide operational energy, contingency basing, and Operational Contract Support initiatives.

Key Sustainment Priorities (FY17-18/FY19-20)

Our prioritization scheme should include consideration of mutually developed capability gaps and solution sets (future Sustainment concepts and requirements), with collaborative discussion across the G-4 to determine and integrate priorities provided to MDEP managers, resource sponsors, and programmers within G-4. **Directors and MDEP managers must also**

identify, prioritize and justify capabilities you will recommend for divestment and/or re-programming of funds for both POM build timeframes.

a. **(FY 17-18):**
   i. Resource APS strategy aligned with Defense Planning Guidance
   ii. Align Depot Maintenance Requirements and CORE to Joint Warfighters scenarios.
   iii. Reinvigorate the Deployment Readiness Exercise Program
   iv. Provide uninterrupted Logistics Automation capability to the Force (Requires Cross PEG support)
   v. Aviation Restructure (Requires Cross PEG support)
   vi. Analyze Defense Agencies & other billing/appropriated fund transfer practices (e.g. DLA, DeCa, AAFES, TRANSCOM) (Requires Cross PEG Support)
   vii. Execute plan to rapidly divest equipment identified as Excess (Requires Cross PEG support)
   viii. Maintain Momentum of Campaign on Property Accountability
   ix. Define Soldier Equipment Readiness (Requires Cross PEG Support)
   x. Focus Non-Standard Equipment Decisions/Sustainability

b. **(FY 19-20):**
   i. Set Pacific Theater / Logistics Annex (Requires Cross PEG Support)
   ii. Operationalize RC. Reassess AC/RC Sustainment Force Structure mix (Requires Cross PEG Support**)**
   iii. Reduce Contract Logistics Support with investments in programs like the Ordnance Warrant Officer Redesign (Requires Cross PEG Support)
   iv. Field End-to-End Conditions Based Maintenance capability
   v. Continue software optimization initiatives (Requires Cross PEG Support)
   vi. Continue Ammo Demil and fund to reduce existing stockpile by 3% annually to meet stockpile growth with an objective of 6%, with the POM shortfall handled in the year of execution as funds can be made available.

Sustaining PEG Imperatives

a. Challenge everything and aggressively review requirements

b. Incorporate “Focus Area” decisions

c. Inform and Influence Army decisions which impact risk in Sustainment

d. Continue to advocate for OCO to cover Reset liability

Capability Prioritization

a. An integrated Army 1-N list incorporates three different general appropriation categories: Military Construction (MILCON); Research Development and Acquisition (RDA); and Operations and Maintenance (O&M), Military Pay and Allowances. G-4 will prioritize at the program and subprogram (Key 4) level of detail for all capabilities except MILCON which will be prioritized by the MILCON Integrated Planning Team (IPT).

b. 1-N MDEP Prioritization List and Process

i. G-4 aligns the MDEP capabilities against the Army's Strategic guidance and ranks the capabilities utilizing a 1-N prioritization process. The 1-N list process prioritizes the Army's requirements and funding to support leadership decision making in programming, budgeting and execution. The 1-N list defines the trade space between competing requirements and capabilities across the Army, including the costs, benefits and risks associated with not funding some level of capability.

ii. MDEP Managers at a minimum will provide the following Key 4 information when developing the 1-N prioritization list:

(1) Key 4 General Description: This description will provide the reader the broad purpose of the MDEP, the program element it supports, the funding for the Key 4, and the command it supports. Example: "This KEY4, funded through OMA and executed by AMC, supports the recapitalization and modernization of the UH-60 Blackhawk fleet."

(2) G-4 Capability Categories: The MDEP manager will assign a category to their Key 4 based on the definitions from senior leader guidance. The capability category is the first step in the internal G-4 prioritization process. Using the example in figure 1, the MDEP manager would categorize the above Key 4 example as "Life Cycle Sustainment."

(3) Percentage of funding applied: The MDEP manager ICW G-48 will apply the percentage of funding associated with their Key 4. This offers a level of detail for senior leaders to articulate how funds are being applied.

(4) Impact Statement: Managers will provide an impact/risk statement addressing the strategic implications for decreased funding against their Key 4. This is critical to the 1-N prioritization and provides decision makers a clear understanding of the consequences for reduced funding.

