

SUPPLY CHAIN COUNCIL
AWARDS FOR
EXCELLENCE IN SUPPLY
CHAIN OPERATIONS AND
MANAGEMENT

U.S. ARMY

SINGLE STOCK FUND



2002 SUBMISSION

MARCH 2002

EXECUTIVE SUMMARY

March 1, 2002

The Single Stock Fund is a Department of the Army business process reengineering initiative to improve the logistics and financial processes in the Army Working Capital Fund, Supply Management Army business area. It represents one of the most sweeping changes to logistics and business processes in the past twenty-five years.

Traditionally, sustainment of secondary items for weapons systems has been funded via revolving capital funds. These stock funds have been structured around separate operations: national stocks managed by the Army Materiel Command and retail activities managed by the other Army Major Commands (MACOMs). The traditional separation between wholesale and retail systems has served us well in the past. But, as force structure and technology changed, and the need for enhanced system processing speed and functional agility increased, the old methods had become too cumbersome. Reduced efficiency associated with a non-integrated asset requirement determination process, did not provide adequate corporate visibility of assets, too narrowly scoped maintenance and repair requirements, and resulted in an accumulation of excess stocks and duplication of workload and infrastructure.

The Single Stock Fund initiative is merging Army supply management below the department level into a single, nationally managed fund designed to streamline the supply chain from a multi-tiered structure to a single stock tier from which to sell to the customer. SSF has eliminated duplicative financial ledgers previously located between the customer and the national level. This decision and capitalization of these stocks accrued immediate benefits to the U.S. Army in both visibility and control of resources and supplies. SSF streamlined operations that were causing operational and management inefficiencies, including previous multiple points of sale, layered credits, multiple ledgers and billing accounts, and duplicative automated system processes, all essentially managing the same inventory and fixed this problem.

The Army's SSF Program Campaign Plan was approved by the Vice Chief of Staff, Army in November 1997. The program is being implemented in three phases. Milestone 1&2 implementation wrapped up in April 2001, when it completed world-wide transfer of inventories at the Army's installation level from retail stock funded accounts managed by the field MACOMs to the national revolving account. Milestone 3 will complete the transfer of the majority of all remaining customer funded stocks to the working capital fund by June 2003. At that time the Army's National Manager, U.S. Army Materiel Command, will manage all of these stocks. During MS 1&2, stocks valued at \$489M were capitalized and transferred to national

management. MS 3 will further capitalize over \$700M in additional secondary item stocks, in approximately 380 local accounts.

Implementation of SSF required significant effort and consensus by the entire Army. New processes had to be developed, new automation capabilities implemented, business rules defined, and new procedures and policies established. Prior to implementation all changes were validated through a rigorous developmental testing process (systems integration test) and in a critical customer operational test with all Army Major Commands participating. Automation changes proved challenging and time consuming to implement, however the biggest challenge, typical with most sweeping program changes, was cultural acceptance of these innovations by Army participants. Change is neither generally easy nor welcomed. Implementation benefits are exceeding expectations. Clear improvements in supply responsiveness and the associated cost avoidance from redistribution of excess assets not previously accessible are improving Army customer responsiveness and significantly cutting costs. A cost benefit analysis was completed in 1999 projecting a benefit to investment ratio of 6.28. Actual implementation evidence indicates that the program is well on track to far exceed that estimate.

Implementation of a Single Stock Fund concept is one of the most substantive logistics and financial changes to the Army since World War II. It is revolutionizing how the Army operates and is instrumental in achieving the Army's transformation to a lighter, more lethal, and more deployable force. Success achieved to date is a testament to the efforts at all levels and commands throughout U.S. Army and involved support from other DoD agencies and the corporate world. Single Stock Fund is a true revolution in military logistics.

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SECTION 1 - GENERAL INFORMATION AND PROJECT COMPLEXITY

- 1) **Name of submitting organization:** Deputy Chief of Staff, G-4 (Logistics), Headquarters Department of the Army
- 2) **Responding organizational unit:** Director, Single Stock Fund (SSF)
- 3) **Mission description:** Deputy Chief of Staff, G-4 (Logistics), Department of the Army is responsible for total Army and international logistics concepts, policies, programs, plans and systems. This responsibility is focused on the core logistics functions of supply, maintenance, transportation, soldier support, sustainment and quality of life. It promotes the sustainability, supportability, and logistics readiness of the total force. It assesses and continually improves logistics performances. It serves as the Army's advocate for logistics resources, doctrine, organization, training, leader development, and materiel.
- 4) **Award category:** Award for Supply Chain Operational Excellence
- 5) **Brief description of the supply chain and the process the submission spans:** The Army's Single Stock Fund initiative is a Department of the Army business process reengineering effort to improve and streamline the Army's logistics and financial processes. At end state, the Single Stock Fund will consolidate the management of current wholesale, theater, corps, installation, and division repair parts inventories into a seamless logistics and financial system. Integrating secondary item management from the national provider to the divisional and non-divisional supply support activities (end-to-end process integration). It will change the way the Army operates at every installation, every Division Support Command, every Corps Materiel Management Center, and every National Inventory Control Point. It is being delivered in the current legacy system automation environment by use of middleware to link logistics and financial processes from the field to the national levels. SSF also enabled major redesign of national maintenance by extending national repair work to local installations.
- 6) **Names of external organizations involved:** Participants external to the Department of the Army include:
 - Office of the Secretary of Defense (OSD)
 - Defense Finance and Accounting Service (DFAS)
 - Defense Logistics Agency (DLA)
 - Defense Enterprise Computing Center (DECC)
 - Defense Automatic Addressing Service (DAAS)
 - Battelle Memorial Institute
 - KPMG Consulting
 - AT&T Business Solutions.
- 7) **Names of functional organizations involved and the number from each functional category:**
 - Single Stock Fund Directorate (SSF) and Implementation teams - (84)
 - Army G-4 staff (7)
 - Army Budget Office (ABO) - (3)
 - Army Cost and Economic Analysis Center (CEAC) - (3)
 - Army Audit Agency (AAA) - (2)

In addition to these organizations, participation from the following major army commands total approximately 150 people. However, every logistician in the Army will be impacted.

- Army Materiel Command (AMC)

-
- U.S. Army Forces Command (FORSCOM)
 - U.S. Army, Europe (USAEUR)
 - Eighth U.S. Army, Korea (EUSA)
 - U.S. Army, Pacific (USARPAC)
 - U.S. Army Training and Doctrine Command (TRADOC)
 - U.S. Army, South (USARSO)
 - Army National Guard (ARNG)
 - U.S. Army Reserve Command (USARC)

8) **Provide a point of contact for each supply chain partner (name, address, e-mail, DSN):**

- Ms. Sharon Dunfrund, Chief of Supply Policy, Deputy Chief of Staff G-4 (Logistics), Headquarters Department of the Army, 500 Army Pentagon, Washington, D.C. 20310, sharon.dunfrund@hqda.army.mil, DSN: 222-9851
- Mr. Jim Folk, Deputy Director, SSF, 500 Army Pentagon, Washington, D.C. 20310, folkj@hqamc.army.mil, DSN: 767-8059
- Mr. Susumu Tsutsumi, Battelle, 5001 Eisenhower Avenue, Alexandria, VA 22333, tsutsumit@hqamc.army.mil, DSN: 767-8128
- Ms. Samone Johnson, AT&T Business Solutions, 1900 Gallows Road, Vienna, VA 22182, sjohnson@grci.com, COM: 571-216-3558
- Mr. Vince Pontani, KPMG Consulting, 6564 Loisdale Court, Suite 1010, Springfield, VA 22150, vpontanijr@kpmg.com, COM: 703-253-6843

SECTION 2 – IMPLEMENTATION

1) Describe the reason that the supply chain project was undertaken and how it was selected:

The Army Pre-SSF logistics "system" was a complex series of processes wherein organizations, personnel, procedures, and automated processes utilized an established set of policies to perform logistics functions for the Departments of Defense (DoD) and Army. Currently, Army warfighting doctrine subdivides operations into three echelons: strategic, operational, and tactical.

At the Strategic level, logistics includes the Nation's organic industrial base and the Defense Department's link to its military forces. This level is primarily the purview of the Defense Department, individual services, and non-Department of Defense governmental agencies, with support from the private sector. Based upon current Defense Department infrastructure reduction goals and intense pressure to privatize many of these functions, this level will experience continued corporate consolidation as logistics automated systems are already migrating to standard platforms, language and data.

At the operational echelon, logistics ties tactical requirements to strategic capabilities in order to accomplish operational plans. It encompasses support required to sustain joint/combined campaigns and other military activities within an area of responsibility. Military units, augmented by federal service civilians, civilian contractors and host nation resources, constitute the organizational structure of elements found at this level.

At the tactical level, logistics is the synchronization of all logistics activities required to sustain soldiers and their systems. Military units, organic to the deployed tactical force, constitute the bulk of the logistics organizations at this level.

SSF links these levels of logistics by integrating inventory management practices from the national level materiel management centers, depots, theater, installation and Corps down through the Division level stockpiles.

The Pre-SSF logistics system was a product of the evolution of the Army's warfighting history. Its structure can be traced directly to its sustained mission of providing the best logistics support to America's Army in both peace and war. Its echeloned construction, technological sophistication, communications media, and business practices have been designed and implemented as an integral element of the Army's operational culture. However, the system has several limitations that pose significant challenges. The challenges of pre-Single Stock Fund logistics environment included:

- Command-channeled, horizontal structure.
- Confusing descriptions of the organization of logistics warfighting systems and processes (e.g., retail/wholesale levels within the Combat Service Support community and strategic, operational, tactical echelons within the Combat Arms community).
- Processes and business practices based on hierarchical structure.
- Sequential echelons of financial and logistics data processing with redundant processing of identical data elements.
- No baseline for source data automation.
- Outmoded technology.
- Resources focused on short-term solutions.
- Logistics systems (structure, training, automation etc.) functionally oriented (supply, maintenance, transportation, etc.) "stovepiping".
- Less than full asset visibility with diffused ownership.
- Systems design and oversight responsibilities fragmented among various design centers and agencies.
- Inadequate communications for logisticians.

While SSF alone will not address all of the Army's existing limitations with logistics systems, the combination of SSF, the Wholesale Logistics Modernization Program (WLMP) and the Global Combat Service Support System-Army (GCSS-A) will greatly improve global visibility, responsiveness to customer requirements, and communications between nodes in the logistics system.

The Army's supply management process for secondary items was based on the concept of a working capital or revolving fund, segmented into two levels: wholesale and retail. The wholesale level purchases materiel from commercial sources and, in turn, "resells" that materiel to eight separate retail divisions which then "resell" the materiel to the end-user. The stratification of the working capital fund into levels, with multiple points of stock "ownership" was inherently inefficient. Specifically, these inefficiencies have led to redundant workload and inventories, non-standard management and financial practices, a lack of Army-wide visibility over stocks, fragmented inventory management and requirements determination procedures, limited excess redistribution capability, maintenance of unnecessary infrastructure for holding inventories and needless generation of excess stocks.

The Army Working Capital Fund (AWCF) is categorized as a revolving fund. It is comprised of four Activity Groups: Supply Management, Ordnance, Depot Maintenance and Information Services. The purpose of the Supply Management group is to finance the acquisition of secondary items for resale to Army, the Department of Defense, and other authorized customers. Secondary items include minor end items, replacement assemblies, spare components, repair parts, personnel support items, and consumables. The intent of the AWCF is to focus management and workforce attention on total cost visibility and full cost recovery for the Army's support functions. All costs related to direct labor, materiel, indirect labor and base operations must be recovered in order for the fund to "break even". The AWCF provides greater flexibility to managers because its dollars lose fiscal year and appropriation identity and allows increased visibility into the actual costs of operations.

Centralizing the supply management process by creating a seamless logistics and financial system extending down to the user makes good operational and business sense. More importantly, a single virtual supply and repair organization is a key enabler to help the Army stock and repair only what is necessary. The SSF is an integral part of the Army's Revolution in Military Logistics and will help ensure the ultimate success of the "Army After Next". This effort is a national imperative and, thus, is of the highest priority.

The Single Stock Fund is a Headquarters, Department of the Army business process reengineering initiative to improve the logistics and financial processes in the Army Working Capital Fund, Supply Management Army business area. It represents one of the most sweeping changes to logistics and business processes in the past twenty-five years.

SSF has merged Army supply management below Departmental level into a single, nationally-managed fund streamlining the supply chain from multiple tiers to a single stock tier from which to sell to the customer. As depicted in figure 2.1 below, Single Stock Fund has essentially eliminated the middleman between the customer and the national level supplier. SSF has streamlined operations that caused numerous inefficiencies, including multiple points of sale and credit, multiple ledgers/billing accounts, and duplicative automated systems managing the same inventory. SSF is also changing how the Army budgets for Base Operations, Real Property Maintenance, Operations and Maintenance-Army and other accounts.

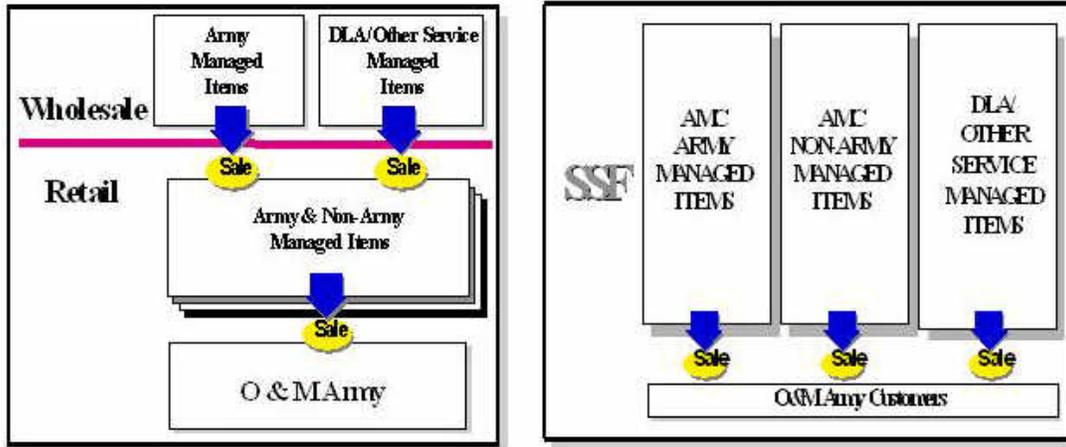


Figure 2.1

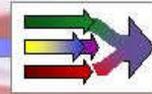
The Chief of Staff, Army describes SSF as a fundamental element of the Army's Revolution in Military Logistics. It moves the Army to a model that is partnership-based and focused on stewardship of Army resources that began in Fiscal Year 2000 and will be completed in Fiscal Year 2003. The challenge to the Army leadership is to implement business rules and a supporting architecture that meet the expectations of each business partner while optimizing the use of Army resources. To meet this challenge, the Army must significantly increase the efficiency and effectiveness of the logistics infrastructure and business processes. A vertically integrated single stock fund and a seamless supply and maintenance system are essential to this effort.

