DEFENSE SCIENCE BOARD
TASK FORCE

on

Logistics Transformation - Phase II

January 2001

OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR
ACQUISITION, TECHNOLOGY & LOGISTICS
WASHINGTON, D.C. 20301-3140

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY, AND LOGISTICS)

SUBJECT: Final Report of the Defense Science Board Task Force on Logistics Transformation – Phase II

I am forwarding the final report of the Defense Science Board Task Force on Logistics Transformation.

The Terms of Reference directed the Task Force to review and evaluate DoD's progress to date on transforming DoD Logistics System using the "1998 DSB Report on DoD Logistics Transformation" as a baseline. In addition we were requested to review future plans and programs to determine (1) how these plans and programs comply with the 1998 recommendations, (2) what barriers inhibit the rapid transformation of the DoD logistics system, and (3) what, if any, further implementation actions are required.

The Task Force formulated thirteen recommendations, which address DoD near-, mid-, and far-term needs.

I endorse all the Task Force's recommendations.

Dr. William Schneider
DSB Chairman

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

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Attached is the final report of the Defense Science Board Task Force on Logistics Transformation – Phase II. Phase II of the Task Force effort was to review and evaluate DoD's progress to date on the transformation of the DoD Logistics System using the "1998 DSB report on DoD Logistics Transformation" as a baseline. In addition we were requested to review future plans and programs to determine their compliance with the recommendations related to the 1998 DSB report on DoD Logistics Transformation, determine the nature of barriers inhibiting the rapid Transformation of the DoD Logistics System and determine if any further implementation actions are required.

As with any large undertaking, DoD Logistics Transformation is a complex and difficult undertaking. Overall we believe that DoD is close to developing a blueprint for the future, but we are concerned that our previous caution that "DoD must recognize that logistics transformation is a 'BIG DEAL … a VERY BIG DEAL' [and] has not yet been adequately imbedded in leadership priorities. Continuing to regard logistics as the secondary 'tail' to warfighter doctrine, training, and armament will have unacceptable consequences in the 21st Century battlespace, resulting in decreased ability to achieve national security objectives and cost.' …has not been heeded at the top of the organizational chart." We believe that the Arthurian Leader we recommended originally must be at a higher level within DoD to achieve true transformation. Leadership must clearly provide a focus and a sense of urgency for Logistics Transformation efforts with quantifiable milestones and a mechanism for review and recalibration, as required, with the Services and OSD agencies.

Philip A. Odeen
Co-Chair

William G. Howard
Co-Chair

TABLE OF CONTENTS

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Background

The first Defense Science Board (DSB) Task Force on Logistics Transformation reported its findings in 1998. At that time, the Task Force recommended that the Department of Defense (DoD)

- Provide unified and specified commanders in chief (CINCs) with the capability to pull the required support from the logistics system,
- Empower a systems architect to define and enforce an integrated system,
- Enhance the deployment and sustainment capability of the logistics system,
- Reduce the logistics demand as a major element of cutting costs and increasing flexibility, and
- Address logistics vulnerabilities in exercises and operational plans.

In September 2000, the Under Secretary of Defense (Acquisition, Technology, and Logistics) asked the DSB to form the Task Force on Logistics Transformation – Phase II to "review and evaluate DoD's progress to date in implementing the [1998 Task Force's] recommended actions." The Under Secretary also asked the Task Force to review future plans and identify barriers to implementation.

During October and November 2000, the Task Force met as a body three times and received a total of 16 briefings (see Appendix C). These briefings, as well as the discussion they generated, helped the study team answer the Under Secretary's call for an updated and revised set of findings. This report documents these findings.

Findings and Recommendations

The 1998 Logistics Transformation study emphasized the critical, indeed fundamental, importance of logistics to the success of U.S. military operations. It noted that an artificial dichotomy exists between operations and logistics and that this dichotomy threatens to undermine DoD's planned revolution in military affairs (RMA). It also noted that a properly reformed logistics system would reduce a CINC's operational footprint, cost less money, and effectively support U.S. military strategy. The Phase II study reviewed the issues raised two years earlier, calling attention to both the durable nature of the problem and the vital need to transform the system. Specifically, the Phase II study concluded as follows:

The CINC's Responsibility. The CINCs under Title 10 have responsibility for logistics in theater—requiring significant planning, forethought, and integration. While the Task Force noted at least one positive step forward, much work remains to be done. To enable a CINC to "pull" the requisite logistics support, new tools and systems are needed. These tools must be fully integrated into the operational environment, which in turn argues for extensive training and experimentation. In exercises, games, and experiments it is important that logistics support, including stocks of supplies and munitions, be played realistically to ensure we understand the weaknesses and shortfalls of our logistics

systems. The CINCs need a stronger voice in logistics requirements to ensure the support they need is in place.

