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DCSLOG
DEPARTMENT OF THE ARMY

EXECUTIVE SUMMARY
PHASE II STUDY REPORT

ANALYSIS OF OFF-LINE
LOGISTICS SYSTEMS

AD-A150 762

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VOLUME I

CONTRACT NO. MDA-903-84-C-0202

SEPTEMBER 24, 1984

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1025 Connecticut Avenue, N.W.
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September 24, 1984

Lieutenant General Benjamin F. Register, Jr.
Deputy Chief of Staff for Logistics
Department of the Army
Washington, DC 20310

Dear General Register:

Arthur Young & Company ~~is pleased to submit~~ ^{Studies and analysis:} this report on ~~our~~ review of the U. S. Army Information Systems Command (USAISC) supply system.

The study addressed the dedicated retail supply support system for communications-electronic (C-E) systems and equipment organic to and operated by USAISC. In the process ^{we have} we developed a description of the ISC supply system and its operating environment; examined the rationale behind its establishment; compared it with the standard system; and evaluated its procedures. Analysis was extended from the user level through the direct support level to the interface with the wholesale level.

During the study ^{we have} we defined the unique characteristics of the ISC system -- use of high technology equipment, dependence on nondevelopment items (NDI) to meet needs, very high operational readiness requirements, low density and often remote locations which has led to a large percentage of non-demand supported parts stockage and substantial use of local purchase. This environment has necessitated intensive management. We determined that this need for special management still exists, and, in our opinion, will continue to be needed as long as high technology and state-of-the-art requirements drive NDI acquisition.

In addition to recommending that the intensively managed USAISC supply system be retained, we made a number of additional observations, conclusions and recommendations relating to the supply system to include comments on such issues as materiel acquisition, the authorization process, asset visibility, and cataloging procedures.

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September 24, 1984
Lieutenant General Benjamin F. Register, Jr.
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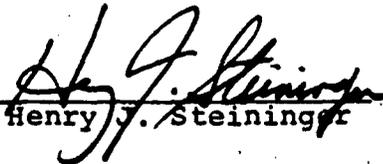
We believe the implementation of our recommendations will improve the supply system from the standpoint of both the Department of the Army and the Information Systems Command and will result in enhanced capability to manage the Army's assets.

If you have questions about this report or need additional information, please contact either me or E. J. Delaune, Director of Defense Management Services, at (202) 828-7000.

Very truly yours,

ARTHUR YOUNG & COMPANY

By:


Henry J. Steining

CONTRACT INFORMATION SHEET

Contract No. MDA-903-84-C-0202

Term of Contract (Phase II): Through 24 September, 1984

Title: OFF LINE LOGISTICS SYSTEMS

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OFF LINE LOGISTICS SYSTEMS

VOLUME I

EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

ANALYSIS OF OFF-LINE LOGISTICS SYSTEMS

I. GENERAL

A. Background.

1. Contract MDA-84-C-0202 was awarded to Arthur Young and Company on 11 April 1984 to conduct a study of off-line or stovepipe supply systems for the Deputy Chief of Staff for Logistics, Department of the Army.

2. Phase I (14-29 May) was spent identifying and assessing off-line or stovepipe supply systems managed by the Army. At the conclusion of Phase I, the DCSLOG directed a Phase II study to review the US Army Information Systems Command (ISC) unique supply system, excluding computers and COMSEC, and to provide recommendations concerning the continuance, discontinuance, modification, or possible integration into the "standard Army system".

3. Phase II started on 14 May 1984 and was completed 24 September 1984. The results of Phase II are covered in this report.

B. Scope of Phase II. The study team focused on the dedicated retail supply system for communications-electronics (C-E) systems and equipment

(Class VII and IX) organic to and operated by ISC. Analysis was extended from the user level (PLL) through the direct support (ASL) level to the interface with the wholesale level. Similarities and differences from the standard system were observed and appropriate conclusions and recommendations made.

C. Actions. Specific actions taken by the study group include:

1. Literature search and collection of source material, including statistical data on the ISC supply system. Statistical information included order ship time (OST), performance factors and operational readiness criteria.

2. Selected briefings and interviews with key personnel.

3. Visits to HQ 7th Signal Command and installation activities, Fort Ritchie; HQ ISC, Fort Huachuca; Communication and Electronics Command (CECOM) National Inventory Control Point (NICP), Communication Systems Agency (CSA) and Satellite Communications Agency (SATCOMA), Fort Monmouth; the Signal School, Fort Gordon; ISC Element, HQ Training and Doctrine Command (TRADOC); and selected ISC PLL sites.

4. Assessment and preparation of the study report.

3. Detailed briefing presented to the DCSLOG on 10 September 1984.

5. Final report draft on 24 September 1984.

II. THE STANDARD SUPPLY SYSTEM

A. General. The Army standard supply system has many components and subsystems and can be viewed from different perspectives, with each perspective showing a different "slice" of the system. One perspective involves materiel management: The people and organizational framework that constitutes the infrastructure for "managing" materiel, and can be visualized as the chain that starts with the PLL clerk and goes all the way to the Item Manager at the National Inventory Control Point (NICP) and back down again. A second perspective is in terms of information processing: the paper-work flow and/or automated systems by which information involving the system is processed. A third perspective concerns distribution: the system by which materiel flows from a source of supply to a customer/user. The standard distribution system is the Direct Support System (DSS). A fourth perspective can be viewed in terms of materiel acquisition: the procurement work directive at the NICP or the local purchase order at the installation level to obtain supplies or materiel for depot stockage or local issue.

