Chapter 5

Repair Parts Supply Operations

This chapter describes supply support operations (including SSA organizations, operating procedures, and supply sources), and repair parts supply. Repair parts supply support is a crucial part of all maintenance operations. Repair parts make up 92 percent of the total Army inventory. The number of Class IX items stocked in the CONUS or pre-positioned in-theater affects supply elements, maintenance, and aviation units. Maintenance personnel need repair parts, tools, test equipment, cleaning materials, and other supplies to do their job. In order to get the right supplies in the right quantity to the right place at the right time, maintenance personnel need to know the Repair Parts Supply system and understand how the system works. DS maintenance units manage three types of supply operations:

- Unit Supply – obtains, accounts for, stores, and replenishes supplies and TOE equipment required for the unit's internal operations.
- Shop Supply – obtains and provides repair parts and maintenance materials required for the unit's DS-level maintenance mission.
- Performs all functions related to acquisition, storage, accounting, and distribution of maintenance supplies and RX items in support of unit-level maintenance activities and the unit's DS-level maintenance mission.

Supply policy below the wholesale level is described in AR 710-2. AR 710-2 also implements policy for DS and GS SSAs and describes supply support operations that apply to divisional and non-divisional DS maintenance units.

SUPPLY SUPPORT OPERATIONS

5-1. Class IX items consist of repair parts and components (including kits, assemblies and subassemblies, reparable and non-reparable items, required for maintenance support of all equipment. Class IX items range from small items of common hardware to large, complex LRUs. Class IX does not include medical-peculiar repair parts.

5-2. One of the key Army programs that continues to have a positive effect on getting repair parts to the user as quickly and accurately as possible is distribution management. The distribution management program has reduced the time it takes for a repair part requisition filled at the national level and returned to the SSA from more than 30 days down to 9.4 days. Distribution management has established many protocols enabling SSAs to increase their effectiveness and efficiency.

5-3. The Army began the distribution management program as a means of improving (re-engineering) its logistics processes. One of the major focuses of distribution management is to reduce CWT. CWT is the

total time between the issue of a customer order and satisfaction of that order for repair parts.

5-4. Distribution management's performance metric is CWT. This is an end-to-end metric standard that measures the speed and efficiency of the logistics system's ability to support the soldier in the field. Unlike OST, CWT accounts for the time when the need is identified rather than ordered. CWT also accounts for the time necessary to get the item from the supporting SSA to actual receipt by the unit.

5-5. There is a direct relationship between an effective and efficient SSA and an effective and efficient maintenance activity. The materiel readiness of supported units, their ability to train effectively, their ability to perform their mission, and the success of the Army, depends on effective supply and maintenance.

OPERATING CONCEPT

5-6. The degree of repair parts management required is proportional to the contribution the parts make to operational readiness of the end-items they support. The type and quantity of stocked items directly relates to readiness requirements.

Strategic Level

5-7. Strategic supply activities, in coordination with the United States Army Transportation Command (USATRANSCOM) and in synchronization with the Combatant Commander's Joint Operations Planning and Execution System (JOPES)-developed movement program, ensure that required supplies have unit line number designations. They also ensure that supplies move from stockpiles or other sources to the theater to meet the priorities of the Combatant Commander. Many less-than-container loads are shipped on 463L pallets. Although containers are the preferred method of shipment, much of the cargo is flown on 463L pallets from the CONUS. When required to reduce handling in-theater, depots unitize and package supplies received from CONUS military stockpiles and the economic base. The depots offer them to the transportation component command for movement. If a container contains multiple consignees, packaging maintains consignee integrity. A copy of the documentation accompanies the container. TAV will provide an automated capability to track both the container and its contents.

Operational Level

5-8. Supply operations at the operational level involve the requisitioning or acquiring, receipt, storage, protection, maintenance, distribution, and salvage of supplies. Supply planners and managers must understand the JFC's/ASCC's/ARFOR Commander's priorities and the requirements for support of campaigns and major operations. Requirements include consideration of the needs of joint and multi-national forces. Supplies are throughput whenever possible from the port of departure (POD) or local sources to the appropriate SSA or receiving unit.

5-9. The supply system depends on an efficient and effective materiel management system. MMCs and materiel managers with DMCs must know the prioritized requirements of the force and the status of available resources. They manage distribution in coordination with movement

control elements that know the capabilities of the transportation system to move required supplies. This management requires an effective automated supply system, as well as extensive coordination. Materiel managers will be linked to strategic and tactical supply and transportation elements to provide TAV.

5-10. The operational level of supply focuses on providing repair parts and a level of stockage for items not sent to the theater by ALOCs. Sustainment maintenance organizations ease the supply requirements by providing serviceable assets and components. Theater-generated assets reduce the requirement to provide support from the strategic level of supply. GS maintenance units' shop stocks support authorized maintenance tasks. They requisition replenishment stocks through their supporting MMCs and do not maintain ASLs.

Tactical Level

5-11. Repair parts operations at the tactical level support both unit- and DS-level maintenance missions. Tactical-level supply operations focus on readiness and support the commander's ability to fight battles and engagements or achieving his stability or support mission. Parts managers and planners work with supporting commanders and materiel managers to ensure the required supplies are available when and where the user needs them. Units carry a basic load of supplies with them to support their operations until the operational and tactical distribution systems are established and can resupply them. When time and mission constraints require, a "push" system provides supplies. Under this type of system, planners estimate the supply requirements and arrange to have supplies delivered to supported elements. As the theater/operational distribution system matures, supply elements convert, by commodity, to a "pull" system. Requests generated by supported elements are the basis of a "pull" system. FM 10-1 and FM 10-27 discuss planning considerations and request procedures.

5-12. Repair parts items at the tactical level support both unit- and DS-level maintenance missions. Organizations can stock a limited number of items on the PLL to support their unit-level maintenance mission. Normally, the number of lines is restricted to approximately 150. However, they should be demand-supported or combat-essential. The commander has some latitude to add lines to accommodate expected requirements (an example would be seasonal items or a special training requirement) and other justifiable reasons. Mobility of PLL items is another consideration. The PLL should be 100 percent mobile on organic transportation assets.

5-13. DS maintenance units maintain an ASL based on supported unit anticipated requirements. Maintenance units maintain different quantities of ASLs depending on the mission, organizations supported, and the organic mobility capability of the organization. GS- and DS-level missile system maintenance units maintain the theater ASL for all supported missile systems. They provide missile parts supply support for the theater.

5-14. Both operational and tactical supply systems include SSAs operated by GS and DS supply and maintenance units. These units establish SSAs throughout the theater as far forward as the BSA. On a

temporary basis, DS elements may operate even further forward at forward logistics bases to reduce the distances users have to travel to receive support. The support structure at each command level from separate brigade/division up also includes a materiel management organization to manage supply and maintenance operations.

5-15. One of the most serious management concerns is the inability to immediately obtain required repair parts. To help reduce delays and prevent a zero balance, personnel can do the following:

- Check to ensure requests and work orders are filled out correctly.
- Follow up repair parts requests.
- Verify the correct part has been ordered. If not, the unit should cancel the request and order the correct item.
- Verify the request has been received at the SSA and if necessary, pass on to the higher source of supply. If not, the unit should reorder.
- Check the AMDF for an interchangeable or substitute NSN. If one exists, personnel should check the stock status of that item.
- Determine if the part can be obtained locally or can be made.
- Check on the possibility of using controlled exchange procedures.
- Consider a cannibalization point or the Division Resource Management Office (DRMO) as a source of supply.
- Use up-to-date supply manuals and correct priority designators (PDs) and stock numbers to properly identify repair parts on request.
- Check whether supply specialists have entered any required advice code on issue and turn-in documents.
- Stress the need for follow-up and continual review.
- Check the SSA to see if a similar major item is available in ORF

SUPPLY SYSTEM

5-16. The supply system includes the wholesale level, retail level, and unit level. Wholesale supplies are managed at the strategic management level, retail supplies are managed at the operational and tactical levels, and unit level supplies are managed at the unit level.