The Logistics System Architect. The Task Force was encouraged by DoD's actions to empower a logistics systems architect. It noted that the position has the full support of the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) as well as the Joint Staff J-4. Support from elsewhere in the Office of the Secretary of Defense (OSD) is still in question, as is full backing from the military services. The Task Force cited close coordination with Program Analysis and Evaluation (PA&E), the Under Secretary of Defense (Comptroller) (USD (C)), and the Under Secretary of Defense for Personnel and Readiness (USD (P&R)) as particularly important for the Program Objective Memoranda (POM), financial transaction, and workforce development issues, respectively. For the logistics system architect to achieve its full mandate, the Task Force recommended that the position review and approve applicable service and agency logistics transformation projects. Unless the architect controls the budget it will not be effective.

Deployment and Sustainment. The Task Force reviewed a number of current initiatives designed to improve the ability of the logistics system to deploy and sustain forces. One example of note was the Strategic Distribution Management Initiative, a partnership between the Defense Logistics Agency (DLA) and the United States Transportation Command (USTRANSCOM). That said, the total effect of such efforts to date has been modest. Among other things, the Task Force called for DoD to exploit commercial capabilities and accelerate the pace of change. In particular, greater reliance on commercial lift in peacetime and during contingencies would have a significant payback.

Demand Reduction. The Task Force found little progress toward reducing the logistics overhead required by DoD operations. In large measure, this is due to the powerful inertia of legacy systems and their associated budgets. For demand to decline, the DoD must adopt a longer view that acknowledges full life-cycle and maintenance costs. In addition, new systems must be able to take advantage of commercial wide-body lift if we are to meet deployment goals.

Logistics Survivability. The Task Force noted with concern that the U.S. logistics system remains vulnerable to attack. No action of significance has happened over the past three years. DoD must begin at once to assess and reduce these vulnerabilities. To this end, the Chairman of the Joint Chiefs of Staff (CJCS) should review existing assessments and plans and ensure that prompt remedial actions are taken. In addition, gaming and assessment efforts should incorporate real-world threats such as information warfare and chemical and biological weapons. Such gaming and exercises should also play logistics realistically, rather than assuming that logistics support operates flawlessly, which is clearly most unlikely.

Conclusion

For the U.S. military to maintain its position of global leadership, it must transform its logistics system. Failure to do so imperils our ability to deploy and sustain our military forces to meet the new threats we will face in the future. Driven by global security changes, the U.S. military strategy is shifting toward acquiring expeditionary capabilities, particularly the Army and the Air Force. However, current logistics concepts and

capabilities continue to be largely based on the previous strategy that depended on in-place forces, supplemented by additional deployments. This logistics perspective put future strategy execution increasingly at risk. Joint Vision 2010/2020 cannot be executed without logistics transformation. Logistics requires top leadership, management focus, and active support. Incentives to improve legacy reliability and new resources for modernization are essential if we are to transform military logistics.

With the needed top-management focus and incentives, the logistics system can be transformed. As the first study observed, logistics transformation "is not held up by knowledge of what to do, not primarily a structural issue, nor is it limited by lack of people, technology, or resources." What continues to limit progress is the lack of an "overall business and information systems architecture focal point—a 'champion' (in the Arthurian sense)." This remains true, hence the repeated call for a strong and effective logistics system architect.

Ultimately, logistics transformation must have top-level leadership commitment. The new DoD team (including the Secretary of Defense and the CJCS) must personally lead the transformation effort for it to succeed. In addition, the new Deputy Under Secretary of Defense for Logistics and Material Readiness (DUSD (L&MR)) must engage senior DoD leadership and review all options for accelerating the transformation process and elevating its visibility within OSD. Critical throughout will be a clear focus, quantifiable milestones, and a mechanism for recalibrating efforts between and among the military services. Again, success means more that efficient logistics; success means agility and dominance on the future battlefield.