B. Standardization. The Army standard logistical system uses or incorporates standard, common terms, language, codes and formats essential to integrated automatic data processing and digital communication networks.

1. Direct Support System (DSS). The DSS demonstrates the functioning of the standard supply system. In DSS, the customer submits a request using a standard form to an operating Supply Support Activity (SSA). An SSA is generally the Installation Supply Division in CONUS, and is generally a Direct Support Unit (DSU) in the overseas areas. The SSA converts the request to a requisition capable of electronic transmission to the NICP. The NICP directs a CONUS wholesale depot to ship the requested materiel directly to the SSA, which issues it to the customer.

2. Asset Visibility. Visibility over both supply and transportation transactions is maintained by means of the Logistics Intelligence File (LIF) at the US Army Logistics Control Activity (LCA), which maintains a complete history file on every requisition. A DSS requisition is tracked from the date of submission to the CONUS supply source through the date of receipt of the materiel by the requisitioner.

3. The Defense Automatic Addressing System (DAAS). The DAAS receives, processes and automatically routes or passes logistics transactions to the proper addressee and provides information image copies to the LIF.

4. Necessary Conditions. A standard Army supply system exists where supply transactions are processed through an SSA which may be an MMC for TOE units or a SAILS element at an installation. In addition, routing a request through an SSA should provide:

- a. An authorization edit.
- b. A demand history.
- c. A funding cite.
- d. An entry into AUTODIN.
- e. A conversion from a customer request to a requisition.
- f. The establishment of an automated audit trail.
- g. The establishment of asset visibility (through DAAS/LIF).
- h. The establishment of an interface or an interoperability capability with the other logistics and documentation systems.

III. ISC SUPPLY SYSTEM

A. ISC Organization and Missions.

1. ISC is organized as shown at Enclosure 2.
2. Missions include:
 - a. Provide The Army portion of the Defense Communications System (DCS).

b. Provide base communications in CONUS and overseas.

c. Provide communications at echelons above the Corps (EAC).

d. Provide all Air Traffic Control (ATC) services and systems.

e. Conduct combat developments for DCS (ARMY), EAC level communications, base communications, and Army ATC systems.

f. Serve as a developing agency for the overall design of communication systems which have sole application to DCS and other assigned communications systems.

g. Conduct training for ISC unique equipment and systems for which there is no established training base.

B. ISC Retail Supply Functions. The ISC retail supply system, exclusive of computers and COMSEC, can be viewed in terms similar to the standard system with a user/operator level (a PLL), supported by a DSU level (an ASL) which in turn interfaces with the NICP/depot level for wholesale supply support.

1. Central Supply Support Facility (CSSF). The CSSF is the ISC SSA in CONUS, located at Fort Ritchie, MD, which supports 138 ISC sites in CONUS,

Panama, Alaska, Puerto Rico, and Hawaii. It also provides supply support to DX facilities in CONUS at Fort Huachuca, AZ and Fort Rucker, AL. The CSSF maintains a consolidated ASL of about 8600 lines and, in addition receives considerable local purchase support from the Fort Ritchie Office of Acquisition, because of the need to obtain repair parts which are not managed centrally by the wholesale system, either part numbered items, nondemand supported NSN items, or NSN items coded for local purchase. The CSSF is integrated with the Consolidated Property Office at Fort Ritchie and operates under SAILS-AB. CSSF stocks are about 48 percent nondemand supported.

2. Area Maintenance and Supply Facilities (AMSF). In the oversea areas, the ISC units receive supply support for ISC unique equipment from area maintenance and supply facilities, the AMSF-Europe located in Mannheim, Germany, and the AMSF-Pacific located in Okinawa, Japan. The two AMSF(s) receive supply requests from the PLL sites and, in turn, submit requisitions direct to the wholesale system. The AMSFs operate on the DS4 system. The AMSF-Europe is contractor operated by Federal Electric International, Inc, and AMSF-Pacific is a military TDA unit. The AMSFs stock a high percentage of nondemand supported lines: 71 percent for AMSF-Eur ASL and 80 percent for AMSF-Pac ASL.

3. Nature of ISC Inventory. The composition of the ISC inventory has a major bearing on the ISC supply environment. The low density, nondemand

supported, commercial or nondevelopmental type of equipment manned by ISC runs the entire spectrum from aging voice and digital communication and switching systems to state-of-the-art high technology in satellite terminals and systems; the ISC inventory mix is moving toward more nonstandard/NDI items.

C. Comparisons with the Standard System. The comparison of the ISC retail supply system to the standard systems can be made qualitatively and quantitatively. The similarities are such that the standard system could be called the general purpose system and the ISC system a special purpose system. Comparisons were made against the DA standards for supply support activities.

1. Order Ship Times (OST). The ISC system was better than the standard for all comparisons except AMSF (Pacific). The lag in Okinawa was totally in the first and last nodes of the process, or attributable to in-theater and SSA processing.

2. Other Performance Indicators. Comparing other performance indicators to include demand satisfaction, ASL turbulence, zero balance, and materiel release denial rates, the ISC system (CSSF, AMSF-Europe and AMSF-Pacific) was better than the DA stated objective or DA management level in all cases.

3. Other Advantages. The ISC unique system did serve to reduce lines and consolidate local purchase functions.

4. Comparison Summary. The ISC system, specifically the CSSF in CONUS and the AMSF-Europe, is providing responsive support to the ISC operating elements in the field, and with the exception of the OST for Okinawa/Japan, to a degree that is not matched by the standard system.

