PROJECT NUMBER 042

FINAL REPORT

IDENTIFICATION AND DOCUMENTATION OF
RATIONALIZATION, STANDARDIZATION, AND INTEROPERABILITY (RSI)
FUNCTIONS

NOVEMBER 1984

U.S. ARMY MATERIAL SYSTEMS ANALYSIS ACTIVITY
LOGISTICS STUDIES OFFICE
FORT LEE, VIRGINIA 23801-6046
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Identification and Documentation of Rationalization, Standardization, and Interoperability (RSI) Functions

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20. Abstract (continued)

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MAJOR DONALD E. STUMP

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ABSTRACT

The purpose of this study is to examine the Army Materiel Command's (AMC) program to standardize Army equipment, or to make it interoperable, with that of the other NATO forces. Data and information to accomplish study objectives were collected through the use of a consultant, questionnaires, visits to selected activities, and two workshop type seminars. Subsequent analysis indicated that although the US Army, and AMC, do have a management system to address standardization/interoperability of equipment and operational methods, it is decentralized and needs improvement. The study concludes that DA and AMC must establish an active and effective management activity if the program is to succeed at any level. An AMC central management activity would focus on developing interoperable equipment.

Report Title: Identification and Documentation of Rationalization, Standardization, and Interoperability (RSI) Functions

Study Number: LSO 042

Study Initiator and Sponsor: Deputy Chief of Staff for Readiness (AMCRE-C)
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EXECUTIVE SUMMARY


2. **Problem Statement:**
   a. Military alliances have existed throughout recorded history, and man undoubtedly sought allies to help him in his fights before that. The idea of banding together for mutual defense remains basically sound and good; but as anyone who has worked within one can tell you, the problems generated within an alliance are myriad.

   b. Winston Churchill once remarked that the only thing worse than fighting with the assistance of allies is fighting without them. Even cursory research into alliances bears out his assessment. Typically, alliance soldiers working with troops of another country will find there are differences in language, organization, tactics, and equipment. Even the food requirements differ. Beyond these obvious dissimilarities, national governments usually will have differing goals and strategies. Such factors place stress on an alliance which work to reduce the alliance's effectiveness.

   c. The North Atlantic Treaty Organization (NATO) has long recognized these inherent shortcomings and has tried over the years to overcome them. Memoranda of Understanding (MOU) and Standardization Agreements (STANAG) have been negotiated to resolve problems. Through these efforts, the concepts of Rationalization, Standardization, and Interoperability (RSI) evolved.

   d. RSI efforts are aimed at improving the capability of allies to work together. The aim of RSI is to have standard items adopted for use by allied
forces whenever possible; where standardization is not possible, the RSI goal is to make equipment items compatible, or interoperable.

e. NATO has worked for years to reduce the number and severity of the differences between the military forces of member nations by adopting standard, or interoperable, materiel and methods. To date, success has been limited. The Congress of the United States enacted legislation which directs that US forces deployed within the NATO framework shall be equipped with materiel which is standard, or interoperable, with that of other NATO members. Although both the Department of Defense (DOD) and the Department of the Army (DA) have published regulations, directives, and instructions implementing this law, the program has not been very effective to date within the US Army.

f. Within the Army Materiel Command (AMC), the RSI program has not been emphasized. Consequently, no standardized method of performing RSI missions, functions, and tasks exists within the command; and it is not known whether the RSI programs which have been established are effective and efficient.

3. Objectives:

a. To identify and analyze current organizations, missions, functions, and procedures used in the DA/AMC program for RSI.

b. To identify and examine the extent and nature of RSI interface voids within AMC and with DA and its other major commands.

4. Scope of the Study: The study concentrates on the execution of the RSI function within AMC. Interface voids between agencies--to include activities external to AMC--are identified. All DOD, DA, and AMC regulatory documents pertaining to or affecting the AMC RSI program are reviewed.

5. Methodology: In addition to an extensive bibliographical search, four distinct efforts were undertaken to collect the data and information required. First, a senior Army logistician, LTG (Retired) Joseph Heiser, was brought onto the project
as a consultant. Second, a questionnaire was prepared, and distributed widely, which solicited answers and attitudes about RSI. Third, visits were made to many activities where top level management and RSI personnel were both briefed and interviewed regarding the RSI program. Finally, personnel working with RSI are assembled on a semi-annual basis to discuss program evolution, procedures, and problems; the study analyst was deeply involved in two of these RSI workshops.

6. Findings and Conclusions: To interpret the findings and conclusions in perspective, it must be understood that RSI is recognized and supported by member nations as essential to an effective NATO in the defense of Western Europe. In 1977 the US Congress enacted specific legislation committing this country to RSI. Subsequently, DOD and DA have published regulations, policies, and procedures to implement RSI. With this background, the following findings and conclusions are presented:

a. Within the US Army, the RSI program is assigned a low priority, from DA level down to the lowest operating level. The accomplishment of RSI has been treated within the Army, at all levels, as an additional duty. General Heiser feels that until DA emphasizes the importance of RSI, it will remain very low on the priority list of the MACOM commanders. Department of the Army must stress the importance of RSI as a necessary element of developing, acquiring, and fielding equipment, to insure its inclusion as a high priority item of the AMC commander.

b. The RSI program within the US Army needs improvement; this is attributable to the low priority given the program. DA must decide whether to support RSI. Without active support from DA, the RSI program will remain less than fully effective.
c. The RSI program skeleton, established by AR 34-1 and AR 34-2, has not been effectively applied. Since their publication, between 1979 and 1981, little if any, guidance has emanated from DA or MACOM level.

d. The US Army RSI program is decentralized to the point that locally instituted programs and actions are not coordinated and do not contribute to an Army established goal. This is also true of the AMC RSI program. Some commands in the field have tried to implement the ARs through local initiatives. However, coordination of programs between activities within the RSI community are essentially nonexistent. Consequently, RSI policies, programs, and organizations which do exist at the field level--both within and without AMC--lack standardization themselves.

e. A major problem besetting the Army's RSI program is the lack of a central management office at the DA level. This lack of Army-wide direction and emphasis is felt throughout the Army's RSI structure. Individuals who have RSI responsibilities universally agree that the lack of forceful, centralized guidance is a detriment to the US Army RSI program. These people have no one to whom they can turn when they have questions pertaining to interpretation of guidance or the exact meaning of an RSI term used. To repeat a sentiment often heard when working within the RSI community, "What is lacking is an activity at DA to provide the Army with one voice and one position in RSI programs."

f. Those organizations which did try to establish a dedicated RSI activity discovered that no resources would be made available for that purpose. Failure to receive the resources needed usually resulted in the disestablishment of the RSI office.

g. No Army school queried presented instruction oriented to RSI; some did mention the subject during other blocks of instruction. The Defense Systems
Management School at Fort Belvoir presents a two-week course, entitled "International Logistics," four to six times each year, of which RSI is a component. The same school also teaches RSI in the four-week Project Manager's Course.

h. Rationalization is a somewhat nebulous concept which applies, apparently, at the government to government level. The Army, in its publications, orients efforts in this realm towards standardization and interoperability. In terms of equipment, interoperability is more easily and cheaply achieved than standardization. Although standardization of equipment is the ultimate goal, the Army Materiel Command should initially aim for equipment interoperability.

7. Recommendations: The following recommendations are predicated upon a genuine commitment by the Army hierarchy to emphasize and enforce RSI. Without this emphasis, the RSI program will continue to be ineffective.

a. HQ AMC must establish an active and effective RSI management activity to direct standardization and interoperability organizations and actions. This central activity must have sufficient authority to set policy and enforce it. This activity must keep the headquarter's staff focused on RSI to maintain a high level of command emphasis. It must also coordinate with the field and address RSI issues beyond the scope of local RSI personnel.

b. HQ AMC and TRADOC must integrate RSI into the school system. Influence should be exercised to increase RSI in DA and DOD schools as well.

c. DA should be apprised of the status of the RSI program within AMC and be requested to establish an RSI management activity. If DA fails to do so, AMC must recognize that any internal actions taken to improve the RSI program will lack the force of an Army-wide standardization and interoperability effort.
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I. BACKGROUND:

A. Military alliances have existed throughout recorded history, and man undoubtedly sought allies to help him in his fights before that. The idea of banding together for mutual defense remains basically sound and good; but as anyone who has worked within one can tell you, the problems generated within an alliance are myriad.

B. Winston Churchill once remarked that the only thing worse than fighting with the assistance of allies is fighting without them. Even cursory research into alliances bears out his assessment. Typically, alliance soldiers working with troops of another country will find there are differences in language, organization, tactics, and equipment. Even the food requirements differ. Beyond these obvious dissimilarities, national governments usually will have differing goals and strategies. Such factors place stress on an alliance which work to reduce the alliance's effectiveness.

C. The North Atlantic Treaty Organization (NATO) has long recognized these inherent shortcomings and has tried over the years to overcome them. Memoranda of Understanding (MOU) and Standardization Agreements (STANAG) have been negotiated to resolve problems. Through these efforts, the concepts of Rationalization, Standardization, and Interoperability (RSI) evolved.

D. RSI efforts are aimed at improving the capability of allies to work together. The aim of RSI is to have standard items adopted for use by allied forces whenever possible; where standardization is not possible, the RSI goal is to make equipment items compatible, or interoperable.
E. NATO has worked for years to reduce the number and severity of the differences between the military forces of member nations by adopting standard, or interoperable, materiel and methods. To date, success has been limited. The Congress of the United States enacted legislation which directs that US forces deployed within the NATO framework shall be equipped with materiel which is standard, or interoperable, with that of other NATO members. Although both the Department of Defense (DOD) and the Department of the Army (DA) have published regulations, directives, and instructions implementing this law, the program has not been very effective to date within the US Army.

F. Within the Army Materiel Command (AMC), the RSI program has not been emphasized. Consequently, no standardized method of performing RSI missions, functions, and tasks exists within the command; and it is not known whether the RSI programs which have been established are effective and efficient.

II. OBJECTIVES:

A. To identify and analyze current organizational missions, functions, and procedures used in the execution of the DA/AMC program for RSI.

B. To identify and examine the extent and nature of RSI interface voids within AMC and with DA and its other major commands.

III. LIMITS AND SCOPE: This study concentrates on the execution of the RSI function within AMC. Interface voids with external agencies are identified, but no attempt is made to examine the RSI mission within organizations outside of AMC. All DOD, DA, and AMC regulatory documents pertaining to the AMC RSI program are reviewed.

IV. METHODOLOGY: Data and information collection, and analysis, were achieved as follows:
A. Bibliographic research revealed a large number of documents which address RSI. A search of the Defense Logistics Information Exchange (DLSIE) produced a list of twenty-two studies, reports, and articles pertaining to RSI or a specific aspect of RSI. Additionally, thirty DOD Directives and Instructions, nine Army Regulations (ARs), two Congressional Reports, and some thirty-two letters, memoranda and messages emanating from DOD, DA, and AMC (then DARCOM) have been identified, all of which address RSI and the US Army. References cited in this report are in Appendix A. A complete RSI bibliography will be published as a separate report.

B. Lieutenant General Joseph Heiser, United States Army Retired, worked closely with the analyst on several occasions throughout the study period. General Heiser is well-known and highly respected for his knowledge of experience with and insights into both US Army and NATO logistics. In addition to offering guidance and advice, General Heiser consented to an interview, a transcript of which is appended to this report (Appendix E).

C. The number of personnel dealing with RSI is large, their interest diverse, and their locations widely spread. To elicit a response from as many of the personnel working with RSI as possible, a questionnaire was prepared and sent to selected activities; recipients were both within AMC and without. Responses were analyzed and the information derived has been integrated into this report.