Prior to the Single Stock Fund initiative, stocks of supplies and repair parts were partitioned by their locations, with little if any ability to obtain national visibility and redistribute assets to meet urgent requirements. The Single Stock Fund facilitated the re-engineering of the entire supply chain process, delivering integrated logistics and financial processes to better manage spare inventories. As illustrated in figure 2.2, Single Stock Fund satisfies the following deficiencies in the pre-single Stock Fund environment:

- Global access to critical stocks through improved visibility of assets
- Robust reach-back supply operations enabling improved supply performance during global military operations
- Single versus multiple Army Working Capital Fund for all Stocks
- Increase efficiency in financial and asset accounting systems
- Improved Supply efficiencies through reduction of unnecessary acquisitions.
- One obligation authority for both Army Managed and Non-Army Managed items
- Linking local repairs to National need



SSF Strategic Focus



Process Reengineering that is delivering seamless Logistics & Financial processes...A Transformation Enabler

Tearing Down Barriers:
Transforming Army Logistics
and Financial Processes

SSF

Army Working Capital Fund (AWCF)



O&M

- Enhanced Warfighter support**
 - Global access to critical stocks
 - Robust Reachback Supply Operations
 - AWCf-SMA funds ASLs
- Improved Decision-making**
 - Visibility of Assets - Requirements - Finances
- Integrated - Seamless Process**
 - Logistics & financial visibility
 - Active & Reserve Component ASLs
 - Requirements determination
- Streamlined**
 - Eliminated multiple financial transactions
 - Eliminated duplicate automated systems

Figure 2.2

The primary objective of SSF is to achieve a seamless logistics and financial system, extending from the national level down through the Army Divisions' inventories, thus creating an integrated supply and repair processes. The end-state system will be characterized by four strategic objectives of the Single Stock Fund:

- Provide a single point of sale for customers. Under Single Stock Fund, consumers buy directly from nationally owned and managed stocks rather than purchasing stocks from the national level and operating a retail reselling activity at the unit or installation level.
- Provide a single, annualized credit process. Under Single Stock Fund, amounts of credit for items returned to the supply system are determined and published by National Managers annually to allow customers to budget for anticipated credit as well as anticipated direct funding for operations. Prior to Single Stock Fund this credit amount fluctuated throughout the year, providing uncertainty in unit budgets and programs.
- Provide an Integrated Requirements Determination and Execution process for inventory management. Based on the improved global asset visibility provided under Single Stock Fund, managers can now avoid unnecessary procurements of assets and can rapidly redistribute excess assets to meet emerging requirement around the globe.
- Support National Maintenance Management (NMM), an overarching maintenance capability that integrates strategic and operational maintenance decisions at the national depots, National Maintenance Centers and general support level. Improved asset visibility now enable National Managers to make smarter repair/buy decisions and provides accurate information to assist managers

in construction national repair/overhaul programs. Single Stock Fund also has reduced the pre-Single Stock Fund propensity to repair items locally, which are nationally in long supply.

SSF Foundation **- The Four Pillars of SSF -**

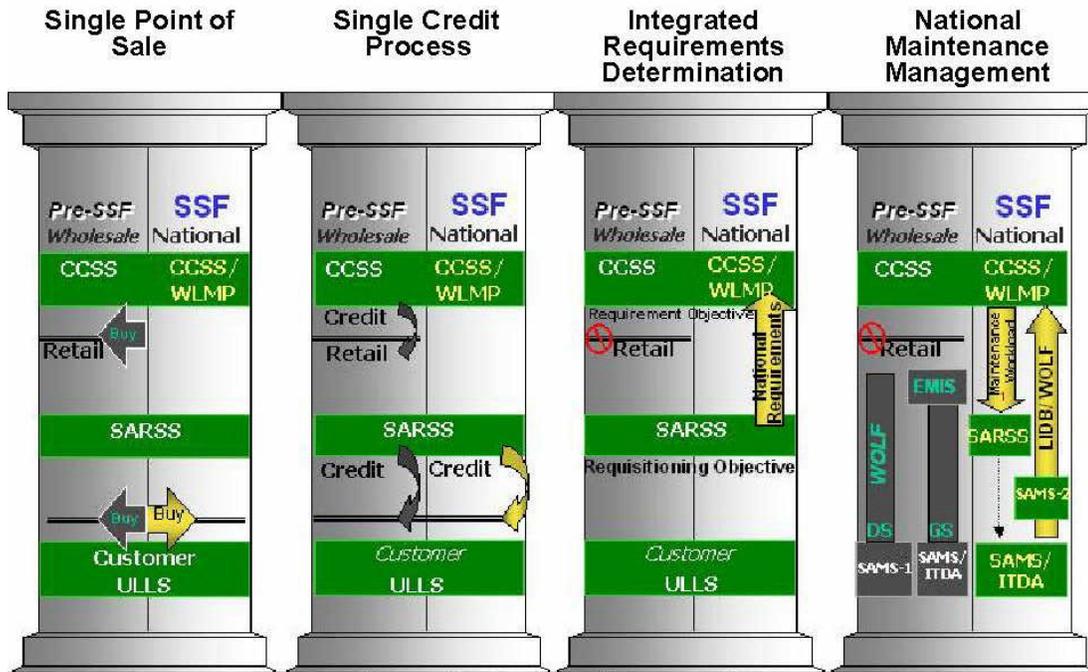


Figure 2.3

The Single Stock Fund Initiative conforms to the objectives of the Army Strategic Logistics Plan, with business process requirements incorporated into the new Global Combat Support System- Army replacing legacy retail automation systems and the Wholesale Logistics Modernization Program, replacing legacy wholesale automation. It will provide standardization in both inventory and pricing policy, as well as national visibility of stocks.

Significant capabilities being put into place include:

- A National manager for all Army stock-funded secondary items. The National manager will manage all stock-funded sustainment assets, serve as the single manager for all Army-managed secondary items, and provide financial oversight for Army-owned, non-Army-managed items (NAMI). There will be "corporate visibility" of asset distribution, stock control, and excess for NAMI.
- Sustainment of secondary items must be managed by the national level through one revolving fund, AWCF-SMA.
- At SSF end-state, National Managers will determine stockage position and secondary item requirements for Army managed items. While National Managers will have visibility of NAMI requirements, they will not be centrally computed/managed. Army units will determine stockage levels based on Army policy for requirements determination, stockage and inventory management.
- There will be National financial oversight of all Army-owned inventories.
- National Manager supply and maintenance representatives will be forward positioned at key sites throughout the Army.

- The National Manager will redistribute excess assets across the Army to fill shortages worldwide.
- The National Manager will accept materiel returns directly from the customer and will apply credit for Army-managed Items (AMI) in accordance with Army policies. Credit for NAMI will be in accordance with the applicable policies of the National manager.

2) Indicate the duration of the project. Note if the project was a pilot that is being rolled out. Note if the project is ongoing/still in process.

The SSF Campaign plan shown in Figure 2.4, which entails a phased implementation approach with specific milestone events, is the foundation of SSF. The schedule for implementing a single stock fund throughout the Army is aggressive. While the following milestones are associated with target dates, the Army leadership has stated that SSF implementation is event-driven, not calendar-driven; thus the dates shown are only targets.

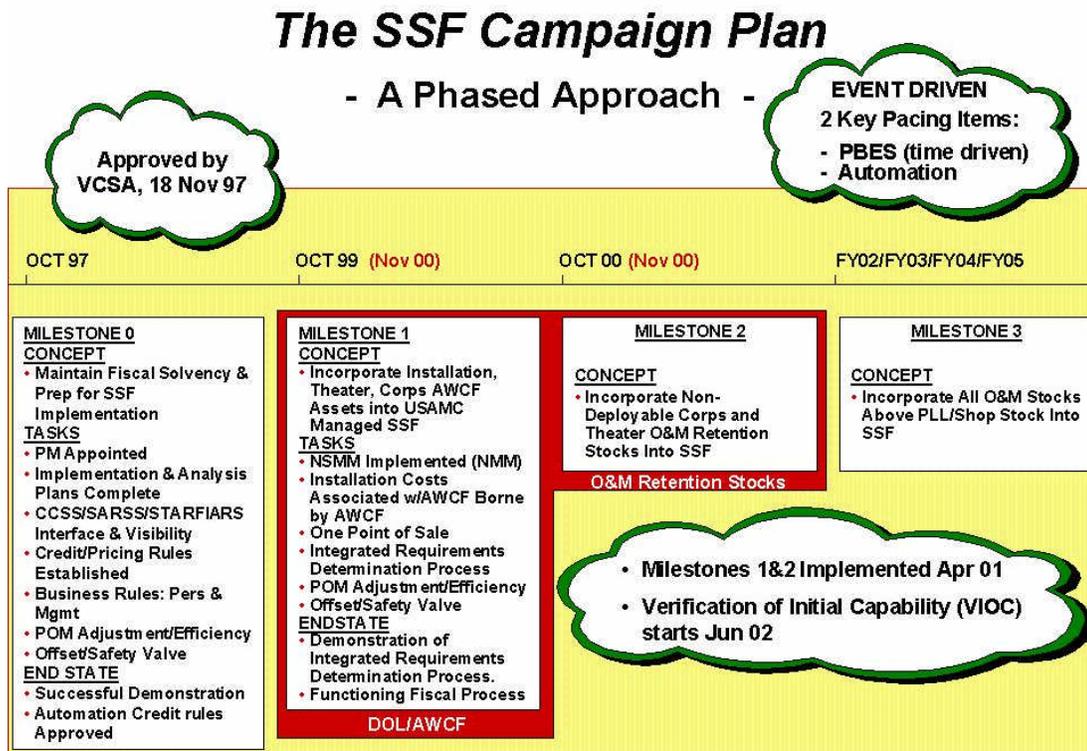


Figure 2.4

Milestone 0, which began on 1 January 1998, was originally intended to run through 30 September 1999. It was focused on development of integrated planning for logistics, financial, and systems integration business processes. Key Milestone 0 events included the establishment of the Single Stock Fund Program Office and the appointment of the SSF Program Director.

Milestone 1 began on 1 November 2000 and was focused on consolidating the Army's Wholesale Stock Fund and the eight Retail Stock Fund accounts managed by the Major Army Commands. Stocks included in this phase of SSF implementation were placed into the AWCF-SMA. To facilitate these changes, major efforts were required to re-engineer business processes and effectively integrate revised business processes into existing and emerging automated logistics and financial systems.

Milestone 2 also began on 1 November 2000 and encompassed the local unit owned retention stocks and redistribution stocks. It concluded successfully on 1 April 2001.

Milestone 3 is planned to occur in 2002-2005 and will further extend the Single Stock Fund through the tactical Supply Support Activities. This will leave only unit level prescribed load list inventories, items repaired locally in direct exchange programs, and shop stocks, which will be Operations and Maintenance funded by the unit.

At end state, SSF will move the Army away from current hierarchical, non-integrated stove-piped methods of providing logistics support and institutionalize situational awareness of its inventory positions throughout the Army.



The SSF Vision

The Objective

• A Single, Seamless Logistics and Finance Process, Supported by Seamless Automation

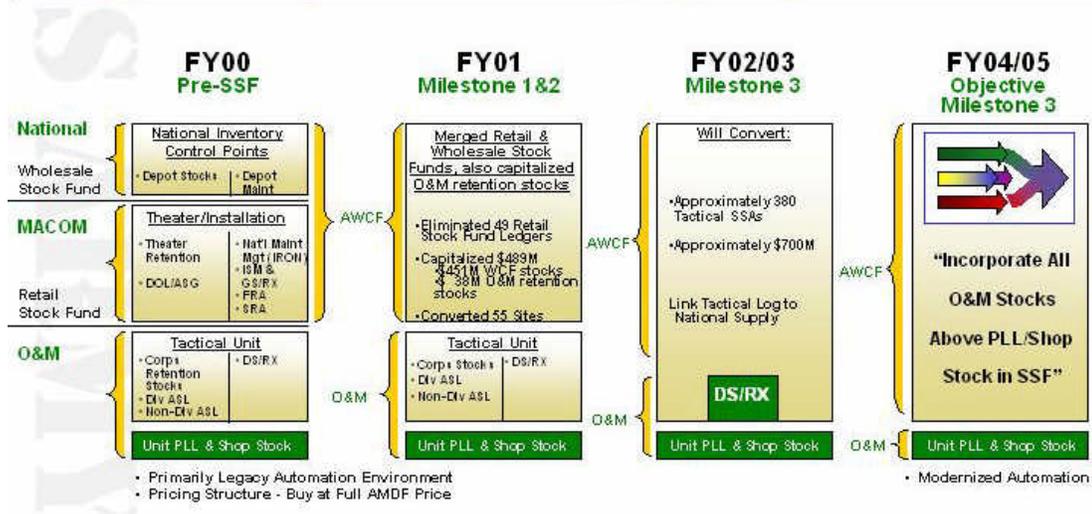


Figure 2.5

Specific timelines and duration of events pertaining to the planning, development and implementation of Single Stock Fund are depicted in Figure 2.6. Currently, implementation is scheduled to conclude by September 2003, with the last organization beginning conversion in June 2003. Each implementation phase contains the following elements:

- Business Process Reengineering and Business Rule Revision
- Modeling
- Program Decisions
- Resource Decisions
- Information Technology and Software Design
- Software Development
- Software Testing

- Implementation Planning and Coordination
- System Integration Testing
- Training and Communications Activities
- Operational Testing and Evaluation (Demonstration)
- Post Testing Assessment and Implementation Decision Making
- Site Preparation, Inventories and Pre-Conversion Events.
- Implementing Activities
- Post-Conversion Metrics and Analysis

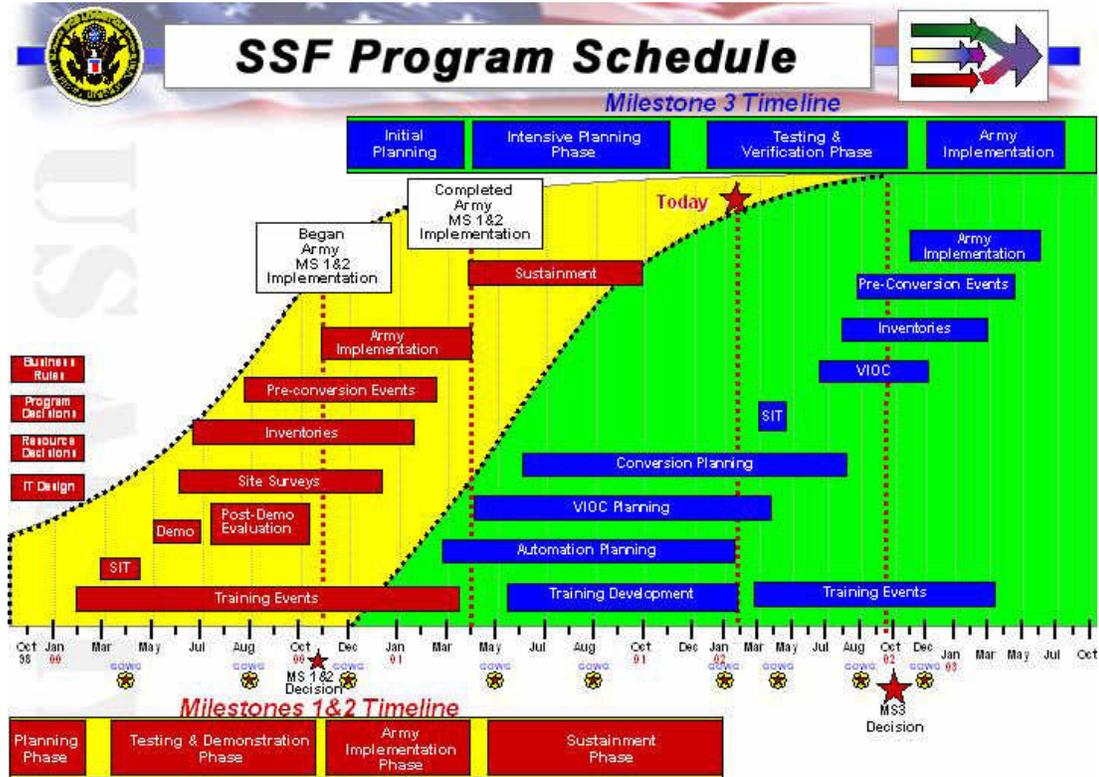


Figure 2.6

3) Describe in detail, the process used to complete the project.

The process used for program management for SSF followed classic business process redesign methodology. The process described in many available professional and academic publications served as the basis for the process used by the Director, SSF. The technical aspects of system design and modification, acceptance testing, integrated testing and fielding was patterned after the DoD System Acquisition Management Process. This description will lay out the life cycle process in generic terms. An overview of the MS 3 process is shown here.