5. The ISC unique system, while sanctioned by the DA DCSLOG, lacks formal recognition or description in DA regulations.

D. Unique Characteristics. There are some unique characteristics of ISC. These pertain to the organizational structure, missions, and functions of ISC, some to the ISC dedicated retail logistics systems itself. However, they all bear on the need for intensive management to provide responsive supply and maintenance support for successful mission accomplishment. Those which have a significant bearing include:

1. DCA Support. DCA assigns to ISC the operational requirements for the Army's part of the Defense Communications System (DCS), and ISC is answerable to DCA for its mission performance. In addition, ISC is the materiel developer for the Army's part of the DCS.

2. High Operational Readiness Requirement. This is in the 97 to 99.9 percent range for DCA availability rates.

3. High Technology. The technological explosion in the C-E field has mandated the need to keep up with state-of-the-art advances. This technical explosion has required communication and electronic materiel developers to employ the nondevelopment item (NDI) method of acquisition to capture current technology rather than to rely on the more time consuming process of the standard development and acquisition cycle.

4. Non-Development Items (NDI). In order to field state-of-the-art equipment, maximum use is made of NDI to shorten the acquisition process. At the present time, over 70 percent of the end items in the ISC CONUS operational inventory are NDI, and the trend is upward.

5. Low Density, Remote Locations. The equipment and systems with which ISC performs its missions, particularly the Army's part of the DCS, base communications, and communications for echelons above the Corps, tend to be low density and distributed worldwide to remote locations. This leads to a large percentage of repair parts which are not demand supported in the conventional sense. Many of these repair parts do not have NSNs, but rely on manufacturers' part numbers for identification.

6. Engineered Stockage Policy and Significant Local Purchase Requirements. The combination of low density and very high availability rates have required an engineered stockage criteria in lieu of demand support. Additionally, the supply

and maintenance of NDI has resulted in significant local purchase because of the volume of part numbered (non-NSN) requirements.

7. ISC is Both a Combat Developer and a Materiel Developer. ISC is the materiel developer for requirements established by DCA and is both the combat developer and the materiel developer for air traffic control systems, base communications and echelons above the Corps. Significant interface with both the Training and Doctrine Command (TRADOC) and the Army Materiel Command (AMC) is, therefore, needed.

E. Need for Special Management. The characteristics listed above help describe the environment and needs on which the ISC supply system is based. This has led to intensive management procedures because of the nature of the equipment as well as the special operational readiness criteria which must be met. This need for special management still exists and, in our opinion, will continue in the foreseeable future -- as long as high technology and state-of-the-art requirements drive NDI acquisition.

IV. ISSUES AND OBSERVATIONS. This section provides a summarized version of the issues and observations discussed in more detail in the main report and on which study conclusions and recommendations are based.

A. Doctrine

ISC develops communications doctrine for echelons above the Corps (EAC), air traffic control,

base communications, and has the responsibility for the EAC-Corps interface. Doctrine drives the whole support concept and this entire area appeared to the study team to be imprecise requiring more focus and attention. There is a memorandum of understanding (MOU) between ISC and TRADOC dealing with the combat development areas of C-E and ATC which are of common concern to both organizations and which assigns to ISC the responsibility for the interface between EAC and the Corps. This MOU needs updating, particularly with the recent reorganization of ISC. Because of the materiel development and fielding implications in the ISC-TRADOC relationship, the MOU should be a matter of interest to the Commander of AMC, as well.

B. Materiel Acquisition. With the technology explosion in the C-E area, the acquisition emphasis is on NDI and accelerated fielding. ISC is both the combat developer and materiel developer for strategic (nontactical) systems and is the materiel developer for the Army portion of DCS. Both the Communications Systems Agency (CSA) and the Satellite Communications Agency (SATCOMA) are involved in equipment acquisition programs for which ISC assumes operational and logistics support responsibility. CSA often uses what may be termed an adaptive acquisition strategy where the procurement best matches the stated requirements using off-the-shelf items with follow on preplanned product improvements. Using this kind of acquisition strategy there is heavy dependence on contractor support for the initial provisioning plan, new equipment training and maintenance. Associated with

materiel acquisition and training are concerns involving:

1. Integrated Logistics Support (ILS). ILS is being incorporated into the accelerated NDI process, but the compressed timing leads to shortcuts in some aspects of ILS, with heavy reliance on contractor input.

2. Initial Provisioning. Initial provisioning of NDI is not as precise as developmental programs. Maintenance engineering models to determine repair parts are not precise. SLAC decks are often a hand-off from the manufacturer without adequate experience data. Consequently, this frequently results in inadequate provisioning stockage and NSNs not being assigned which in turn leads to use of P/N's and increased local purchase requirements.

3. Fielding. The Materiel Fielding Plans (MFP) outline the tasks, responsibilities and the sequential steps involved and are the principal coordinating vehicle for fielding. Installation is normally by the C-E Engineering and Installation Agency (CEEIA) when the system is going into a fixed site. Coordination is vital and the MFP should be distributed to all appropriate MACOM commanders, logisticians, and MMC's.

4. New Equipment Training. This is an essential part of the fielding plan, and is generally provided by ISC using contractor training support.

C. Authorization. Many items on hand and on ISC property books are without authorization on the TDA. Likewise, items are being listed on LOGMIS (the ISC asset reporting system) with no authorization listed. In the ISC materiel acquisition world, it is not unusual to have equipment provided by the Teler process, installed and turned over for operation and take a protracted period (up to 18 months or more) to get on the TDA.