G-4 Capability Standard Priorities

The G-4 capabilities matrix is an internal priority drafted by G-43 (POM FY15-19) and approved by the DCS G-4. MDEP managers will review the definitions in the chart and assign the appropriate category to each Key 4 line. These capabilities categories provide the prioritization guide lines within the G-4.

Figure 1. G-4 Capabilities Categories

Priority	Category	Examples	Definitions
1	Regulatory / Legal	SDT, WRSA-K Ammo, SALE	Capability that entirely / mostly **composed of statutory requirements; directed by legislation or treaty** (Local, State, Federal, International, etc).
2	Life Cycle Sustainment	Depot, Reset, Weapons Systems Assurance, Air and Sea-worthiness	Capability that directly focuses on effects **depot maintenance overhauls/rebuilds and repairs that sustains** or improves material availability, reliability, and **life-cycle cost** of systems
3	Log Automation	SALE, AIT, CSS-VSAT	Capability that supports the sustainment of our logistics automation programs
4	Sustainment Ops	Technical Support, LAR/FSE/FSR/, APS	Capability providing **Engineering and Tech Support** to Post-Production Fielded Weapon Systems to sustain Army programs and capabilities (RAM, TDPs, ECPs, MWOs, Technical Manuals, TMDE and Special Repair tools and lists.
5	Contingency Support	Force Projections, Service Managed Ammo, SDT War Reserves, LOGCAP, APS	Capability that supports operational requirements ISO contingencies; preparations for contingencies, equipment set reconstitution, and Humanitarian Assistance / Disaster Relief missions.
6	Divestiture	De-Mil, Disposal	Capability directly supporting activities facilitating decontamination, decommissioning, demilitarization, and disposal of Army material
7	Logistics Support	General Logistics, Industrial Preparedness, service contracts	Capability facilitating the identification of capabilities required to ensure a ready and controlled sources of technical competence to support the force structure identified in OSD and JCS guidance.al logistics requirements…Title 10 requirements

Divestiture Recommendations

a. We must also take action to identify our G-4 programs which are diminishing in value to the Army and not supportive of our current G-4 priorities. We must carefully analyze divesture recommendations for capabilities that no longer support the future strategic readiness and take a holistic approach in shaping the future of Army logistics.

b. Divestiture recommendations must be presented to the G-4 for decision. Directors and their MDEP managers must identify, prioritize and justify their candidate capability areas for either targeted resource reductions or total elimination as reflected in Figure 2.

Figure 2. G-4 Divestiture Recommendations

G-4 Divestiture Recommendations								
MDEP Tier	G-4 Capability Category	APN Category	MDEP	Capability	Description	Mission Driver	Targeted Resource Reduction	Rationale for Divesting
Enter appropriate MDEP Tier "0 -5"	Enter appropiate Capability (1-7)			Enter Type G-4 Capability Supported (e.g. CORE Logistics; Service Contract, etc	Enter general description of the capability area	e.g. ; Regualtions, Directive, Initiative, etc	Enter % of program to reduce (0 - 100%)	

Summary: Business Rules for MDEP Phases & Prioritization

a. HQDA G-3 will provide the guidance for establishing a prioritization list across all PEGs though the APPG.

b. G-43 will prioritize Sustainment MDEPs based on senior leader's guidance using a ranking capability priority as depicted in Figure 1.

(1) CSA Priorities

(2) G-4 Lines of Effort (LOE)

c. G-48 will provide a unique identifier at the KEY4 level to include the MDEP, Army Program Element (APE) code, Appropriation (APPN) code and the Command code. This will allow MDEP manages to accurately align the MDEP to senior leader's guidance and justify the position on the 1-N prioritization.

d. G-43 will coordinate and work with MDEP manager's to properly define and categorize their MDEP

ANNEX B

SS PEG Programming Guidance Program Objective Memorandum (POM) 18-22

References

a. Inflation tables: http://asafm.army.mil/offices/office.aspx?officecode=1400
b. Manpower rates: http://www.asafm.army.mil/cabsweb/reports/rates/default-staticreports.htm

Purpose

To provide POM 18-22 initial Sustaining PEG programming guidance in advance of Army planning, prioritization, and programming guidance. The SS PEG motto this POM cycle is: "Continue to Always, in All Ways, Challenge Everything".