Wholesale Level

5-17. The wholesale level includes the following:

- National Inventory Control Points (NICPs).
- Supply depots.
- Arsenals.
- Central wholesale data banks.
- Plants.
- Factories associated with commodity command activities.
- Special Army activities controlled by the USAMC.

The wholesale supply system's major focus is procuring supplies from the manufacturer and bringing them into the Army inventory. The wholesale supply system also works in concert with the wholesale maintenance system to return overhauled major end items and components into the Army's supply inventory.

Retail Level

5-18. The retail level includes all portions of the supply system not classed as wholesale. It is subdivided into user, DS, and GS levels:

- Users are combat, combat support, and combat service support units that stock supplies to support their own operations. These stocks are termed PLLs for Class IX and basic or operational loads for other classes. Users are also referred to as customers.
- DS supply and maintenance units stock supplies for issue to customer units. Stocks at the DS level are called ASLs. Each DSU has a list of customer units it supports. The DMC sets requisition objective and retention levels for divisional units. The CMMC/TSC MMC sets requisition objective and retention levels for non-divisional units. Stock control and accounting is performed by DSUs.
- GS supply units provide backup supply support to DS supply and maintenance units and act as transshipment points. Stocks at this level are also called ASLs. GS supply units are not located in the division; they are found in the COSCOM and TSC. GSUs at the COSCOM MMC and TSC MMC perform their stock control and accounting.

ORGANIZATION FOR SUPPLY SUPPORT

5-19. The general mission statement of any SSA is to maintain an ASL. This includes the receipt, storage, and issue of supplies for all supported unit requirements. The mission statement is modified based upon the type of support provided (Class IX versus Classes II and IV versus Class VII), and the level of assignment (DSB or Corps Support Command). The mission statement of the SSA can be found in Part 1 of a unit's MTOE. The two mission statements shown below provide some insight into the general size of the activity and its customer base.

Supply Support Activity Critical Tasks

5-20. Regardless of the size of the SSA or the class of supply being issued, the following basic critical tasks apply to all SSAs:

- Provide technical management and guidance.
- Receive stock.
- Store stock.
- Issue stock.
- Pack and crate materials to be shipped (if a Packing/Crating section is authorized).

Material Management Centers (Operational and Tactical)

5-21. CMMCs perform integrated supply and maintenance management for the theater/corps and division. They also perform integrated supply and maintenance management for all classes of supply (less classified maps, medical, and COMSEC) for which the support command has responsibility.

Battalion Headquarters

5-22. Support Operations Offices have a supply manager and a repair parts manager who operates under the supervision of the SPO. These personnel monitor supply support operations of subordinate units, make recommendations relating to repair parts supply policies and procedures, establish controls to fulfill the Class IX mission, and assist other staff officers and units attached to the battalion with supply-related issues. Personnel in the Battalion Headquarters Support Operations Offices work closely with the accountable officer in the Quartermaster Supply Company.

Quartermaster Supply Company Supply Support Activity

5-23. The Class IX SSA mission is performed by a Supply Platoon composed of a Platoon HQ, a Stock Control and Accounting section, a Storage section, and an RX section. The Supply Platoon maintains the company's ASL. This ASL includes types and quantities of repair parts authorized for unit-level maintenance activities of supported units, as well as those authorized for support of the DS-level maintenance mission.

Stock Control and Accounting Section

5-24. The Stock Control and Accounting section performs the following functions:

- Maintains stock accounting records and files.
- Receives requests for issue from supported units and from its maintenance elements.
- Edits requests for issue or turn-in.
- Screens its stock records for availability.
- Records issuing of supplies.
- Issues materiel release orders to the Storage section.
- Maintains a critical items list and non-stocked items records.

- Assists in compiling RX lists.
- Requests disposition instructions and evacuates materiel as directed.
- Prepares requisitions for replenishment of stocks.

NOTE: Divisional requisitions are submitted through the DMC to the COSCOM MMC or, if in the Corps or COMMZ, to the COSCOM MMC or TSC MMC.

This section also uses SARSS software for receipt, storage, and issue operations and automated Class IX management. Under the SARSS, this section uses the SARSS-1 to communicate directly with the SARSS-2 at the MMC. Under the SARSS-2, the MMC assumes stock record accounting and management functions. Information on requisitions, management actions, and status is exchanged daily between the SARSS-1 and SARSS-2 sites by diskette or electronic transmission.

5-25. Class IX and RX transactions are normally processed using standard requisition and turn-in documents. The ULLS-G facilitates the automated request and issue process between the customer and the SSA. Units exchange Class IX information daily between the ULLS and SARSS-1 by diskette or electronic transmission. Similar procedures are also used to exchange daily Class IX information between the Maintenance Company's Shop Supply section operating the SAMS-1 and SARSS-1.

5-26. The SSA keeps current references on stock accounting supply procedures. These references include regulations, technical publications, SOPs, and policy and procedural guidance and information. The SSA also provides, as necessary, personnel the references needed to satisfy inspection or technical assistance requirements.

STORAGE SECTION

5-27. The Storage section physically receives, stores, maintains in storage, and issues required parts and RX items. Supplies are issued in accordance with materiel release orders from the Stock Control and Accounting section. The section is also responsible for safeguarding and storing supplies, for preparing supplies for shipment, and for maintaining proper parts locations.

REPARABLE EXCHANGE SECTION

5-28. RX is a repair parts supply procedure that exchanges serviceable repair parts, components, and assemblies for unserviceable items, using standard issue and turn-in documents and procedures. Normally, items being exchanged must be reparable or recoverable. However, this procedure is also sometimes used for other types of items whose issue must be controlled. The RX section is established in an area with convenient access to supported units (within or adjacent to the Supply Office). Under automated procedures, SARSS-1 software accommodates RX operational procedures.

Supply Support Activity Procedures

5-29. Quartermaster and Repair Parts Companies carry a specified level of demand-supported, fast-moving repair parts required to support DS-level maintenance operations and supported unit requirements. Stockage requirements are continually appraised to keep stockage to the minimum required for support requirements and to avoid accumulation of excess stocks.

Distribution

5-30. The normal method used to distribute items to supported units is supply point distribution. Supported units are advised when shipments are ready. Units dispatch transportation to pick up their supplies. Arrangements may be made for delivery by requesting transportation from supporting transportation sources. Delivery of repair parts may occur by air in situations where supply lines are not secure or terrain is impassable. Air transportation may also be used to retrograde unserviceable components for repair.

Storage

5-31. The storage element provides physical receipt, storage, maintenance-in-storage, and safeguarding. It maintains a locator system and issues items as directed by the Stock Control and Accounting section. Storage personnel also package, crate, and handle items. Units should emphasize proper storage of Class IX during field operations. Unprotected repair parts, components, and assemblies can quickly deteriorate if exposed to dirt and moisture.

5-32. To ensure proper storage, a Storage Plan must be developed and used for all stocks. The plan must comply with policies established by the Company Commander, which, in turn, is based on higher HQ policies. Space available and types, sizes, and quantities of items to be stored are the principal factors to consider when developing a Storage Plan.

5-33. Most repair parts and maintenance supplies are stored in vehicles organic to the maintenance unit. ISO containers may be used for storage when they are available and their use is authorized. This provides maximum protection with little or no requirement for preparation or processing for storage. Except for glass and other fragile items (windshields, sediment bowl, and so forth), which are subject to breakage in-transit, all items received in original packages should be accepted unopened.

5-34. An Inspection Schedule should be established for stored stock. Unpackaged and unpreserved items should be inspected for rust, corrosion, and broken packs. Particular emphasis must be placed on items with an established shelf life (such as rubber gaskets, neoprene seals, and batteries) to ensure expired-date packages are not issued. All storage practices should be in compliance with safety and environmental laws and regulations.