D. Visits, to collect information and to evaluate the RSI program, were made to selected activities. At each activity visited, RSI personnel were briefed on the goals and policies of the Army's RSI program and the program's current overall status. Personnel were interviewed to determine the status of the local RSI program. Interview results revealed a varied acceptance and implementation of the RSI policies and programs.
E. A series of RSI alliance workshops have been held to enable key personnel to meet and assess program accomplishments, measure progress, and focus program efforts over the coming months. The study analyst became thoroughly involved in the two of these workshops. In addition to assisting in scheduling and planning the workshops, he presented an update briefing and, with the participation of the RSI personnel in attendance, developed an RSI management profile matrix.

V. DISCUSSION AND ANALYSIS:

A. Introduction.

1. NATO is essential to the defense of Western Europe and RSI is essential to an effective NATO.

2. NATO is greatly interested in improving the ability of alliance forces to operate effectively together. This alliance, composed as it is of independent industrialized states, must coalesce armies of long standing traditions with a great diversity of equipment and operational methods. The governments of NATO states are democratic and, understandably, nationalistic. This means that decisions made by those governments will not always reflect what is the best and most sensible military course of action from NATO's point of view. Inevitably, nationalistic pride and economics affect many decisions. The consequences, in terms of materiel, are seen in the multiplicity of equipment items within NATO. Any action which works to standardize materiel, or at least to insure that the forces of one nation can interoperate with those of another, will improve NATO's effectiveness.

3. As previously stated, military alliances tend to be difficult to operate and control. The difficulties arise because of the differences in the organizations, methods, and equipment used by partners in the alliance.
Some problems, for instance those created by differing tactical methodology, can be resolved without a great deal of trouble. Problems caused by equipment differences are generally more expensive and time-consuming to solve. (It should be noted here that the tactics employed by an Army will often be directly related to the capabilities of the equipment it uses.) Early on, NATO recognized the inherent problems and weaknesses of alliance warfare and has worked to overcome them. On its part, the Congress of the United States has enacted legislation making it national policy to equip US forces assigned to Europe with materiel that is standard—or at least interoperable—with that of NATO forces. DOD has published several directives and instructions which establish policies and procedures to support NATO logistics policies. Department of the Army also published several ARs to implement the RSI policies and procedures of DOD. Headquarters, AMC, which has been designated by DA as the agent for many specific RSI programs, has not published any regulations, policies, or procedures concerning Rationalization, Standardization, or Interoperability. However, most of the AMC Major Army Commands (MACOM) have published policies and procedures for accomplishing DA mandated RSI requirements within their commands.

8. Definition of Terms.

1. The term RSI was developed by NATO. Although it is common usage to refer to Rationalization, Standardization, and Interoperability as a single entity, as in "the RSI program," three separate concepts actually exist. The latter two, Standardization and Interoperability, are defined but ambiguous. Rationalization has also been defined, but it is a concept difficult to understand. In fact, the author of a Congressional Report published in 1978 (H.A.S.C. No 95-101) stated, "... Rationalization is an incomprehensible term."
Definitions of the RSI terms have been published in DOD Directive (DODD) 2010.6, Joint Chiefs of Staff (JCS) Pub 1, and AR 34-1. The three definitions given below were extracted from the Reference Book on NATO Rationalization, Standardization, and Interoperability (RSI).

2. **Rationalization.** Any action that increases the effectiveness of alliance forces through more efficient or effective use of defense resources committed to the alliance. Rationalization includes consolidation, reassignments of national priorities to higher alliance needs, standardization, specialization, mutual support, improved interoperability, or greater cooperation. Rationalization applies to both weapons/materiel resources and non-weapons military matters (DODD 2010.6 and AR 34-1).

3. **Standardization.** The process by which nations achieve the closest practicable cooperation among forces, the most efficient use of research, development and production resources, and agree to adopt on the broadest possible basis the use of:
   a. Common or compatible operational, administrative, and logistics procedures.
   b. Common or compatible technical procedures and criteria.
   c. Common, compatible, or interchangeable supplies, components, weapons, or equipment.
   d. Common or compatible tactical doctrine with corresponding organizational compatibility (DODD 2010.6, JCS Pub 1, and AR 34-1).

4. **Interoperability.** The ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces and to use the services so exchanged to enable them to operate effectively together (DODD 2010.6, JCS Pub 1, and AR 34-1).
5. The concept of Rationalization is a broad and general one; it is an idea which some governments—especially those involved with NATO—support. As the preceding definition of Rationalization indicates, it encompasses a wide range of actions. In fact, any action which may ease the problems of working within a military alliance can be considered a Rationalization action. Because the term is so broad, it is used almost exclusively at the government to government level. Within the US Army, the term Rationalization is heard only as a part of the broad phrase "RSI." At the service level (i.e. Army), RSI actions are aimed at the standardization of procedures or equipment or their interoperability.

C. The Culver-Nunn Amendment. The Culver-Nunn Amendment to the 1977 Defense Appropriation Act addresses Rationalization, Standardization, and Interoperability at the national level. The Amendment states that:

"It is the policy of the United States that equipment procured for the use of personnel of the Armed Forces of the United States stationed in Europe . . . should be standardized, or at least interoperable with equipment of other members of the North Atlantic Treaty Organization." (Public Law 94-361, Sec. 802(a)(1)).

The Act directs the Secretary of Defense to acquire equipment that is standardized or interoperable, when feasible, and provides guidelines for deciding feasibility. The Act also directs the Secretary of Defense to report to Congress when a new system procurement is not standard or interoperable with the equipment of other NATO members. The 1978 report of the House Special Subcommittee on NATO Standardization, Interoperability, and Readiness—a part of the Armed Services Committee—termed the Culver-Nunn Amendment the most authoritative statement of policy by any NATO ally regarding standardization and interoperability.
D. **Documented DOD RSI Policies and Responsibilities.** The Department of Defense has published several Directives (DODD) and Instructions (DODI) which establish RSI policies and assign responsibilities. Four of the more important documents are synopsized in Appendix C.

E. **Army Implementation of DOD Directives.** The Department of the Army has published several Army Regulations (AR) which implement the DOD directives concerning Standardization and Interoperability (S&I). Four of these that affect the Army Materiel Command are synopsized in Appendix D.

F. **AMC Implementation of RSI.** The Army Materiel Command took steps to implement RSI, and meet the requirements established in AR 34-1 and AR 34-2, upon publication of the regulations. Under the Deputy Commanding General for Research, Development, and Acquisition, a senior level civilian position was established to handle RSI. Under this individual, a Standardization Office was established. On the readiness side of AMC, the Concepts and Doctrine Division of the Office of the Deputy Chief of Staff for Readiness became responsible for the RSI program. However, as interest and direction in the RSI program waned at DA level, AMC actions lessened and decentralized. To date, the Army Materiel Command has published nothing to implement or supplement Department of the Army RSI regulations. A draft RSI regulation was circulated to the AMC staff in the summer of 1980, but it was never released. The RSI point of contact within the Standardization Division states that when the revised AR 34-1 is released, AMC does plan to publish an implementing document.

G. **RSI Responsibilities.** The Army Materiel Command is responsible for the development and provision of equipment and for its standardization or interoperability. Other major commands of the US Army are responsible for the standardization and interoperability of operational (tactical, logistical,
and administrative) procedures and techniques. The effects of equipment on procedures and techniques—and vice versa—require an active liaison be maintained between AMC and the other MACOMs (e.g., Forces Command (FORSCOM), Training and Doctrine Command (TRADOC), US Army, Europe (USAREUR) involved in RSI procedures. Of significant importance is the need for dynamic leadership at all levels to make RSI a viable program. The ambiguity of RSI definitions makes this especially true at the DA level. The ARs identify the Under Secretary of the Army (USofA) and the Vice Chief of Staff (VCSA) of the Army as the RSI focal points and further designate the DA International Rationalization Office (DAIRO) within the Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) as the manager and central point of contact for RSI actions. The DAIRO has been disestablished and its assigned RSI missions and functions decentralized.

H. Coordination of RSI Actions. Army regulations direct the Army Materiel Command, along with the other MACOMs, to develop procedures to regulate RSI actions. The AMC concern is to develop and deploy equipment which is standard, or interoperable, with the equipment fielded by NATO or American, British, Canadian, Australian (ABCA) forces. (DODD 2010.6 states that "the need for US forces to meet worldwide commitments is not a basis for failure to maximise interoperability and standardization of systems within NATO.") Although the development and deployment of equipment is the exclusive province of AMC, the effect of equipment on operations (tactical, logistical, and administrative) and vice-versa is significant. If for no reason other than this, it is vital that close working contact be maintained between AMC, HODA, and the other MACOMs of DA.
I. Expert Testimony. Lieutenant General Joseph M. Heiser, Jr., US Army Retired, served as consultant to the study analyst. General Heiser has a long and distinguished career as a logistician, and he has served at the highest echelons within the US Army. Additionally, General Heiser has much experience working with alliance logistics—specifically with NATO and with ABCA forces. He speaks, therefore, from experience and a solid professional background. A transcript of his comments, given at an interview in May 1984 is attached at Appendix E. Extracts of the General's comments, in summary form, are presented here.

1. RSI pertains not only to weapons systems, but also to doctrine, training, procedures, and services (e.g., communications, supply, maintenance). The latter are just as important as weapons and to a degree are more practical to achieve.

2. RSI is absolutely essential for the implementation of alliances. It is essential that allies be able to communicate, interoperate, and know the manner in which one another will proceed. You must start out with such a basic thing as being able to understand the needs of the other participants. That is a part of interoperability; and if you can state those needs in an agreed upon way, that is a part of standardization. And if you can recognize the most effective way in which we can help, and we work to help in that way, that is a part of rationalization. When we go to another country we learn how to live in that country, how to talk to the people, and we gain knowledge of their culture and their society; we do not call this RSI, but it is. When we learn to drive a car on the left side of the road in England, we learn to interoperate a vehicle on the roads of the United Kingdom. That is the "I" of RSI.
3. We need to get a practical understanding of what RSI is, but it has to begin at the top. You and AMC seem to be working hard to establish a management structure which will support RSI, but you are doing it at the working level. What is needed is command emphasis through command and control, and that command emphasis must come from our superiors in AMC. But the superiors in AMC, including the Commanding General, are given priorities, and with the limited resources available, he cannot accomplish everything on the priority list. If RSI is not even on the priority listing, it will not be addressed by the commander. Therefore, the Secretary of the Army and the Chief of Staff have got to give him priorities which say, "RSI is important--do it!" DOD has published RSI directives, but without command emphasis we will not achieve consistent integrated progress.

4. We talk about "front-end analysis" of a developing weapons system and its effect on RSI. I think front-end analysis needs to be understood in very practical terms. It simply means that if you are going to develop some kind of weapon, or some other kind of product, you need to think in terms of how it will be used when it is put into the hands of the users. Front-end analysis is simply the process of thinking out how a new item, or weapons system, will be used and maintained before it is produced. We must also think about the item, or system, and its effect on our allies, the effect of allies on the equipment when working together; this is front-end analysis of RSI.

5. Senior commanders must not only be aware of what is happening in RSI at the worker level, they must be directly influencing RSI actions. Today it is up to the various elements working with RSI to determine what must be done, and when and how to do it. That is not command and control of decentralization, that is chaos. This is not to say that initiative in the field is not allowed, but on high priority items command and control elements must demand
that the work get done within stated resources, including time. And that is
the problem today, we have not established a command and control priority for
RSI.