Continue to "Challenge Everything"

Fiscal Environment

The velocity of instability around the world has increased and the Army is now operating on multiple continents simultaneously in ways unforeseen a few years ago. The future fiscal path for Defense and broader governmental spending remains uncertain and the Army will be challenged to maintain balance between end-strength, readiness, and modernization. Over time, the cost of Army personnel has grown proportionate to the Army's total budget while modernization and investment continues to decline, creating an imbalance as the Army invests fewer and fewer dollars in its future readiness. The Army must remain fiscally responsible and work hard to be good stewards of taxpayer dollars, while at the same time being forced to do "more" with "less". To do this, we must fix ourselves internally by relooking our resourcing strategies, finding more effective and efficient ways to conduct logistic support and operations, and reducing and/or eliminating functions and capabilities that are obsolete, no longer needed, or are not aligned in supporting a balanced, rotationally focused, and surge ready force.

POM Focus

Programs must be adjusted in scope, scale, and cost to account for reduced force structure and resourcing levels. We must continue to drive down requirements and costs, allocating our limited resources only to our highest priorities to ensure strategic or desired outcomes are achieved by FY2022. We must continue to reduce reliance on contractors and reduce or eliminate less important programs in order to maintain or improve our warfighting capacity across force structure, readiness and modernization. We must eliminate or improve processes that lag and do not support the current POM cycle; relevant information must support programming.

Programming Guidance

a. Maintain an equitable balance between Active, Reserve, and Guard sustainment.

b. HQDA MDEP Managers and program analysts must conduct thorough reviews and examination of all programs and MDEPs prior to seeking GO/SES director-level critical requirements validation. All requirements must be validated at the 2-star level or above before final submission to the SS PEG Administrator. No competing or command requirements will transfer to eProbe.

c. The start point for developing POM 18-22 requirements is the most current eProbe position. Be prepared to adjust based on Resource Management Decisions (RMD) resulting from POM 17-21 Program Budget Review or other senior leader decisions.

d. Program growth in critical requirements must be clearly articulated, justified and supported by a Cost Benefit Analysis (CBA), if applicable.

e. CBAs are required based on the following thresholds:

i. A proposed new requirements or new funding request that calls for at least $10 million in any one year or $50 million across the FYDP.

ii. Any proposed increase to an existing requirement or funding that exceeds 5% growth or $10 million in any one year or $50 million across the FYDP.

iii. A PEG may require a CBA in situations below these dollar thresholds if it determines that the proposal is sufficiently important.

iv. Request to waive a CBA must be submitted for approval to the PEG Executive.

f. Unless specifically directed, program adjustments will not violate any current RMDs and/or POM 18-22 Army Program Guidance Memorandum (APGM). It is the functional expert's responsibility to ensure programs are compliant with all applicable policies, regulations, and directives. Any deviation or adjustment must be coordinated in advance with the SS PEG and PA&E and briefed to the PPBC/SRG for final approval.

g. For POM 18-22 we will continue to use Logistics Management Automated PPBE Support System (LOGMAPSS) due to unforeseen delays in deployment of the new sustainment PEG application, Army Investment and Sustainment Information System (AISIS). Be prepared to support testing in preparation for transitioning sustainment POM data into AISIS in this POM.

h. Absent direction from OSD, the Army budget will not be able to absorb the entire OCO-to-Base program. However, we must plan for the eventual migration of certain programs into the base under POM PB funding levels. Once additional guidance is provided by PAED and the Army Budget Office, commands must submit OCO requirements as directed.

i. Approved Depot Maintenance Core calculations must be made available before POM start

MDEP Managers must verify that Commands/ASCC/DRU Complete the Following:

a. A GO/SES must approve requirements, methodology, and prioritization used to derive requirements via memorandum when submitting to HQDA MDEP Managers. Requests for exception must be made in writing through the Chief, Programs Division (DALO-RIR) to the Principal Deputy ODCS G-4. Commands must submit draft requirements to HQDA for coordination in advance of command GO/SES approval to support the MDEP Manager's preliminary analysis.

b. A GO/SES must review all Non-Standard Equipment (NS-E) requirements submitted by Commands to ensure requirements were approved by the Army Requirements Oversight Council (AROC) or Capabilities Development for Rapid Transition Decisions (CDRT) approved for retention or divestment. Disposition instructions for NS-E items not provided by either of these two bodies are ineligible to compete for funding – no exceptions

c. Leader-driven, cost-informed performance reviews.