Reparable Exchange

5-35. Items authorized for repair at support maintenance may be supplied through an RXA. Supply and maintenance personnel jointly determine selection of RX items for repair. Authority to stock RX and the levels in which these items are stocked is governed by AR 710-2. Items selected are those that are reparable and that have an essentiality code of "C" and an air eligibility code of "1" or "3," with at least 9 recurring demands in the last 360 days. Stocked items failing to receive at least 3 recurring demands in the previous 360 days will no longer qualify for stockage and will be deleted.

5-36. Procedures for customers to obtain an item from the RXA are provided in DA Pamphlet 710-2-1. Items are exchanged on a one-for-one basis using a DA Form 2765-1 to turn in the unserviceable item and another DA Form 2765-1 to request a replacement. Placing items on the RX list serves two useful purposes:

- First, users do not have to prepare job orders and wait for repairs. The customer simply prepares the issue and turn-in documents and hand-carries the item to the RXA where a similar item is issued.
- Second, only the supply activity job-orders the components to the maintenance activity for repair. This reduces paperwork and allows the maintenance unit to manage the workload for programmed repair.

Prescribed Load List

5-37. The PLL is a list of the authorized quantities of supplies required by a unit to do its daily unit maintenance. Units that are authorized personnel, tools, and equipment to perform maintenance maintain a prescribed load of repair parts. Units that regularly support other units without maintenance capabilities include the supported unit's equipment in their PLL computations. PLL items must always be on-hand or on request. PLLs must be on file in the using units and in the supporting SSA.

5-38. A PLL consists of repair parts and other stocks. The unit PLL consists of unit-level maintenance repair parts that are demand-supported (15 DOS), non-demand-supported, and specified initial stockage for newly introduced equipment. Other items that can be added to the PLL include the following:

- Demand-supported items with essentiality codes other than "C."
- Initial-issue repair parts to support newly fielded equipment (Code "P") items.
- Items added with approval of the First General Officer in the chain of command or his designated representative.

5-39. Each unit is responsible for maintaining PLL records, submitting timely replenishment requests, and conducting inventories. All items must be on-hand or on order. PLL policy is in AR 710-2. Manual procedures are in DA Pamphlet 710-2-1. Automated procedures are in System User manuals.

5-40. The combat PLL consists of a mandatory stockage of repair parts needed for essential battlefield maintenance for a prescribed number of days in combat. These loads must be able to be moved into combat in one lift with organic transportation. These loads are also used to support peacetime demands.

Authorized Stockage List

5-41. The ASL consists of those parts stocked in DS repair parts supply units for issue to user units and to support DS-level maintenance operations. The MMC, based on priorities established by the commander, will establish the guidelines for issue, ASL design, or distribution. The MMC is the common exit point for requisitions and other supply documents for the division. ASL lines are distributed among the units based on the critical combat needs of customer units. Quartermaster Supply and Repair Parts Companies will stock repair parts that are combat-essential to customer units. Steps in the repair parts process are in Table 5-1.

Table 5-1. Repair Parts Process

Step	Action
1	Units submit repair parts requests to their Repair Parts Supply Company SSA.
2	If repair parts are on-hand, they are issued. If parts are not on-hand, the request is back-ordered and a requisition is passed to the COSCOM or TSC MMC.
3	The COSCOM or TSC MMC prepares the MRO, back-orders the requisitioned item, and passes the requisition to a higher supply source.
4	When issues are made by the COSCOM or TSC MMC, the parts are shipped to the Repair Parts Supply Company with the ASL.
5	The QM Supply Company will report the receipt of parts to its supporting MMC.
6	The QM Company Supply Section places items in a storage location (for ASL replenishment) or releases them to the customer if the request was a passing action.
7	The DMC directs the forward movement of ASL stocks held by the MSB or DSB QM Company whenever replenishment (of the Forward Support Companies' ASL) is needed or to satisfy critical needs of customers.

5-42. Combat ASLs are available for DSUs. The combat ASL includes repair parts and components to support DS combat maintenance. The combat ASL will cover all MPLs and demand supported items on supported unit PLLs.

Mandatory Parts Lists

5-43. MPLs, which are published as DA pamphlets, are used to standardize the combat PLLs. The MPL is the mandatory portion of the standardized combat PLL. Parts on the MPL must be on-hand or on order at all times.

Weapon System Replacement

5-44. Weapon System Replacement Operations (WSRO) is a management tool used to supply the Combat Commander with fully operational major weapon systems, including both the required equipment and trained crews. Procedures for issue of weapon systems differ from those for other Class VII items. Weapon systems replacement is managed at each level of command. Two terms often used to describe WSRO are *ready-for-issue* and *ready-to-fight*. Weapon systems managers are generally appointed as indicated below:

- Battalion – XO.
- Brigade – XO.
- Division – Assistant DMMO (DMC).
- Corps – COSCOM MMC.

Ready-for-Issue Weapon System

5-45. A Ready-for-Issue Weapon system is one that has been removed from its preservation status and made mechanically operable according to current equipment serviceability criteria or other appropriate standards. Additional equipment, such as fire control, machine guns, radio mounts, and radios, is installed. The vehicle has been fueled and basic issue items (BIIs) are aboard.

Ready-to-Fight Weapon System

5-46. A Ready-to-Fight Weapon system is one that is manned and ready-for-issue with ammunition stowed aboard. The weapon has been boresighted and verified. Transportation of weapon systems to corps normally occurs by rail. Systems are shipped to division by rail or HETs and to battalions by HETs.

REPAIR PARTS SUPPLY CONCEPT OF SUPPORT

5-47. Repair parts stockage philosophy focuses on stocking only a limited amount of high demand parts deemed critical for maintaining unit end items. The supporting Class IX SSA stocks repair parts, not meeting the criteria for PLL, on an as required basis. Request for repair parts, not available at the serving SSA, are referred to the next level repair parts management node (SARRS-2) to conduct a lateral and vertical search for the required part. Whenever the requested part is located, automated (SARRS) National Release Order process directs a release and shipment to the requestor. If the repair part is not available within the theater, the request will be electronically forwarded to the NICP.

5-48. The management of repair parts at the national level is usually based on the general classification of the item, rather than its end use. Therefore, requisitions for repair parts may go to more than one NICP or Commodity Command. Where the end item is a major system (for example, the M-1 Abrams Tank), the PM ensures that repair parts support at the national level is effective. At the strategic level, supply requirements for high dollar, tightly-controlled Class IX items may drive the use of depot maintenance repair to support supply demands from the field.

OPERATIONAL LEVEL REPAIR PARTS SUPPLY

5-49. To reduce the inventory of lines of repair parts that must be stored, a large percentage of Class IX items are flown from the CONUS into the theater. If the theater has pre-positioned war reserve materiel stocks (PWRMS), they will be used as the initial source of supply until sufficient quantities of Class IX can be shipped from the CONUS. Though stored in COSCOM storage sites, the TSC controls PWRMS items until they are released to the corps by theater.

5-50. The TSC Support Operations Center-MMC manages Class IX for the theater. The operational level of Class IX supply focuses on providing a GS-level of supply that provides a safety level (15 DOS) for non-ALOC repair parts and 30 DOS safety level for items that will be sent to the theater via ALOCs. ALOC cargo arrives daily at a pre-determined aerial port. Most Class IX ALOC eligible items will be accelerated through the distribution pipeline and delivered directly to the requesting SSA. The remaining Class IX ALOC items will be delivered to a GS Repair Parts Supply Company in the COMMZ or combat zone ASG(s).