Detailed Overview

Terms of Reference:

- **The DSB Task Force on Logistics Transformation was Chartered to:**
  - **Review and evaluate DoD's progress on the transformation of the DoD logistics system**
  - **The "1998 DSB Report on DoD Logistics Transformation" serves as the baseline.**
  - **Specifically address:**
    - **Assessing the capability of unified and specified Commanders in Chief (CINCs) to "pull" the required support from the logistics system.**
    - **Empowering a system's architect to define and enforce an integrated system.**
    - **Enhancing the deployment and sustainment capabilities of the logistics system.**
    - **Reducing logistics demand as a major contributor to meeting CINC needs and increasing flexibility.**
    - **Addressing logistics vulnerabilities in exercises and operational plans.**
  - **In addition address:**
    - **Future plans and programs.**
    - **Barriers inhibiting rapid transformation.**
    - **Further implementation actions that are required.**

The Primary Themes of the 1998 Logistics Transformation Study

- As concluded in the Joint Operations Superiority Summer Study, the principal operational challenge facing the U.S. military in the 21st Century is strengthening and preserving its capability for early, then continuous, application of dominant control effects across the full spectrum of conflict.

- The military logistics system is a critical enabler of deployment, then sustainment, of dominant full spectrum engagement effects.

- Today's U.S. military suffers from a separation of logistics from operations, an organizational principle of long standing, and a reliance on mass, rather than efficiency and certainty, to be effective. As now configured, the logistics system frequently constrains operations and drains scarce resources needed for force modernization.

- Failure to seamlessly blend military logistics with operations will be a showstopper for DoD's planned "Revolution in Military Affairs (RMA)"—a motivation that demands immediate action.

- DoD must recognize that logistics transformation is "a BIG DEAL … a VERY BIG DEAL." Continuing to regard logistics as the secondary "tail" to warfighter doctrine, training and armament will have unacceptable consequences in the 21st Century battlespace resulting in decreased ability to achieve national security objectives and cost.

- The military logistics system can be reformed. A "Transformed Logistics System" can be responsive to CINC (Joint Task Force Commander) needs; support rapid closure of combat power; permit a smaller footprint—both people and equipment; be more agile, responsive, and survivable than today's system; fully integrate business processes and information systems; be well integrated with industry; and be significantly less expensive.

Previous Study's Findings & Recommendations

- Unified and specified CINCs are unable to perform their Title 10 responsibilities to plan and manage theater logistics. CINCs must be able to "pull" required support from the logistics system.

- DoD's logistics system is fragmented with no end-to-end control, integration, performance measures, and accountability. Transformation of logistics business and information systems must be led by a logistics systems architect with power to define and enforce an integrated system.

- Deployment and sustainment methods and equipment must change. Ability to deploy in undeveloped areas and under unfavorable conditions must improve; better use of commercial capability is needed.

- Decreasing logistics demand is a major element of cutting cost and improving flexibility. Force structure, weapons systems, and equipment must be upgraded to reduce consumption.

- Logistics vulnerabilities need more attention. Exercises and plans must anticipate and deal with physical and information attacks on the logistics system.

Phase I Study - Summary, Findings, & Recommendations

- **The Task Force believes the five following issues are key to the success of logistics transformation:**

1. **CINCs RESPONSIBILITY—**The Task Force concluded much more work is needed to provide Commanders in Chief (CINC) and their Joint Task Force (JTF) Commanders with the capability needed to manage logistics system support for large and/or complex contingencies. The development of needed tools and systems must be completed and extensive experimenting/training/exercises conducted to refine plans and concepts of operations (CONOPS).

2. **LOGISTICS SYSTEM ARCHITECT --** The Task Force was encouraged by DoD actions to empower a logistics systems architect to define an integrated logistics system. The effort is off to a solid start, but much work remains to be done.

3. **DEPLOYMENT & SUSTAINMENT --** The Task Force found numerous initiatives underway to enhance the deployment and sustainment capability of the logistics system, but the impact to date of these actions is modest and the pace too slow.

4. **DEMAND REDUCTION --** The Task Force found little progress or attention to reducing demand for logistics or the required airlift/sealift support.