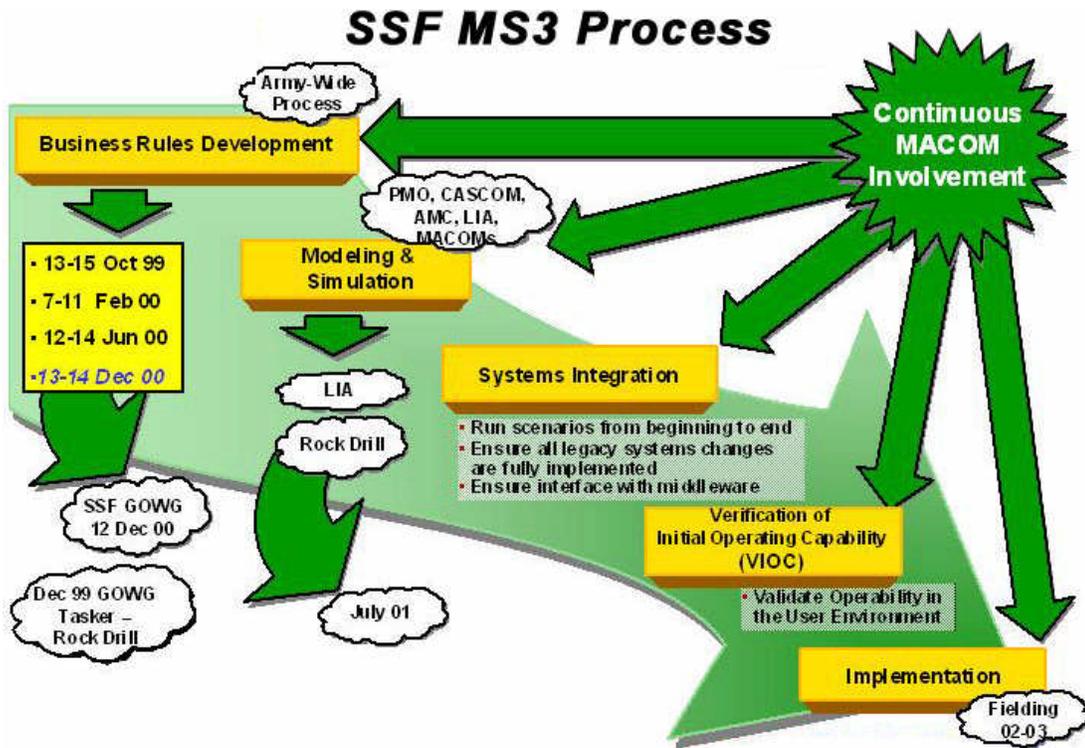


Figure 2.7

The key steps followed the phases shown in the figure below. This phasing is for the ongoing MS 3 activity, with a clear portrayal of the time span of the current milestone. This same phasing was used for MS 1&2 development and implementation.

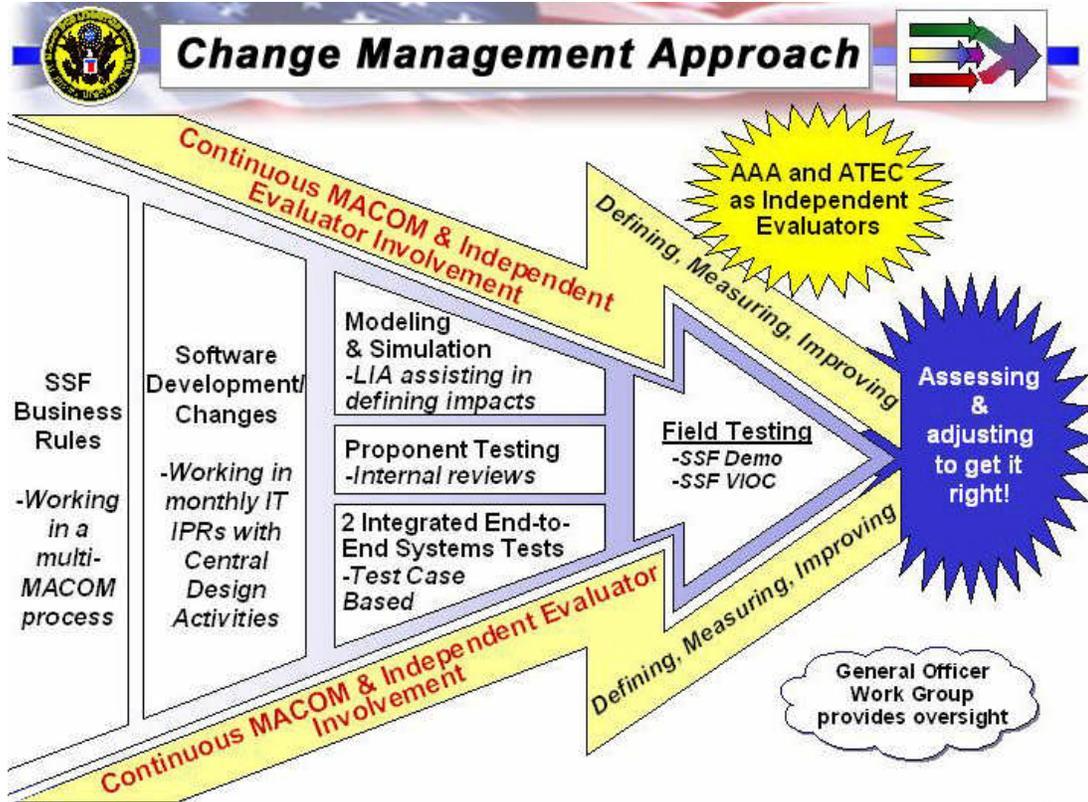


Figure 2.8

Phase 1. Multiple activities were conducted during this phase:

The process began by benchmarking the repair process, end-to-end, to include the interfaces with the financial process. A significant effort was made, in partnership with the Army Logistics Integration Agency (LIA) to model the baseline using software that permitted an interactive interface for users. This model, along with the MS 1&2 model, is accessible on the LIA web page at www.lia.army.mil. The baseline model is shown here.

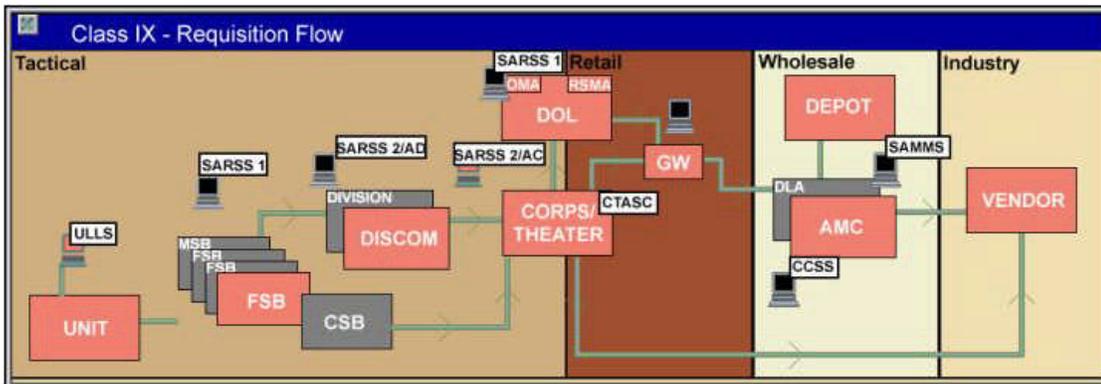


Figure 2.9

When the model is operating in an interactive mode, one of the activities may be selected, such as the Forward Support Battalion (FSB), and the detail flows for that level will be displayed. This example is shown here.

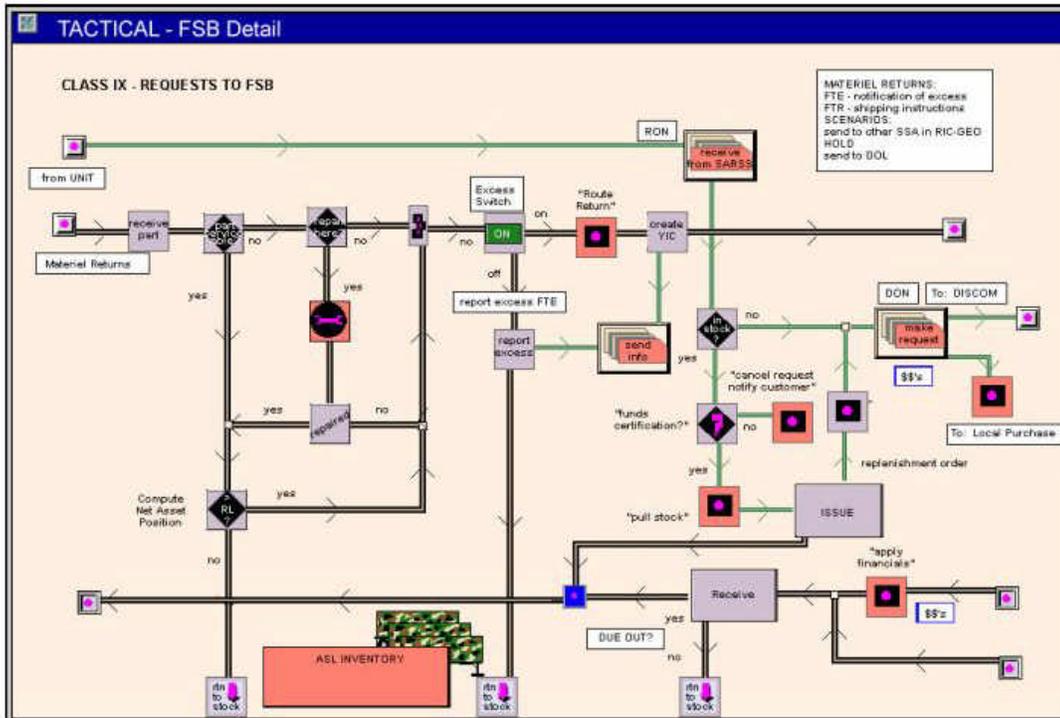


Figure 2.10

These models were validated at each level within the Army, to ensure that when the business rules were modified for the new process, the outcomes, in terms of measurable metrics would be accurate.

SSF used best practices of other DoD activities, as well as commercial practices, during the development of suitable courses of action (COA) for an Army SSF.

During this phase, an Economic Analysis, and later a Cost Benefit Analysis (CBA) was conducted to lay out expected costs and benefits for the program. Following coordination and validation by both the U.S. Army Cost and Economic Analysis Center and the Army Audit Agency, the CBA was delivered to the Army staff on 10 Sep 99. The Honorable Ms. McCoy, Assistant Secretary of the Army (Financial Management and Comptroller), subsequently submitted the CBA to the Under Secretary of Defense (Comptroller) on 27 Sep 99. The following month, the SSF PM briefed the CBA process and results to several Office of the Secretary of Defense and Office of Management and Budget hearings.

Phase 2. The next step in the process involved development of business rules. Rules were developed for asset management, requirement determination, financial management, maintenance management, and management of sales and returns of materiel. Workgroups with membership from all levels of the Army, other DoD agencies such as DFAS, DLA, and DAAS developed the rules and the associated implementing procedures. These rules were approved at the Department of the Army level, and served as the basis for subsequent development of system changes. Technical working groups developed detailed flows of the baselined processes, with detailed descriptions of the interactions between transactions. These were then updated to reflect the selected courses of action, and the updated flows served as the basis for functional and systems developers to write the system change documentation. The hierarchical nature of the rules and implementing procedures is shown here, along with the methodology employed to implement the rules in terms of published policies and procedures.

MS 1&2 Business Rule Example

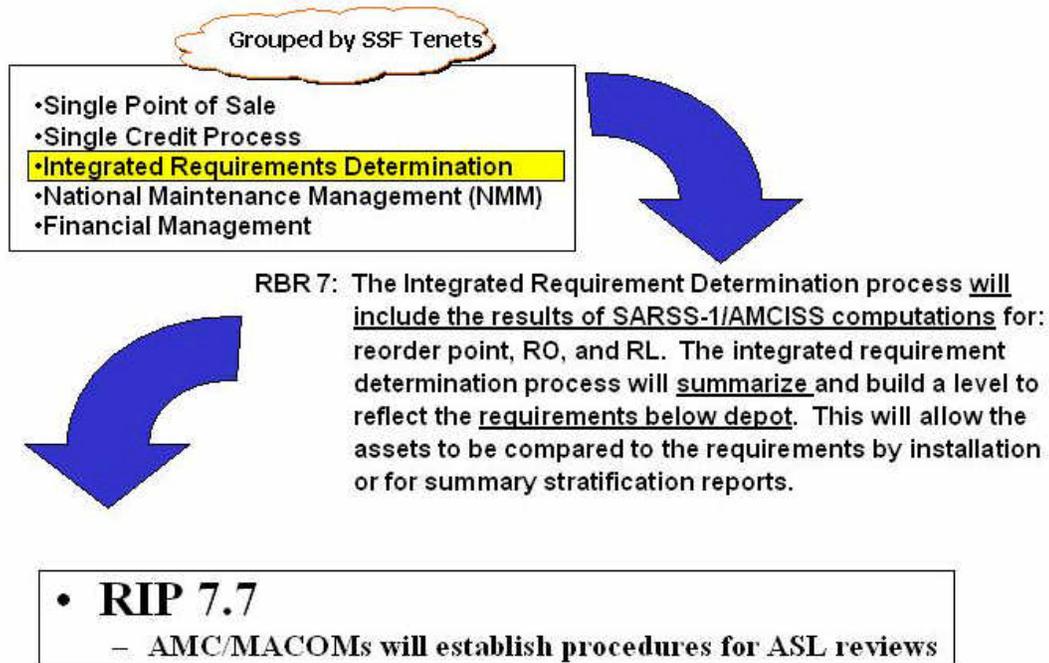


Figure 2.11

Driving MS 1&2 Policy & Procedures

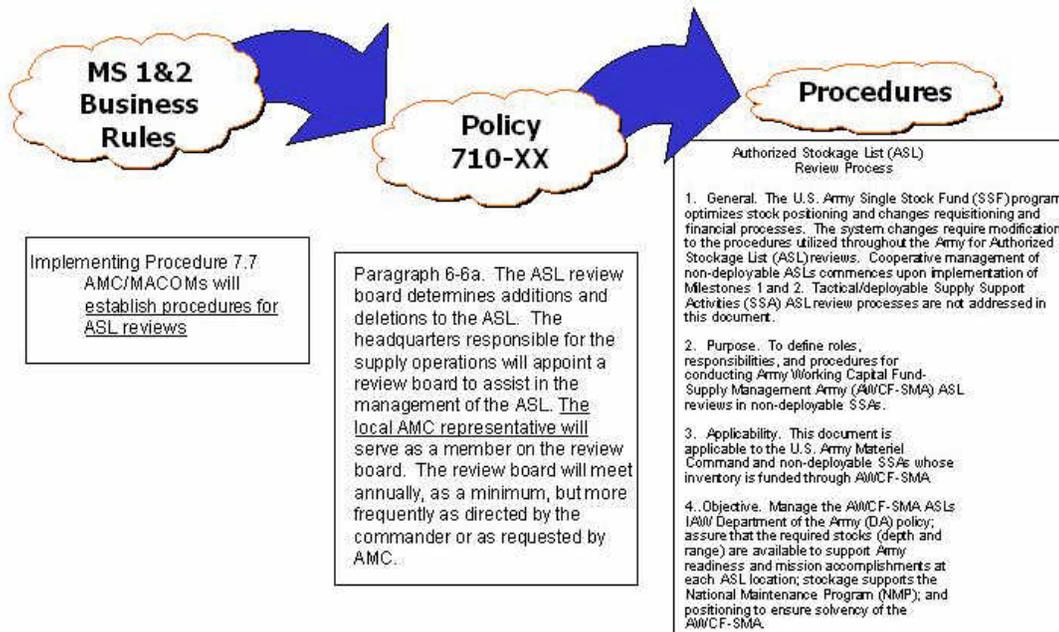


Figure 2.12

Crosswalk sessions were held, to ensure the system developers understood the business rules, and to verify all the business rules and implementing procedures were captured and properly translated into system requirements. This process is shown here.