i. Identify forums currently used by the Commands where leaders periodically review performance of the programs within the MDEP (Leader-driven performance reviews).

ii. Look for opportunities to use GFEBS Work Breakdown Structure (WBS) to link execution to programming.

iii. Reconcile findings during the scheduled G-48 MDEP reviews.

d. Methodologies used to derive requirements must be clear, defined and articulated. Requirements for which the methodology cannot be articulated will most likely not be validated as critical by MDEP managers.

e. Command Program Assessment (CPA) issues must be addressed during MDEP reviews. Current funding levels and critical requirements must be used when addressing CPA issues and captured at the key 4 level of detail, i.e. MDEP, APE, APPN, and ROC.

f. Use most current list of obsolete LIN-NIIN. Ensure items contained are excluded as a valid requirement (source DCS-G4 G44(S). Items must be categorized as excess equipment that require storage, disposition, and second destination transportation. Valid substitutes that cannot be divested will require an exception to sustainment.

g. Requirements growth must be identified, documented, coordinated, and approved and must contain a proposed funding solution prior to the submission.

h. Requirements must be prioritized in support of the Army Warfighting Challenges(WfC), DCS, G4 Lines of Efforts (LOE), increments of capability (or where applicable in the 1-N prioritization categories) within each MDEP/Program.

i. Requirements aligned with Army and G4 priorities must be highlighted at the key 4 level of detail, i.e. MDEP, APE, APPN, and ROC.

j. All proposed manpower adjustments must be coordinated in advance and addressed during MDEP Reviews. Failure to gain prior approval may risk non-concurrence during Schedule 8-submission reviews. Ensure required offsets are reviewed and approved by HQDA DCS G4 GO/SES directors.

k. All "must-fund" requirements must be challenged, and actions taken to reduce levels of support must be documented.

l. Programmed civilian manpower must comply with the TDA Change Management Plans (formerly Concept Plans).

m. Copies of Memoranda of Agreement (MOA) must be provided for programs with authorized reimbursable positions; proof of reimbursable sources must be provided via copies of MIPRs or a WBS GFEB transaction sheets.

n. Contracted spaces and specific support contracts must be identified at the key4 level of detail, i.e., MDEP, APE, APPN, and ROC. Contract information must match with the Panel for Documentation of Contractors (PDC) website managed by M&RA.

o. Requirements for associated costs to sustain the industrial capacity required for future contingencies must be identified. As OCO requirements ramp down, it will be important to sustain the Industrial Mobilization Capacity (IMC) of our Depots & Arsenals.

Planning Facts

a. Civilian manpower end strength will not increase beyond current authorized caps.

b. Programs requiring a complete Structure and Composition System (SACS) file will use the HQDA G-3SACS file when published.

c. Rates referenced in paragraph 1 of this annex will be used to program requirements.

Planning Assumptions

a. OCO funding will be available to retrograde equipment and reset the force three years after equipment is returned from OSD directed missions.

b. Total obligation authority will not increase above President's Budget 2017-2021 levels.

c. We will preserve structure and its associated readiness using the published SACS file. We will program to maintain a 980,000 Total Army consisting of 450,000 Active Army, 335,000 Army National Guard, and 195,000 Army Reserve.

This page intentionally left blank

ANNEX C Demand Reduction Strategy

PURPOSE

To shape Army Research and Development (R&D)/ Science and Technology (S&T) efforts that support the Army G-4's Lines of Effort (LoE) and sustainment priorities. This strategy is designed to achieve:

a. Integration of Army G-4 R&D/S&T needs into the planning, prioritization, and programming process.
b. Improved transition of R&D/S&T-focused capabilities, outcomes, and products.
c. Staff support to the G-4 for programmatic decisions that affect R&D/S&T.