6. The RSI workshops are a good effort to establish understanding,
policies, and procedures at the working level pertaining to the establishment of
a management structure and for procedures to implement RSI policies. But the
accomplishment of an effective and efficient RSI program within the Defense
Department will be limited until proper command and control is given to it by
the highest levels of the armed forces.

7. It would not be practical to create a separate structure of RSI
experts at every command level. There are other things as important as RSI
and, in fact, RSI cannot be separated out and isolated. RSI has to be recognized
as an essential ingredient of command and control in effecting readiness and
sustainability of an armed force. It cannot, therefore, be made a separate
vertical channel. Everyone, beginning at the highest levels, must understand
that RSI is an essential element of his job. Then we must have all personnel
active in RSI report what they are doing about the accomplishment and implemen-
tation of the program. What you are doing in the workshops establishes, at a
somewhat low level, procedures wherein we can react to command and control,
but the initiative for getting the RSI job done has to come from the top. This
philosophy, and RSI, must be understood at the highest levels of our armed forces
and our government. Until it is, the program will not be effective.

8. The day in which any country, including our own, can be self-
reliant is long past. We are no longer—and we really never were—self-sufficient.
Now, the defense of our country depends upon a coalition, and the minute you
enter a coalition it means you have to be able to do business with your allies.
Logistics, if it were truly a national responsibility only, might be able to function without considering RSI. But in an organization such as NATO, we are interdependent and we must determine how to support one another so as to best achieve the objectives of the alliance.

9. In considering Rationalization, Standardization, and Interoperability, I think that interoperability is the most important of all three words. In a coalition effort, whether between individuals or nations, you must be able to interoperate, you must be able to communicate, and you have got to be able to join hands in practical terms in order to place the most effective strength when needed at the critical point. We must have interoperability to the extent that we can standardize wherever possible, be it weapons, doctrine, procedures, or training.

10. RSI should be recognized as an essential ingredient of every facet of logistics support. Everyone--people working in supply, maintenance, and research and development, the engineers, truck drivers, and even infantrymen--must understand that there are RSI aspects to his job; and everyone must understand the RSI aspects of his job. There are RSI aspects to every job in the DOD.

11. The standardization of materiel is most probably going to be limited, but we cannot tolerate limited standardization of doctrine, training, and procedures. We must have those in order to achieve interoperability in any efficient way. If we don't have interoperability, we don't have deterrence; and without a credible deterrence, we are going to have a war.

J. Functional Level Perceptions of RSI.

1. To determine the present status of the RSI program, questionnaires were distributed to each of the six AMC commodity commands (i.e., US Army
Armament, Munitions, and Chemical Command (AMCCOM); US Army Aviation Systems Command (AVSCOM); US Army Communications & Electronics Command (CECOM); US Army Missile Command (MICOM); US Army Tank Automotive Command (TACOM); US Army Troop Support Command (TROSCOM); and to the Depot Systems Command. Additionally, the questionnaires were sent to selected Army MACOMs (i.e., FORSCOM, TRADOC, USAREUR), subordinate commands (i.e., HQ 3d Army, HQ III Corps, HQ 18th Airborne Corps, 1st Corps Support Command (COSCOM), the Combined Arms Combat Developments Activity (CACDA), the Army Logistics Center (LOGC), the Logistic Evaluation Agency (LEA), and Army schools (i.e., Aviation School, Infantry School, Artillery School, Chemical School, Signal School, Quartermaster School, Missile and Munitions School.

2. The questionnaires requested that addressees comment on the following:
   a. The degree of importance assigned to RSI.
   b. The organization developed to support RSI.
   c. The mission and duties of the individual responsible for RSI.
   d. The organizational position taken on RSI.
   e. The organizational concept of RSI.
   f. How could RSI best be supported?
   g. What priority does RSI receive?

3. The questionnaire is at Appendix F. A summary of the responses provided by the addressees follow:
   a. AMCCOM: RSI is addressed in the Organization and Functions Manual and in the "RSI Power Center Charter." During the period that the readiness and the R&D functions were split, RSI was also addressed in the Mission Support Agreement drawn up by the two activities. The Engineering Support
Directorate is assigned management responsibility for the RSI function. AMCCOM is actively engaged in efforts to establish standardization/interoperability of large and small caliber ammunition, chemical items, mortar firing table, safety certification of large caliber ammunition, and the interoperability of US fuzes within NATO. The command reports interface on RSI matters with:

(1) The International Standardization Division at HQ AMC; this office is described as AMCCOM's "RSI manager."

(2) The Concepts and Doctrine Division at HQ AMC.

(3) The International Materiel Evaluation Division at the Army Test and Evaluation Command (TECOM).

b. AVSCOM: The Advanced Systems Directorate serves as the focal point for RSI actions within AVSCOM. RSI is not considered to be a major management action, and RSI functions are assigned as additional duties. There are no specific positions identified with the function within the command; however, AVSCOM does identify an individual as the point of contact for RSI matters. RSI is assigned a "low to moderate" priority.

c. CECOM: The Systems Engineering and Integration Center has the primary CECOM role for RSI, while the Directorate for Logistics Engineering will provide support on readiness related matters. CECOM further commented that the emphasis is, and has always been, on the interoperability aspects of RSI. The command reported little or no RSI activity and pointed out that any which had occurred within the readiness community had been purely reactionary. In the past, CECOM has requested resources to perform the RSI function, but was refused by HQ AMC.

d. MICOM: The International Logistics Directorate is the principal staff agency to support RSI; within the directorate there is a Program Management
and RSI Division. Within the division, one person (a General Engineer, GS-801-12) serves as the MICOM RSI Staff Officer; and he performs RSI tasks, when required, as an additional duty. MICOM has published an RSI Handbook, an RSI Plan (which is updated annually), RSI Regulation 34-1, and MICOM Policy 34-2. Within the command, RSI functions are treated in a decentralized and integrated manner. Each project or system management office and functional directorate is assigned the responsibility to perform its RSI mission as required by policy, regulations, and guidance. Each organizational element of MICOM has established an RSI point of contact and they are to coordinate RSI matters with the MICOM RSI Staff Officer. All RSI effort is accomplished through the diversion of manpower from other programs. MICOM RSI goals are stated as:

1. Maximize RSI through:
   a. Involvement of the US Army Laboratory in the technical exchange of information relating to technology and future concepts.
   b. The project or system managers who are encouraged to stress a combination of cooperative development and coproduction for their assigned systems.
   c. The Missile Logistics Center and the Integrated Logistics Support Office which is to maximize cooperative ILS in their planning and execution.

2. Identifying and evaluating viable and alternative approaches to technical programs which enlist the capabilities of NATO allies, and take steps to reduce the proliferation of armaments designed to accomplish similar or identical missions.

3. Optimizing requirements, logistics, supply, support, training, and cost arrangements for NATO by exchanging technical information between the
United States and NATO nations consistent with applicable security, technical transfer policies, laws, and regulations.

(4) Interpreting the objectives of higher authority and assessing the impact of these on MICOM.

e. TACOM: In this command the R&D Center serves as the focal point for RSI. The R&D Center provides representation to two NATO activities, 19 data exchange agreements, three bilateral programs, and a Quadripartite Agreement. RSI activities encompass system performance and interface standards; engineering design practices and procedures; engineering terminology; component standardization agreements, specifications, and standards; testing and evaluation procedures and methodology; and manufacturing procedures. An RSI regulation (TACOM Regulation 34-1) has been published. In terms of resources, the R&D Center reports that a supervisor (GM-830-14), two engineers (GS-0830-13, GS-0801-12), and a secretary (GS-301-04) are committed to the support of the RSI program; the center receives $250K annually from the RDT&E appropriation to fund laboratory work in support of RSI actions. The TACOM RSI philosophy maintains that the greatest degree of progress towards RSI goals are made in the R&D stages of materiel development. Although TACOM fully supports RSI, the command notes that the current resource level does not enable all desirable RSI actions to be undertaken.

f. TROSCOM: This command has delegated responsibility for RSI to the Office of the Chief Engineer in the Fort Belvoir Research and Development Center. No policy guidance, Standard Operating Procedures, or directives have been published by TROSCOM. The command reports that one person provides RSI support, with assistance from project engineers as required. The Chief Engineer states that more high level support is necessary in order to get top management
support in the lower level organizations. To improve the RSI program at the Belvoir R&D Center, he asks for clarification of policies, procedural guidance, and support in implementing programs. He requests at least one more RSI position, and an upgrade of the positions to bring RSI personnel in line with the grade structure of the individuals with whom they must deal. The chief engineer finally states that the RSI program is considered a nuisance that would be ignored if it were not required by AMC. RSI receives the lowest possible priority.

g. TRADOC: This command did not respond to the questionnaire in writing; however, the study officer did coordinate with the activity responsible for RSI—the International Army Programs Directorate. That office handles RSI as one of its primary areas of responsibility. It has developed a directory of RSI points of contact throughout the TRADOC school system, and the US Army Logistics Center. The office also deals with various AMC offices on STANAGs. (Of the some 1800 STANAGs which affect AMC, about 1100 require direct coordination with TRADOC.) TRADOC has published supplements to AR 34-1 and AR 34-2. The command is now placing an Army captain and a GS-11 or 12 at each school to manage RSI instruction and to develop and maintain the RSI portions (those portions which are affected by RSI decisions, actions, and evolutions; e.g., STANAGs, Quadripartite Standardization Agreements (QSTAG) of regulations, pamphlets, and other publications for which the school has proponenty.

h. FORSCOM: This command reported that it does not have an organization or program to manage RSI currently. FORSCOM has not assigned a high priority to RSI; the command requires a clearer definition from HQDA as to where it fits in the RSI program.

i. USAREUR: No response was received from USAREUR.
j. The Army schools system does not now teach RSI in any school as a formal subject. In fact, only the Defense Systems Management School (DSMC) at Fort Belvoir includes the subject within its curricula; that organization does teach a two-week course entitled "International Logistics" which addresses RSI. DSMC also addresses RSI as a subject in its four-week Project Manager's Course. This means that the officers professional education--i.e., basic course, career course, staff college, war college--essentially ignores RSI as a concept. Most Army schools do not even mention it. It is not, therefore, surprising that throughout the force structure, officers attach little importance to RSI. The subject is neither stressed by DA and the MACOM nor is it even explained by the Army schools. However, it must be added that HQ TRADOC is currently in the process of staffing schools so that they will be able to teach RSI and to maintain current the publications which pertain to, affect, or are affected by RSI. RSI must be taught at service schools in order that the concept be widely known and accepted by Army personnel.

K. RSI Workshops.

1. Two RSI workshops were held during the period this study was in progress. The study analyst was deeply involved in both seminars. RSI personnel involved at the meetings represented activities from AMC, FORSCOM, TRADOC, DOD, the Air Force, and the Marine Corps. Foreign liaison officers were present from Great Britain, Canada, France, and the Federal Republic of Germany. The workshop participants surfaced, considered, and agreed upon the following points:

2. RSI is not well-known as a program within the logistics community, and there is a readily apparent and serious communications lack. The lack of interface between the major commands (e.g., DA, AMC, TRADOC, FORSCOM) has
resulted in the development of non-standard RSI policies and procedures within the Army.

3. There are currently very few personnel who are assigned and dedicated solely to the performance of the RSI function. It was concluded that until RSI staff positions are established, the dilatory performance of RSI tasks will remain the norm.

4. The biggest problem facing those charged with performing RSI functions is the lack of a single Army level manager of RSI. The workshop participants unanimously agreed that the lack of a strong RSI proponent at DA to set and update policies and programs, and provide guidance, resulted in fitful and uncoordinated progress in the program. More common are those who express support for standardization and interoperability programs when asked, but who do nothing tangible to back up the words.