Traceability Key to Our Success

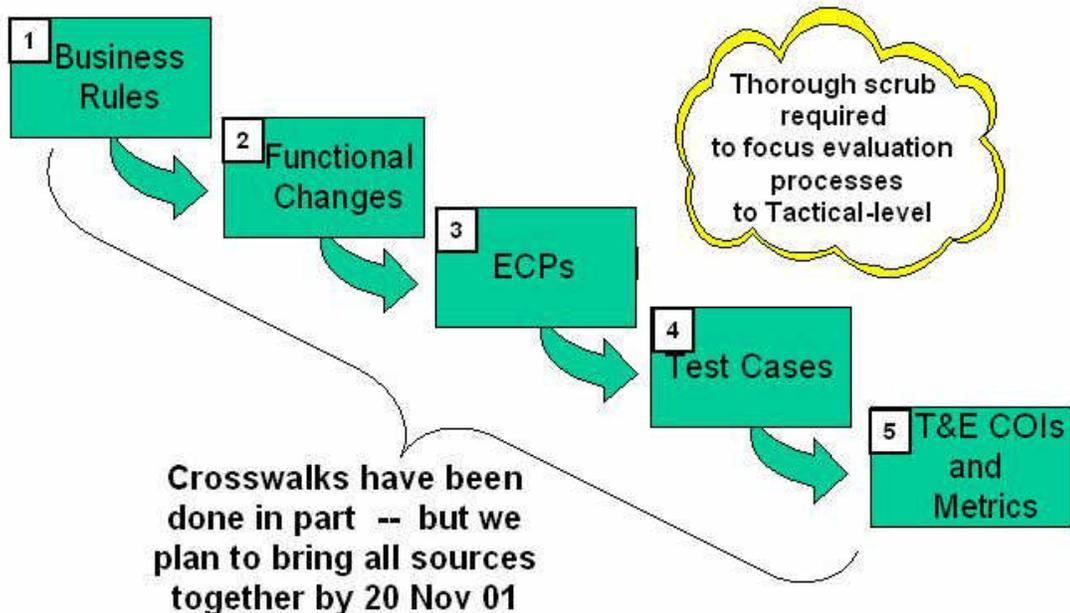


Figure 2.13

As shown, the crosswalk process takes the business rules and ensures each subsequent process properly reflects the intent. This continues through to the Test and Evaluation (T&E) Critical Operational Issues (COI) and metrics.

Following cost and scheduling reviews by the system design activities, overall schedules and the master program plan were developed and approved. Concurrent with system change development, and the associated programming, system integration test work groups (SITWG) met to develop test cases for use in validating system changes and the integration of the process changes in each of the logistical and financial systems. Subsequent to acceptance testing by each of the individual system administrators, preparations for conversion testing were activated.

Another parallel effort was running the LIA model with live data from the test sites to evaluate the impacts of the rule changes, and the expected changes in key metrics. A process drill was also conducted in conjunction with the Combined Arms Support Command (CASCOM), which develops doctrine and translates it for use in the Army's training programs, to evaluate the process changes in the tactical environment. These modeling and simulation efforts served to clearly lay out the expected benefits and challenges with the proposed approach.

These processes led to the conduct of the actual SIT. A test bed, which included the actual tactical logistics hardware, with some real time links and the use of file transfers to main frame based systems was used during the SIT. Functional and systems personnel conducted the test, with oversight from Army MACOMs, other Army agencies, external evaluators (Army Audit Agency), and DoD agency personnel. The overall software testing process is shown below.

Software Testing

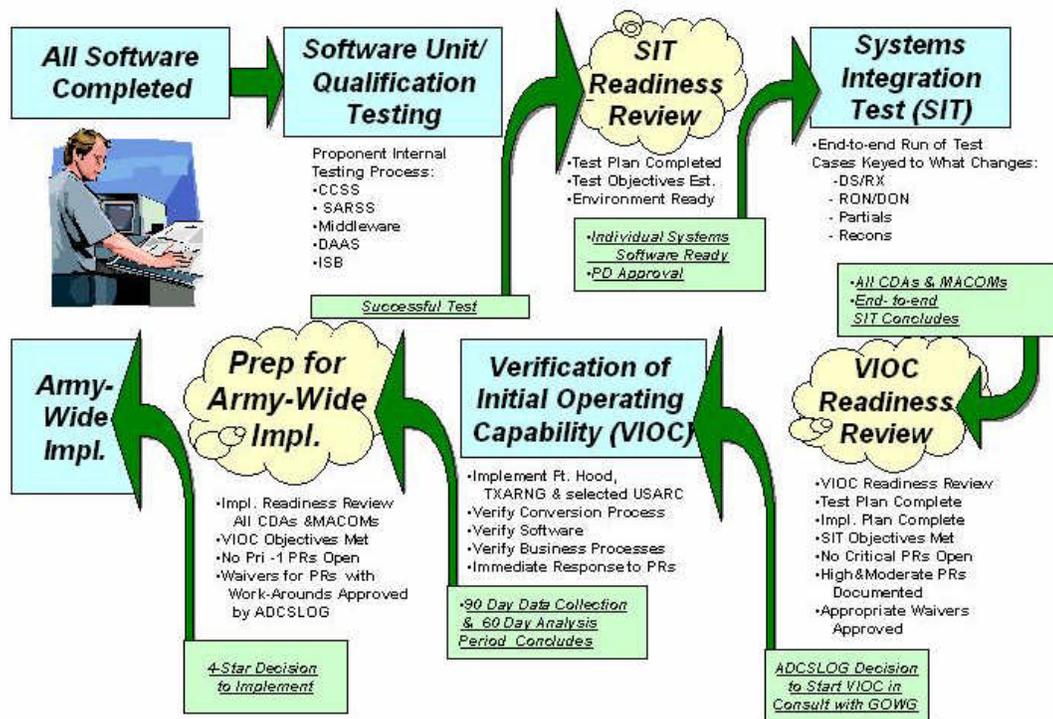


Figure 2.14

Program leadership then assessed the SIT outcome in terms of previously agreed to critical measures of success prior to moving forward to the field testing stage.

As with any major reengineering effort, the level of required coordination and the complexity of process changes contributed to misconceptions about the goals and direction of the SSF initiative. Although efforts such as the SSF Bi-weekly Update (a newsletter describing the significant events and accomplishments) helped disseminate key SSF information, additional effort was required to ensure common understanding of program goals.

A series of presentations, termed "Roadshows" were used as the preferred method of information dissemination. They provided senior leadership at selected organizations a comprehensive overview of the SSF initiative and reported on the Department's teaming efforts to balance resources in the SSF environment. The forum typically featured 8 to 10 briefings by Army staff, Secretariat, and other organizations covering a host of SSF-related topics with significant time for group discussion. The SSF Directorate orchestrated Roadshows to the Army MACOMs, to include overseas theaters of operation and tactical level commands during the months leading up to the MS 1&2 field test. This model will be used again for MS 3.

In MS 1&2 and as will be the case with MS 3, the field test, Phase 3, is actually implementation in the test units, as there is no provision for a return to the pre-SSF processes.

Phase 3. Prior to actual conversion to the new process, numerous events and activities must take place, in sequence. A conversion notebook is published that contains very detailed information, procedures, and instructions to be used by teams involved in data conversions, capitalization, and logistics process conversions conducted prior to the Verification of Initial Operational Capability (VIOC). Training is presented to installation

personnel and each of the tasks in the sequence is covered in detail. The supporting implementation team for the site arrives 60 days prior to the conversion date. They contain logistics, financial and system personnel from the SSF program office and serve to assist the installation activities in preparation for the actual conversion. The documentation of this process is available for MS 1&2, and was used during the implementation in FY 01.

Phase 4. The Milestone 3 Verification of Operation Capability (VIOC) process provides for testing the new supply chain process, along with associated financial process changes, in a tactical environment in order to mitigate risk prior to implementation Army-wide. The sequence of events developed for the conversion to MS 3 SSF begins 180 days prior to conversion. During the conversion to MS 1&2, this included preparing financial files for transfer to the national systems. MS 3 will not close general ledgers, as was accomplished with MS 1&2.

The VIOC and Implementation plans contain detailed instructions regarding the "what, when, where, and how" of testing and implementing MS3.

Phases 5 and 6. These phases contain the decision process leading up to the actual fielding and implementation of SSF across the Army. There are provisions for several levels of oversight throughout the 6 phases, and the structure to make the required decisions is shown here. The four star board of directors (BOD), and executive steering committee (ESC), and the General Officer Work Group (GOWG) are the key decision making organizations.

Implementation Structure

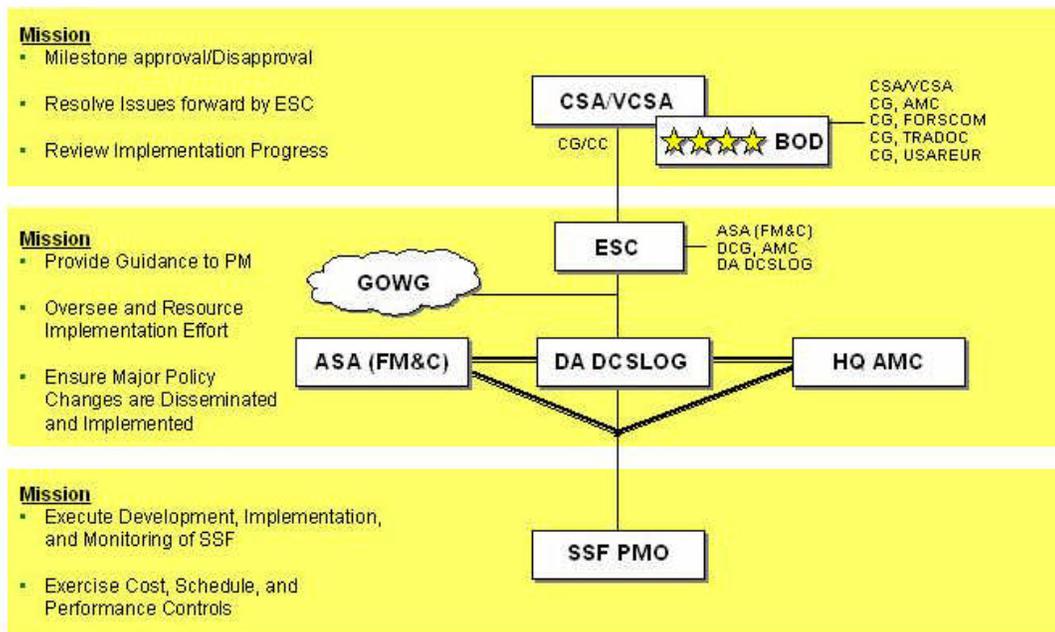


Figure 2.15

The timing of the decisions related to SSF and the proper decision level is reflected on the SSF schedule shown in Figure 2.6. Implementation actually reflects the outcomes of the VIOC. When all changes and improvements in the systems and processes are completed, the approved package will be fielded to the remainder of the Army.

MS 1&2 implementation was complete in FY 01 (Fig. 2.16), and the lessons learned framed the process used in MS 3 (Fig. 2.17). The project management process presented here includes the changes in schedule, sequencing, approaches, and plans, as revised.

SSF MS 1&2 Implementation Schedule

2000			2001				
May	Nov	Dec	Jan	Feb	Mar	Apr	
Demo	TRADOC Pt. Benning CTASC	FORS COM Pt. Hood CTASC	FORS COM Pt. Bragg CTASC	USAR 55th MMC CTASC	EUSA 15th TSC CTASC	USAREUR 3d COSCOM CTASC	USARPAC Pearl Harbor CTASC
<ul style="list-style-type: none"> ✓ Ft. Lewis ✓ Ft. Sill ✓ Redstone Arsenal 	<ul style="list-style-type: none"> ✓ Ft. Huachuca ✓ Ft. Gordon ✓ Ft. Leavenworth ✓ Ft. L. Wood ✓ Ft. Jackson ✓ Ft. Lee ✓ Ft. Knox ✓ Ft. Detrick 	<ul style="list-style-type: none"> ✓ Ft. Hood ✓ Ft. Carson ✓ Ft. Riley 	<ul style="list-style-type: none"> ✓ Ft. Bragg ✓ Ft. Stewart ✓ Ft. Polk ✓ Ft. Drum ✓ Ft. Campbell 	<ul style="list-style-type: none"> ✓ Ft. Belvoir ✓ Ft. Dix ✓ Ft. Devens ✓ Ft. Meade ✓ Ft. Myer ✓ Ft. A.P. Hill ✓ DSSW ✓ USMA 	<ul style="list-style-type: none"> ✓ Waegwon ✓ Pusan ✓ Cp Humphrey ✓ Yongsan 	<ul style="list-style-type: none"> ✓ Kaiserlautern ✓ Baumholder ✓ Pirmasens ✓ Wuerzburg ✓ Hanau ✓ Boeblingen ✓ Mannheim 	<ul style="list-style-type: none"> ✓ Ft. Wainwright ✓ Ft. Richardson ✓ Sagami Depot ✓ Camp Kinser ✓ Ft. Shafter ✓ Schofield Bks.
	<ul style="list-style-type: none"> ✓ Ft. Bliss (Pt. Hood CTASC) 	<ul style="list-style-type: none"> ✓ Ft. Irwin ✓ Ft. McPherson (Pt. Lewis CTASC) ✓ Ft. Benning ✓ Ft. Burtis (Pt. Benning CTASC) ✓ 14 ARNG State AWCDF SARSS-1s (Cp. Dodge CTASC) 	<ul style="list-style-type: none"> ✓ Ft. Rucker (Pt. Benning CTASC) ✓ Kansas ARNG COE (ARNG CTASC) - disconnect & reconnect 	<ul style="list-style-type: none"> ✓ Ft. McCoy (321st MMC CTASC) 			<ul style="list-style-type: none"> ✓ Ft. S. Houston (Pt. Hood CTASC)
			<ul style="list-style-type: none"> ✓ Ft. Monmouth ✓ Detroit As'nl ✓ Pocatoinny As'nl 	<ul style="list-style-type: none"> ✓ Aberdeen PG ✓ Dugway PG ✓ White Sands MR ✓ Yuma PG 			
Value of converted assets: \$43.2M	Value of converted assets: \$52.3M	Value of converted assets: \$85.6M	Value of converted assets: \$113.2M	Value of converted assets: \$8.8M	Value of converted assets: \$39.4M	Value of converted assets: \$145.9M	
Inventory at standard value	Cumulative: \$96.1M	Cumulative: \$181.7M	Cumulative: \$294.9M	Cumulative: \$303.7M	Cumulative: \$343.1M	Cumulative: \$489.0M	
						As of 6 Apr 01	

Figure 2.16

SSF MS3 Implementation Schedule

2002			2003				
June	Nov	Dec	Feb	Mar	Apr	May	Jun
VIOC	TRADOC Ft. Monroes CTASC	FORSCOM Ft. Hood CTASC	USARPAC	Lewis/304th-20	USAREUR	EUSA	USARC Baton Rouge-19
<ul style="list-style-type: none"> ✓ Ft. Hood-25 ✓ TX ARN-5 ✓ USARC-1 	<ul style="list-style-type: none"> ✓ Ft. Huachuca-2 ✓ Ft. Eustis-2 ✓ Ft. Berning-1 ✓ APG Md.-1 ✓ Ft. Rucker-2 	<ul style="list-style-type: none"> ✓ Ft. Carson-7 ✓ Ft. Riley-3 ✓ Ft. Bliss-8 ✓ Ft. Sill-2 	<ul style="list-style-type: none"> ✓ Alaska-5 ✓ Hawaii-12 ✓ Japan-1 	<ul style="list-style-type: none"> ✓ Ft. Lewis-5 ✓ Los Alamos-9 	<ul style="list-style-type: none"> ✓ Italy - 2 ✓ Germany - 43 ✓ Task Forces-5 	<ul style="list-style-type: none"> ✓ Korea-20 	
	Bragg	Bragg	ARNG- Hawaii-5	USARC Ft. Gillem-6		ARNG Raleigh, NC-28	USARC Ft. Belvoir-24
	<ul style="list-style-type: none"> ✓ Ft. Bragg-27 ✓ Ft. Drum-8 ✓ Ft. Polk-4 	<ul style="list-style-type: none"> ✓ Ft. Stewart-12 ✓ Ft. Campbell-14 					
			ARNG- Iowa-31	ARNG- Little Rock-31			Lewis/304th ✓ Ft. Irwin-6
 <p style="text-align: center;">Numbers indicate SARSS-1 Activities</p>							

Figure 2.17

4) **Identify Significant Challenges encountered, the process for resolution and the solutions. Identify best practices.**

a) **Resistance to Change and Change Management**

SSF represents a very significant change in the Army's logistics management and financial inventory accounting processes. It is a major step toward achievement of a national logistics management concept as describe in the Army's Strategic Logistics Plan. Coupled with the benefits of National Maintenance Management (NMM), Wholesale Logistics Modernization Program (WLMP), GCSS-A and other logistics initiatives, SSF is establishing the foundation for a reduced logistics footprint on the battlefield and will enable agile, timely, responsive, and efficient global logistics support in peacetime and wartime.