INTRODUCTION

The G-4's Logistics Strategic Planning Guidance (LSPG) articulates the G-4's expectations on integration of logistics priorities into the Army's strategy and planning processes. The framework through which these expectations are planned and executed consists of three distinct Lines of Effort (LoE): Leader Development, Strategic Readiness, and Army Operating Concept (AOC)/Force 2025. Leading, advocating, and shaping the integration of R&D/S&T-focused activities and initiatives that support current and projected sustainment needs must be institutionalized within the LSPG framework. The G-4 uses this Annex to help fulfill his advisory responsibility to the Assistant Secretary of the Army (ASA) for Acquisition, Logistics, and Technology (ALT) for areas of R&D/S&T focus that support the LoE's and associated operational imperatives21 and their integration into the G-4 and ASA (ALT) planning, programming, and prioritization processes. For purposes of this Annex, the term "R&D/S&T" means both technology-focused, materiel improvements as well as non-materiel, and non-technology process, organizational, doctrinal, and policy changes.

BACKGROUND

a. Army Logistics R&D/S&T Needs.

Numerous assessments of logistics-focused S&T and R&D/S&T needs have occurred over the past two decades. Two of the most significant were sponsored by the Army G-4 and were conducted by the Board on Army Science and Technology (BAST), a component of the National

[21] The operational imperatives include: force projection, force reception, onward movement, distribution management, materiel management, maintenance, and sustainment structures and processes.

Research Council. The assessments, one in 1999 and the other in 201422, had similar themes: How can the Army holistically reduce logistics demands through the application of technology, operating concepts, doctrinal and policy adjustments, and other efficiencies? A key recommendation from the 2014 report was the need for an explicit strategy to guide Army investment in logistics and related goals; in June 2015, the Army G-4 echoed the importance of such a "logistics research and development program."

b. The BAST reports, as well as numerous other assessments produced by both public and private sector agencies and organizations, have generally identified the following four areas where S&T and R&D/S&T can have significant impact on logistics:

Mobility. Getting to the fight faster through targeted investments in both inter- and intra-theater lift, to include Army watercraft.

Demand reduction. Reducing the major logistics demands (water, fuel and energy, ammunition, spare parts, Soldier power) through both materiel and non-materiel changes.

Maintenance. Improving maintenance operations using predictive analytics and advanced manufacturing.

Information. Leveraging commercial sector advances in enterprise information systems and decision support capabilities to enhance visibility of assets and generate sustainment recommendations more quickly.

AREAS REQUIRING FOCUS

A review of previous assessments suggests a number of focus areas where technology-centric and non-materiel process improvements and operating adjustments can be applied, using a lens of practical, achievable, compatible, and affordable.

a. Mobility for Assured Access. Goal: Advocate for improved inter- and intra-theater capabilities and platforms that are supportive of expeditionary sustainment mission profiles.

(1) Ship-based petroleum distribution. Collaborate with the Navy, USTRANSCOM, and regional combatant commands to evaluate additional vessels and equipment to convert tankers to off-shore petroleum distribution systems. *Operational imperative(s):* Force projection and force reception.

[22] *Reducing the Logistics Burden for the Army After Next: Doing More with Less*, National Research Council, Board on Army Science and Technology, 1999. *Force Multiplying Technologies for Logistics Support to Military Operations,* National Research Council, Board on Army Science and Technology, 2014.

(2) Mobility afloat. Collaborate with the Navy to bring the synergy of the large, medium-speed, roll-on/roll-off ship; the Joint High Speed Vessel; and mobile landing platform together into an operational system to enhance its flexibility in responding to contingency operations. Ensure Army needs are met in the ship-to-shore connector acquisition program. Conduct R&D/S&T efforts to improve ramp interfaces, causeway connectors, causeway motions, and crane heave compensation to permit operations in sea states of 3 or more. *Operational imperative(s):* Force projection and force reception.

b. Autonomous Systems. Goal: Advocate for research into development of autonomous vehicle (air and ground) capabilities, particularly in challenging and remote environments.

(1) Unmanned/autonomous vehicles. Advocate continued evaluation and analysis of employment of autonomous systems and associated support requirements, including implications for policy and doctrine. Support the implementation of autonomous vehicle technologies in phases, starting with what is possible now using semiautonomous technologies, such as leader-follower, so that incremental improvements to logistics can be realized as the technology matures. Research and development should be continued to develop these technologies for use in challenging, unpredictable environments that are currently beyond the capabilities of these technologies.

(2) Aerial support. Work with the Marine Corps and Navy to combine research and development efforts to develop a common autonomous aerial support capability for logistics. *Operational imperative(s):* Force projection, onward movement, distribution management.

c. Information Dominance and Decision Support. Goal: Promote mobile applications for information sharing, knowledge, and decision-making capabilities that support optimization of the Army Logistics Enterprise.