5. **LOGISTCS SURVIVABILITY--** The Task Force noted with concern that logistics vulnerabilities in exercises and operational plans have received little if any additional attention or emphasis.

- **BARRIERS --** The Task Force found the usual barriers that resist major change in any large organization. These must be addressed directly and overcome if we are to achieve true logistics transformation.

- **FINALLY --** The Task Force continues to be concerned that logistics transformation has not yet been adequately imbedded in the priorities of the Department's senior leadership. Success requires the leadership and involvement of the Secretary and Deputy Secretary, the Chairman, and the Service Secretaries and Chiefs.

CINCs have Title 10 Responsibility for Logistics in Theater

PHASE I STUDY FINDINGS

- A JTF Commander has challenging logistics responsibilities to manage large and/or complex contingencies.
  - Changing operational situations and logistics vulnerabilities demand flexible management capabilities
  - Must be tailored to operational needs in Joint Vision 2020 environment
- To do the job, the JTF Commander must have a robust logistics management capability.
  - Experienced people/leadership
  - Decision support tools and systems: asset visibility, planning, control
  - Probability of success is enhanced by vigorous training/experimentation/exercising

CURRENT SITUATION

- DLA has successfully integrated management of three supply classes
  - Fuel, food, pharmaceuticals
- Needed tools are under development—much more to do
- Inadequate funds for training & exercising
  - Dollars are limited and this area is often seen as a bill payer
  - Insufficient number and range of exercises to test vulnerability/disruptions
- No standing peacetime JTF logistics function
  - "Pick-up" game for each contingency (ad hoc)
  - Works for limited contingencies, but not tested in larger operations since Desert Storm
- Regional CINCs have a very limited voice in setting critical logistics requirements
- Logistics support is seldom tested realistically in exercises and war games. Rather it is assumed that logistics does not constrain operations, which is not realistic. More realistic exercises would focus more attention on shortcomings and weaknesses in our logistics system.

CINCs have Title 10 Responsibility for Logistics in Theater

RECOMMENDATIONS

- Accelerate action to ensure the JTF Commander and the supporting CINC staff can effectively exercise their logistics management responsibility:
  - Complete development of needed tools/systems
  - Fund extensive exercises for a full range of contingencies—protect training and exercise funds from "bill paying"
  - Realistically play logistics support in exercises and war games to provide a solid assessment of our logistics support capability and shortcomings
  - Based on exercises and experiments, determine the need for and composition of a standing JTF logistics capability
- Support programs to simplify JTF logistics challenge, e.g., accelerate integration of additional supply classes.
- Develop Advanced Concept Technology Demonstrations (ACTDs) and exercises to be led by a warfighting CINC probably Pacific Command (CINCPAC) or European Command (CINCEUR) to ensure the warfighter requirements, concepts, and capabilities for logistics support are spelled out for the services and supporting organizations (DLA, USTRANSCOM, etc.).

Logistics Systems Architect

PHASE I STUDY FINDINGS

- **OSD has established a logistics systems architect to define the entire logistics business process. Architect provided adequate contractor support**
- **To do the job, the logistics architect must have buy-in and full support from the Chairman and Service Chiefs in addition to all elements of OSD.**

CURRENT SITUATION

- Substantial progress being made defining a logistics architecture though much remains to be done
- Effort has full support of USD (AT&L) but the degree of support from other elements of OSD and the Services is still a question
- J-4 of Joint Staff fully supports effort
- Logistics Transformation Leadership Group is a positive step in engaging the Services

RECOMMENDATIONS

- USD (AT&L) should continue its strong support of the logistics system architect and ensure the institutional viability of the logistics architect function
  - Establish and enforce performance metrics for the logistics Architect
  - Develop a definitive road map for executing the logistics transformation architecture
- Logistics architect, acting through the USD (AT&L), should review and approve applicable Service & Agency logistics transformation projects, including decisions on funding, to ensure compliance with the logistics architecture.
- The Secretary and Deputy Secretary of Defense (SecDef) must ensure OSD, the Services, and joint world also support this effort. Control of funding is an important element of this.