It is essential that everyone involved in the business of logistics and financial inventory accounting approach this change with the end-state in mind. Because SSF is such a broad change to the processes, there is no precedent on which to call for lessons, experience, or implementing procedures. It will require initiative, effective communication, and proactive support by everyone involved to ensure successful implementation and realization of the benefits of SSF.

In MS1 and 2 numerous challenges were overcome to ensure the field understood the long-term benefits to both their organizations and the "big Army". Challenges included but were not limited to significant policy changes inter-command rivalries, mission realignments, introduction of new national maintenance management and changes to the financial culture. For MS 3 it is essential that the Department of the Army continues to obtain buy-in from the Warfighters, if the SSF initiative is to completely succeed.

An effective communication plan has been developed. The objective of the communication plan was to disseminate SSF-related information throughout the Army to ensure common understanding, dispel inaccurate information, prepare for the implementation of Milestone 1 and 2, build field support and consensus, and ensure understanding of the implementation plan. The strategy was to "GET THE WORD OUT" by publishing demonstration and MS1 and 2 implementation plans, conducting roadshows targeted at senior Army leaders and deployment of training teams Army-wide.

b) Automation Support to Enable SSF Implementation

While SSF will interface with existing automated information systems, this initiative is primarily a reengineering of current business processes. These processes do not lend themselves to a materiel or hardware fix, but more to an adjustment of existing legacy systems to conform to the goals of the single stock fund until fielding of WLMP and GCSS-A. These new systems will, over time, replace or interface to all existing Combat Service Support automated systems that interface to the AWCF-SMA today. The solutions to information technology integration, which enable SSF during the interim to GCSS-A, represent a major challenge to SSF implementation.

The current logistics information technology architecture includes three basic domains; the wholesale domain, which uses the Commodity Command Standard System (CCSS), the retail tactical domain, which uses the Standard Army Retail Supply System (SARSS), and the Army Materiel Command retail domain, which uses the Army Materiel Command Installation Support System (AMCISS). Prior to implementation of Milestone 1 and 2, there was no lateral visibility or sharing of asset information between these domains. Installation level, SARSS and AMC AMCISS stocks have now been integrated with the National level. Upon completion of MS3, all stocks will be visible at the National level.

Financial Inventory accounting is done in the CCSS-Financial System for the AWCF-SMA domain. The Installation Support Buffer (ISB) replaced the Standard Army Financial Inventory Accounting and Reporting System (STARFIARS) and serves as a data translator to Standard Army Financial System (STANFINS), rather than a financial inventory accountability system. The Retail Automated Standard Financial Inventory Accounting and Reporting System (RASFIARS) was phased out when AMC retail AMCISS sites were converted to the Single Stock Fund in FY 01. The Defense Finance and Accounting Service (DFAS) operates these financial Systems. The financial management system for the Army National Guard is the Standard Accounting, Budgeting, Executions, and Reporting System (SABERS).

As an interim measure to the fielding of GCSS-A and WLMP, SSF has introduced "middleware" at the SARSS 2A/C Corps/Theater Automation Support Centers (CTASC) to enable the integration of wholesale, former retail, and financial systems using the revised SSF Business Rules. This middleware, comprised of both hardware and software, manipulates data within prescribed formats and generates specific documents to allow for visibility and management of assets to the national level. Middleware revises data in files within the existing SARSS, thereby utilizing current communications within the logistics and financial systems. The middleware servers have been provided by the Program Manager for GCSS-Army and may be used as the servers for the Integrated Materiel Management Module of GCSS-Army. Middleware software was developed by AT&T Business Solutions, the systems integrator for SSF. Both the fielded middleware, hardware and software will be maintained by SSF until replaced by WLMP and/or GCSS-A.

The four pillars of Single Stock Fund can not be attained without moving towards integration of the existing systems. Since the Wholesale Domain is being replaced by the Wholesale Logistics Modernization Program and the Retail Domain is being replaced by GCSS-A, the Army selected an interim path to total integration. This path provides for the capitalization of assets at the National level as shown below.

Strategic Automation Framework

Working in Multiple Environments to achieve "Seamless Logistics & Finance Systems with a Single Manager Supported by a Single Automation Architecture"

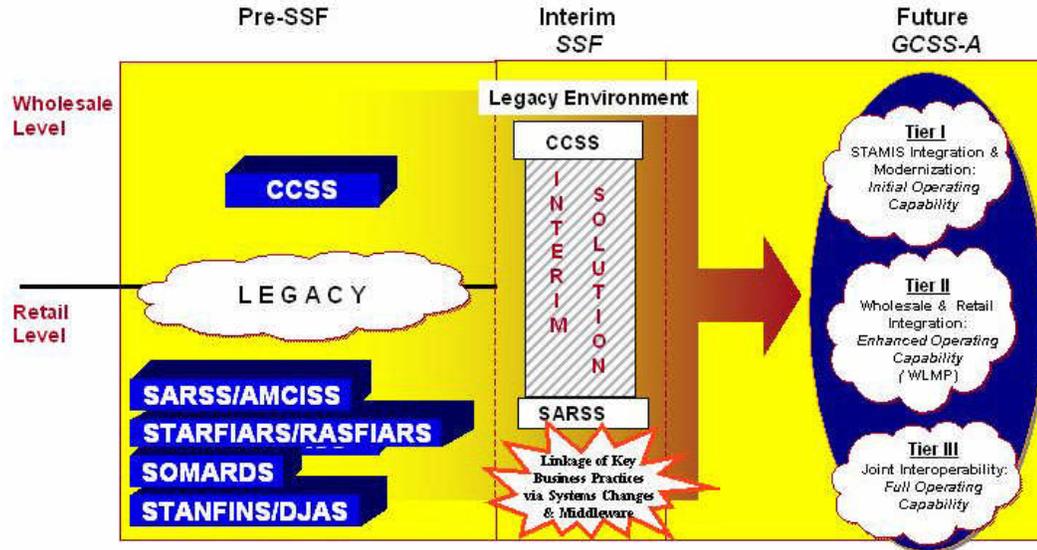


Figure 2.18

Capitalization will give the National level the ownership and control of the assets throughout the chain. Thus inventory accountability, credit determination, requirements determination and maintenance management can be centralized and be based on National need. Additionally the Financial Inventory Accounting process can be centralized into single general ledger accounts at each of the Integrated Materiel Management Centers (IMMC). This eliminates the need for these separate accounts at each of the 10 regional DFAS Operating Locations.

SSF Asset Environment

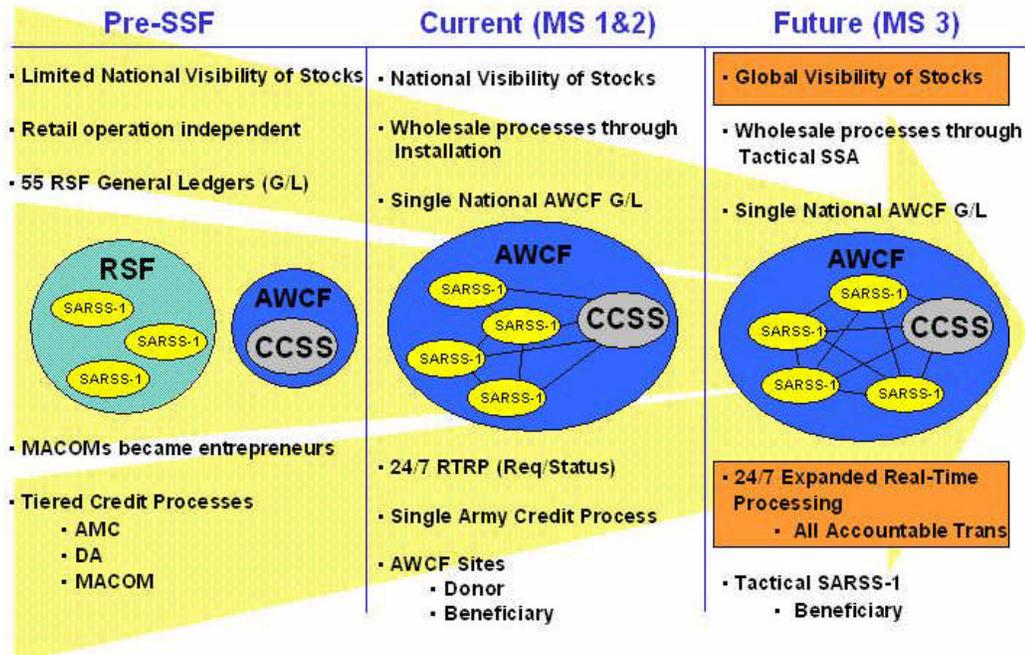


Figure 2.19

The major changes between the current architecture and the interim architecture under Single Stock Fund are:

- The Retail Stock Fund no longer exists.
- RASFIARS, the general ledger accounting system for AMCISS, is no longer required.
- STARFIARS and STARFIARS-MOD, the general ledger accounting system for SARSS is no longer required.
- The Installation Supply Buffer (ISB) is used as a translator and router to assure connectivity to STANFINS for Operation & Maintenance (O&M) funded obligations and disbursements. ISB is not an accounting system and does not maintain general ledgers.
- Primarily general supplies, packaged petroleum products, construction materials, and secondary repair parts in SARSS and AMCISS were capitalized into the National inventory.
- Middleware is located at each of the SARSS-2AC/B locations. Middleware assures the appropriate documents in the proper format are passed to the national level. Middleware does not create any new documents. All documents are in Military Standard Requisition and Issue Process (MILSTRIP) format. This has enabled the National level to have visibility and control over assets and requirements.
- Real Time Processing (RTP) is utilized between the consumer and National provider. This socket connection allows instantaneous actions by the national level on requisitions that cannot be totally satisfied locally.
- A Commodity Business Unit (CBU) was established to redistribute excess Non-Army Managed Items (NAMI). This enabled the Army to utilize available Army owned assets to satisfy customer requirements rather than buy new items. If assets cannot be redistributed, the CBU will forward the requirement to the Source of Supply (SOS). The CBU will not duplicate the management functions performed by the SOS.

c) Financial Obstacles

SSF eliminated the need for the Retail Stock Fund (RSF) inventory accounting systems. These RSF systems provided an intermediary system between the AWCF and Consumer fund accounting systems. The Army's installation consumer funds system (STANFINS) had no direct interface with the Army's installation supply system (SARSS). The major accounting challenge with SSF was to develop an interface between the financial and supply systems. The Installation Supply Buffer (ISB) was developed to serve this purpose. ISB is a translator system design to reformat SARSS supply data to meaningful data that the installation accounting system, STANFINS, could read and process to record financial results for supply transactions.

Another major accounting challenge was to create visibility over the credit process to identify credit delayed to the field and return that credit as soon as possible. Credit is given when items are returned to the supply system. This involved gaining access to the major databases for supply and finance and using that data to research credit transactions for functional or financial problems. Since the units use credit for about 60% of their spare parts purchases this represents a large amount of their purchasing power.

This financial obstacle was created because the policy governing supply actions related to credit changed with the introduction of SSF and the elimination of the RSF. Several improvements in internal control integrity were devised to support quicker better and faster return of credit to the end user. The removal of these obstacles also enhanced the financial and logistics accountability efforts within DoD (Fig. 2.20).

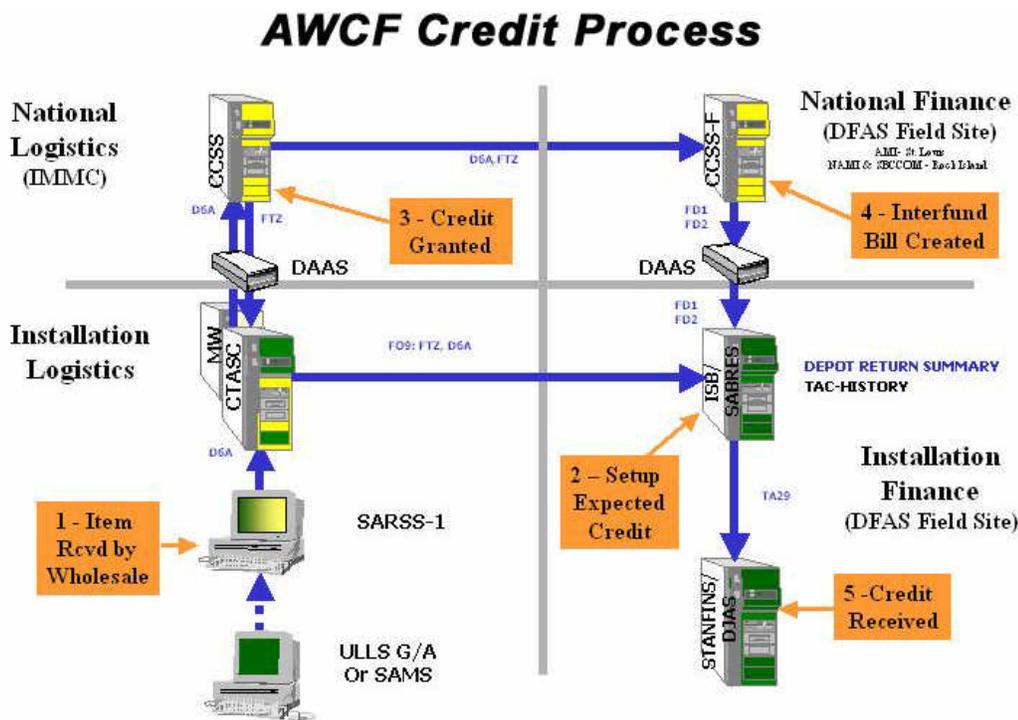


Figure 2.20

d) **Competing Initiatives: Wholesale Logistics Modernization Program (WLMP), Global Combat Service Support-Army (GCSS-A), Consumable Supply Chain Management-Army (CSCM-A)**

In the Army there are other business process initiatives developing that SSF is working with to ensure we translate the SSF business rules and they are embedded in these other process changes. Our efforts

require close coordination in testing, conversion and implementation scheduling. The current fielding schedule for WLMP depicts the modernized wholesale system replacing CCSS within a time period concurrent with SSF MS3 implementation. Integration and synchronization planning of SSF and WLMP are ongoing.