(1) Enterprise Information systems. Continue efforts to have Global Combat Support System Army (GCSS-A) interface with the enterprise resource planning systems (ERPs) of other DoD service branches, including the Logistics Modernization Program. Identify and pursue opportunities for achieving similar, secure interoperability with allied enterprise resource planning systems via federation for coalition operations. *Operational imperative(s):* Distribution management and materiel management.

(2) Adopt commercial type applications. Take advantage of contributors at all levels to develop and distribute applications and other tools to fully realize the potential of the Global Combat Support System-Army. A concept similar to those used in commercial app stores should be implemented to distribute such tools and provide ratings for them. *Operational imperative(s): Distribution management and materiel management.*

(3) Jumpstart logistics analytical capabilities. Revitalize logistics analysis capabilities by acquiring the necessary tools and qualified people in quantities commensurate with the number and impact of logistics decisions that need to be made to leverage information systems' rich data availability. *Operational imperative(s):* Distribution management and materiel management.

(4) Army Operational Research/Systems Analysis (ORSA) capabilities. To obtain the full decision support potential of the integrated logistics enterprise, ensure that enterprise resource planning system data transactions and management information systems are complemented by the operations research capabilities needed to conduct modern analytics. The goal should be effective integration of analytics into organizational decision making. *Operational imperative(s):* Distribution management and materiel management.

(5) Networking supply chains and sustainment readiness levels. Adopt critical supply chain management policies—catalysts for innovation—and apply a sustainment readiness level (SRL) maturity model concept to both currently fielded systems and new systems in development. Further extend the SRL concept, particularly mission-based forecasting, beyond Class IX to other classes of supply as well, especially III and V. *Operational imperative(s):* Distribution management and materiel management.

d. Power and Energy. Goal: Endorse the pursuit of a range of technologies that can produce significant reductions in fuel demand and increases in system efficiencies.

(1) Fuel cells. Continue to explore the possibility of using fuel cells where appropriate and to deploy them in the field. *Operational imperative(s): Distribution management.*

(2) Micro- and smart grids. ICW the combatant commands and Contingency Base IPT, expand smart grid and micro grid deployment activity. Focus on incorporating fuel cells and renewable energy sources such as photovoltaic-based power generation systems for on-site power generation applications. *Operational imperative(s):* Distribution management.

(3) Hybrid-drive. Continue to develop hybrid drive technology and - adopt technologies that have been developed for commercial hybrid vehicles for use in military vehicles. *Operational imperative(s): Distribution management and maintenance.*

(4) Advanced Energy Solutions. Monitor and as appropriate investigate leap ahead technology developments in the area of energy/power generation to replace fossil fuels with

solutions that provide increased operational capability while reducing energy resupply demands. *Supported operational imperative(s)*: Distribution management; force projection and force reception.

e. Maintenance. Goal: Improve maintenance procedures and continue to explore additive manufacturing capabilities to produce, repair, and improve components at the point of need.

(1) Accelerate potential use of additive manufacturing (AM). Leverage industry investments in AM standards for both machinery and materials. Identify and reduce barriers to AM implementation not addressed by commercial efforts. Develop funding strategy, guidance and oversight mechanism to meet specific Army needs. Develop a distributed network of organic-commercial AM parts manufacturers as a means to introduce, evaluate and to provide AM parts to the supply chain. Establish Army technical authority to qualify procedures, products and associated data files. *Operational imperative(s): Distribution management and materiel management.*

(2) Theater aviation sustainment. Adopt a regionally aligned force structure for multipurpose aviation sustainment brigades. *Operational imperative(s)*: Maintenance, distribution management, material management, sustainment structures and processes.

f. Water. Goal: Advocate for the adoption/development of additional technologies for production, transportation, and distribution.

Ship-based water production and desalinization. ICW USTRANSCOM and the regional combatant commands determine the feasibility and need for conversion of tankers for desalination of saltwater to produce bulk potable water. *Operational imperative(s): Distribution management.*

g. Ammunition. Goal: Promote improved ammunition packaging and adopt use of precision munitions and directed-energy systems where practical.