D. Asset Visibility. These are two major concerns: The CSSF ASL at Fort Ritchie and asset visibility at the national level (LOGMIS to CBS-X).

1. CSSF ASL. This is part of the Fort Ritchie installation ASL and, therefore, is imbedded in the ISO ASL. CSSF is only one, although the major, constituent but has no unique visibility of its own. Performance statistics derived from SAILS-AB represent the total ASL and not the CSSF portion exclusively.

2. LOGMIS/CBS-X. Items are being picked up on the property book which sets up accountability, but it is not universally understood that this does not constitute authorization. LOGMIS, the ISC asset reporting system, rolls up from the bottom, and while LOGMIS is an input to CBS-X, true interface takes place with CBS-X only with RICC-1 or RICC-2 codes. Since we are dealing almost exclusively with TDA organizations, RICC-1 seldom applies and there are few RICC-2 designations assigned by the item manager (RICCs are not assigned by ISC). There are a number of RICC-0

designations which suggests that visibility in CBS-X is not needed. Without RICC-1 or RICC-2, items are not picked up by CBS-X and national asset reporting visibility is lacking. Therefore, many items of ISC equipment essential to the performance of ISC missions are simply not being reported to the national level.

E. Cataloging. With accelerated development and NDI equipment, many systems are fielded without full NSN assignment to component repair parts. This means handling a large number of P/N items and converting to NSN when demand justifies. The present procedure is to request cataloging action to convert P/N to NSN with three demands in 180 days. This request is submitted manually on a DA Form 1988. The process is cumbersome, however, and there are some difficulties with P/N identification and the experience at Fort Ritchie with the CSSF is that there is only about a 50 percent success factor with items submitted to the NICP. Currently there is a program at the Materiel Readiness Support Activity (MRSA) to extract P/N transaction data from SAILS at 6 month intervals, and provide this data for P/N conversion. Over the longer range there is a plan to change SAILS and DS4 so as to capture data automatically and provide output to the Central Demand Data Bank (CDDB) at the Logistics Control Activity (LCA). This program needs to be pushed to overcome the cataloging problem.

F. Training. There appears to be a general lack of understanding on how the standard (general purpose) supply system works as well as the ISC

special purpose system. Furthermore, there is minimal coverage of this area taught in the Army service schools. Training at the operator level is largely conducted by new equipment training (NET) teams which may be by military or contractor team. While TRADOC has overall training responsibility, ISC is responsible to train on those items for which there is no established base.

G. Automated Systems. ISC uses manual property books and manual input to LOGMIS. This needs to be automated at an early date. Items need to be properly coded to provide desired asset visibility in CBS-X. At the present time, the request for P/N conversion to NSN is done by DA Form 1988, using a manual system, and this is cumbersome. In this respect, the project to pull data from SAILS and DS4 on a near-real time basis into the Central Demand Data Bank (CDDB) for cataloging action should receive high priority. Finally, DOCMOD fixes are essential in support of authorization actions.

H. Transition to War. To be able to have wartime operability, it is necessary to transition to a wartime status from a peacetime way of doing business. In our opinion, the ISC supply system now in place can and, in fact, must be prepared to meet the demands of mobilization and wartime operability. Transition to war will demand even a higher degree of intensive management--nationally directed missions will continue with reliance on off-the shelf/ nonstandard equipment and uncertainties will demand a high degree of

flexibility. Fortunately, the high readiness and reliability standards established by the Defense Communications Agency, and by the Army itself, and the fact that people use ISC facilities and networks daily will tend to make this transition to wartime operation somewhat easier.

a. There is justifiable concern on the vulnerability of the ISC supply system, but in our opinion it is no more vulnerable than the general purpose system. Plans must be made, however, for relocation and reconstitution.

b. Doctrine is basic to realistic planning and preparation for wartime support and includes echelons above the Corps and support of DCA assigned national missions. It appears to us that more definitive doctrine needs to be developed if realistic planning is to be done on the wartime transition. There exists some uncertainty on the mission for and the future of the AMSF-Europe in a wartime situation. DCA clearly states that mission requirements will continue, and adequate support must be provided.

c. The two AMSFs are of special interest in assessing continuity of effort into a wartime role. The AMSF in Okinawa has a military TDA so staffing can be managed through regular military personnel management procedures. The AMSF in Europe, however, presents a different situation, since this is a government owned, contractor operated facility (Federal Electric International Inc.). Continuity in Europe

requires realistic planning and preliminary actions to ensure qualified staffing. Continued use of contractor personnel should be pursued, and contractor operations in wartime must be considered a viable option.

I. Relative Economy. Overall judgement in assessing the cost effectiveness of the ISC supply system in comparison with the standard system must be based on total net worth, considering both performance and cost, with mission performance being the primary factor. The key elements of the ISC system reviewed were the CSSF in CONUS (plus Alaska, Panama, Hawaii and Puerto Rico) and the AMSFs in Europe and the Pacific.

1. CSSF. The CSSF was established to provide better supply response for C-E items, to reduce PLL stockage at the many sites by establishing a consolidated ASL, and to reduce fragmented local purchase efforts at the installation level by centralizing at one location. By all measures this has been successful. Response has been exceptionally good with OST over ten (10) days better than the standard system, and overall PLL stockage for the sites significantly reduced--all with no significant increase in personnel resources. The LEA report on CSSF in 1982 concluded that CSSF was clearly cost effective and our review confirms this.