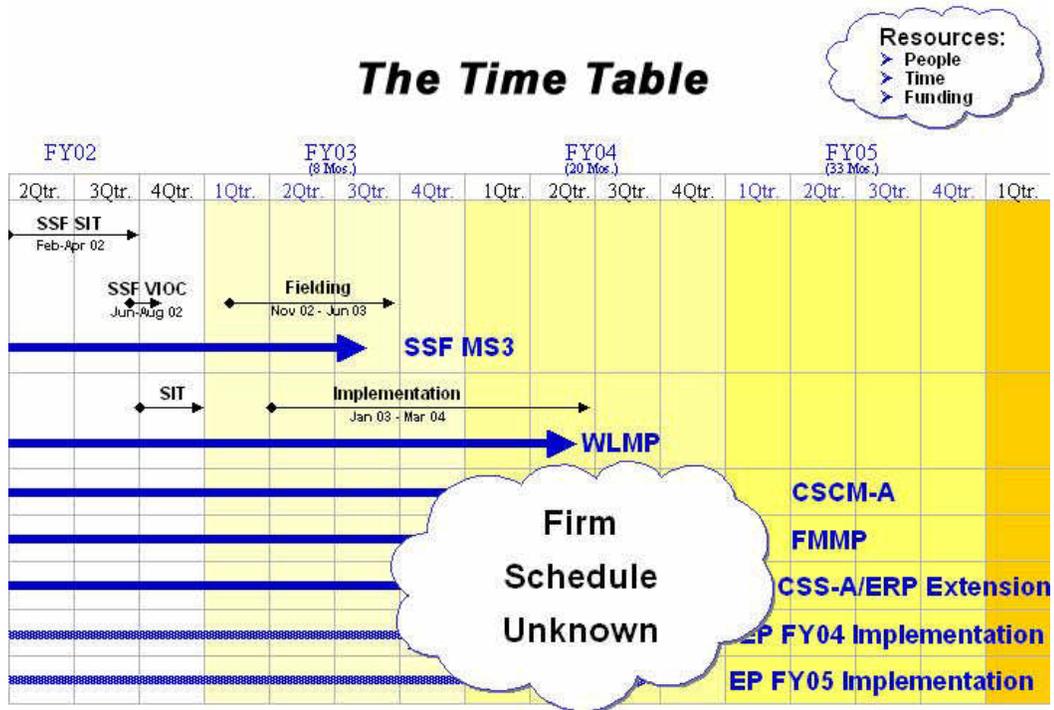


Figure 2.21

We work in multiple automation environments making changes at multiple levels within the Army, thus impacting multiple programs simultaneously. We continually coordinate the key Army program development activities and implementation dates to integrate with SSF activities.

The Director, SSF does not only consider the SSF program in decision making because we are all linked via our business processes and our schedules coincide. This is an evolving process.

e) **Handling of Non-SARSS Systems During the Transition to Single Stock Fund**

How to handle six “standard” systems, i.e., those systems at multiple sites that were centrally developed and are managed by the Army or a Major Command in planning for implementation of SSF was a major task. These six systems were the Army Central Issue Facility (ACIF) Installation Support Module (ISM), the Army Clothing Initial Issue Point System (ACIIPS), the Army Food Management Information System (AFMIS), the DLA Fuels Automated System (FAS), the Integrated Facilities System (IFS), and the Theater Army Medical Management Information System (TAMMIS). Following extensive study, the Army decision was to exclude the Non-SARSS systems (primarily repair parts inventories). The work that was done to make the exclusion a reality, and the success of the move, despite much concern about the aggressive timeline, involved multiple agencies across DoD in the financial and logistics areas. All of the systems, except IFS which continued to be direct funded, were moved to the Defense Working Capital Fund, in order to take advantage of unique capabilities and inherent compatibility with DLA operations.

5) **Indicate the metrics used to measure progress and success**

To capture the progress and measures of success of the SSF Program, the SSF Director established a Review and Analysis Team within the SSF Directorate as the Army's central point to design, coordinate, direct, analyze, integrate and synchronize all facets of the SSF R&A program. Many of the key indicators used to track SSF performance were comprised of existing metrics that were being reported by various proponents in the Army. Thus, measuring the effects of SSF on the Army required significant coordination and support.

The Review and Analysis team developed an Executive Scorecard to identify the key metrics to monitor in order to focus measurement on key aspects of this complex program. Adapted from the Balanced Scorecard popularized by Dr. Robert Kaplan of Harvard Business School and Dr. Norton, President, Renaissance Solutions, the scorecard organized the metrics into four major categories: Materiel Readiness, Financial, Benefits, and Performance Measures. This put the measurement of SSF into a focused, coherent, multi-dimensional structure, ensuring that limited resources were effectively allocated, which enabled the Army to monitor not only progress but also success (Fig. 2.22).

SSF Executive Scorecard

<p style="text-align: center; color: blue; font-weight: bold; margin: 0;"><i>Materiel Readiness Metrics</i></p> <ul style="list-style-type: none"> • Customer Wait Time • Equipment Readiness • Supply Support (Critical requisitions) • Zero balance w/dues-out • Materiel Release Refusals • Warehouse Denials 	<p style="text-align: center; color: blue; font-weight: bold; margin: 0;"><i>Benefits</i></p> <ul style="list-style-type: none"> • Nationally-directed MROs (Qty, \$ Value, SoS, IPG, Redistribution of excess, Penetration of RO) • NMM workload plan vs. execution
<p style="text-align: center; color: blue; font-weight: bold; margin: 0;"><i>Financial Metrics</i></p> <ul style="list-style-type: none"> • Price & credit Challenge • Net Operating Results (NOR) • Credit timeliness 	<p style="text-align: center; color: blue; font-weight: bold; margin: 0;"><i>Performance Measures</i></p> <ul style="list-style-type: none"> • Implementation Schedule • Inventory totals • MW Requisition volume • MW Disk space utilization • Problem Reports

Figure 2.22

The Team developed a strategy, standardized procedures and outlined roles and responsibilities for data collection, analysis and reporting results of key indicators that supported the Executive Scorecard. Results were presented on a periodic basis to senior Army leadership, including the Chief of Staff of the Army. The extent of coordination required and the number of data sources at Figures 2.22 and 2.23, indicate the complexity of this effort. The key indicators are summarized below along with some definitions of terms used.

Key Indicators is a general term that includes metrics, benefits, and performance measures.

Specific benefits (direct and indirect) are accruing to the Army due to SSF Implementation and may include items like efficiency indicators, such as savings derived from consolidation of SARSS boxes or from the redistribution of excess stocks.

Performance measures track the progress of SSF Implementation across major milestones. These are internal measures used by the Director, SSF on program effectiveness and provide trend analysis and will be reported to the SSF Director on a monthly basis.

Category	Key Indicator
Materiel Readiness Metrics	Customer Wait Time
	Equipment Readiness
	Zero Balance ASLs w/Dues-Out
	Materiel Release Refusals
	Warehouse Denials
Performance Measures	SSF Implementation Schedule
	Inventory Capitalized
	Middleware Requisition Volume
	Inventory Migration to tactical level
	Middleware disk space utilization
	Problem Reports
Financial Metrics	Net Operating Results (NOR)
	Credit Timeliness
	Total \$ value of credit issued
	Credit Challenge

Figure 2.23

One measure of success revolved around tracking the dollar value of all redistributions directed by the National Manager. These redistributions came from stocks above and below the set stock levels or requisitioning objective (RO) for each installation warehouse or supply support activity (SSA). As a result, not only were excess stocks redistributed to fill requisitions, but they were also used to penetrate an installations' inventory set stock level (SSA's RO) for high priority requisitions. Thus, in many instances, readiness of units deployed in support of contingency operations such as Bosnia and Kosovo was significantly enhanced.

The National Manager redistributed stocks (penetrating the RO) of over 31,107 materiel release orders (MROs) to support contingency operations. Without this business rule, allowing penetration of inventory levels for high priority stocks, these requisitions would otherwise have been backordered. The measures of success are shown in figure 2.24 below.

Category	Key Indicator
Benefits	Nationally Directed MROs (Qty / \$ Value/SOS/IPG)
	Redistributions from Excess (above RO)
	Redistributions from below the RO

Figure 2.24

In measuring the progress and success of SSF, it became apparent that the overarching metrics to judge the program are Customer Wait Time (CWT) and asset redistributions. *(Now that MS 1&2 is institutionalized, many of the metrics are used only as supporting measures, used for diagnostic purposes.)* CWT measures the amount of time it takes to satisfy a requisition from the time the demand is placed on the supply system until the item is issued to the requesting unit. The Army goal is 10 days for CONUS units and 15 days for OCONUS units (Fig. 2.25).

FY01 AWCF CWT Trend (Repair Parts)

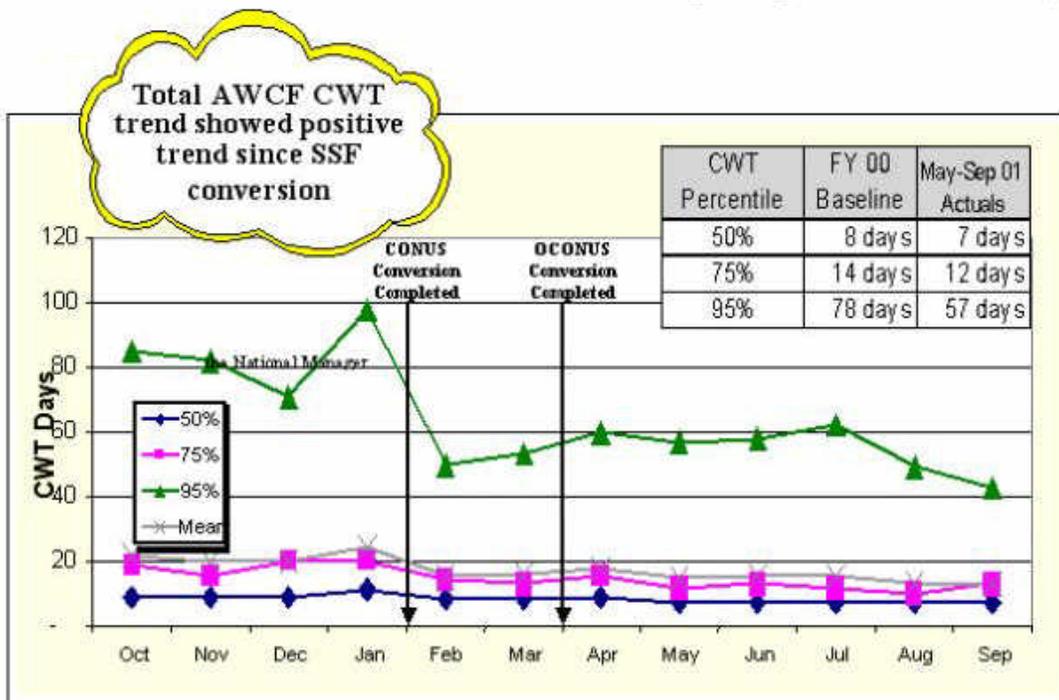


Figure 2.25

The total AWCF CWT indicators for FY 01 correlate the steady improvement with the respective implementations in CONUS and OCONUS. The bottom line is that as SSF was implemented, CWT decreased in all three categories (50th, 75th, & 95th percentiles) due to expanded availability of inventory to meet commanders' requirements.

Redistribution of AWCf Inventory continues to make a positive contribution to materiel readiness. In Oct 01, we redistributed \$7.6M of AWCf inventory, with most transactions satisfying high priority (Issue Priority Group-1) requests. SSF is linking the ability to redistribute inventory with expanded visibility of stockage requirements, thus allowing the National manager to optimize management of secondary items.

Approximately 75 percent of redistributions involved excess items and about 30 percent involved penetration of authorized stockage levels to prevent the items from being put on backorder at the National level. This is a direct, tangible benefit of SSF implementation.

AWCF Redistribution Off-Post FY01

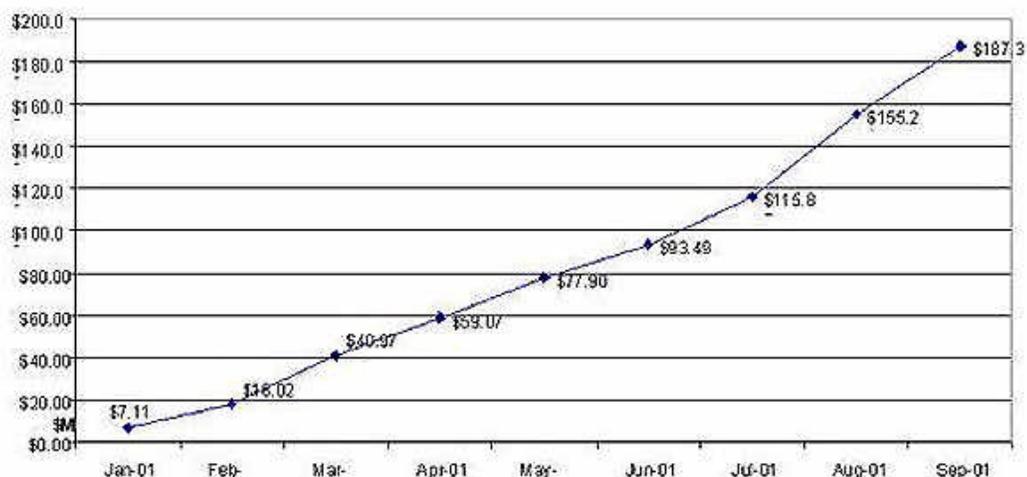


Figure 2.26

For FY 2001, SSF redistributed over \$187 million worth of inventory. MS 1 and 2 was implemented in a piecemeal fashion, MACOM by MACOM beginning in November 2000 and concluding in April 2000. The number of redistributions between October – December 2000, realized was only \$2.23 million. Then, as depicted in Figure 2.26, redistributions steadily increased as each MACOM was converted to SSF, with redistributions further increasing beginning in May 2001, as the entire Army converted to a SSF environment.

SSF is now institutionalized in the Army, and we are seeing tangible benefits from this reengineering initiative. We have turned the corner from units wondering whether SSF would work to examining ways to optimize logistics and inventory accounting processes with new tools and procedures. Discussions with senior leaders indicated they are supportive of program implementation.

6) Document and quantify cost and performance benefits

A cost benefit analysis (CBA) was conducted to quantify costs and benefits associated with the Army's Single Stock Fund (SSF) program and to determine its viability. A formal CBA was conducted in February 1999 to update an earlier study completed in 1995. The Office of the Secretary of Defense subsequently directed the Army to submit the approved SSF CBA with the FY01 Budget Submission. The Army Audit Agency and the Army Cost and Economic Analysis Center reviewed and validated the CBA, which identified \$659M benefits over a 12-year life cycle. Each of the areas evaluated related to SSF goals, objectives, and business processes.

The CBA presented background, goals, objectives, a description of alternatives, conclusions, and recommendations associated with SSF. Benefits identified were solely inventory related and did not account for benefits resulting from other aspects of this logistics re-engineering initiative discussed in Para (7) of this section, or future infrastructure savings that may accrue as the Army continues to evolve its business processes to take advantage of initial SSF efficiencies.

This CBA addressed the economic considerations and tradeoffs of implementing SSF in the Army. Both quantifiable and non-quantifiable aspects were evaluated in the following alternatives.

Alternative 1 (Status Quo) addressed current asset, financial inventory management, and requirements determination processes associated with the wholesale and retail levels of stock fund management within the Army Working Capital Fund Supply Management Account (AWCF-SMA).

Alternative 2 addressed adoption of a SSF for Army-managed items (AMI) down through the combat division level. Key differences from the status quo are ownership of AMI by the AWCF-SMA, joint asset management by the Army Materiel Command (AMC) (supplier) and installation/corps (customer). This alternative includes (1) one point of sale; thereby, eliminating the retail sale; (2) a single credit process, with the elimination of retail level; (3) reduction of inventory, enabling National visibility of stocks which permits the redistribution of available stocks Army-wide.