(1) Precision munitions and targeting systems. Support development and employment where practical to decrease cube and weight of ammunition moved in the supply chain, without decrement to warfighting capabilities. Operational imperative(s): Distribution management and materiel management.

(2) Packaging of ammunition. Replace conventional ammunition packaging material s with advanced ones. Reduce leftover waste disposal with improved packaging design. *Operational imperative(s): Distribution management and materiel management.*

(3) High-energy lasers. Accelerate High Energy Laser-Mobile Demonstrator (HEL-MD) test schedule. Expedite production, deployment and fielding of HEL-MD systems derived from HEL-MD. Examine the utility of a high energy laser for logistics base camp defense against air and RAM threats in a contingency environment. *Operational imperative(s):* Distribution management and materiel management.

h. Logistics Optimization. Goal: Promote the optimization of logistics support at all echelons through improved use of the Reserve Component, contractors, and better integrated traditional and special operations logistics.

(1) Contractors and reserve component. Coordinate with COCOMS ICW Services and the Joint Staff as part of contingency planning to establish a uniform level of support to be provided over time for each contingency operation. *Operational imperative(s):* Force projection, force reception, distribution management, sustainment structures and processes.

(2) Retrograde processes. Adopt capabilities offered by the Intelligent Collaborative Aging Aircraft Spare Parts Support (ICAAPS) project and Visualization of Logistics Data project as first steps to incorporate predictive analytics and develop a synchronized retrograde closed-loop supply chain. *Operational imperative(s):* Distribution management, sustainment structures and processes, materiel management.

i. Life Cycle Sustainment Cost Reduction. *Goal:* Promote the application of technologies and efficiencies that provide for integrated system life-cycle management, improved readiness and reliability while minimizing costs.

Reduce sustainment costs. Apply technologies and efficiencies that provide for integrated system life-cycle management, improved readiness and reliability while minimizing costs. *Operational imperative(s):* All.

ENABLING COMPONENTS

a. A G-4 working group, chaired by the G-45/7, responsible for (1) continuous review of the functional areas of supply, maintenance, transportation, distribution, and information technology, (2) identification and advocacy within the Army Staff and other stakeholder organizations for opportunities that enhance the expeditionary characteristics of the respective functional areas, and (3) coordination with ASA (ALT), AMC, TRADOC, and FORSCOM to promote closer integration of Army logistics R&D/S&T efforts with those in the DoD and Joint communities