5. If RSI is to be an effective program in the US Army, some way must be found of making the policies and procedures of the program universally known. Those individuals throughout the force structure who work with RSI must be convinced that it is a serious and necessary program. Today, RSI is not accepted--within the logistics community at least--as a concept to which the US Army is seriously committed.

6. Currently, several interpretations of the RSI definitions exist within AMC. The command needs an AMC-wide RSI management structure to provide standardized guidance, policies, procedures, and information on RSI programs and initiatives.

L. **RSI Management Profile Matrix.** An RSI Management Profile Matrix was developed during the workshops. The matrix lists the DOD and US Army activities which have management responsibilities for RSI and the missions, functions,
and tasks necessary to accomplish the RSI programs. The workshop participants then considered each mission, function, and task, activity by activity, and decided what responsibility each one should have for the mission (function or task) under consideration. The matrix lists responsibilities as "overall," "approval," "primary," "coordination," "supportive," and "informed." It illustrates how authority and responsibilities should be distributed to insure that an effective and viable RSI program exists. The matrix is enclosed at Appendix G.

M. Visits to Commands and Activities.

1. Selected commands and activities of AMC, FORSCOM, and TRADOC were visited. These included AMCCOM; AVSCOM; MICOM; TACOM; TROSCOM; the Combined Arms Center at Fort Leavenworth, Kansas; the Missile and Munitions Center and School at Redstone Arsenal; the Infantry Center and School at Fort Benning; the Field Artillery Center and School (USAAS) at Fort Sill; the Chemical Center and School at Fort McClellan; HQ TRADOC at Fort Monroe; HQ FORSCOM and HQ Third Army at Fort McPherson; the Army Aviation Center at Fort Rucker; the Army Signal Center at Fort Gordon; the 1st Cavalry Division at Fort Hood; the 1st Infantry Division at Fort Riley; and the 100th Combat Service Support Battalion at Fort Riley.

2. The visits had two purposes. They were, first, to brief the scope and objective of this study to the personnel who were in a position to influence the RSI program; and, secondly, to interview those individuals identified as having RSI responsibilities. Both objectives were met.

3. The following is a summary of the comments which were heard at each visit and which are universal in applicability:
a. Responsibility for RSI missions, functions, and tasks at each level is unclear.

b. Many separate RSI efforts are ongoing, but there is no evidence of a coordinated, Army-wide plan.

c. There is little evidence of high level interest in RSI.

d. More communication among the personnel involved in RSI efforts throughout the Army is necessary.

e. There is inconsistency in the organizational aspects of RSI efforts:

(1) Not all organizations have their RSI missions defined in their mission and functions statements.

(2) RSI work performed is not reflected in the job descriptions of all personnel involved.

(3) The grades of primary RSI points of contact vary, ranging from GS-11 to GS-15.

(4) RSI work is performed by functional specialists in some organizations and by scientific advisors in others.

f. All of the organizations stated that their efforts were almost completely dedicated to accomplishing functional tasks assigned to them rather than developing and pursuing RSI initiatives.

g. All organizations visited stated that they do try to incorporate the provisions of standardizations agreements into the equipment--or doctrine--they develop.

VI. FINDINGS AND CONCLUSIONS: To interpret the findings and conclusions in perspective, it must be understood that RSI is recognized and supported by member nations as essential to an effective NATO in the defense of Western
Europe. In 1977 the US Congress enacted specific legislation committing this country to RSI. Subsequently, DOD and DA have published regulations, policies, and procedures to implement RSI. With this background, the following findings and conclusions are presented:

A. Within the US Army, the RSI program is assigned a low priority, from DA level down to the lowest operating level. The accomplishment of RSI has been treated within the Army, at all levels, as an additional duty. General Heiser feels that until DA emphasizes the importance of RSI, it will remain very low on the priority list of the MACOM commanders. Department of the Army must stress the importance of RSI as a necessary element of developing, acquiring, and fielding equipment, to insure its inclusion as a high priority item of the AMC commander.

B. The RSI program within the US Army is ineffectual; this is attributable to the low priority given the program. DA must decide whether to support RSI. Without active support from DA, the RSI program will remain ineffective.

C. The RSI program skeleton, established by AR 34-1 and AR 34-2, has not been effectively applied. Since their publication, between 1979 and 1981, little if any, guidance has emanated from DA or MACOM level.

D. The Army Materiel Command has been designated by DA as the organization responsible for the application of RSI to equipment. AMC has still not published anything to implement Army regulations, nor has it actively asserted its leadership role over RSI matters.

E. The US Army RSI program is decentralized to the point that locally instituted programs and actions are not coordinated and do not contribute to an Army established goal. This is also true of the AMC RSI program. Some commands in the field have tried to implement the ARs through local initiatives. However,
coordination of programs between activities within the RSI community are essentially nonexistent. Consequently, RSI policies, programs, and organizations which do exist at the field level--both within and without AMC--lack standardization themselves.

F. A major problem besetting the Army's RSI program is the lack of a central management office at the DA level. This lack of Army-wide direction and emphasis is felt throughout the Army's RSI structure. Individuals who have RSI responsibilities universally agree that the lack of forceful, centralized guidance is a detriment to the US Army RSI program. These people have no one to whom they can turn when they have questions pertaining to interpretation of guidance or the exact meaning of an RSI term used. To repeat a sentiment often heard when working within the RSI community, "What is lacking is an activity at DA to provide the Army with one voice and one position in RSI programs."

G. Those organizations which did try to establish a dedicated RSI activity discovered that no resources would be made available for that purpose. Failure to receive the resources needed usually resulted in the disestablishment of the RSI office.

H. No Army school queried presented instruction oriented to RSI; some did mention the subject during other blocks of instruction. The Defense Systems Management School at Fort Belvoir presents a two-week course, entitled "International Logistics," four to six times each year, of which RSI is a component. The same school also teaches RSI in the four-week Project Manager's Course.

I. Rationalization is a somewhat nebulous concept which applies, apparently, at the government to government level. The Army, in its publications, orients efforts in this realm towards standardization and interoperability. In terms of
equipment, interoperability is more easily and cheaply achieved than standardiza-
tion. Although standardization of equipment is the ultimate goal, the Army Materiel Command should initially aim for equipment interoperability.

VII. RECOMMENDATIONS: The following recommendations are predicated upon a genuine commitment by the Army hierarchy to emphasize and enforce RSI. Without this emphasis, the RSI program will continue to be ineffective.

A. HQ AMC must establish an active and effective RSI management activity to direct standardization and interoperability organizations and actions. This central activity must have sufficient authority to set policy and enforce it. This activity must keep the headquarters' staff focused on RSI to maintain a high level of command emphasis. It must also coordinate with the field and address RSI issues beyond the scope of local RSI personnel.

B. HQ AMC must develop and disseminate RSI implementing guidance. This should include clarification of RSI responsibilities and positions as well as development of an RSI dictionary/glossary of terms. The program skeleton established by AR 34-1 and AR 34-2 should serve as the starting point.

C. HQ AMC must integrate RSI into the school system. Influence should be exercised to increase RSI in DA and DOD schools as well.

D. DA should be apprised of the status of the RSI program within AMC and be requested to establish an RSI management activity. If DA fails to do so, AMC must recognize that any internal actions taken to improve the RSI program will lack the force of an Army-wide standardization and interoperability effort.
# APPENDIX A

## REFERENCES

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Reference Book on NATO Rationalization, Standardization, and Interoperability (RSI) 1-2, American Defense Preparedness Association, November 1979
This appendix includes the acronyms which are often used within RSI initiatives. For other acronyms commonly used by the Army, see AR 310-50.

ABCA  American, British, Canadian, Australian
ABCA NAVAL  ABCA Naval Standardization Program
ACSAC  Assistant Chief of Staff for Automation and Communications
AMC  US Army Materiel Command
AMCCOM  US Army Armament, Munitions, and Chemical Command
AP  Allied Publication
AR  Army Regulation
ASCC  Air Standardization Coordination Committee
ASD/PA&E  Assistant Secretary of Defense - Program Analysis and Evaluation
AVSCOM  US Army Aviation Systems Command
CACDA  Combined Arms Combat Developments Activity
CECOM  US Army Communications & Electronics Command
CENTO  Central Treaty Organization
CG  Commanding General
CNAD  Conference of National Armaments Directors
COE  Chief of Engineers
COSCOM  Corps Support Command
DA  Department of the Army
DAIRO  Department of the Army International Rationalization Office
DARCOM  US Army Materiel Development & Readiness Command
DCSLOG  Deputy Chief of Staff for Logistics
DCSOPS  Deputy Chief of Staff for Operations and Plans
DCSPE  Deputy Chief of Staff for Personnel
DCSRDA  Deputy Chief of Staff for Research, Development, and Acquisition
DLSIE  Defense Logistics Information Exchange
DOD  Department of Defense
DODD  Department of Defense Directive
DODI  Department of Defense Instruction
DSARC  Defense System Acquisition Review Council
DT  Developmental Testing
FMS  Foreign Military Sales
FORSCOM  US Army Forces Command
HQDA  Headquarters, Department of the Army
JCS  Joint Chiefs of Staff
LEA  Logistics Evaluation Agency
LOGC  US Army Logistics Center
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<td>LOGMAP</td>
<td>Logistics Master Plan</td>
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<td>United States Army Europe</td>
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<td>VCSA</td>
<td>Vice Chief of Staff, Army</td>
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This appendix includes synopses of the following Department of Defense Directives and Instructions that establish RSI policies and assign RSI responsibilities:

DODD 2010.8  
DODD 2010.6  
DODD 5530.3  
DODI 2050.1
1. DODD 2010.8, titled DOD Policy for NATO Logistics, directs the Secretary of the Army to incorporate NATO logistics policy in all planning and programming for logistics support of US military forces stationed in, or scheduled for deployment to, NATO Europe in peace or war. It also directs the Secretary to make maximum use of the NATO Maintenance and Supply Organization (NAMSO), consistent with US law and regulations, to implement the US NATO Logistics Master Plan (LOGMAP) and to provide representatives to international logistics groups. Finally, the Secretary is enjoined to insure that concluded agreements are published and distributed, with implementing instructions.

2. DODD 2010.6 is titled, Standardization and Interoperability of Weapons Systems and Equipment Within the North Atlantic Treaty Organization. This directive establishes objectives, priorities, approaches, and responsibilities. These, in essence, are as follows:

   a. The objective of this directive is to implement the stated US policy that equipment procured for US troops in Europe under NATO shall be standardized or at least interoperable with the equipment of the other NATO forces.

   b. Five top priority areas for standardization and interoperability (S&I) have been established by the Joint Chiefs of Staff (JCS) and endorsed by the NATO Military Committee. The first four areas are: command, control, and information systems; cross-servicing of aircraft; ammunition; and compatible battlefield surveillance/target designation/acquisition systems. The fifth area, standardization and interoperability of components and spare parts, is a goal in all programs.

   c. The US will pursue three major approaches to standardization and interoperability. These are:
(1) General and reciprocal procurement Memoranda of Understanding (MOU) with NATO member nations shall be established.

(2) Dual production of developed, or nearly developed, systems shall be negotiated when feasible.

(3) Families of weapons, or program packages, shall be created for systems not yet developed.

d. The responsibilities assigned to the Secretary of the Army for S&I are spelled out in detail; the following synopsizes those which affect the AMC mission:

(1) Insure that S&I are considered in the basic conceptual approach in the development, production, and product improvement of all systems that have a partial or total application to NATO.

(2) Establish close and parallel relationships with NATO organizations and NATO allies for the development of compatible doctrine and operational concepts.