2. AMSFs. The AMSFs provide both supply and maintenance support for ISC unique items and perform all the functions of a MMC. The supply support is similar to that provided by the CSSF in CONUS.

Low density equipment, generally NDI, with very high operational readiness requirements, largely nondemand supported, requires engineered stockage. Unlike the CSSF, however, the AMSF does only a limited amount of local procurement. The advantages from the retail supply standpoint are much the same as for the CSSF. Supply response is better than could be expected using the standard system, with the exception of OST for AMSF-Pacific which was explained earlier, and the consolidated ASL reduces the need for large PLL stocks which would otherwise be needed to support operational readiness standards at the sites. Since AMSF provides more than supply, it is difficult to make meaningful comparisons on overall personnel requirements. However, the AMSFs do meet mission needs and appear to be more responsive than could be expected through the standard system. Quite simply, we could not visualize an alternate system which would do the job as well and concurrently provide space savings. Also, with reversion to the general purpose standard system, inventory investment costs would probably increase with increased PLL stockage at many sites. Transportation costs would be a wash. Hence, we consider it to be cost effective.

J. Summary

The above issues and observations generally fall into two categories: those areas that need some remedial action for the betterment of the Army, and those which reflect our assessment of the ISC supply system in terms of worth and capability. They do not

recast the description or characteristics of the system as laid out in Section III, nor do they address the many good features of the ISC system but clearly they serve as a departure point for the study conclusions.

V. CONCLUSIONS. The following conclusions constitute the study team assessment of the ISC supply system.

1. The standard system is a general purpose system. General purpose systems are structured to serve high density, demand supported, conventionally developed and fielded materiel which have fairly predictable consumption/usage rates.

2. Special purpose systems are designed to meet the requirements of the nonstandard, nongeneral purpose system. The ISC special purpose system was designed to serve low density, high (or antique) technology, nondemand supported, NDI items serving special requirements.

3. The ISC system is a special purpose system that meets the conditions of a standard system, i.e., authorization edit, demand history, fund citation, high speed communication, conversion to requisition, asset visibility, audit trail, and interoperability, and which provides responsive support to the ISC unique inventory.

4. The ISC inventory is shaped by technology. Generally operating at fixed sites (installations and EAC), the equipment is characteristically low density,

nondemand supported, NDI, and requires special management and training.

5. The ISC system is intensively managed to meet high requirements of readiness and reliability imposed by the national command authorities, JCS, DCA, the intelligence community, and DA.

6. The memorandum of understanding between ISC and TRADOC requires review and revision, especially in view of the designation of information as a mission area. Because of the materiel development and fielding implications in the ISC-TRADOC relationship, this MOU should be a matter of special interest to the Commander AMC, as well.

7. The acquisition of NDI will increase. Management attention to ILS and provisioning is essential to facilitate the life cycle management of items, particularly the assignment of NSNs and the establishment of adequate initial stockage levels.

8. Accountability appears to be good at the property book level, and SOPs are written to make use of interim authorization for property book accountability purposes. However, authorization documentation lags accountability. The 7th Signal Command has an SOP which requires that property book entries be deferred until certain fielded systems (UNISTAR) are installed and tested. This subsequently delays authorization documentation. Items are frequently issued and in use for mission essential

functions long before TDA authorization is obtained. Many items are listed on LOGMIS with no authorization indicated. The manual property book system throughout ISC is burdensome.

9. Asset visibility has two areas of concern. The CSSF ASL is imbedded in the installation ASL at Fort Ritchie and there is consequently no visibility, per se, over mission items of the ASL. Many items in the ISC inventory, as reported in LOGMIS, do not have RICC 1 or RICC 2 codes and are therefore not input to CBS-X. Thus, there is no national level visibility over these assets.

10. The ISC inventory has many items identified by part number (P/N). The P/N to NSN conversion program is off-line and cumbersome. While emphasis is needed on all aspects of the cataloging program, the implementation of the Central Demand Data Bank at the LCA will provide an early remedy.

11. Few people within or without the logistics community fully understand the general purpose or the special purpose supply systems, not because of individual fault or failure, but due to the lack of proper instruction in the school system and nondefinitive basic regulations.

12. The ISC supply system is capable of a transition to war. It is compatible with established logistics doctrine and is no more vulnerable than the standard system in regard to sites, procedures,

transportation and the support mechanism required. Planning, however, needs to be more definitive for effective transition to war.

13. The ISC system is cost effective. It has resulted in reduced inventory investment, improved OST, and more efficient local purchase.

14. Regulations and other written policies at the DA level do not clearly define ISC retail supply functions and procedures. While the ISC system has DCSLOG sanction, it is not specifically designated an approved Army system or described fully in ARs and other DA publications.

VI. RECOMMENDATIONS

The conclusions of our study, coupled with our issues and observations, have led to a compilation of specific recommendations.

1. Retain the ISC unique retail supply system. Retain the CSSF and AMSF(s) concept.

2. Adopt the terms General Purpose System and Special Purpose System. Define the ISC supply system as a Special Purpose System.

3. Base the Signal School, Fort Gordon on the CSSF at Fort Ritchie for supply support of ISC unique items.

4. Review and update the Memorandum of Understanding between ISC and TRADOC.

5. Provide better guidance and understanding concerning the need for NDI, off-the-shelf, nonstandard equipment, to include acquisition, provisioning, fielding and support.

6. The 7th Signal Command should rescind the SOP provision which requires the deferral of property book accountability for UNISTAR projects until after installation and testing.