5-51. Air eligible Class IX support begins when the ALOC is established. Non-ALOC support must wait until a sea line of communication (SLOC) is established. Easing supply requirements are the serviceable assets that GS maintenance units repair and return to the Class IX inventory. Combat essential and high dollar value items are intensely managed at all levels (the SARSS-2 provides asset visibility at management levels). Low cost, non-combat essential items are managed within the established parameters of automated systems at the various echelons of supply (primarily the SARSS-1 at the DSU, and the SARSS-2 at the management level). This allows the manager to concentrate on fewer items.

TACTICAL LEVEL REPAIR PARTS SUPPLY

5-52. The tactical level for repair parts supply addresses the corps and below. For the purposes of this discussion, Class IX operations for the current Force (AOE and FXXI) are discussed.

Corps

5-53. Corps manages repair parts for the tactical level, organizational, and DS maintenance missions. Organizations can stock a limited number of demand-supported PLL items (normally no more than 300 lines). Commanders must always consider the amount of PLL stocked since PLLs must be 100 percent mobile. Having the ability to project Class IX on the battlefield is a valuable combat multiplier. Battlefield repair parts projection is enhanced with throughput as far forward as possible, containerization, and enhanced mobility through the highly versatile and modularized ASL mobility system.

5-54. Direct support SSAs provide organizational repair parts to customers and DS-level parts to their organic DS maintenance activities. Levels of stockage are computed and managed by the SARSS. Repair parts authorized for stockage in an SSA are called ASL items. To ensure mobility of DS SSAs, stockage is limited to 5,000 lines of authorized items.

5-55. At the COSCOM level, the QM Support Company is the consolidated ("one stop shopping") SSA (CSSA) operator for DS Class IX (less aviation and COMSEC) for maintenance repair units operating within its support area. When supporting DS, SSAs cannot fill a request from the ASL; requisitions are transmitted by the SARSS-1 to the COSCOM DMC. The Parts Supply branch will conduct a lateral search (using the SARSS) to see if the part is located in another corps SSA. If the request cannot be filled, the request is forwarded by the COSCOM SARSS to the TSC MMC or CONUS NICP as appropriate. The COSCOM DMC immediately transmits requests for ALOC Class IX items to the NICP, while theater-selected Class IX item requests are forwarded to the TSC MMC. The TSC MMC conducts theater-wide searches (with the SARSS) to determine availability at one of the subordinate QM Support Companies or the QM Repair Parts Supply Company (GS).

Division and Brigade

5-56. **AOE Division Concept.** Repair parts support begins with a Class IX requirement from the supported unit FSB MST, providing front line repair support to maneuver units. When a repair part is not available for the MST, the request is passed by the MCS to the ULLS-G and the SAMS-1. The ULLS-G and SAMS-1 requests are then forwarded to the SARSS-1 site, located in the FSB Supply Company SSA. If the SARSS-1 site at the FSB Supply Company does not maintain stockage of the particular Class IX item, the request is forwarded to the MSB Supply and Service Company, where the division ASL is maintained. If the MSB has the item, it is released and pushed to the FSB. If the MSB does not have the item in stock, the SARSS permits the DMC to look laterally across the division SSA structure to locate the item. If the item is found within the division area, an MRO is generated at the division MMC to cross-level the item to their requiring SSA for issue. If the repair part is not found in the division, the request is forwarded to the COSCOM Support Operations SARSS-2 site for a corps-wide look (for the item). The corps will either release the item or forward the request. Once the part is identified, the item is pushed forward to the lowest level SSA possible. The FSB Supply Company SSA provides DS Class IX support not only for the brigade, but also for divisional units operating in the BSA.

5-57. Within the DISCOM, the MSB's Supply and Service Company maintains the division rear Class IX ASL (common). The MSB provides DS Class IX support for customer units in the division rear. Requests are submitted via the ULLS-G and SAMS-1 to the SARSS-1 in the MSB Supply Company SSA. Requests not filled from the division ASL, are passed to the SARSS-2 site at COSCOM.

5-58. Within the DASB (which also supports the Cavalry Squadron), the Headquarters and Supply Company (HSC) maintains the Class IX ASL. Organizational Class IX requests are submitted from the ULLS-A to the SARSS-1 at the HSC. If the item is on-hand, it is released to the requesting Aviation Ground Repair activity. If the item is not on-hand, the request is forwarded to the COSCOM Support Operations SARSS-2 for a search of Corps SSAs. Figure 5-1, page 5-14, depicts the requisition flow for Class IX repair parts in a theater of operations for an AOE division.

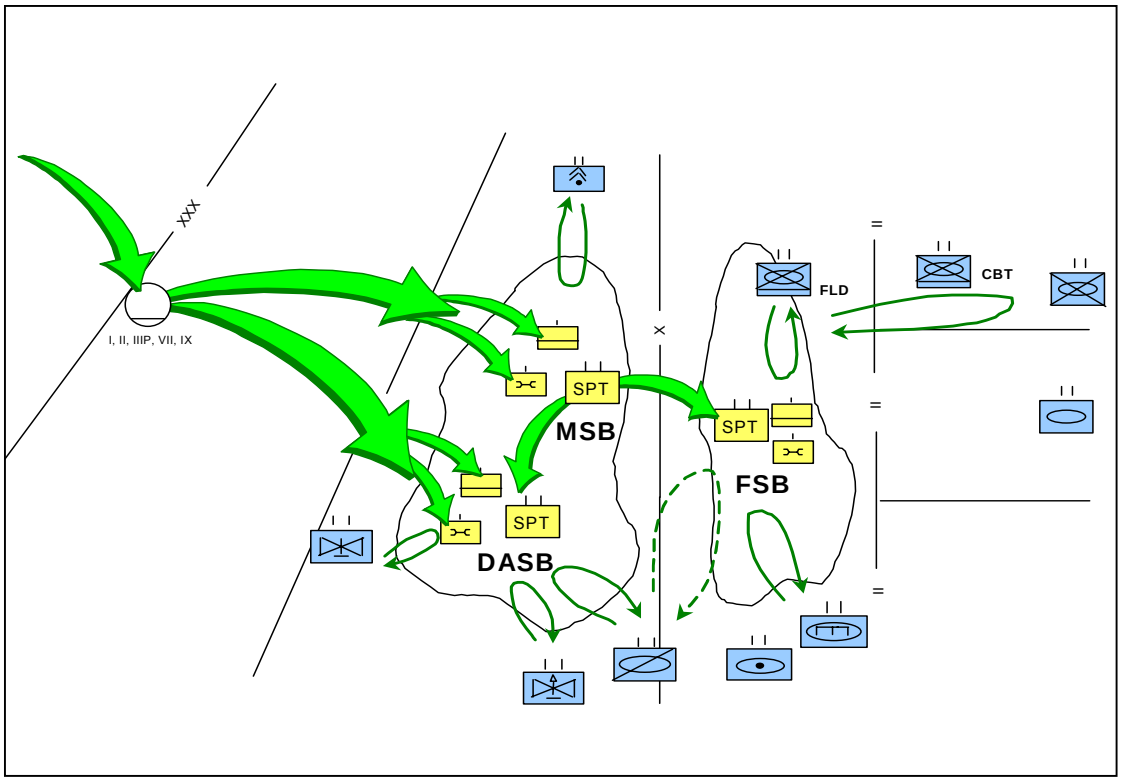

Figure 5-1. AOE Division Repair Parts Concept

5-59. **Force XXI Division (Digitized) Concept.** FXXI incorporates a change in the business rules for operational logistics. The use of strategic packaging, flatrack- and container-oriented distribution, and throughput (as far forward as possible; bypassing intermediate levels) represents FXXI supply support. Stockages in SSAs are reduced to enhance mobility while SSAs undergo a redesign to make them consolidated. What makes this possible is the enhanced digitization/information management technology that begins the approach to near real-time repair parts supply data that seeks to achieve precision distribution.