(3) In cooperation with the Under Secretary of Defense for Research and Engineering (USDR&E), encourage early contacts between US development activities and NATO allies' developmental organizations to consider reciprocal and mutually beneficial exchange of technology, cooperative Research and Development (R&D) programs, and appropriate licensed production arrangements to permit possible adoption of each other's systems.

(4) Give appropriate consideration to S&I in the source selection process and include new weapons systems and derivatives of NATO allies' systems in cost analyses to determine whether these systems are preferred in light of operational effectiveness and affordability.
(5) Insure that, in reviewing purchasing systems and the make-or-buy decision programs of US defense contractors, consideration is given to permitting NATO allies to compete for subcontracts.

(6) Include in applicable Systems Acquisition Review documentation an analysis of how a program will contribute to NATO S&I, including consideration of alternative systems of NATO allies, codevelopment, coproduction, and the action program to advocate cooperation in R&D and acquisition programs.

(7) Provide representation at appropriate groups under the NATO Conference of National Armaments Directors (CNAD) and Military Agency for Standardization (MAS), and other groups as required, and provide Department of the Army coordination on standardization matters developed within NATO. Proposed US positions shall be coordinated with appropriate DOD components.

(8) Insure that US positions on STANAGs and Allied Publications (APs) are coordinated with appropriate DOD agencies and that those STANAGs and APs ratified are implemented.

(9) Prepare the technical positions on individual exchanges of technology and prepare a statement of the potential impact of impending technology transfers on the US economy, when such transfers can be identified as having significant commercial implications.

(10) Initiate action, immediately upon determination that a weapons program is a candidate for NATO S&I, to determine the releasability of the technology and information, as required for allied participation.

(11) Assist the Assistant Secretary of Defense/Program Analysis and Evaluation (ASD/PA&E) in determining the cost implications of proposed cooperative projects, including analyses of alternative approaches.
(12) Through the USDR&E and the Assistant Secretary of Defense/International Security Affairs (ASD/ISA), keep US NATO and the American embassies in NATO capitals apprised of the status of current and potential weapons systems developments and acquisitions or productions, and of potential S&I issues.

(13) Coordinate with USDR&E and ASD/ISA (in accordance with DODD 5530.3 and DODI 2050.1) before the onset of negotiations on international agreements that involve NATO arms cooperation and weapons standardization.

(14) Insure that the requirements of the National Disclosure Policy (NDP) are satisfied, and sponsor exceptions to the policy when appropriate.

e. The Defense Security Assistance Review Council (DSARC) is also assigned S&I responsibilities. These are:

(1) Consider NATO participation in acquisition, NATO doctrine, and NATO member threat assessment.

(2) Insure that the mission needs of NATO members are considered in the development of a Mission Element Need Statement (MENS).

(3) Insure that NATO member contractors are solicited for bids and proposals on US systems and components (when not precluded by law or NDP).

(4) Insure that DA considers NATO member systems that might address mission needs and that any performance, cost, schedule, or support constraint that precludes adoption of a NATO system is specifically identified.

(5) Insure that DA expands and refines international cooperation.

3. DODD 5530.3, **International Agreements**, defines what is and what is not an international agreement, how one is negotiated, who may negotiate an international agreement and establishes a central repository for concluded agreements.

4. DODI 2050.1, titled **Delegated Approval Authority to Negotiate and Conclude International Agreements**, empowers the Secretary of the Army to enter
into several types of international agreements and authorizes him to delegate approval authority to subordinate commanders. Agreements which the Secretary of the Army can conclude include:

a. Technical, operational, working, or similar agreements, concluded pursuant to a treaty or executive agreement that entails implementing arrangements.

b. Agreements with allied and friendly countries and organizations for cooperative or reciprocal operational, logistics, or other military support, including arrangements for shared use or licensing of military equipment, facilities, services, and non-physical resources.

c. Agreements relating to combined military planning, command relationships, military exercises and operations, minor and emergency deployment, and exchange programs.

d. Agreements for the collection or exchange of military information and data.

e. Cooperative research, development, data exchange, and related licensed production and standardization agreements.
APPENDIX D
SYNOPSIS OF ARMY REGULATIONS

This appendix includes synopses of the following Army Regulations which implement DOD directives and affect AMC:

AR 34-2
AR 34-1
AR 10-36
AR 550-51
1. AR 34-2, RSI Policy, establishes the Under Secretary of the Army (USofA) as the RSI focal point for the Office of the Secretary of the Army, and the Vice Chief of Staff, Army (VCSA) as the RSI focal point for the Army Staff. The DA International Rationalization Office (DAIRO) of the DA Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) is designated as the Army Staff office responsible to support the USofA and the VCSA in their roles as RSI focal points. Additionally, this regulation:
   a. Establishes RSI policy for the Army. The document repeats and expands the policy established by DOD. For example:
      (1) DA will actively seek the RSI of doctrine, weapons systems, logistics, equipment, and procedures within NATO and the American, British, Canadian, Australian (ABCA) allies on a priority basis to conserve resources and increase the combined combat capability of US NATO and ABCA forces.
      (2) Although current US policy dictates that the majority of US general purpose forces be planned and equipped for a European conflict, the worldwide orientation of US forces may dictate differences in some equipment expected to be used elsewhere. Army agencies involved in the research and development cycle must consider and balance Army worldwide requirements against the RSI goal.
      (3) Rationalization of doctrine, requirements, tactics, and procedures is essential for long-term alliance RSI programs and initiatives and to permit the planned, rational, and effective use of alliance resources.
   b. Enunciates major US approaches to promote the RSI of Army equipment. These are the same as the major approaches listed in DODD 2010.6; they are:
      (1) Establish general and reciprocal Memoranda of Understanding (MOU) with NATO and ABCA nations.
(2) Negotiate coproduction and dual production of developed or nearly
developed systems.

(3) Create "families of weapons" (program packages) concerning equipment
systems not yet developed.

c. States that the Army will include RSI goals as basic considerations
in the development, acquisition, and logistic support programs for major and
non-major items.

d. Establishes that, in the realm of international industrial cooperation,
the Army will:

(1) Support research, development, and acquisition alternatives designed
to achieve an equitable and competitively determined flow of defense trade
within NATO and ABCA, when such arrangements enhance the capabilities of alliance
members.

(2) Pursue a cooperative program with NATO, ABCA, and other friendly
and allied countries, as appropriate, on the exchange of requirements and
other data.

(3) The regulation also establishes: economic guidelines; rules for
third country transfer and sales authorization; technology transfer proce-
dures; waiver or reduction of Foreign Military Sales (FMS) charges; and arrange-
ments for NATO industrial participation.

   e. Establishes the basic Army priorities for RSI as:

      (1) Implementation of the NATO Long-Term Defense Program (LTDP).

      (2) Support of the Office of the Secretary of Defense (OSD)/JCS Five
High-Priority Areas for Standardization and Interoperability (Paragraph I,
C, 2, b lists the five high priority areas; they are identical for DOD and
DA).
f. Sets forth the RSI responsibilities for members of the Army staff and Major Army Commands (MACOM). The RSI responsibilities which apply to or affect the Army Materiel Command are:

(1) The VCSA, in coordination with the USofA, will approve RSI policy for the Army and provide guidance on items that pertain to NATO and international standardization activities. This includes ABCA matters.

(2) The DA International Rationalization Office will:
   (a) Assist the USofA and VCSA in formulating RSI policy and providing guidance to HQDA and the MACOMs.
   (b) Monitor and coordinate HQDA RSI activities and facilitate proper coordination of Army positions.
   (c) Insure coordinated US participation in NATO and other international fora.
   (d) Provide a single authoritative Army interface between the Army Staff and OSA, MACOMs, OSD, Office of the Joint Chiefs of Staff (OJCS), and other government agencies on RSI matters.
   (e) Insure that RSI objectives and proposals are included in doctrine formulation (literature and training), logistics support, planning and programming, weapons system and equipment acquisition, and preparation of annual budgets.
   (f) In coordination with the US Army Materiel Development and Readiness Command (now AMC), insure effective Army management of and participation in NATO and ABCA working groups, parties, and panels.
   (g) Provide the overall coordinating point for host nation support activities.

(3) All HODA agencies and MACOMs (including AMC) will:
(a) Insure that NATO, ABCA, and other international RSI matters are considered in the development of policies, plans, and programs and that these matters will be coordinated with OSA and DAIRO.

(b) Review and revise Army regulations for which they are the proponent to insure that RSI policies, objectives, and principles are included.

(c) Assign a central point of contact (POC) for coordinating RSI-related activities.

(d) Include provisions of ratified STANAGs, Quadripartite Standardization Agreements (QSTAG), and other international standardization agreements in publications for which they are the proponent. Insure that subordinate elements incorporate provisions of ratified agreements in appropriate Army publications.

(e) Provide representation at NATO, ABCA, and other international fora when required. Insure that positions and papers to be presented are approved and coordinated in accordance with AR 34-1.

(f) Insure that RSI policies and procedures with potential impact on US Army, Europe (USAREUR) are properly coordinated with USAREUR.

(g) Provide copies of lessons learned and RSI problems encountered as a result of field trials, exercises, tests, and training to HQDA (DAMO-ZN), Washington, DC 20310.


(a) Serve as the DA agency responsible for management of DOD and DA participation in NATO, ABCA, and other international standardization and cooperative R&D forums (AR 34-1).
(b) Serve as the Army office of record for international RSI agreements (MOU, Data Exchange Agreements, STANAGs, ABCA QSTAGs, Air Standardization Coordination Committee (ASCC) STANAGs, ABCA Naval STANAGs).

(c) Exercise DA responsibility for the development and coordination of US and US Army positions on the agreements in (b) above. Insure that agreements ratified by the US are implemented.

(d) Develop and coordinate the US position on STANAGs, QSTAGs, and other international standardization agreements concerning research, development, test, and evaluation (RDTE). Insure that agreements ratified by the US are implemented.

(e) Serve as the DA Executive Agency for operational aspects of the Army Security Assistance Program (AR 12-2), to include the initial assessment of RSI objectives within Army security assistance programs.

(f) Insure that RSI considerations are included in the materiel development, testing, and acquisition process and that NATO and ABCA allies are given opportunities to compete for contracts and subcontracts for US Army research, development, and acquisition. This will be consistent with applicable US statutes and regulations.

(g) Assist the Training and Doctrine Command (TRADOC) in the US Army bilateral staff talk initiatives.

(h) Supervise US Army standardization groups in the United Kingdom, Canada, Australia, and Germany.

(i) Serve as the DA Point of Contact with foreign representatives on matters relating to international cooperative development programs.

(j) Plan, coordinate, and conduct developmental testing in support of RSI-related programs. Coordinate the inclusion of RSI considerations on
combined Developmental Testing/Operational Testing (DT/OT) with the Operational Test and Evaluation Agency (OTEA). Support OTEA in its conduct of operational testing of major and category I non-major systems.

(k) In coordination with Office of the Deputy Chief of Staff for Logistics (ODCSLOG):

1. Integrate the acquisition functions (AR 1000-1) of combat development, and Integrated Logistics Support to insure the materiel system acquisition program is in accordance with RSI policies and requirements.

2. Direct performance of Logistic Support Analysis (AR 700-127) on all materiel systems intended for use by the US and allied nations.

3. Provide logistic engineering and support for documentation, coordination, and approval of international logistic and operational support agreements.

4. Direct preparation, coordination, and implementation of Army, multiservice, and multinational plans and agreements for logistic support of materiel to be used by the US and allied nations; e.g., Plan for Logistic Support (AR 700-127), Materiel Fielding Plan (DA Pamphlet 700-127).