Deployment & Sustainment

PHASE I STUDY FINDINGS

- **A large number of initiatives are underway to enhance the deployment and sustainment capability of the logistics system. The direction is right, but the impact of these actions is still modest.**
- **To get the job done in support of Joint Vision 2020, we need to pick up the pace and exploit commercial capabilities.**

CURRENT SITUATION

- SecDef designated CINC, U.S. Transportation Command (USCINCTRANS) as the "Reinvention CINC," freeing USTRANSCOM from certain regulatory constraints in improving business practices.
- The Strategic Distribution Management Initiative, a partnership between DLA and USTRANSCOM, appears promising.
- Little has been done to exploit the substantial lift capacity of the commercial wide-body aircraft fleet or new sealift technology. Unless these capabilities are used, DoD will be unable to meet its mobility requirements.
- Military airlift fleet is used intensely for long-haul missions during peacetime, which is costly and impacts service life and surge capabilities.
- Little progress has been made in enhancing capability to deliver through underdeveloped port facilities (e.g., Joint Logistics over the Shore (JLOTS) progress is disappointing).

Deployment & Sustainment (cont.)

RECOMMENDATIONS

- Reexamine the current use of C-17s and C-5s for routine long-range lift missions shifting mission to commercial wide-body airlift fleet.
- Assess the concept of a rebalanced military/civilian cargo fleet that operates the C-5 and C-17 fleets at the minimum level necessary to maintain aircrew proficiency and sustain reserve readiness. Identify and quantify the amount of peacetime throughput/shortfall that must be filled by other airlift means.
- The database gathered from this inquiry provides the baseline for sizing the amount of service life required in the military transport fleet, as well as the annual peacetime lift shortfall that could be filled by commercial operators using commercial or military aircraft.
- This study would also provide a database for OSD consideration of creative schemes to cover the shortfall by various means, to include greater civilian capability or directed set asides of annual throughput levels for outsourcing lift by U.S. carriers.
- Based on this assessment, strengthen DoD's ability to use commercial wide-body aircraft for contingency deployments
  - Enhance Civil Reserve Air Fleet (CRAF)
  - Incorporate defense features in commercial aircraft conversions (over 400 747s)
- Establish and strictly enforce JLOTS development and procurement schedule and milestones to provide significant over the beach and undeveloped port capability.
- Longer term, evaluate the use of fast, shallow-draft sealift per the findings at the recent Army Wargame at Carlyle.

Demand Reduction

PHASE I STUDY FINDINGS

- Task Force found little attention or progress in reducing demand for logistic support and airlift/sealift for contingency operations
- Reducing demand requires concerted emphasis on:
    - Reducing legacy systems' maintenance requirements
    - Reducing the consumption of consumables
    - Designing new systems to be more reliable and require fewer people to operate and maintain
- New equipment designs must also take into account the need to minimize lift requirements and maximize the ability to use commercial wide-body aircraft.

CURRENT SITUATION

- Legacy systems dominate Operation and Support (O&S) budgets for the next 20 years, yet reducing support and maintenance costs gets little attention or investment. Efforts to allocate even a few hundred million to this effort have had sporadic success.
    - This drives costs up, availability down, and skilled manpower out of the Services.
    - Growth of O&S budget crowds out funds for recapitalization ("death spiral")
- O&S costs continue to increase as systems age (e.g., flying hour costs up 40% to 60% over last five years) and operational availability rates have declined and are predicted to go lower.
- The Services seldom invest in reliability improvements even though they provide large, near-term payoffs in reducing O&S costs and improving availability rates.
- A Product Support Reengineering Implementation Team was recently formed: 30 pilot programs have been established to improve reliability and reduce O&S costs of aging legacy systems.

Demand Reduction (cont.)

CURRENT SITUATION (cont.)

- Reliability is often sacrificed for other system requirements as a key performance indicator of new acquisitions
- Concern for full life-cycle costs of new systems is inconsistent (Joint Strike Fighter (JSF) a success story)
- DoD has still not enforced the sizing requirements across the Services to make equipment commercially deployable whenever possible
- CJCS emphasis on expeditionary nature of future forces will require significant reductions in deployable footprint and personnel. Recent experience in Kosovo contingency demonstrates that much remains to be done.