5-60. For the FXXI warfighter, repair parts support begins with a Class IX requirement from the supported unit FSB CRT, providing front line repair support to maneuver units. When a repair part is not available for the CRT, the request is passed by the MCS to the ULLS-G and SAMS-1. The ULLS-G and SAMS-1 requests are forwarded to the SARSS-1 site located in the FSC's Supply section (FXXI). Since the SARSS-1 site at the FSB FSC does not maintain stockage of Class IX, the request is forwarded to the FSB BSC, where the Brigade ASL is maintained. If the BSC has the item, it is released and pushed to the FSC; otherwise, the request is forwarded to the COSCOM Support Operations SARSS-2 AC site for a corps-wide look (for the item). The corps SARSS-2 AC will either release the item or forward the request to the theater. Once the part is identified, the item is pushed forward to the lowest level SSA possible. The FSB BSC provides DS Class IX support not only for the brigade, but also for divisional units operating in the BSA. Within the FXXI structure, the DISCOM does not provide back-up Class IX support to the FSBs.

5-61. Within the DISCOM, the DSB's QM Company maintains the consolidated division rear Class IX ASL (common). The DSB provides DS Class IX support for customer units in the division rear. Requests are submitted via the ULLS-G and the SAMS to the SARSS-1 in the DSB QM Company. Requests not filled from the division ASL are passed to the SARSS-2AC site at COSCOM.

5-62. Within the DASB (which also supports the Cavalry Squadron), the HSC maintains the consolidated Class IX ASL. Organizational Class IX requests are submitted from the ULLS-G and DS repair parts are requested via the SAMS-1 and forwarded to the SARSS-1 at the HSC. If the HSC has the item on-hand, it is released to the requesting ground repair unit. If the item is not on-hand, the request is forwarded to the COSCOM Support Operations SARSS-2AC via a wireless modem for a search of corps SSAs. If the repair part is not found, the request is forwarded to the theater. Figure 5-2 depicts the requisition flow for FXXI Division Class IX repair parts in a theater of operations.

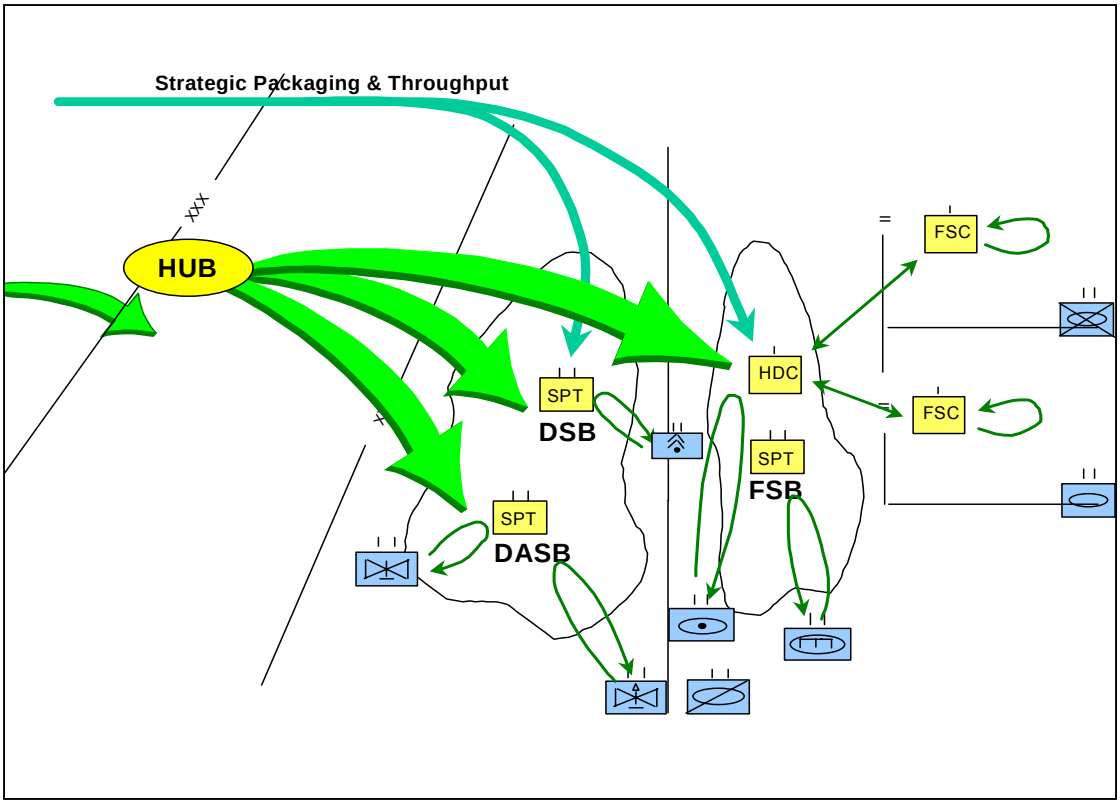

Figure 5-2. Force XXI Division Repair Parts Concept

5-63. **Stryker Brigade Combat Team Concept.** As a full spectrum combat force, the SBCT maintains an offensive orientation. By deploying with CSS packages tailored for a specific operation, the SBCT can sustain itself with a minimum of external support for up to 72 hours. Sustainment is normally provided via throughput from EAB to the brigade battlespace. Sustainment will be tailored and packaged by EAB elements for specific supported units based on a specific time and location.

5-64. Although distribution capability is limited, the BSB is designed to perform distribution-based, centralized CSS functions in accordance with Army XXI CSS concepts. Although the BSB may conduct multiple resupply operations per day, resupply is conducted only when necessary and is based on actual and/or projected requirements. Class IX is an exception and will be pushed to CRTs daily with unserviceable Class IX being retrograded to the BSA. When the battalion supported by a CRT is not scheduled for a delivery that day, a non-standard means of delivery (aviation, non-CSS assets, and so on) will be used for Class IX resupply when CRTs require an unscheduled delivery of repair parts.

5-65. CRTs assess and report maintenance requirements to the SBCT FMC. The battle rhythm permits, perform repair of NMC equipment with battle damage repair and LRU/major assembly replacement. The CRTs will carry a smart, simple Class IX repair parts package to perform this function. Due to its limited size, the CRT will often require a daily resupply of mission-critical repair parts. Excellent and assured communications dedicated to the transfer of logistics data between forward deployed CRTs and the FMC and HDC will provide the critical link to effective Class IX resupply. These communications will also provide the BSB and SBCT S4 with a common understanding of the operational combat power at any given time.

5-66. The BSB is equipped with a Support Operations capability embedded with Supply and Services and Maintenance Management cells. The SPO is responsible for the synchronization and integration of all logistics for the SBCT. The Support Operations Supply and Services cell monitors, coordinates, and manages daily Class IX distribution to the CRTs. The Support Operations Maintenance cell develops the plans and policies for RX operations. It monitors shop production and job status reports in the FMC. It also monitors and reviews the Class IX stockages and coordinates critical parts status with the EAB.

5-67. Repair parts at the BSB consist of a limited ASL maintained by the HDC. PLL/shop/and bench stock is controlled by the FMC Shop Office and its Repair sections. The FMC MCS and CRTs will deploy with contact team stocks and limited bench stock (such as lubricants, seals, starters, and batteries). The MCS is responsible for maintaining shop stock and bench stock consisting of a broad but shallow inventory of high use, combat essential parts that support a replace-forward maintenance philosophy. On-board spares are limited repair parts located with the vehicle/system that the crew and operators can replace as necessary. On-board Class IX repair parts provide a buffer for the lead-time it takes the distribution system to deliver a required part and also act as insurance against interruptions in the distribution pipeline. There will also be pre-configured Class IX fly-away packages maintained at EAB that will flow

into the theater shortly after closure of the brigade. CSS enablers, such as TAV and dedicated communications, are essential to the requisitioning and tracking of Class IX. Class IX repair parts are prioritized based on the commander's priority of maintenance. Critical requirements may be delivered by aerial delivery as far forward as tactically possible.