SSF benefits were derived using simulation to explicitly track demands, returns, redistribution, procurement offsets, repair offsets, and improved requirements determination at the National Stock Number (NSN) level; i. e., repair parts. The analysis used simulation, various inventory evaluation models, and distribution algorithms, along with budget and actual supply data, to demonstrate potential reductions in inventory and related costs. Only Class IX items (Repair Parts) were addressed. Both AMI and Non-Army Managed Items (NAMI) repair parts were examined. Calculated benefits explicitly addressed inventory associated with each SSF milestone. Efforts to develop a methodology to reliably quantify these benefits in terms of dollar-for-dollar reductions have not been successful. In general terms, reductions in costs take place when prices/surcharges are set over time.

The analysis employed the following four contributors to produce benefits.

- National-level access to retail assets above customer requirements.
- Improved requirements determination by implementing an optimal add-retain criteria and safety level/economic order quantity computations at all SSF field sites, and by integrating the wholesale and retail requirements determination processes by using a multi-echelon optimization methodology.
- Holding returns of NAMI stocks to the Defense Logistics Agency (DLA) for 90 days to see if the assets can be redistributed within the Army; avoiding payment of a surcharge on new purchases.
- Integrating installation and wholesale repair decisions so that installation repairs are not made for items when there are wholesale serviceables that exceed the authorized stockage requirements.

Wholesale procurement offsets, are estimated over a ten-year benefits life cycle. Please note that the SSF life cycle is 12 years and captures all estimated investment costs. Estimated benefits are based on executing the projected implementation plan. These offsets include redistribution of excess and additional assets gained by optimizing customer requirement needs.

Procurement offsets for Army Managed Items are realized from: wholesale redistribution of retail on-hand assets above authorized requirements not captured by the current process; and a reduction of requirements using an optimal computational algorithm for retail level and tactical Army units (customer) stockage. Total wholesale procurement offset benefits, for Army Managed Items, were estimated to be \$174.5M.

Procurement offsets for NAMI (DLA managed items) are realized from wholesale redistribution of retail DLA managed on-hand assets above authorized requirements that are not currently captured by the current process. Total wholesale procurement offset benefits, for DLA managed items, were estimated to be \$1.4M.

Wholesale repair offsets are realized from wholesale redistribution of retail on-hand assets above authorized requirements that are not captured by the current process, and a reduction of requirements using an optimal computational algorithm for retail or field level stocks. Repair offsets were estimated over a ten-year savings cycle. Total wholesale repair offset benefits, for AMI were estimated to be \$187.8M.

DLA returns costs include the returns costs from the status quo less the net value of the assets returned to DLA that could be used for redistribution within the Army under SSF. It was assumed that those items receiving credit could have been redistributed during the first year under SSF management; thereby, avoiding the DLA surcharge. It was also assumed that the Army could only hold DLA items for 90 days. Total savings associated with redistribution of DLA returns, were estimated to be \$14.8M.

Holding costs include the holding costs from the status quo alternative less the six percent holding cost of the reduced requirements values that will take place under SSF. Changes in requirements made under SSF will cause corresponding changes in on-hand inventory. The six percent value represents cost of storage, theft, obsolescence, and shelf life. Total holding cost savings was estimated to be \$348.8M.

Local repair costs, those repairs normally performed by the tactical Army units' maintenance activities include the repair costs from the status quo alternative less the reductions in labor and repair parts as a result of not repairing to excess. If SSF were not implemented, local repairs would likely continue for items that are in long supply at wholesale level. The total savings are estimated at \$31.7 million.

Figure 2.27 shows a summary of the CBA benefits discussed above. In addition, it shows the Savings to Investment Ratio (SIR) of 1.98, the Benefits to Investment Ratio (BIR) of 6.28, which are comparable to the Return On Investment (ROI) ratio. The SIR is the ratio of present value (PV) of the savings to the PV of the investment required to produce the savings. A SIR of 1.0 indicates that the saving is equal to the PV of the investment. The BIR is the ratio of the PV of the total dollar quantifiable benefits divided by the PV of the investment cost of the alternative. A BIR of 1.0 indicates that the PV of the benefits is equal to the PV of the investment. The Break-Even Point is the number of years at which, the cost of two alternatives is equal. At this point the savings in current dollars from the comparison of alternatives will equal the investment in current dollars. Based on the CBA, the Break-Even Point is achieved at 4.5 years.

Cost Benefit Analysis

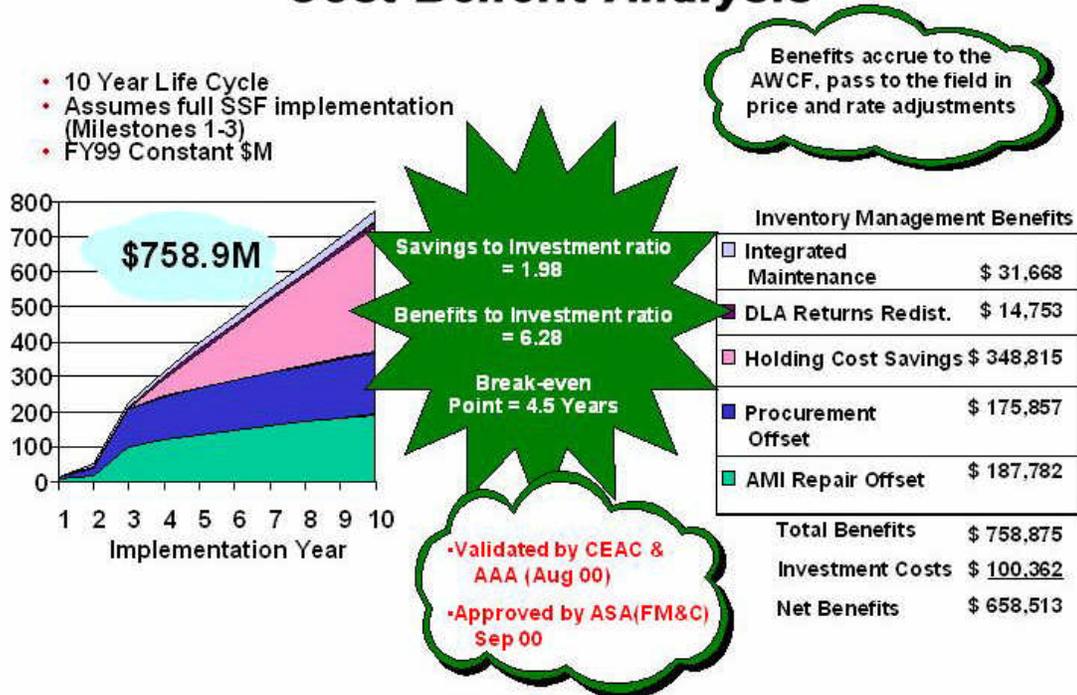


Figure 2.27

The foregoing provided the actual results of the CBA. Since completion of the CBA investment costs have increased to \$146.7M; due to delays caused by program restructuring. However, the Break-even point of 4.5 years was in fact achieved within two years. At this point in the SSF implementation, actual execution far exceeds the forecasted benefits. Execution to date shows that compared to the estimated benefits through FY01 of \$8.1M actual benefits through FY01 amounted to \$187M. Given the magnitude of these benefits the SIR and BIR ratios will far exceed expectations.

While SSF CBA benefits do not translate into precise commercial terminology, many results belong among the SCOR level 1 metrics. For example, the reduction of inventory vastly improves the Supply Chain Response Time of the logistics process. In fact, SSF substantially reduces the overall Supply Chain Management Cost by eliminating the retail level of the working capital fund. A more precise reporting of these and other metrics that relate to SCOR level 1 metrics are addressed in Para (5) and (7) of this section.

7) **How does the success of this initiative support the organizational mission?**

Direct Benefits of Implementing Single Stock Fund:

SSF direct benefits can be classified into Logistics, Finance and Information Technology areas.

Logistics

Established a single National-level manager who is now responsible for synchronization and optimization of materiel resources within the Army Working Capital Fund - Supply Management Army (AWCF-SMA). The national manager now has tools that enable him to provide enhanced decision making and the ability to workload in the areas of transportation, supply, and maintenance of materiel.

- **Material now collectively managed in National level**
- **Reduced 2 levels of Supply(Wholesale/Retail) to Single**
- **National Managers have directed issues of newly-capitalized installation materiel to fill high priority requirements worldwide**
- **National Managers now have visibility, management, and control of an additional \$490 million in Army inventory**
- **Optimized buy/repair decisions by each NATIONAL MANAGER**
- **Referred \$22.2M in assets that were not available at the depots and would have otherwise resulted in new procurements**

SSF facilitates the smooth transition to war for the operational forces of the Army

- **The geographic search matrix supports operational preparations by obtaining needed materiel from sources available within the Army**
- **Enables reduced footprint for deploying and deployed forces**
- **Enabler for the Army Transformation**
- **Facilitates redistribution process**

Established a national mechanism to re-utilize excess Non-Army Managed Items (NAMI)

- **Provides global visibility and management of all NAMI items excess to local requirements.**
- **Facilitates proper utilization of NAMI items already within the Army inventory.**
- **Earnings versus cost ratio to reutilize Army owned assets was 8.91:1 as of 1 January 2002. The Army saves \$8.91 for every dollar it spends in this effort.**

Enabled initial ability for optimized requirements determination at the National level for Army Managed Items

- **Managers can now review assets at all levels and re-position assets where demand patterns indicate requirements (this is currently a manual process with some automation support)**
- **Visibility of assets reduces procurement requirements by fully utilizing Army owned materiel**
- **Optimizes regional and national level stock availability**

Improved/shortened the CWT segments directly affected by the implementation of SSF at the corresponding installation/command

- **Army CWT for 50th percentile shortening as result of SSF implementation (Dec 2000)**

Directly improved the readiness of the US Army Reserve and Army National Guard units.

- **USARC and NGB units are now the beneficiary of directed national referrals of materiel that may be sourced from Active Component units (and vice versa) – a process that was directly implemented by SSF implementation**

Finance

- Specifically defined and developed the Army-wide business rules for logistics and financial operations in a Single Stock Fund and future optimized environment
- Eliminated 49 Retail General Ledgers maintained for 8 AWCF-SMA Divisions
 - Will reduce Defense Finance Accounting System (DFAS) billable hours charged to the Army as a result of the reduced workload processing ledger transactions

- Eliminated 3 Army Financial Accounting Systems that operated at the Retail level.
- Streamlined the reporting and budget requirement for the AWCF by eliminating the retail tier.
- Consolidated financial inventory accounting and reporting for Army materiel in a national level General Ledger
- Standardized operating procedures among the various DFAS Operating Locations that support the Army
 - **Average month-end close out down-time reduced from 21 days to 13 days**
 - **Optimized distribution of reconciliation workload and synchronized billing cycle to reduce month-end bottlenecks/stoppages**
- Facilitated the Army credit policy (annual credit value for serviceable and unserviceable reparables)
 - **Standard, annualized credit prices now broadcast to all users in 4th quarter of each FY for the next FY execution.**
- Right-sized the AWCF-SMA through the movement of selected NAMI items from the AWCF to the DWCF, thus removing the middle layer of management and the associated costs and facilitating cleaner financial functioning.
 - **Removed the following systems/material from the AWCF**
 - **TAMMIS – Class VIII**
 - AFMIS – Class I
 - IFS – Facilities construction material
 - ACIIPS – Clothing initial issue
 - FAS – Class III (Bulk)
 - **Facilitated DLA assumption of responsibility for appropriate NAMI materiel**
 - DLA assumed responsibility for \$84 million in materiel
 - Reduced Army management expenses for this materiel
- Supported Army migration of supply management feeder systems toward CFO compliance
 - **Centralized visibility of inventory**
 - **Transaction audit trail simplified by deletion of retail tier (eliminated one tier of records)**
 - **Clearing General Ledgers of outdated and incorrect transactions**
 - **Completed a full inventory to book reconciliation at conversion**
 - **Simplified the End-of-Year (EOY) reconciliation and fiscal close-out process**
- Supported Chief Financial Officers (CFO) Act
 - **Cleaned up each General Ledger 60 days prior to conversion**
 - **Wall to wall inventory prior to each capitalization**
 - **100% Inventory Accountability**
 - **Transaction audit trail simplified by removing the retail tier**
 - **Strengthened Financial and Logistics internal controls at National and MACOM levels**

Information Technology

- Developed the interim systems architecture to provide better linkage and synchronization of field (SARSS) and national (CCSS) level systems. Facilitated development and fielding of SSF Middleware to allow proper SSF business rule functioning in the current legacy environment.
 - **Fully established the use of Systems Integration Tests (SITs) to conduct end-to-end testing of all applicable systems and changes.**
- Facilitated and accelerated development and fielding of Installation Supply Buffer – the translator used in lieu of retail finance and accounting systems
- Increased customer/user confidence in reliability and usability of existing field (SARSS) and legacy national systems (CCSS)
- Established Real-Time-Requisitions-Processing (RTRP) between field units and National level. This reduced reliance on batch cycle processing and improved CWT.
- Facilitated ARNG planning to reduce the number of CORPS computer systems within the Guard from 56 to 11 in 4 locations in FY02-FY03.

-
- Facilitated development of SARSS disconnect/reconnect procedures, which are now standardized for Army-wide use when re-assigning tactical units to new CORPS/Theater Commands. This greatly facilitates the deployment of Army Combat Support units.
 - Developed and simplified end of Fiscal Year and end of month reconciliation and adjustment process between supply and finance.
 - Facilitated continuing dialog and integration efforts with the PM, Wholesale Logistics Modernization Program (WLMP). WLMP is the ERP COTS replacement of the current Army National level logistics and finance system.
 - ***Inclusion/incorporation of Business Rules in the WLMP process definition effort***
 - ***Integration of the SSF with the WLMP Proof of Concept trial***
 - ***Definition of the SAP-R3 interface requirements to legacy systems***
 - ***Integration efforts for future expansion of the core ERP (SAP.com) to the tactical level as a replacement for SARSS (Strategic – Tactical Integration)***

Direct Benefits Measured as Costs Avoidance (Per SSF CBA)

Benefits Related to Training and Education

Developed and provided training at multiple levels covering logistics and financial processes and procedures in an SSF Environment

- ***Provided training to over 4000 personnel since Jan 2000 at all MACOMs and levels***

Accelerated and facilitated the incorporation of SSF processes and procedures into formal school curricula as well as appropriate doctrinal publications at CASCOM.

SECTION 3 – KNOWLEDGE TRANSFER

1) Describe the efforts to share lessons from this effort with other internal organizations.

From the inception of this program it has been a total Army effort. All functional and field Army commands participated in the development of alternatives, courses of action and the decision process to move forward and implement the SSF concept. When the SSF Program office was established, each major command was solicited to provide representatives to the office. The purpose being two fold: 1) provide assistance and technical expertise in developing business rules and implementing the business process changes; and 2) migrate their expertise and lessons learned back to their parent organizations.

To execute the SSF process training teams visited every Army Major Command and most Army installations to provide training to soldiers, Army civilians and contractors on the revised business processes, lessons learned from previous conversions to SSF, and to learn from the training audience any unique circumstances or potential pitfalls for further implementation. This training, usually the first in-depth exposure the students received on the SSF business process typically involved 19 lessons spaced over a 3 day period. Evaluations consistently rated training as "exceeding expectations" in terms of content, delivery, and adequacy of instruction.

During this process over 4100 individuals were trained and 22 installations in the continental United States were visited plus three sites in Europe and five sites in the Pacific Rim, within a one year period. As we commence implementation of Milestone 3, these figures will significantly increase as units down to the tactical level (warfighting level) will be involved.