RECOMMENDATIONS

- OSD should direct each Service to develop a detailed strategy and plan to significantly reduce O&S costs of legacy equipment.
  - Services develop and present assessment of future O&S costs for fielded systems over the next 18 years and identify drivers which affect system availability, readiness, and cost
  - Invest in high-return, quick pay-off reliability improvements
  - Focus on systems that will be operational for at least five years and redesign systems to reduce manpower
  - Rely more heavily on contractor maintenance
  - Provide incentives to reduce O&S costs, e.g., keep savings for reinvestment in service transformation programs
- Make deployability by commercial wide-body aircraft a key design feature and develop a plan to redesign or replace outsized legacy gear to enhance deployability

Logistics Survivability

PHASE I STUDY FINDINGS

- **Vulnerability of logistics systems and supply chain remains a point of serious weakness in U.S. military operations**
- **CINCs lack the resources and knowledge to adequately integrate the vulnerability scenarios in each exercise**
- **Survivability deserves much greater attention and actions should be taken promptly to minimize vulnerabilities of key logistic modes**

CURRENT SITUATION

•Task Force found little progress since our earlier report. Little attention or priority given to vulnerability of logistics systems in exercises and planning, though some CINCs starting to address the problem

•RECOMMENDATIONS (Unchanged from earlier DSB report):

- CJCS direct J-4 (in concert with J-34) to comprehensively review and validate existing logistics/prepo vulnerability assessments and response/contingency plans
  - -Provide initial report in four months, and detailed results to SecDef within nine months
- Include red team assaults against logistics in every wargame and simulation exercise, joint and service (CJCS)
- Apply same information warfare (IW) standards to logistics as being used for other portions of the command, control, computers, and intelligences (C3I) system (process owner)
- CJCS direct J-4 action to ensure that logistics-unique aspects of chemical and biological warfare (CBW) are included in planning for operations and logistics

•Use realistic assumptions regarding logistics support capabilities and stock of supplies and munitions in exercises and war games

Final Thoughts

• Failure to achieve true logistics transformation presents great future risk to our dominant military power

- JV2020 is critically dependant on true focused logistics
- DoD must have a logistics system that is equal to or better than the best-in-class global commercial logistics systems

• Failing to truly transform DoD logistics will have serious consequences:

- The cost of operating major systems will continue to increase
- The availability of those systems will continue to decrease
- Future readiness will erode and essential re-capitalization will be
- delayed
- The ultimate consequence: good people will leave the Services

• Given the commitment to use aging legacy systems for many years, reliability and maintainability improvements will yield dramatic dividends

• A new logistics paradigm would enable us to increase the size of the existing force should a near peer emerge in the future.

• The success of these dramatic reforms will insure the success of Joint Vision 2020 and maintenance of our military dominance.

Annex A:
Terms of Reference

Annex B:
Task Force Roster

Logistics Transformation – Phase II
Membership

Chairmen:
Dr. William Howard
Mr. Philip Odeen

Members:
Mr. Michael Bayer
Mr. Edwin Biggers
VADM Bill Hancock (Ret)
Gen Alfred Hansen (Ret)
Ms. Susan Livingstone

Executive Secretary:
CAPT Dave Newberry

Military Assistant:
CDR Brian Hughes

Support:
Mr. Richard Balzano
Mr. Matthew Amitrano
Ms. Donna Preski
Ms. Allison Troutman

Annex C:
Briefings Received

DEFENSE SCIENCE BOARD TASK FORCE ON LOGISTICS TRANSFORMATION – PHASE II BRIEFINGS RECEIVED

18-19 October

Overview on Logistics System Modernization	Mr. Zachary Goldstein
Joint Theater Logistics Management	Mr. Jay Erb
Preparing the Logistics Architecture to Meet the Requirements of Joint Vision 2010	Mr. Dave Berteau
Overview MSR–05 Study	CDR Chris Hase
Joint Theater Logistics Over the Shore	LTC John Watkins
Strategic Distribution Management Initiative	BG Jim Pillsbury
Joint Logistics Warfighting Initiative	Mr. Mike Smith
Overview Federal Advisory Committee Act	CDR Brian Hughes

30 October

Supporting the Warfighter: Today and Tomorrow	CAPT Peter Eltringham
Preparing the Logistics Architecture to Meet the Requirements of Joint Vision 2010	Mr. Dave Berteau
2010 Logistics Architecture	Mr. Lou Kratz
Critical Infrastructure	Mr. John Keenan