5-68. The BSB HDC Supply Support Platoon has a Repair Parts section that receives, stores, issues, and transloads Class IX. This section is equipped with a SARSS (to be replaced by the GCSS-Army SSA module) workstation and two ISO containers for storage of the ASL. The section deploys with a pre-determined high demand ASL to provide Class IX support to the brigade.

5-69. The HDC maintains the brigade' optimized ASL. An operator identifies a fault, annotates the fault, and notifies the CRT. The CRT will diagnose the fault, identify the repair part(s) required, and forward the request to the MCS of the FMC using the FBCB2 system. The MCS will either issue the part if it is on-hand or it will pass the requisition on to the Repair Parts section of the HDC via the ULLS-G (to be replaced by the GCSS-Army Maintenance module). If the part is on-hand in the ASL of the HDC, it is released. If the requested repair part is not on-hand, the Repair Parts section will process the requests via the SARSS-1 (to be replaced by the GCSS-Army SSSA module) and forward the request to the EAB materiel management elements SARSS-2AD (to be replaced by the GCSS-Army module) in the CONUS or theater. The SARSS-2A (to be replaced by the GCSS-Army module) fills requisitions from other ASLs or passes requisitions to wholesale level, where requisitions are filled from other sources of supply (SSAs, depot, or vendors). Upon receipt of a requisition, the EAB SARSS-2A (to be replaced by the GCSS-Army module) will conduct a subordinate search of all SSAs in the AO to locate the requested repair part. Once the SARSS-2A (to be replaced by the GCSS-Army module) identifies the location of the repair part, the EAB materiel manager will coordinate for delivery of the part to the requesting unit or the nearest APOD. Once in-theater, supplies will be throughput to the HDC of the BSB. The Repair Parts section will position the Class IX on flatracks/Container Roll In/Out Platforms (CROPs) by unit loads for delivery. The Transportation Platoon of the HDC will deliver the flatracks/CROPs daily to the unit resupply points. The FMC is collocated in the BSA and will pick up its own parts. Additional ASL packages are sent by LOCs until augmentation arrives in-theater.

5-70. Repair parts are further discussed in FM 10-1. Figure 5-3, page 5-18, depicts the source of repair parts management for the SBCT, Headquarters and Distribution Company.

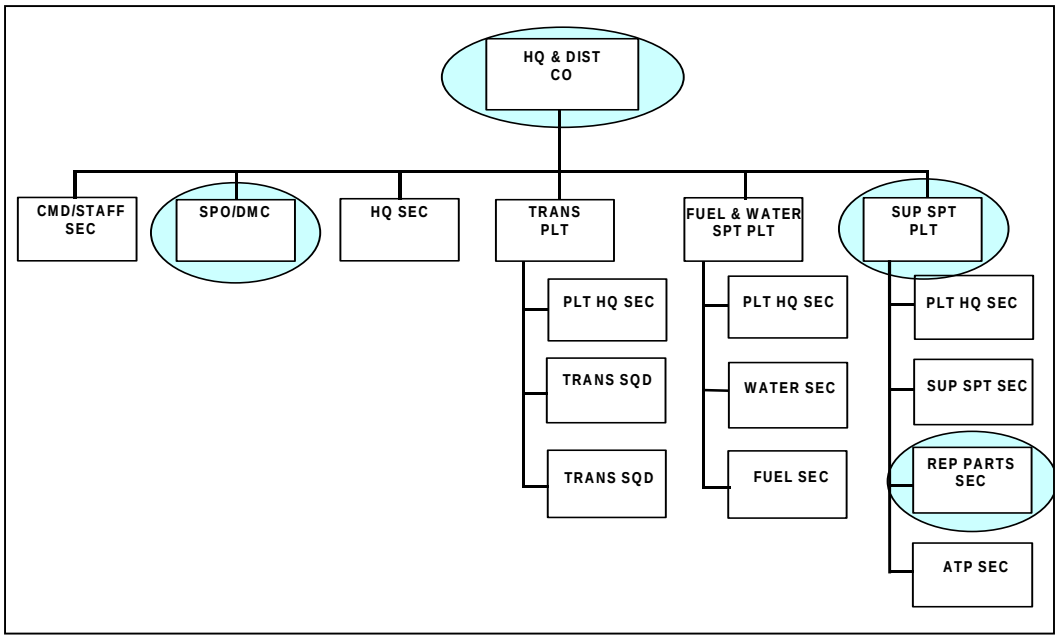

Figure 5-3. SBCT Headquarters and Distribution Company

5-71. The need to augment the BSB, in order to sustain the force after the initial stages of employment in extended operations, has been a key tenet of the SBCT concept of support. In such cases, the HDC requires augmentation to increase Classes I, II, III, IV, VII, and IX distribution support. The CSSC is an austere solution to fill only the most critical requirements of the SBCT that the BSB cannot provide for itself. The CSSC is intended to deploy after the initial stages of employment and provides scaling and augmentation in the form of DS-level CSS to the SBCT. When fully deployed in support of the SBCT, the CSSC provides supply support augmentation, to include Class IX (as well as other support). The CSSC is designed to facilitate the modular employment of any or all of its elements. The CSSC Supply and Transportation Platoon, when employed, provides additional follow-on sustainment for supply and repair parts operations of the BSB HDC.

Planning Considerations

5-72. Proper implementation of policies and procedures that govern supply of repair parts will ensure units remain operationally ready. Some planning considerations are:

- **Stockage.** Authorization for stockage of items is based on demand for an item over a particular time period. Consumption may be affected by location, environment, or OPTEMPO.
- **Transition to War.** During the transition to war, SSAs must divest ASLs of non-combat essential parts. Adjustment for low demand to no demand items in lieu of high demand items is an ongoing process for repair parts managers. The LOGSA can help with determination of combat usage profiles for a

particular environment. LOGSA can be accessed via the web at www.logsa.army.mil).

REPAIR PARTS INFORMATION MANAGEMENT SYSTEMS

5-73. The SSA and its SARSS-1 operating system are part of a network of SSAs linked into the total Army supply system. SSA managers and personnel need to understand how they fit into the overall Army and DoD order-ship process.

5-74. Every SSA in the Army is different in that it operates in a different environment. Its physical layout and location (city or county, state, parish or province, the nation) influence the environment of each SSA. More importantly, the local command, MACOM, the Army, and DoD all affect the SSA.

5-75. The automated system used by the SSA to manage its mission is the SARSS. The SARSS is an automated, multi-echelon, supply management and stock control system designed to operate in tactical and garrison environments. It supports the ULLS-G, ULLS-A, ULLS-S4 (to be replaced by PBUSE), SAMS-1, SPBS-R STAMIS, non-automated customers, and the split-based operations concept. The SARSS has four levels: the SARSS-1, SARSS-2AD (Division), SARSS-2AC (Corps), and SARSS Gateway (see Figure 5-4). More specific information about the SARSS, including updated technical notes and bulletins, can be found at the web site of the PM for the GCSS-Army at http://www.gcss-army.army.mil.