(i) Develop wholesale logistic doctrine, including doctrine cited in STANAGs, QSTAGs, and other international standardization agreements ratified by the US.

(m) Serve as the materiel readiness RSI coordinator. In this capacity, identify items and areas of opportunity to enhance fielded materiel and non-materiel systems in the NATO arena and the CONUS units deployable to Europe. This includes units of the Army National Guard and US Army Reserve.

(5) Several agencies and organizations are directed as follows:
"With DARCOM (now AMC), develop and coordinate US and US Army positions on operational STANAGs, QSTAGs, and other international standardization agreements. Insure that agreements ratified by the US are implemented."

They are:

(a) Deputy Chief of Staff for Operations and Plans (DCSOPS).
(b) Deputy Chief of Staff for Logistics (DCSLOG).
(c) Deputy Chief of Staff for Research, Development, and Acquisition (DCSRDA).
(d) Deputy Chief of Staff for Personnel (DCSPER).
(e) Assistant Chief of Staff for Automation and Communications (ACSAC).
(f) The Adjutant General (TAG).
(g) The Surgeon General (TSG).
(h) Chief of Engineers (COE).
(i) Commanding General (CG), FORSCOM (when required)
(j) CG, TRADOC
(k) CG, US Army Communications Command (CG, USACC)

(6) The DCSLOG, additionally, is directed to assess requirements for development of standard or interoperable logistic support systems for interface with NATO, ABCA, and other allied nations as required in bilateral and multilateral agreements, in coordination with DARCOM (now AMC).

2. AR 34-1, US Army Participation in International Military Rationalization/Standardization/Interoperability (RSI) Programs, prescribes procedures for DA implementation of policies and responsibilities stated in AR 34-2. The procedures cover participation in NATO, ABCA, the ABCA Navy Standardization Program (ABCA NAVAL), the Central Treaty Organization (CENTO), and the ASCC.

a. The regulation prescribes in detail the responsibilities, special requirement, and administrative procedures for:
(1) US delegates to international meetings.

(2) International military standardization agreements and related international publications.

(3) International meetings in CONUS.

(4) Standardization and cooperative R&D within the NATO structure.

(5) American, British, Canadian, Australian Quadripartite Standardization Program.

(6) The Air Standardization Coordinating Committee.

(7) The ABCA Naval Field Z Standardization Program.

b. Appendix C of the regulation prescribes equipment loan procedures within ABCA. (NATO equipment loan procedures are made under the provisions of STANAG 3254.)

c. Appendix D of the regulation establishes NATO and ABCA working parties, panels and committees. The following AMC activities and organizations are identified with the following responsibilities:

(1) As the DOC Administrative Agent, DARCOM (now AMC) (DRCIRD) is listed 49 times.

(2) As the DOD Action Agent:

(a) AMC (DRCIRD) (3 times).

(b) AVRADCOM (now AVSCOM) (1 time).

(c) CORADCOM (now CECOM) (4 times).

(d) MERADCOM (4 times).

(e) ARRAADCOM (now AMCCOM) (5 times).

(f) ERADCOM (now CECOM) (3 times).

(g) NARADCOM (1 time).

(h) MIRADCOM (now MICOM) (1 time).
(i) AMC (DRCBSI) (2 times).
(j) Human Engineering Laboratory (DRXHE) (1 time).
(k) NVL (DRSEL-NV) (5 times).
(l) AMSAA (DRXSY-YP) (1 time).
(m) AMC (DRCQA) (1 time).
(n) TSARCOM (now AVSCOM or TROSCOM) (1 time).
(3) As the DA Administrative Agent, AMC (DRCIRD) (75 times).
(4) As the DA Action Agent:
(a) AMC (DRCIRD) (3 times).
(b) AMC (DRCQA) (6 times).
(c) AVRADCQ (now AVSCOM) (16 times).
(d) MERADCOM (5 times).
(e) ARRADCOM (now AMCCOM) (3 times).
(f) Research and Technology Laboratories (4 times).
(g) MIRADCOM (now MICOM) (1 time).

3. AR 10-36, US Army Standardization Groups, prescribes the mission, principal
functions, command and staff relationships of the US Army Standardization
Groups in Australia and Canada, the US Army Research and Standardization Group in
the United Kingdom, and the US Army Research and Development Liaison Office in
Germany. The groups are under the supervision and direction of the Commanding
General, AMC, and directives, policies, and planning and program guidance are
issued to the senior standardization representatives by or through the CG.

4. AR 550-51, Authority and Responsibility for Negotiating, Concluding,
Forwarding, and Depositing of International Agreements, prescribes Army policy,
responsibilities, and procedures for the negotiation, conclusion, forwarding, and
depositing of international agreements.

D-10
a. The Secretary of the Army (SA) is delegated authority to negotiate or conclude several categories of international agreements. Those that affect AMC are:

(1) Agreements with allied and friendly countries and organizations for cooperative or reciprocal operational, logistical or other military support, including arrangements for shared use or licensing of military equipment, facilities, services and non-physical resources.

(2) Agreements for the collection or exchange of military information and data.

b. The SA authority cited in subparagraph a above is redelegated to the heads of Army Staff agencies and major Army commands (to include AMC) which exercise substantive responsibility for the subject matter dealt with in the agreement.

c. MACOMs (i.e., AMC):

(1) May redelegate authority to negotiate and conclude international agreements.

(2) Will insure full compliance with AR 550-51.

(3) Will designate a single office of record to accomplish the following:

   (a) Receive and record requests for authority to negotiate or conclude an international agreement.

   (b) Record authorizations or denials to negotiate or conclude an international agreement.

   (c) Insure that a complete negotiating history file for each international agreement negotiated is compiled and retained. Also, that it is readily retrievable from the organizational element undertaking the negotiation or conclusion of the agreement.

D-11
(d) Monitor compliance with the provisions stated herein.

(4) Coordinate agreements that involve major changes in logistics support for US Forces (including base adjustments) impacting on joint plans and programs with the Joint Chiefs of Staff through HQDA, ODCSLOG.

(5) Coordinate, through HQDA, ODCSRDA, with the AS(ISA) before beginning negotiations on agreements that may have an impact on the development or procurement of standardized weapons systems or equipment within NATO.
APPENDIX E

TRANSCRIPT OF INTERVIEW WITH LTG (Ret) HEISER

This appendix is a complete transcript of the author's interview of LTG Joseph M. Heiser, Jr., US Army (Retired), in May 1984. Note that since the interview, the name, US Army Materiel Development and Readiness Command (DARCOM) has been changed to the US Army Materiel Command (AMC).
Good morning, General Heiser.

Sir, there is little doubt that you are considered by many to be one of the foremost authorities on Rationalization, Standardization, and Interoperability (RSI) as RSI relates to the Army's readiness functions, both materially and non-materially speaking. Sir, the following questions and comments being taped this morning will be included in the Logistics Studies Office Project 042 on RSI readiness functions within DARCOM's internal organization and those external agencies which DARCOM deals with in the RSI arena.

First, I would like to introduce the study's scope and objectives. The basic thrust of the RSI study is to identify interface voids in the mission, tasks, and functions of the DARCOM Readiness Community and present DARCOM organizations. The study findings and recommendations are aimed at identifying, analyzing, and proposing changes to clarify the concern that RSI is not receiving increased emphasis on the vital role it portrays in the national and international arena. The complexity of the study evolves around the scope and objectives of the study which was to concentrate on the implementation of a stronger RSI mission and functional role within the DARCOM Readiness Community and stop the interface gaps between the local communities and with external agencies and activities, i.e., OSD, DOD, DA, TRADOC, FORSCOM, etc., and gain the highest level supportive action for enforcing these requirements.
major recommendations are asserted for the centralized management of a decentralized RSI program; the clarification of US RSI positions and the interface or integrated use of responsibilities and authorities within the total logistics communities for resources and efforts; and the emphasizing of interoperability actions (short term defense planning) instead of initial standardization which we consider the long term defense planning of materiel and nonmateriel items. Finally, the study is pointed towards the Logistical Readiness Community adhering to and enforcing the documentation policy procedures and guidances found in DOD directives and ARs. There must be, as the study is showing, maximum participation and supportive action initiated at the highest level by mandating the implementation of better management within this essential and recognized DARCOM mission.

This morning, I would first ask you, sir, what do you perceive to be the best initiatives or issues for accomplishing the greatest strives within the RSI arena, both nationally and for the alliance?

GENERAL HEISER. I believe it would be best for us to take a basic look at RSI before we get involved in some of the details. First of all, there are quite a few fallacies pertaining to rationalization, standardization, and interoperability which need to be dispelled. RSI does not only pertain to the standardization of weapon systems, it is true that that's an important element of RSI; but there are other aspects of RSI which are just as important and to a degree are more practical of achievement than the degree of achievement
likely or probable in terms of standardization of weaponry between weapon systems of various highly sophisticated productive countries. RSI pertains, in addition to materiel, to the doctrine, training, and the procedures, to such things as communications, to other services like supply and maintenance, and the many services that are necessary in support of the armed forces of the nation. We need to make progress on all aspects of RSI. RSI is considered to be a theory and, by many, to be considered impractical and too costly because they think in terms of RSI of weaponry. I say RSI is absolutely essential for the implementation of alliances such as NATO and such as those alliances that occur between two nations, or three, or four. It is essential that we be able to communicate, it is essential that we be able to interoperate, it is essential that we know the manner in which one another is going to proceed. The President had his press conference last night and he was asked by the media, "Are we going to help the allied nations that we have around the Persian Gulf area?" And he said, "If they ask us, we will help them." The President was assuming that we have an absolutely essential degree of RSI between ourselves and those nations or we could not give them help. You start out with such a basic thing as being able to understand the needs of one another. That is a part of interoperability and if you can state those needs in an agreed upon way, that is a part of standardization. And if you can recognize that we would work with those nations in such a way that we would determine what is the most effective way in which we can help, that is a part of rationalization. You cannot do it
without RSI. Now, that means that the President, himself, last night without recognizing perhaps (certainly he did not say so) anything about RSI; the President was of necessity emphasizing the real meaning of RSI—that in order for us to cooperate with those nations around the Persian Gulf, we had to be able to do the things that I have just enumerated. And so today, if not before, the President said last night there are people who are having to do planning. They will not call it RSI, but it will be RSI. When tourists go from our country to Europe or Japan, we are doing a very practical RSI. We are learning how to live in their country, how to talk with them, how to gain a knowledge of their culture and their society. That is RSI. We learn how to drive a car on the wrong side of the road in England, but the fact that we learn how to interoperable a car on the roads of England is interoperability. That is the I of RSI. We need to get a practical understanding of what RSI is, but it has to begin at the top. You and DARCOM (Don, you and your associates) are working hard in a very frustrating way to try and establish management structure which will support RSI in DARCOM, but you are doing it at the working level. What is needed is command emphasis through command and control and that command emphasis has to come from our superiors in DARCOM; but the superiors in DARCOM, including the Commanding General, are given priorities—he has got limited resources, he cannot reach all the priorities. And if we don't even exist in RSI on a priority list, he is not going to reach RSI. Therefore, the Chief of Staff and the Secretary of the Army
have got to give him priorities which say RSI is important--do it! Do what? We have got directives out; they started with White House directives in 1977 and 1978. The Secretary of Defense put out directives including in the 5000 series, I believe, that said we will do RSI. Among those directives, it says every time you have a review of a weapon system you will determine what its effect pertaining to RSI is. Now what we have to do is do it and the way you get it done is command and control with emphasis that says this is an important priority, do it. And we will not achieve success on it, it will only be limited if we rely on individuals at lower levels who act as a catalyst in their own arena to get RSI done. For example, I think of General Patton when he was with an armored division in Germany. He became a catalyst for RSI. Why? Because he knew that his flanks were going to be covered by forces of our allies, and he knew that we had to be able to communicate and that we had to be able to operate even though we had different equipment. And so he made agreements with commanders on his flanks and those agreements were implemented with procedures that followed so that we could interoperate with our allies on our flank. Fortunately, we have had people such as you, Don, who have been the catalysts in their own arena and so to some degree we have had some RSI progress. But we need consistent integrated progress and this can only occur when top level commanding control says, do it!