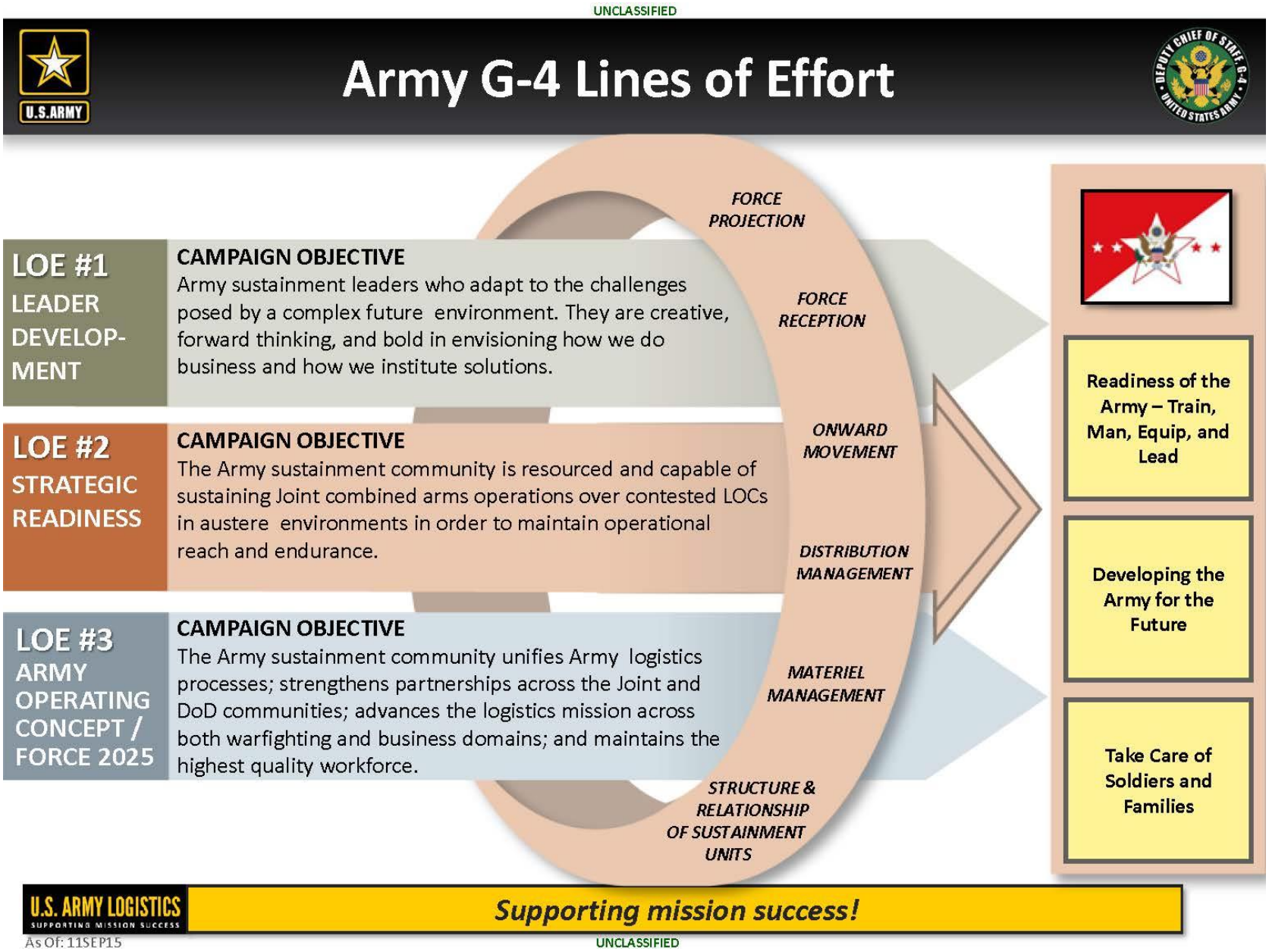
and identification and use of quantifiable measurement standards that can be used to determine the impact of logistics-related R&D/S&T investments.

b. A G-4 governance structure and supporting process to inform, communicate, and coordinate Army G-4 needs and priorities with the Army Secretariat, ARSTAF, Army-wide stakeholders, regional and functional combatant commands, and the Joint Staff.

c. Information and decision support tools that allow the Army G-4 and staff directorates to see and influence resources and their impact upon current readiness and future sustainment capabilities.

SUMMARY

This strategy provides a framework for the G-4 staff to synthesize and vet R&D/S&T needs with key stakeholders. It supports the identification and potential application of selected initiatives to fill gaps or improve deployment and distribution challenges represented in the G-4's lines of effort and operational imperatives. It provides the basis for the G-4 staff to focus on both materiel and non-materiel initiatives, their technical merits, and their measures of effectiveness in improving expeditionary force closure and sustainment delivery across all echelons.


UNCLASSIFIED
Army G-4 Lines of Effort
LOE #1
LEADER DEVELOP-MENT
CAMPAIGN OBJECTIVE
Army sustainment leaders who adapt to the challenges posed by a complex future environment. They are creative, forward thinking, and bold in envisioning how we do business and how we institute solutions.
LOE #2
STRATEGIC READINESS
CAMPAIGN OBJECTIVE
The Army sustainment community is resourced and capable of sustaining Joint combined arms operations over contested LOCs in austere environments in order to maintain operational reach and endurance.
LOE #3
ARMY OPERATING CONCEPT / FORCE 2025
CAMPAIGN OBJECTIVE
The Army sustainment community unifies Army logistics processes; strengthens partnerships across the Joint and DoD communities; advances the logistics mission across both warfighting and business domains; and maintains the highest quality workforce.
FORCE PROJECTION
FORCE RECEPTION
ONWARD MOVEMENT
DISTRIBUTION MANAGEMENT
MATERIEL MANAGEMENT
STRUCTURE & RELATIONSHIP OF SUSTAINMENT UNITS
Readiness of the Army – Train, Man, Equip, and Lead
Developing the Army for the Future
Take Care of Soldiers and Families
U.S. ARMY LOGISTICS
SUPPORTING MISSION SUCCESS
Supporting mission success!
As Of: 11SEP15
UNCLASSIFIED