7. Automate the ISC property book system.

8. Develop a means to permit an automated extract of the CSSF portion of the Fort Ritchie ASL.

9. Provide asset visibility for ISC items in TDA units. Assign RICC-1 or RICC-2 code for all items to be reported to CBS-X.

10. Improve the conversion of P/N to NSN process (Central Demand Data Bank).

11. Provide better orientation and training on how general purpose and special purpose systems operate.

12. Ensure that the functions of the CSSF and AMSF(s) in a mobilization and transition-to-war environment are covered in doctrine and functions manuals.

13. Incorporate the ISC system within Army Regulations. Review and modify Army Regulations and other Department of the Army publications accordingly.

OFF LINE LOGISTICS SYSTEMS

VOLUME I

EXECUTIVE SUMMARY

ENCLOSURES

Appendices to the Main Report

<u>Paragraph</u>	<u>Page</u>
A. Extract from Contract	See Vol III
B. Study Work Plan	See Vol III
C. Trip Reports	See Vol III
D. List of Key Contacts	See Vol III
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EXHIBIT E

USAISC ORGANIZATION

<u>PAGE</u>	<u>TITLE</u>
E-2	USAISC Organization Chart. Referenced in the Main Report as Exhibit III-1.
E-3	AR 10-13 Organizations and Functions UNITED STATES ARMY COMMUNICATIONS COMMAND. 15 September 1980.

ARMY REGULATION

No. 10-13

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 15 September 1980

ORGANIZATION AND FUNCTIONS
UNITED STATES ARMY COMMUNICATIONS COMMAND

Effective 15 October 1980

This revision updates the mission and functions of the US Army Communications Command.

Local supplementation of this regulation is prohibited, except upon approval of the Office of the Chief of Staff, Army (ATTN: DACS-DMA), Washington, DC 20310.

Interim changes to this regulation are not official unless they are authenticated by The Adjutant General. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

	Paragraph
Purpose	1
Applicability	2
Explanation of terms	3
Mission	4
Functions	5
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1. Purpose. This regulation prescribes the mission and principal functions of the Commanding General, United States Army Communications Command (CG, USACC). It also sets forth the relationships with other headquarters, agencies, and Government departments.

2. Applicability. This regulation applies to the Active Army, the Army National Guard, and the US Army Reserve.

3. Explanation of terms. *a.* Air traffic control (ATC). The control of air traffic required to prevent collisions between aircraft and between aircraft and obstructions; also, to expedite and maintain an orderly flow of air traffic. ATC involves the following:

- (1) Giving flight information.
- (2) Developing air traffic regulations, controls, and procedures.
- (3) Planning, engineering, installing, and operating navigational aids and control tower equipment.
- (4) Planning, engineering, and operating control towers and runway, taxiway, approach, and obstruction lighting devices.

b. Combat developments. See AR 310-25.

c. Other developmental activities. Doctrinal, organizational, and materiel systems requirements

not included in the definition of combat developments.

d. Defense Communications System, Army (DCS, Army). The part of the Defense Communications System (DCS) assigned to the US Army.

e. Direct Army Communications System. Fixed and transportable Army communications, not a part of the DCS, and not organic to tactical units, essential for the functioning of echelons above corps (EAC), posts and bases, command control, and Army air traffic control.

f. Radio propagation technical services. Radio frequency systems performance analysis, electrical design of antennas, and radio propagation advice and predictions.

g. Assigned Army communications. All Army communications (except base communications and DCS, Army) assigned to USACC. This includes communications support to national and Army test ranges, proving grounds, and for nuclear and chemical surety programs.

h. Base communications. Communications services required to operate a military post, camp, base, installation, or station, including telephone service for Reserve facilities.

4. Mission. The mission of the CG, USACC is as follows:

*This regulation supersedes AR 10-13, 7 June 1974.

E-3.1

c. Provide Army's assigned part of the DCS.
b. Furnish all Army communications above corps level not assigned by HQDA to other commands and agencies

c. Furnish base communications to oversea Army component and designated unified and specified commanders and to all CONUS installation commanders when not assigned by HQDA to other commands and agencies.

d. Provide all Army ATC services and systems.

e. Conduct combat development for DCS, Army; EAC level communications, and Army ATC systems and other development activities for base communications and assigned Army communications.

f. Serve as developing agency for overall design of communications systems, as directed by HQDA, which have sole application to DCS and other assigned Army communications systems. See table 6-1, AR 70-1.

g. Develop and issue operational and procedural guidelines, in coordination with CG, DARCOM, on security assistance activities involving the establishment of fixed and semifixed communications facilities.

h. Command organizations, installations, and activities as assigned by HQDA.

i. Develop Army plans for echelon above corps and base communications survivability.

5. Functions. The functions of the CG, USACC, unless HQDA modifies or assigns parts of them to other commanders, are as shown below.

a. Plan, engineer, install, operate, and maintain all assigned Army communications above corps level, Army's part of the DCS, base communications, and Army ATC facilities.

b. Establish policy and criteria for certifying Army ATC facilities and for reviewing and approving standard instrument approach and departure procedures. Perform flight checks and certification of Army ATC facilities and personnel. Determine and validate Army's requirement for flight information.

c. Represent DA with other Department of Defense, Government, and international agencies on the use of noncombat air space; air traffic regulation, control, and procedures; and flight information.

d. Participate in materiel acquisition. Conduct development, user, and retail level logistics support evaluation tests for systems applicable to USACC's mission.

e. Provide transmission facilities and radio distribution systems in support of education, information, and entertainment radio and television. This does not include broadcasting facilities and television receivers.