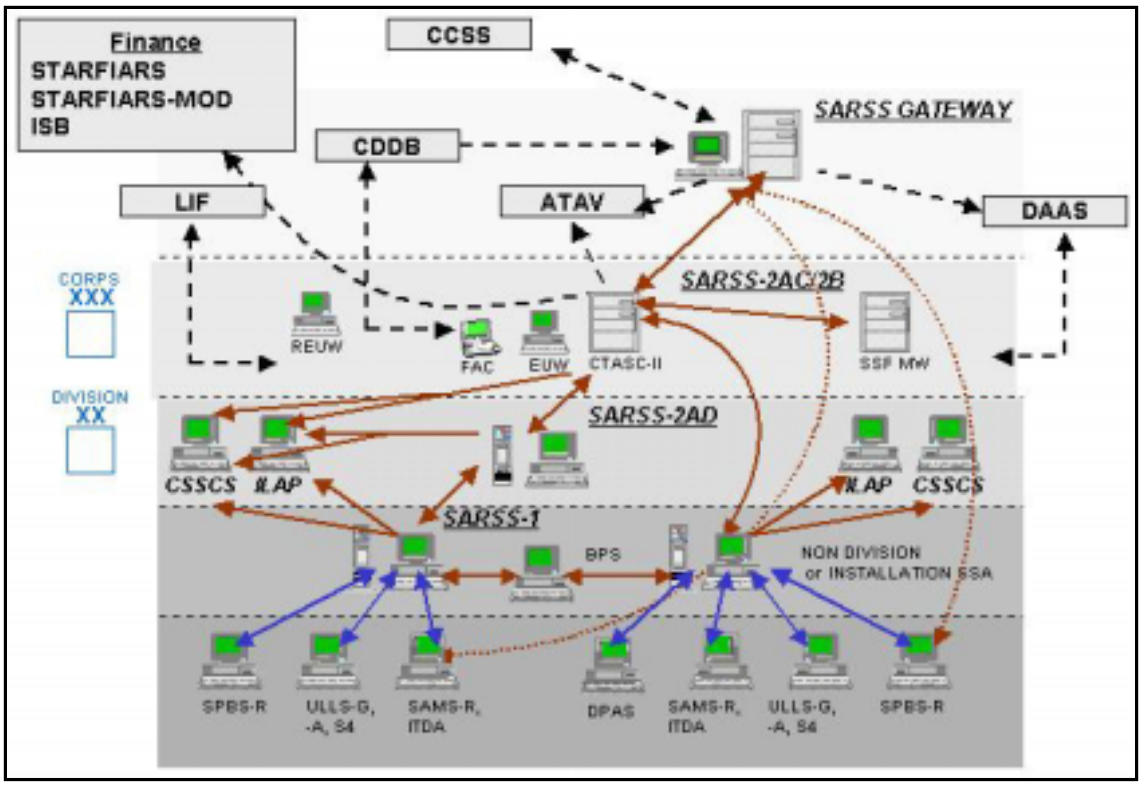

Figure 5-4. SARSS Architecture

5-76. The SARSS-1, as a component of the SARSS architecture, is fully integrated from the user through theater Army level. Operating on a modular, portable microcomputer, it has the capability to support worldwide deployment of combat forces in various scenarios and AOs across the full operational spectrum. It is used in DSU and general support unit (GSU) SSAs. The automatic information technology (AIT) source data automation is provided through the use of RF tags, fixed and hand-held RF interrogation devices, optical laser card reader/writers, and bar-code readers.

5-77. The SARSS-1 is the system of record. Inventory control and accountability of user stocks are at user level. The SARSS-1 is supported by a SARSS-2A activity. The SARSS-1 determines replenishment based on stockage levels furnished by the supporting SARSS-2B.

5-78. The SARSS-2A performs time-sensitive supply functions. These include management of controlled items, a lateral search of stocks to fulfill unsatisfied customer requirements from subordinate SARSS-1 or SARSS-2A activities, and redistribution of excess.

5-79. The SARSS-2B performs management functions that are not time-sensitive. These include document history, demand analysis, and catalog update.

5-80. The entire SARSS architecture is continuously being improved to provide enhanced support. FXXI digitization technology has enabled the recent advances toward global asset visibility. Leveraging digital capability to enable the requisition of repair parts as they are needed becomes essential for meeting the distribution management criteria associated with CWT standards. Figure 5-5 depicts repair parts requisitioning that leverages FXXI digital capabilities.

INTEGRATED LOGISTICS ANALYSIS PROGRAM

5-81. The ILAP is an information management program that provides managers with a set of analytical tools to measure, among other things, the efficiency of stockage criteria, based on dollars invested and CWT. The MACOM/Corps/Installation ILAP combines supply, maintenance, and financial data to produce comprehensive management reports tailored to user requirements, without affecting the data sources.

LOGISTICS INTELLIGENCE FILE

5-82. The LIF is an on-line, computerized database that centralizes the collection, correlation, and retrieval of supply and transportation data on Army-sponsored requisitions placed in the wholesale logistics system. AR 725-50 outlines specific details of LIF use.

NOTE: The database does not include Class I (subsistence), Class III (bulk petroleum), Class V (ammunition), and security assistance materiel.

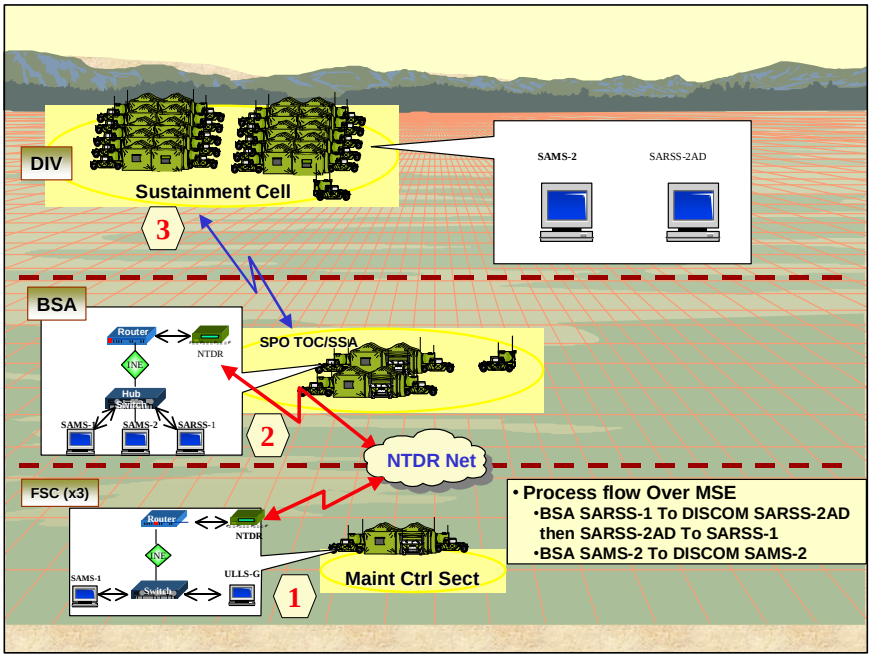

Figure 5-5. Leveraging Force XXI Digital Capability to Requisition Repair Parts

5-83. The LIF unites the supply and transportation function systems through the following three basic conditions essential to logistics intelligence:

- Automation of the standard supply and transportation systems, MILSTRIP and MILSTAMP.
- Electronic transmission of requisition, status, receipt, and transportation lift notices and receipt postings.
- Automatic acquisition of essential data from the Defense Automatic Addressing System (DAAS).

5-84. The LIF provides the following:

- A single source of logistics intelligence.
- A single source of determining the status of a requisition placed against the wholesale system.
- A capability of diverting, reconciling, expediting, or suspending items or shipments on short notice.
- A reconstitution of shipments involved in casualties on aircraft, ships, or other conveyances.
- A way of informing Requisition Activities Commanders of shipment delays due to labor disputes, natural disasters, or other causes.
- A way of informing Requisition Activities Commanders of equipment and lift data.
- A mass cancellation service in coordination with other commands and activities.
- Special analysis and LIF products tailored to customer needs.

OTHER SOURCES OF SUPPLY

5-85. Repair parts are available from several other sources. The following discusses alternative sources of repair parts supply.

OTHER REPAIR PARTS STOCKAGE SOURCES

Shop Stocks

5-86. Shop stocks are demand-supported repair parts and consumable supplies stocked in a DS or GS OD activity. Since these supplies are issued to the OD unit, they are not part of an ASL. Shop stock supplies are to be used only by OD shops. They are not to be issued to supported units. Shop supply allows OD units to keep frequently used repair parts and expendable maintenance supplies on-hand. It helps maintenance units avoid repair delays and reduces the number of supply transactions.