E-6
MAJOR STUMP. Sir, is this one of those too hard to accomplish items? Do you think it is just one of these items you drop in the too hard to accomplish?

GENERAL HEISER. As I have said, and it is worth repeating, I not only don't thing it is one of these too hard to accomplish, I think that a large part of RSI is an absolute necessity. You have got to talk with one another--this is interoperability. Now, as we go higher in the strata of the things that need to be done, when we look at the standardization of materiel across 16 nations, for example, this is difficult, especially when most of these nations are in competition with one another in terms of industrial capacity, etc. And so it is not easy to accomplish standardization of weapon systems across highly productive nations. On the other hand, we do have alliances wherein we have to assist our allies who don't have a highly productive capacity. And, therefore, it is easier for us to gain their acceptance of the use of a standard piece of equipment. So within that arena it is a little easier to perform. I would like to emphasize one thing. We have an integrated logistics structure in the armed services of the United States which says that we have to make front-end analysis of any weapon system. We really have a requirement to make front-end analysis of not only weapon systems but any services we perform. In making that front-end analysis, we determine how will this particular weapon system or service be able to live in the environment of the armed forces in the field when that is utilized. In doing this we have to determine certain elements. RSI is one
of them, because we are not going to take a service or a weapon system and put it in a jungle where it is by itself. It is going to be put in the hands of human beings that are going to have to operate and at that point they have to be educated in terms of: What is it? How do you operate it? What tools do you use to main- tain it? How does it operate in conjunction with other pieces of equipment and other people? This is RSI! We need doctrine! We need doctrine that says our forces will operate in the field with other forces and they will know how one another react to various environments on the battlefield. This is RSI!

MAJOR STUMP. It is, from what I can gather, sir, number one very significant for highest level approval to support and mandate and then enforce this RSI issue as an essential and recognizable structured program. From what I understand of the RSI non-structured program that we have, we don't have any way of right now managing this decentralized organization.

GENERAL HEISER. We have a decentralized structure in the armed forces of the United States. It is a necessity! But for a decentralized organization to operate effectively and efficiently we need strong command and control of such decentralized structure. As pertains to RSI, this is absolutely essential. RSI throughout the structure of the armed forces, including within DARCOM, will not achieve the positive effects that are needed if it does not have a strong command and control laying down the rules within which they are going to operate.
MAJOR STUMP. Sir, who do you perceive to be in the best management role, i.e., I mean OSD or DOD or DA, to lay forth that guidance and mandate.

GENERAL HEISER. You use the word "management." I suggest that we need to recognize that management is accomplished through command and control, and I emphasize the word "command" because what we need is command emphasis so that the management tools will be utilized to gain the effects needed in RSI.

MAJOR STUMP. Sir, when we talk about the clarification of RSI at the worker bee level, where I am at, and the apparent gap is taking place between highest level, how do you perceive that someone in the GS-11 to GS-13 level can raise this complex decentralized RSI problem?

GENERAL HEISER. Let's take today's environment. You are putting together a report on the status of RSI within DARCOM. That is your mission. This report will be turned in, in a matter of weeks, to the Commanding General, DARCOM, through the appropriate channels. The Commanding General, DARCOM, will see certain things that are recommended that he can do, but he will also see certain things recommended that are above his command and control authority. At that point those aspects of this report need to be brought by the Commanding General, DARCOM, to the attention of his superiors so that the proper action can be taken at that level. And on the basis of what I know of your work, some of these will have to get all the way up to at least the Secretary of Defense.
MAJOR STUMP. Well, one of the points that has come out continuously in our field validation is that if we have a much stronger front-end load (when you talk about the RSI flow chart), we could without question stop resource dollar flow expenses by having a hard or a stronger front-end load; and this, if I am right in understanding the problem, would help us during ratification and implementation to have less problems would it be the development of a weapon system or simply developing ammunition.

GENERAL HEISER. I think, again, we need to reduce this kind of a problem to the basics involved. Sometimes we tend to get too complex and in this regard, for example, we talk front-end analysis of a weapon system that is being designed and produced or of a new kind of service. I think front-end analysis needs to be understood in very practical terms. It simply means that if you are going to come up with some kind of a weapon, some kind of a product, whether it is something to do with the defense of the country, or whether it has to do with simply toys for Christmas, you need to think in terms of how will that be used when you get it in the hands of the users. And front-end analysis simply means that if you are going to develop, for example, a toy for a child to be given as a present for Christmas, you have got to, in designing that toy, think in terms of that child having it in his hand (his or her hands) at Christmas. Is it going to cut his hand? What kind of knowledge is he going to have to have in order to use the toy? Is he going to wind it up or is he simply going to push it? That has to be thought out before you produce it. This
is front-end analysis and it is just as simple as that if you are developing a new weapon system—you have to think in terms of how is it going to be used. In the case of RSI in terms of looking at it with regards to our allies, whether that ally buys that and actually uses it himself, or whether he is simply going to be there on the flank, may have to use it but has to operate with us when we use it, we need to think in terms of what does he need to know and that is RSI—front-end analysis of RSI.

MAJOR STUMP. Yes, sir. Then we are saying that this would be the road map which would encompass the entire life cycle process whether we are talking about training and doctrine and that operational field use of that equipment . . .

GENERAL HEISER. Yes, Don, but I want to interrupt you. See, again, we (and I am not being critical) tend to use too many phrases which get it complex—life cycle, let's don't talk about life cycle; let's just talk about the fact that you need to know ahead of time how that thing is going to be used when it is used in the hands of the user.

MAJOR STUMP. So if not standardized, then we have an inter-operable way of working together.

GENERAL HEISER. Exactly.
MAJOR STUMP. Well, how do you feel or perceive that this is going to impact on that combat unit, that combat service support, or combat service.

GENERAL HEISER. Without RSI that unit is going to be in the front line of our armed forces. And if he has to operate completely within himself, then he doesn't need RSI. But, if he is going to operate with others and that is the essential case that is practical in the world today. We are going to have to operate with others whether it is others, who are in our own nation, or whether it is other nations. We are going to have to know how to RSI with those others.

MAJOR STUMP. The key to this RSI success from what I am understanding you to say, sir, is that personnel no matter whether they are US or people in the alliance at all levels, whether it be the soldier or it be the general must understand not just the policies/procedures, the training, so that there is an erasing of misinterpretation of rationalization, standardization, and inoperability. When this is done then I think I am also hearing you say that the crux of the RSI issue which is causing us to have a non-productive program will make our senior leaders aware of just what's happening at the worker bee or . . .

GENERAL HEISER. No, not just aware, but directly influencing what the worker bee, as you call them, will be doing and demanding that they meet certain objectives within certain time elements.
You see, today, it is almost up to your own nation to determine what you will do and when you will accomplish it. I am saying that that is not command and control of decentralization, that's chaos! The command and control provides direction, that doesn't mean there is no initiative allowed in the field; but on high priority items, command and control must demand that the people who are going to perform the work get it done and get it done within certain resources including time. And that is the problem today, we do not have the establishment of a command and control priority for RSI.

MAJOR STUMP. Well, if we are saying (and we did say back in 1977) that RSI is that acceptable description of collective defense in support of the alliance nations, if we are saying that, sir, then DARCOM, TRADOC, FORSCOM responsibilities as managers as people executed .

GENERAL HEISER. You keep saying managers, and please I am not being critical, but I want to emphasize that the people who run the armed forces are generally combat commanders and management means something different from what they do. But they understand the term "command" and I think we ought to apply the term "command and control" so that people who run these armed forces understand what we are talking about is necessary in order to achieve the effectiveness that is necessary in a coalition effort. And that coalition effort can be between individuals or it can be between nations.

E-13
MAJOR STUMP. When is RSI not feasible?

GENERAL HEISER. I think to the contrary RSI is an absolute necessity to the maximum degree that it can be achieved. And what that means is, for example, that we communicate with one another so that we both understand fully what is in the minds of one another. And that is RSI, that's an example or RSI.

MAJOR STUMP. Sir, you know that in the last couple of months we have had the logistical workshops. How important do you perceive these workshops to be?

GENERAL HEISER. What you have been doing in these workshops is a very good effort to establish understanding, policies, and procedures at the working level pertaining to the establishment of a management structure and procedures for implementing policies laid down pertaining to RSI. But the accomplishment of an effective and efficient RSI program will be limited until proper command and control is given to it by higher levels of the nation and the armed forces. And that includes the alliance level of such as NATO wherein NATO itself with the agreement of all nations concerned will provide an emphasis and a structure for accomplishing it within the alliance service.

MAJOR STUMP. Sir, if you were running the RSI program today, how would you structure it? And by this I am talking about, sir, looking at it with a top level decision maker's view of delegating responsibilities and authority.
GENERAL HEISER. We here in our little community in this room are emphasizing the necessity of RSI. We would like to be sure that this is given a very high priority and to many of us it would appear that the best way of assuring that RSI is performed is by establishing a vertical channel of RSI experts at the right hand of every commander in the command channel of the Army down to and including the lower units. But this is not a practical thing. There are other things that are important along with RSI and, in fact, RSI cannot be separated out by itself. RSI has to be recognized as an essential ingredient of command and control in effecting readiness and sustainability of an armed force. And so, therefore, you cannot make it a separate vertical channel. What we have got to do is beginning at the highest levels as you have said, we have got to assure that everyone in the business understands that RSI is an essential element of their job. And then we have to have them report on what they are doing pertaining to the accomplishment and implementation of RSI. And this depends upon continued command emphasis, command and control. Now, what you are doing in your workshops, establishes at a somewhat low level procedure wherein we can react to command and control, but the initiative for getting the job done has to come from the top and so we have to get an understanding of this at the highest levels of our armed forces and our government.

MAJOR STUMP. Then the most important point I understand to be is that from the workshops those issues in this RSI arena should be
brought to the attention of the . . .

GENERAL HEISER. It is our job at the lower level such as the participants in these workshops to determine how we can best keep our commanders informed of what we are doing or not doing pertaining to proper implementation of RSI--what the problems are and what solutions there are to solving those problems.

MAJOR STUMP. Sir, would you please comment on logistics as a national responsibility as related to the RSI understanding that multinational logistics whether it be from the DARCOM readiness viewpoint, or the TRADOC training doctrine, or FORSCOM's support of the soldier in the field.

GENERAL HEISER. The day in which any country including our own could be self-sufficient is long past. We are no longer, if we ever were, and we really were never, self-sufficient. Now, the defense of our country depends upon a coalition and the minute you enter a coalition it means you have to be able to do business with one another. In terms of logistics - logistics, if it were completely self-sufficient, might be able to get along without RSI, but in an organization such as NATO or even the relationship between our country and other allies, not a part of a grand alliance, we are dependent upon one another to be determined by what is in the alliance agreements. But we are interdependent one on another and, therefore, we have to determine how can we support one another to have the best deterrence to achieve the
best results from the alliance in terms of the objectives of that alliance.