f. Centrally manage equipment used in DCS, Army; Army ATC, and other USACC communications systems in accordance with AR 710-2.

g. Furnish communications support to unified and specified commanders during contingency and emergency operations and to State and Federal agencies during civil disturbance or natural disaster operations.

h. Provide communications interface between the DCS and the senior US Army headquarters in a theater.

i. Manage the acquisition and installation of telecommunications systems in oversea areas in support of the Military Assistance Program, Agency for International Development, and foreign governments as assigned. Perform security assistance activities as prescribed by AR 12-1.

j. Provide and manage the Army's worldwide lease telecommunications services and facilities.

k. Manage the Army Telecommunications Requirements Program (TEIERS).

l. Provide new equipment training for equipment and systems used by USACC. Develop qualitative and quantitative personnel requirements according to AR 611-1. Provide training on communications-electronics equipment used solely by USACC, for which there is no DA training base, when agreed to by the CG, TRADOC.

m. Centrally develop, manage, and maintain automated telecommunications systems software for base communications and other systems, as assigned.

n. Direct and manage the operation of the Army Military Affiliate Radio System (MARS).

o. Develop the Army Telecommunications Ten-Year Plan.

p. Provide radio propagation technical services to the military services and other Government agencies. Perform radio field spectrum measurements. Conduct radio frequency hazard and radio propagation path surveys.

q. Serve as functional chief of the Army Civilian Career Program for Communications.

r. Program, allocate, and supervise resources for achieving USACC's mission.

s. Develop Army policy, systems definition, and

E-3.2

procedures for Army-wide communications systems within the scope of Army regulations and DOD, JCS, and DCS policy for the operation of DCS, Army and Direct Army Communications systems.

t. Manage call signs and frequency assignments for the Army.

u. Provide Army area frequency coordinators in the CONUS and DOD area frequency coordinators for the White Sands Missile Range and the State of Arizona.

v. Represent the Army on the following committees and panels:

(1) Frequency Assignment Subcommittee.

(2) International Notification Group of the Interdepartment Radio Advisory Committee (IRAC).

(3) Call Signs Panel, Communications Publication Panel, Frequency Panel, and Methods and Procedures Panel of the US Military Communications-Electronics Board (USMCEB).

w. Manage the Army Communications-Electronics Operating Instructions (CEOI) Program.

x. Provide life cycle communications-electronics planning assistance and support to the US Army Computer Systems Command and DA functional proponents of ADP systems.

y. Implement and manage Army portion of the DOD electromagnetic compatibility program in accordance with AR 5-12.

z. Operate a dedicated retail logistic support system for all communication-electronics systems and equipment organic to USACC. This includes operation of area maintenance and supply facilities.

aa. Provide retail Communications Security (COMSEC) logistics support to overseas Army component commands, unified commands, and allied forces where appropriate.

ab. Develop, administer, and maintain the Data Requirements Transfer System (DARTS).

6. Relationships. a. The CG, USACC is under the supervision of the Chief of Staff, United States Army (CSA). Directives, authority, policy, planning and programing guidance, approved programs, and resource allocations are issued to the CG, USACC by the CSA.

b. The USACC and other major Army commands (MACOMs) are coordinate elements of the Department of the Army. The CG, USACC is authorized to communicate directly with other Army headquarters and agencies on matters of mutual interest.

c. In CONUS and overseas areas, a memorandum

of understanding will be transacted between USACC and the MACOM or component command to define support and logistical relationships. Local level agreements may be made when required. These agreements should clearly define the necessary installation support relationship between tenant and host which will permit both to perform their respective missions at acceptable levels of performance.

d. The CG, USACC is the Army point of contact for dealing with the Director, Defense Communications Agency on operational communications and related matters.

e. The CG, USACC, will command all assigned communications and ATC organizations supporting MACOMs. Operational control will be exercised by the CONUS-based major Army commander or the oversea Army Component commander. The senior USACC commander serves concurrently as the Deputy, Assistant Chief of Staff, or Director for Communications-Electronics on the supported commander's staff. Dual status may apply below the supported command headquarters level by mutual agreement of the commanders. At all CONUS installations, the USACC commander or director will be a principal member on the installation commander's staff for communications-electronics.

f. CG, TRADOC will assign tasks and furnish guidance for USACC combat development activities. USACC will provide the completed combat development products to TRADOC for integration into overall combat developments.

g. For other development activities, CG, USACC will report directly to HQDA. USACC will coordinate all other development products affecting combat developments and supporting training developments with TRADOC.

h. CG, USACC will coordinate with the CG, DARCOM those matters pertaining to the acquisition of communications systems for which USACC has been designated as materiel developer.

i. CG, USACC will coordinate with CG, USACE, those matters pertaining to the acquisition of communications systems for which USACC is responsible in support of the Military Construction Program.

j. USACC and its installations and activities are dependent on the commands listed below for the support indicated, unless furnished by other Services or otherwise approved by HQDA.

(1) US Army Health Services Command for su-

AR 10-13

thorized health services in CONUS.

(2) US Army Criminal Investigation Command for criminal investigations and crime surveys.

(3) US Army Intelligence and Security Command for counterintelligence, electronic warfare, and cryptologic and signal security.

The proponent agency of this regulation is the Office of the Chief of Staff, US Army. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) direct to HQDA(DACS-DMA), Wash 20310.

By Order of the Secretary of the Army:

Official:

J. C. PENNINGTON
Major General, United States Army
The Adjutant General

E. C. MEYER
General, United States Army
Chief of Staff

DISTRIBUTION:

Active Army: To be distributed in accordance with DA Form 12-9A, requirements for Organizations and Functions - D.