5-87. Shop stock supply items are selected for demand-supported stockage when they are requested frequently (at least three requests in the initial 180 days and one demand every 180 days thereafter). Maintenance personnel request parts and supplies from the MMC or stock control activity.

Bench Stock

5-88. Bench stock items are low-cost consumable repair parts and supplies used by maintenance shop repair personnel at an unpredictable rate. The Maintenance Shop Officer decides which items are to be stock based on how essential the items are to unit repair operations.

Program Stocks

5-89. Program stocks are those repair parts and maintenance supplies stocked by the Shop Supply section for programmed repairs. Program stocks are used primarily by GS maintenance units to support scheduled overhaul programs. Use it to support maintenance of components or assemblies such as engines and transmissions. Stockage levels should be based on anticipated workloads and demand history from similar overhaul programs. As a rule, stocks are requested six months before the start of the program. Retain items only as long as they are needed for the program. Turn in those not needed to the SSA as soon as possible.

Quick Supply Store

5-90. The use of the Quick Supply Store (QSS) provides a quick method for supplying certain low cost expendable items. The purpose of the QSS is to simplify accounting, eliminate paperwork, and reduce work loads of supply personnel. Once an item is selected for QSS stockage, it is no longer available to customers from any other source. Items may be selected for or deleted from QSS stockage based on certain criteria. To qualify for stockage in a QSS, an ASL item must meet the entire mandatory QSS stockage criteria described in AR 710-2 and DA Pamphlet 710-2-2.

Cannibalization

5-91. Cannibalization is the authorized removal of the following:

- Serviceable and unserviceable assemblies.
- Serviceable repair parts from unserviceable, uneconomically reparable, or excess end-items of equipment authorized for local disposal.

When done on the battlefield, cannibalization's final aim is to return as many weapons systems and tactical support systems to the battle as quickly as possible. Cannibalization supplements and supports supply and RX operations by providing assets not available through other sources. On the battlefield, the MMC maintains visibility of all cannibalization-eligible equipment in order to direct these operations.

5-92. Cannibalization operations fall into the two following general categories:

- Cannibalization point operations conducted by the C&C Service Company. This provides repair parts and assemblies for immediate use, repair parts and assemblies for stockage, and unserviceable components and assemblies for GS-level repair. Operations are conducted in accordance with DA Pamphlet 710-2-2.
- Battle support cannibalization conducted by maintenance personnel in accordance with established procedures, usually in response to immediate tactical requirements. This is done only for returning equipment to combat, not for repair parts stockage.

BATTLE SUPPORT CANNIBALIZATION PROCEDURES

5-93. Battle support cannibalization procedures are based on policy guidance from the corps and ASCC. These procedures are designed to support maintenance operations. The goal of battle support cannibalization is to return a maximum number of weapon systems and tactical support systems to units for their immediate tactical requirements. Table 5-2, page 5-24, shows procedures for possible incorporation into a battle support cannibalization policy.

Wartime Policy

5-94. During war and transition to war, the ASCC must establish a cannibalization policy. Waivers of NICP disposition requirements must be coordinated with the NICP concerned. Corps and Division Commanders implement the theater policy. Cannibalization point operations remain the same as during peace. When items have been authorized for disposal, maintenance personnel remove parts and components. Serviceable items are made available for issue. Unserviceable reparable items are work-ordered for repair.

5-95. After selected recoverable items are removed, the cannibalization point makes the end-item available for further supply action. Lists of end-items available for cannibalization are periodically provided to supported customers. Customers bring requisitions to the cannibalization point where issue is made on a fill-or-kill basis.

Table 5-2. Battle Support Cannibalization Procedures

Equipment Category	Authority	Action
Abandon/ Destroy	Corps/Division Commander	Equipment is destroyed to prevent enemy capture (only when recovery or evacuation is not feasible). The Division Commander has the authority to abandon/destroy equipment but may delegate authority to lower commands. Before destruction, sighting and fire control equipment and other critical items are removed and evacuated. When possible, maintenance personnel conduct cannibalization and destroy the item.
Obvious Code H (Salvage)	Senior Maintenance Person	Maintenance personnel remove critical repair parts and assemblies in short supply. Parts from the cannibalized item are used first to conserve parts in the Supply system. Following cannibalization, the item is abandoned, destroyed, or recovered/evacuated at low priority.
Reparable at Unit Level	Tactical Unit Commander (Item meets Criteria set by Division Commander)	Controlled exchange should be used to the maximum extent possible. When cannibalization of unit-level parts contributes to increasing the number of Weapon systems available for the immediate tactical requirement, organizational maintenance personnel request cannibalization authorization from the Tactical Commander concerned.
Reparable at FSB (BSA)	Tactical Unit Commander (Item meets Criteria set by Division Commander)	Controlled exchange should be used to the maximum extent possible. When cannibalization of DS-level maintenance parts contributes to increasing the number of Weapon systems for the immediate tactical requirement, DS-level maintenance personnel request authorization from the Tactical Commander concerned. The cannibalized item is repaired at the earliest opportunity.
Reparable at MSB/DSB (DSA)	Maintenance Control Officer	Controlled exchange should be used to the maximum extent possible. The Maintenance Control Officer with the Division WSRO, coordinates cannibalization decisions in the DSA. Only parts needed for immediate requirements should be removed. The cannibalized item is repaired at the earliest opportunity.
Reparable at General Support	Maintenance Control Officer	Controlled exchange should be used to the maximum extent possible. Cannibalization decisions should be coordinated with the supporting GS maintenance unit. Only parts needed for immediate requirements should be removed. Following cannibalization, equipment is evacuated to GS-level maintenance.

Peacetime Policy

5-96. Peacetime policy guidance is contained in AR 710-2, AR 750-1, and DA Pamphlet 710-2-2, which deals with cannibalization point operations. NICP approval is required before weapon systems may be cannibalized. CONUS cannibalization points are normally set up at installations with fixed maintenance facilities.

Unauthorized Cannibalization

5-97. Unauthorized cannibalization during peacetime operations degrades readiness. Commanders and maintenance leaders should avoid this practice and correct all violations. Leaders should also ensure cannibalization is not performed under the disguise of controlled exchange. This happens when unserviceable components are not replaced on, or affixed to, the donor end-item.

FABRICATION

5-98. DS maintenance units may sometimes be able to locally fabricate a critical part when it is not available through the supply system. A DA Form 2407 is annotated with specifications, and a sample item, if available, is provided.

CONTROLLED EXCHANGE

5-99. Controlled exchange is the removal of serviceable parts, components, assemblies, and subassemblies from unserviceable, economically reparable equipment for immediate use in restoring a similar item of equipment to a combat mission-capable condition. Controlled exchange ensures that unserviceable yet reparable components are recovered and repaired. Controlled exchange expedites repair and return to user in support of materiel readiness or operational effectiveness. Using units and support maintenance organizations also performs controlled exchange.

5-100. During combat or transition to war, major Army Commanders may modify the conditions in which controlled exchange is performed. Controlled exchange and cannibalization will not apply to end-items that have been involved in accidents until the Investigating Officer formally releases them. The document register, due-in records, and records of demands must be adjusted when controlled exchange is used. Specific procedures for controlled exchange should be in the unit maintenance SOP. Circumstances under which controlled exchange is authorized are outlined in AR 750-1.

LOCAL PURCHASE

5-101. Local purchase is a source of supply that may be used to procure items required to satisfy immediate needs. The supporting SSA Accountable Officer is the approving authority for local purchase. The servicing finance unit supplies funds for local purchase either directly or through a Class A agent or Imprest fund cashier. The advent of unit credit cards has facilitated local purchase of repair parts; however, caution must be used in their application. Procedures and conditions that must exist are contained in AR 710-2.