MAJOR STUMP. Sir, how important is it that there is active participation, and I mean supportive type commitment, on the part of our senior decision makers and I am talking both from a DARCOM internal and external involvement with TRADOC and FORSCOM in this one voice/one position RSI recognized program? Just how important is that?

GENERAL HEISER. Well, again I think the question infers that the catalyst or the initiative has to come from the bottom up. This a very difficult if not impractical way of getting a job done. We need an understanding at the top levels as to the necessity for this element of deterrence. And so what we have to do is cause the recognition at top levels for the education of all concerned pertaining to the necessity of RSI. And we need to get away from fancy language and cliches and we need to talk in practical terms so that no one can misunderstand or dismiss as an impractical theory those things which are the basic elements of effective deterrence which includes RSI in any coalition effort.

MAJOR STUMP. Sir, we talked earlier about a decentralized RSI program and I understood you to say that there is nothing wrong with a decentralized RSI program if you had an institutional-like management of that type of a program.
GENERAL HEISER. Where there are vast spans of control, it has been determined over time by the wiser-saids that decentralization is a good management process; but decentralization demands strong central command and control and without it you have chaos. And today in RSI we are close to a chaotic situation because we are not accomplishing RSI in any satisfactorily effective or efficient manner, and it is primarily due to lack of command and control.

MAJOR STUMP. Well, if we look at RSI's ultimate aim to take standardization or versus what we are thinking today and it is coming from the field as interoperability being the vehicle to accomplish RSI, what do you perceive interoperability to be versus standardization?

GENERAL HEISER. I think that interoperability is the most essential of all three words - rationalization, standardization, interoperability. In a coalition effort, whether it is between individuals or between nations, you have got to be able to interoperate, you have got to be able to communicate, you have got to be able to join hands in whatever practical terms we are talking about in order to get the most effective strength at the point we need strength. And so we have got to have interoperability to the extent that we can standardize, whether it be on weapons or whether it be on doctrine and training and procedures, to the effect that we achieve that standardization we will have a greater facility than our operators.
MAJOR STUMP. Sir, what about the people who say there is not enough for daily functional job requirements, for full-time RSI people in the field. Back in 1979 . . .

GENERAL HEISER. I don't think we need full-time RSI people! RSI should be recognized as an essential ingredient of every person involved in logistics support for the armed forces of the United States. If a man is in supply, he needs to recognize the RSI involved in supply. If he is maintenance, the same thing. If he is in research and development, the same thing. If he is an engineer, if he is a truck driver, whatever, if he is an infantryman, he needs to understand the RSI aspects of his job and there are RSI aspects of every job in the Department of Defense. There is a point here that we made earlier, I think we have covered just about all the points that we made earlier except the one about TRADOC. You are working for DARCOM; DARCOM has seen fit to give it enough of a priority to whereby you were put on this project and you are working at it with the help of others, such as you all, to get this job done. However, I do not see the impact of TRADOC on this, and for that matter the other major commands, but particularly TRADOC because TRADOC has the responsibility for doctrine and training and TRADOC's job in terms of interoperability and standardization of doctrine and training is just as essential, or more so, than is DARCOM's job with materiel. And we have already agreed that the standardization of materiel is most probably going to be limited; but I had said before, and
I repeat now, we cannot tolerate limited standardization of doctrine and training and procedures. We have got to have those in order to achieve interoperability in any efficient way. And if we don't have interoperability, we don't have deterrence; and if we don't have deterrence, we are going to have war.

MAJOR STUMP. Sir, your major recommendation is outstanding because that is where the study is pointing, that by interfacing not just the DARCOM Readiness Community (because that was the main scope of the study) but as we went into it a little deeper we found out that is was not an individual command, it was all the commands, DA, OSD, and even to a highest level where RSI has been (and I don't use this sarcastically) a lip service or just a whisper and then, as you have expressed a number of times in the last discussions, that the man (that GS-11 or GS-13) who is doing the work, the study people who are doing the work, if they don't feel and they don't understand that there is a strong support mandated (and I hate to use the word mandated), but unless somebody says . . .

GENERAL HEISER. Let's do it . . . that's command and control, a lot of people don't know what mandated means, but command and control in this man's Army, they understand it. In fact they understand it very poorly; they don't think that anything in logistics could have anything to do with command and control. C3I, that doesn't include logistics one damn bit until you finally explain it to somebody.

MAJOR STUMP. Sir, thank you very much.

E-20
This questionnaire was distributed to the addressees on page F-4 to determine the status and existing perceptions on RSI.
APPENDIX F

DEPARTMENT OF THE ARMY
U.S. ARMY MATERIEL SYSTEMS ANALYSIS ACTIVITY
LOGISTICS STUDIES OFFICE
FORT LEE, VIRGINIA 23801

19 April 1984

SUBJECT: Rationalization, Standardization, and Interoperability (RSI)
Readiness Functions

SEE DISTRIBUTION

1. References:
   b. Messages, HQ DARCOM, 071525Z Nov 83 and 071055Z Mar 84, subject as above.
   d. Discussion with POCs at commands or 3d Alliance Logistics Workshop.
   e. The RSI "read ahead" packets, i.e., RSI Management Matrix, Problem Area Profile, Draft Working Survey, Evaluation Report, and RSI Flow Chart.

2. The references in paragraph 1 provide background substantiating the data requested in this letter.

3. As a result of coordination between your organization POC and MAJ Stump, LSO, HQ DARCOM is soliciting your command's position in formalizing a DARCOM internal and external RSI profile. This data is imperative for the validation phase of the study.

4. This study was undertaken to fully support the Army's RSI priorities as established by the Vice Chief of Staff, US Army, (Reference 1a). The following information and position statements are requested:
   a. Is the participation and concern for RSI interface a major management action for your organization or unit?
   b. Describe your organization which supports RSI. How does this organization influence RSI? Include a description of this organization's functions, tasks, and the position of RSI in its overall mission.
19 April 1984

SUBJECT: Rationalization, Standardization, and Interoperability (RSI)
Readiness Functions

c. Provide an accurate job description of your RSI POC. What functional
integrated actions does this individual perform within your organization? What
are this individual's responsibilities as related to other RSI implemented
initiatives?

d. Clarify your position in regards to pursuing a successful RSI program.
What efforts have been made within the following areas:

(1) Policy guidance, i.e., SOPs, LOI, directives, etc.
(2) Resources - dollars, people, and positions.
(3) Management in the day-to-day decision making functions.
(4) Supportive pursuit of an RSI initiative (program).

e. Explain your concept of RSI. How can full cooperation in the RSI
arena be achieved?

f. What could best assist your organization/unit when trying to promote
more positive participation and supportive actions between the decision maker
levels and their planners in resolving RSI issues?

g. What priority does RSI receive in your organization/unit?

5. The RSI workshops, interviews, and field visits substantiated that
problems in the RSI arena must be resolved through joint internal and
external affiliation programs designed to unite the workforce in a one-voice
and one-position effort; also noted was that establishing RSI initiatives
and issues are vital to the enhancement of the total doctrine, policy,
training, research and development, and readiness profile.

6. It was clearly pointed out by all organizations and units visited that
high level participation must demonstrate and provide better support to RSI
before lower level actions can be taken to achieve any type of active RSI
commitment.

7. The visits also surfaced the fact that considerable debate, confusion, and
non-coordinated initiatives have stressed working relationships, thus con-
straining further positive exchange of actions/efforts. It was unanimously
voiced that stronger supportive action must be initiated within the RSI arena
to eliminate adverse and differing priority actions. Certainly, there are
reasons for RSI; however, the military necessity should be first on the list.

8. Thank you for your supportive efforts and your positive recommendations.
Per conversations with POCs, request written responses NLT 20 May 1984 to
Director, AMSAA, ATTN: DRXY-LLSO, Fort Lee, Virginia 23801.
SUBJECT: Rationalization, Standardization, and Interoperability (RSI) Readiness Functions

For the Director:

J. Allen Hill
Manager
Logistics Studies Office

DISTRIBUTION:

COMMANDERS
DARCOM, ATTN: DRCRE-C
TRADOC, ATTN: ATCD-YN
FORSCOM, ATTN: AFLG-PO-P
3d Army, ATTN: AFRD-G-DM
USACAC, ATTN: ATZL-CAI
USACAC, ATTN: ATZL-CAM-C
AMC, ATTN: DRSMC-LEM(R)
AMC, ATTN: DRSMC-CS
TACOM, ATTN: DRSTA-CG
TACOM, ATTN: DRSTA-ND
TACOM, ATTN: DRSTA-Q
USACOM, ATTN: DRSAV-CG
TACOM, ATTN: DRSTR-CG
TACOM, ATTN: DRSTR-LE
AMC, ATTN: DRSAC-EL

CF:
USD(MI&L), ATTN: SECDEF-MI&L
HQDA (DAMO-FDO)
HQDA (DALO-PLO)
APPENDIX G

RSI MANAGEMENT PROFILE MATRIX (RSI MASTER TASKING PLAN)

1. The proposed RSI Management Matrix illustrates who has what authority and responsibilities to delegate RSI missions, functions, and tasks. The matrix will significantly emphasize the diverse actions which are often duplicated at the different headquarters or by their representatives. This proposed management profile will insure RSI established procedures are enhanced to assure interface, cooperation, and mutual understanding as related to identifying and analyzing the problem so that an appropriate solution can be formulated and implemented into functional daily operational requirements.

2. The RSI management matrix was developed to present an overview and yet display a detailed breakout of who should have what responsibilities and authorities within the RSI structural network for delegating missions, functions, and tasks.

3. The matrix emphasizes the diverse actions which are often duplicated or omitted by the different headquarters or by their representatives. This management matrix will insure RSI established procedures are enhanced to assure coordination, cooperation, and mutual understanding are related to identifying and analyzing the problem so an appropriate solution can be found.

4. The matrix is a pictorial view of AR 34-1 and portrays the proponents and their functions so these considerations can become a part of the daily operations for achieving unified headquarters positions on RSI. The matrix will ensure that coordination and cooperation takes place.

5. The matrix has been coordinated and validated by both field and staff elements for who has what authority and responsibility to delegate RSI missions, functions, and tasks. The matrix portrays the daily functional and operational requirements to which resources must be programmed if the RSI policy, guidance, and procedures are to be supported and executed.

6. This matrix was developed to focus attention on the fact that many RSI initiatives are so decentralized in their management that programming and required support might be impossible.

7. The matrix outlines what, who, and implies how RSI management actions should be acted upon to support the Army RSI efforts.

8. Coding used in matrix:

G-1
O: Overall management responsibility with fullest authority and jurisdiction of policy guidance.

A: Approval sanction or confirmation authority by permission of higher management level.

P: Primary responsibility to manage within the guidance directives from higher management levels. This level of management must formalize and communicate the integrated actions from the decision makers and their planners so that particular policy requirements are supported and executed.

C: Coordination of interactions and the combining of higher level and lower level management action requirements.

S: Supportive actions are those required to literally gather and evaluate adequate data for completeness of the requirements.

I: Informed, to be kept updated on particular facts for management decision making.

NOTE: It should be understood the next higher level incorporates all the lower management functional requirements.
APPENDIX G

OVERVIEW OF HIGHEST LEVEL RESPONSIBILITIES & AUTHORITIES

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<th>OFD &amp; APN</th>
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- A. Combination of Stakes & Objectives
  - B. Leveling Non-USA, Bilateral & Multi
  - C. Validation of Stakes & Objectives
  - D. Satisfying and Implementation of Objectives & Stakes
  - E. Qualifications (Level II)
  - F. Selection of Work Party Representative
  - G. Development of Plan, DCUS, etc.
  - H. Reconciliation, Clarification & Reports
  - I. Response for Pamphlet, Terms & Closing
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