APPENDIX I

ACRONYMS

A

ACC - US Army Communications Command
ADP - Automatic Data Processing
ALMC - US Army Logistics Management Center
ALOC - Air Line of Communication
AMC - Army Materiel Command
AMDF - Army Master Data File
AMP - Army Materiel Plan
AMSA - Army Materiel Systems Analysis Activity
AMSF - Area Maintenance Supply Facility
ASL - Authorized Stockage List
ATC - Air Traffic Control
AUTODIN - Automatic Digital Network
AUTOSEVOCOM - Automatic Secure Voice Communication
AUTOVON - Automatic Voice Network

B

BDM - Braddock, Dunn and McDonald, Inc
BOIP - Basis of Issue Plan
BOM - Bill of materials

CBS-X - Continuing Balance System-Expanded
 CBRS - Concept Based Requirements System
 CCSS - Commodity Command Standard System
 CDDB - Central Demand Data Bank
 CECOM - US Army Communications and Electronic
 Command
 CEEIA - Communication Electronic Engineering
 Installation Agency
 CG - Commanding General
 COMSEC - Communications Security
 COSCOM - Corps Support Command
 CPP - Central Processing Point
 CSA - Communications Systems Agency
 CSSF - Central Supply Support Facility
 C-E - Communications-Electronics

D

DAAS - Defense Automatic Addressing System
 DARCOM - USA Materiel Development and Readiness
 Command
 DCA - Defense Communications Agency
 DCG - Deputy Commanding General
 DCS - Defense Communication System
 DESC - Defense Electronics Supply Center
 DESCOM - US Army Depot Systems Command
 DIO - Director of Industrial Operations
 DLA - Defense Logistics Agency
 DLOGS - Division Logistics System

DLSC - Defense Logistics Services Center
DMMC - Division Materiel Management Center
DOD - Department of Defense
DODAAC - DOD Activity Address Code
DSCS - Defense Satellite Communication System
DSS - Direct Support System
DSU - Direct Support Unit
DS4 - Direct Support Unit Standard Supply System
DX - Direct Exchange

E

EAC - Echelons Above Corps
ERC - Equipment Readiness Code
ERPSL - Essential Repair Parts Stockage List

F

FAS - Force Accounting System

G

GSU - General Support Unit

I

ILS - Integrated Logistics Support
IM - Item Manager
INSCOM - US Army Intelligence & Security Command

ISC - US Army Information Systems Command
ISO - Installation Supply Office

L

LCA - Logistics Control Activity
LEA - US Army Logistics Evaluation Agency
LIF - Logistics Intelligence File
LIN - Line Item Number
LOGC - US Army Logistics Center
LOGMIS - Logistics Management Information System
LSA - Logistics Support Assessment
LOGNET - Logistics Data Network
LOGSACS - Logistics Structure and Composition System
LP - Local Procurement

M

MAA - Mission Area Analysis
MCN - Management Control Number
MFP - Materiel Fielding Plan
MICOM - US Army Missile Command
MILSTAMP- Military Standard Transportation and
Movement Procedures
MILSTRIP- Military Standard Requisition and Issue
Procedures
MMC - Material Management Center
MOC - Management of Change
MPN - Manufacturer's Part Number
MRD - Material Release Denial
MRO - Materiel Release Order

MRSA - Material Readiness Support Activity
MRC - Material Readiness Command
MTOE - Modified Table of Organization & Equipment

N

NDI - Nondevelopment Item
NET - New Equipment Training
NETP - New Equipment Training Plan
NICP - National Inventory Control Point
NOT - New Organization Team
NSN - National Stock Number

O

OJT - On the Job Training
OST - Order Ship Time

P

PARC - Principal Assistant Responsible for Contracting
PB - Property Book
PCB - Printed Circuit Board
PD - Priority Designator
PERSACS - Personnel Structure and Composition System
PG - Property Group
PLL - Prescribed Load List
PM - Project Manager
P/N - Part Number

PP - Parcel Post
P3I - Preplanned Product Improvement

Q

QQPRI - Qualitative, Quantitative Personnel
Requirements Information

R

RICC - Reportable Item Control Code
RIMSTOP - Retail Inventory Management Stockage Policy

S

SACS - Structure and Composition System
SAILS - Standard Army Intermediate Level Supply
System
SALS - Standard Army Logistics System
SATCOMA - Satellite Communications Agency
SLAC - Support List Allowance Card
SSA - Supply Support Activity
SSSC - Self Service Supply Center
STAMMIS - Standard Army Multi-Command Management
Information System
STANFINS - Standard Army Financial System

T

TAADS - The Army Authorization Documentation System
TAEDP - Total Army Equipment Distribution Plan
TAMMC - Theater Army Materiel Management Center
TDA - Table of Distribution Authorization
TELER - Telecommunications Requirements
TMDE - Test, Measurement and Diagnostic Equipment
TMMC - Theater Materiel Management Center
TOE - Table of Organization and Equipment
TRADOC - US Army Training and Doctrine Command

U

UMMIPS - Uniform Material Movement and Issue
Priority System
UNISTAR - A code word pertaining to materiel being
fielded by means of depot staging
UPS - United Parcel Service
USAISC - US Army Information Systems Command
USAREUR - US Army Europe

V

VIABLE - Vertical Installation Automated Baseline
VTAADS - Vertical the Army Authorization
Documentation System