To assure lessons from implementation at one command or installation were propagated and to assure continuity and technical expertise were routinely available, the implementation teams are tied directly into the Director's office. These teams have proven to be instrumental in migrating information from one experience to another.

Throughout this process, the Army's institutional trainer, the Combined Arms Support Command (CASCOM) and its subordinate training centers have been an instrumental part of the process. As the Director of Single Stock Fund developed new business processes, these processes were routinely passed to CASCOM for inclusion in training programs of instruction and also for inclusion in exportable training packages-a new web-based distributed training vehicle for instructors at different locations.

Throughout implementation of Milestones 1 & 2 and continuing through preparation for Milestone 3, the Director of Single Stock Fund and members of her staff have made periodic visits to the field MACOM's. This has proven extremely beneficial in capturing concerns, sharing lessons from different experiences and providing the latest information to the ultimate customer who was being impacted.

Internal to the Army, lessons are promulgated and exported to the Army at large through training programs such as "How the Army Runs" and the Army Materiel Command's Operations Course.

Within the Army, a major current focus is termed Army Transformation-a key element of the Army Vision. This overarching modernization focus calls for implementing integrated systems to provide national secondary item asset visibility, superior responsiveness to customer refund cost (credit), and authority to direct redistribution of excess assets to satisfy other demands. By reducing the barriers between wholesale and retail ownership of secondary items, the SSF process directly supports the Army leadership's vision of transforming the Force. Additionally, SSF enables future innovation in Army logistics.

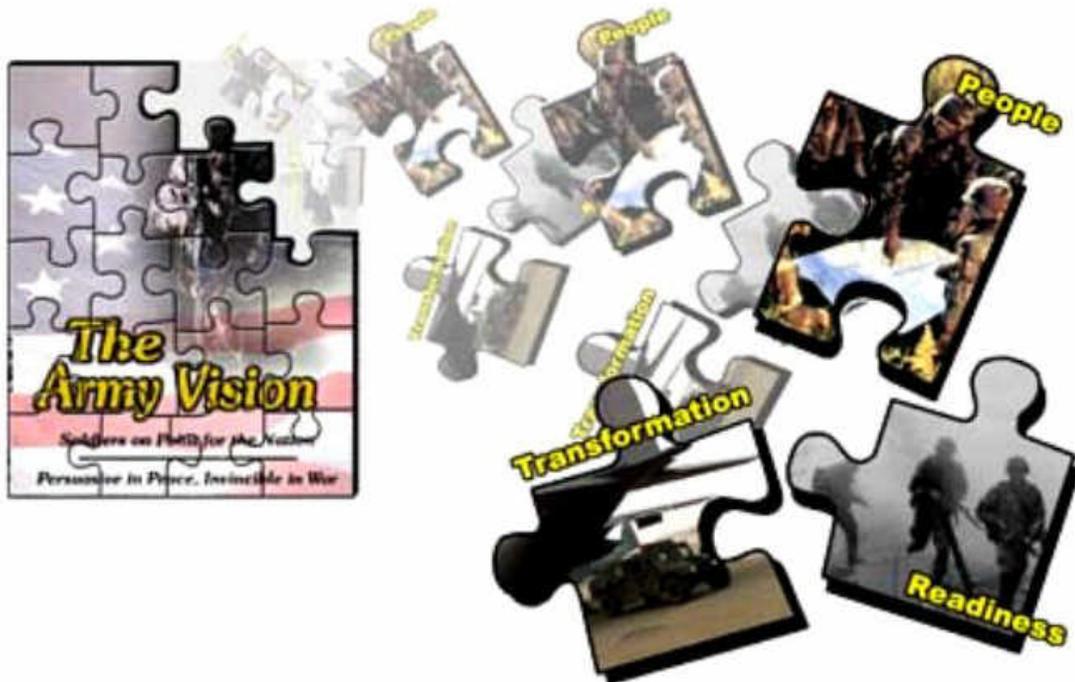


Figure 3.1

To share the experience of implementing SSF external to the Army multiple logistics and financial forums are attended and supported. The director's office routinely participates in:

- Defense Logistics Agency's Logistics Day activities
- The Department of Defense's Acquisition & Logistics Forum
- The annual and regional conferences of the Association of the United States Army
- Defense Finance and Accounting Service Conferences
- American Society of Military Comptrollers local and national Professional Development Institutes

This involvement involves hosting workshops to discuss business process reengineering approaches, business process flows, risk management, systems integration testing and operational field testing. Periodic presentations to the Army's Comptroller Program at Syracuse University serve to transfer SSF program objectives and methodology to the academic community.

Routinely articles are published in Army periodicals such as the Army Logistician, Army Times, and various organizational newsletters. Another effective medium has proven to be our SSF web site at www.army.mil/ssf. This web site contains historical information on the program, its development, plans, and progress in addition to current planning and schedule information. It is updated frequently to reflect current status and progress.

2) **Indicate how these results can be transferred to other organizations and specify the likely candidates for transference.**

Transference of lessons learned developed during the planning, sourcing and management of the SSF program is a continuing effort within the Army. Participation in the development process has been multifunctional and includes numerous agencies within the Department of Defense. This initiative can be transferred to other organizations through the use of the extensive documentation developed specifically for this program. Beginning

with the Single Stock Fund Campaign Plan developed in 1997 and approved by the leadership of the Army through a series of program documents such as:

- The Program Synchronization Matrix
- Implementation plans for both MS 1& 2 and MS 3
- Conversion Plans (to layout the detailed processes of converting the various automated systems)
- Test plans
- Training plans
- Program Decision Review Documents

Each of these various documents contribute to an entire body of knowledge used to transform complicated automated logistics systems into a seamless logistics and financial system. This initiative can be transferred to other organizations through the use of the extensive documentation developed specifically for this program. This includes:

- The business rules development process, which uses group management software
- Extensive use of process flows to communicate between functional experts, system analysts, and programmers
- Use of project management software to organize the SSF plan, schedule tasks, integrate efforts across multiple systems (logistical and financial), and inform leadership of progress
- Detailed training material, to include the documenting processes in guides and procedural documents
- Checklists to ensure uniform conversion procedures were followed
- Training materials, business rules, procedural documentation, and lessons learned material to the formal doctrine and training agencies within the Army
- Available program documentation currently on the SSF web site.

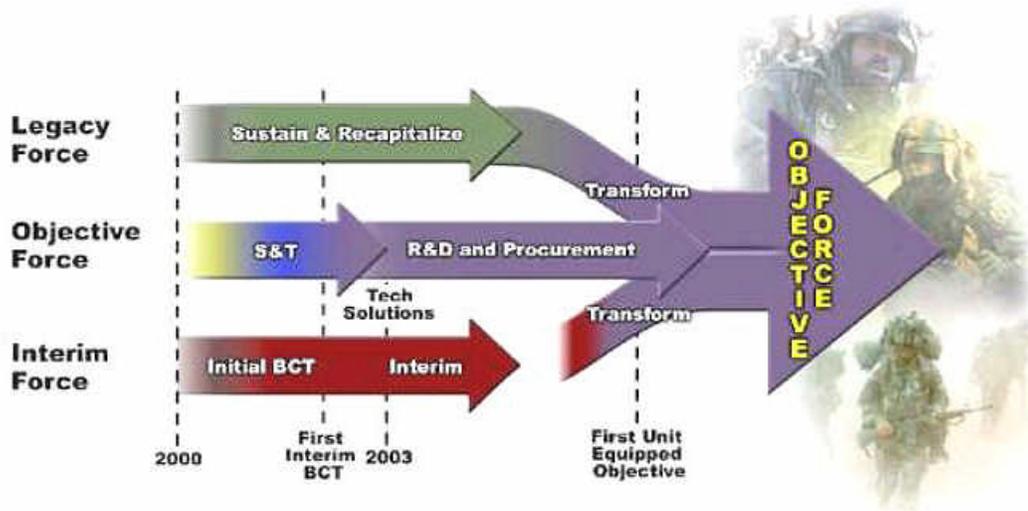


Figure 3.2

Establishment of the Single Stock Fund Program is but one phase of the Army's transitioning into a Global automated logistics system called the GLOBAL COMBAT SUPOORT SYSTEM. This transition will be part of a continuing effort to develop an enterprise resource planning (ERP) system from the Army Headquarters level to the field installation. The Wholesale Logistics Modernization Program (WLMP), an ERP approach, is currently under development by the Army Materiel Command (AMC) with plans for extension to the installation level. Concurrent fielding with SSF MS 3 make it imperative that current functionality is efficiently and effectively transferred to WLMP managers and technical personnel. At the conclusion of the implementation of the SSF program Army wide, the program office will be disestablished and any remaining functions to sustain the system will be absorbed by AMC. At that point all documentation will be also transferred.

At the present time a related initiative is underway by the Defense Logistics Agency to establish a program similar to the SSF whereby, DLA will own and manage stock at the installation level. Much of what has been previously developed can and will be used by DLA to guide their efforts.

CONCLUSION

Implementation of the Single Stock fund is leading the revolution in military logistics for the Army, a key step in the Army's Transformation to a lighter, more lethal, more responsive force. This overarching modernization focus calls for implementing integrated systems to provide national security item asset visibility, superior responsiveness to customer refund cost (credit), and authority to direct redistribution of excess assets to satisfy other demands. By reducing the barriers between wholesale and retail ownership of secondary items, the SSF process directly supports the Army leadership's vision of transforming the force.

GLOSSARY

Introduction

This Glossary provides a ready reference for acronyms used in the document.

Acronyms

AAA	Army Audit Agency
AAR	After Action Report
ABF	Asset Balance File
AC	Active Component
ADCSLOG	Assistant Deputy Chief of Staff for Logistics
AEPS	Army Electronic Product Support
ALIS	Army Logistics Information System
AMC	US Army Materiel Command
AMCRM	Army Material Command Resource Manager
AMDF	Army Master Data File
AMCOM	US Army Aviation and Missile Command
AMI	Army Managed Item
ARNG	Army National Guard
ASA(FM&C)	Assistant Secretary of Army (Financial Management and Comptroller)
ASL	Authorized Stockage List
AT	Annual Training
AWCF	Army Working Capital Fund
BES	Budget Estimate Submission
BPM	Business Process Manual
CA	Credit Authority
CAGE	Commercial and Government Entity
CASCOM	U.S. Army Combined Arms Support Command
CBU	Commodity Business Unit
CCSS	Commodity Command Standard System
CECOM	US Army Communications-Electronics Command
CIR	Cost Information Request
CMMC	Corps Materiel Management Center
CO	Company
COI	Critical Operational Issue
CSMS	Combined Support Maintenance Shop
CTASC	Corps/Theater Automation Data Processing Service Center
CWT	Customer Wait Time
DA	Department of Army
DAAS	Defense Automatic Addressing System
DALO	DA ODCSLOG (Office Symbol)
DCSLOG	Deputy Chief of Staff for Logistics
DFAS	Defense Finance and Accounting Service
DIC	Document Identification Code
DISA	Defense Information Systems Agency
DJAS	Defense Joint Accounting System
DLA	Defense Logistics Agency
DMMC	Division Materiel Management Center
DOCNO	Document Number
DOD	Department of Defense
DODAAC	Department of Defense Activity Address Code
DOIM	Director of Information Management

DOL	Director of Logistics
DRM	Director of Resource Management
DS/RX	Direct Support/Repairable Exchange
DSU	Direct Support Unit
DWCF	Defense Working Capital Fund
ECP	Engineering Change Proposal
ESC	Executive Steering Committee
FEDLOG	Federal Logistics Information System
FIN RIC	Financial Routing Identification Code
FIN-WK-CTR	Financial Work Center
FORSCOM	U.S. Army Forces Command
FSB	Forward Support Battalion
Ft.	Fort
FTE	Report of Excess
FTR	Reply to Report of Excess
FWD	Forward
FY	Fiscal Year
GCSS-A	Global Combat Support System-Army
GOWG	General Officer Work Group
GS	General Support
HAZMAT	Hazardous Materiel
HQ	Headquarters
IAW	In Accordance With
ILAP	Integrated Logistics Analysis Program
IMMC	Integrated Materiel Management Center
IMPAC	International Merchant Purchase Authorization Card
IMR	Installation Maintenance Representative
IPR	In- Progress Review
ISA	Installation Support Agreement
ISR	Installation Supply Representative
IT	Information Technology
ITO	Installation Transportation Office
LAN	Local Area Network
LIDB	Logistics Integrated Data Base
LOGMOD	Logistics Modernization
LOGSA	Logistics Support Activity
LSSC	Logistics Systems Support Center
MACOM	Major Army Command
MATES	Maneuver and Training Equipment Site
MCN	Management Control Number
MIPR	Military Interdepartmental Purchase Requests
MMC	Materiel Management Center
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MS	Milestone
MS 1&2	Milestone 1&2
MS3	Milestone 3
MSB	Main Support Battalion
MW	middleware
MWF	Maintenance Workload File
NAMI	Non-Army Managed Item
NGB	National Guard Bureau
NIIN	National Item Identification Number
NMCS	Not Mission Capable Supply
NMM	National Maintenance Management
NOC	National Operation Center

NMP	National Maintenance Program
NSN	National Stock Number
NSNMDR	National Stock Number Master Data Record
OA	Obligation Authority
O&M	Operations & Maintenance
OCAR	Office of the Chief of the Army Reserves
ODCSLOG	Office of the Deputy Chief of Staff for Logistics
OMA	Operations and Maintenance Army
OPLOC	DFAS Operating Location
OPR	Office of Primary Responsibility
OPTEMPO	Operating Tempo
ORF	Operational Readiness Floats
PCH	Packing, Crating, Handling
PEO STAMIS	Program Executive Office, Standard Army Management Information System
PICA/SICA	Primary Item Control Activity/Secondary Item Control Activity
PLL	Prescribed Load List
POC	Point of Contact
POM	Program Objective Memorandum
PPBES	Planning, Programming and Budget Execution Process
R&A	Review and Analysis
RIC	Routing Identifier Code
RIC GEO	Routing Identifier Code Geographical
RL	Retention Level
RO	Requisition Objective
RON/DON	Requisition Order Number/Document Order Number
RSMM	Regional Sustainment Maintenance Manager
RSF	Retail Stock Fund
RTP	Real Time Process
RX	Repairable Exchange
SAMS/ITDA	Standard Army Maintenance System/Installation Table of Distribution and Authority
SARSS	Standard Army Retail Supply System
SARSS 2 AC/B	SARSS for Installation, Corps and Above
SBCCOM	US Army Soldier, Biological and Chemical Command
SDC-L	Software Development Center – Ft Lee
SIT	System Integration Test
SITWIG	System Integration Working Group
SLC	Stockage List Code
SMA	Supply Management, Army
SME	Subject Matter Expert
SOI	Supporting Operational Issues
SOP	Standing Operating Procedures
SOR	Sources of Repair
SOW	Statement of Work
SSA	Supply Support Activity
SSF	Single Stock Fund
STAMIS	Standard Army Management Information System
STANFINS	Standard Army Financial System
TACOM	US Army Tank-automotive and Armaments Command
TAG	The Adjutant General
TDA	Table of Distribution and Allowances
TDY	Temporary Duty
TIWG	Test Integration Working Group
TOE/MTOE	Table of Organization and Equipment/Modified Table of Organization and Equipment
TRADOC	US Army Training and Doctrine Command
TSMM	Theater Sustainment Maintenance Manager
TXARNG	Texas Army National Guard

TEMP	Test and Evaluation Master Plan
VCSA	Vice Chief of Staff of Army
VST	VIOC Support Team
ULLS	Unit Level Logistics System
USARC	US Army Reserve Command
USAREUR	U.S. Army Europe
USARPAC	U.S. Army Pacific
USARSO	U.S. Army South
USFK	U.S. Forces Korea
USP&FO	United States Property and Fiscal Office
WOLF	Work Order Logistics File
WSMT	Weapon System Management Team
WLMP	Wholesale Logistics Modernization Program