15-16 November

Defense Logistics	RADM Ray Archer
Logistics Overview U.S. Transportation Command	Mr. Webber/Mr. Seaman
Logistics Overview U.S. Joint Forces Command	BG Gary Border
RAND Study Update	Mr. David Chu

Annex D:
Acronyms Used

ACTD	Advanced Concept Technology Demonstration
C3I	Command, Control, Computers, and Intelligence
CBW	Chemical and Biological Warfare
CINC	Commander in Chief
CJCS	Chairman, Joint Chiefs of Staff
CONOPS	Concept of Operations
CRAF	Civil Reserve Air Fleet
DLA	Defense Logistics Agency
DoD	Department of Defense
DUSD	Deputy Under Secretary of Defense
DUSD (L&MR)	Deputy Under Secretary of Defense for Logistics and Material Readeness
IW	Information Warfare
JLOTS	Joint Logistics Over the Shore
JSF	Joint Strike Fighter
JTF	Joint Task Force
JV 2020	Joint Vision 2020
O&S	Operations and Support
OSD	Office of the Secretary of Defense
PA&E	Program Analysis and Evaluation
POM	Program Objective Memoranda
RMA	Revolution in Military Affairs
SecDef	Secretary of Defense
USCINCEUR	U.S. Commander in Chief, United States European Command
USCINCPAC	U.S. Commander in Chief, United States Pacific Command
USCINCTRANS	U.S. Commander in Chief, United States Transportation Command
USD (AT&L)	Under Secretary of Defense Acquisition, Technology, and Logistics
USD (C)	Under Secretary of Defense Comptroller
USD (P&R)	Under Secretary of Defense for Personnel and Readiness
USTRANSCOM	United States Transportation Command

EXECUTIVE SUMMARY

Background

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Findings and Recommendations

The 1998 Logistics Transformation study emphasized the critical, indeed fundamental, importance of logistics to the success of U.S. military operations. It noted that an artificial dichotomy exists between operations and logistics and that this dichotomy threatens to undermine DoD's planned revolution in military affairs (RMA). It also noted that a properly reformed logistics system would reduce a CINC's operational footprint, cost less money, and effectively support U.S. military strategy. The Phase II study reviewed the issues raised two years earlier, calling attention to both the durable nature of the problem and the vital need to transform the system. Specifically, the Phase II study concluded as follows:

The CINC's Responsibility. The CINCs under Title 10 have responsibility for logistics in theater—requiring significant planning, forethought, and integration. While the Task Force noted at least one positive step forward, much work remains to be done. To enable a CINC to "pull" the requisite logistics support, new tools and systems are needed. These tools must be fully integrated into the operational environment, which in turn argues for extensive training and experimentation. In exercises, games, and experiments it is important that logistics support, including stocks of supplies and munitions, be played realistically to ensure we understand the weaknesses and shortfalls of our logistics

systems. The CINCs need a stronger voice in logistics requirements to ensure the support they need is in place.

The Logistics System Architect. The Task Force was encouraged by DoD's actions to empower a logistics systems architect. It noted that the position has the full support of the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD (AT&L)) as well as the Joint Staff J-4. Support from elsewhere in the Office of the Secretary of Defense (OSD) is still in question, as is full backing from the military services. The Task Force cited close coordination with Program Analysis and Evaluation (PA&E), the Under Secretary of Defense (Comptroller) (USD (C)), and the Under Secretary of Defense for Personnel and Readiness (USD (P&R)) as particularly important for the Program Objective Memoranda (POM), financial transaction, and workforce development issues, respectively. For the logistics system architect to achieve its full mandate, the Task Force recommended that the position review and approve applicable service and agency logistics transformation projects. Unless the architect controls the budget it will not be effective.

Deployment and Sustainment. The Task Force reviewed a number of current initiatives designed to improve the ability of the logistics system to deploy and sustain forces. One example of note was the Strategic Distribution Management Initiative, a partnership between the Defense Logistics Agency (DLA) and the United States Transportation Command (USTRANSCOM) with that said, the total effect of such efforts to date has been modest. Among other things, the Task Force called for DoD to exploit commercial capabilities and accelerate the pace of change. In particular, greater reliance on commercial lift in peacetime and during contingencies would have a significant payback.

Demand Reduction. The Task Force found little progress toward reducing the logistics overhead required by DoD operations. In large measure, this is due to the powerful inertia of legacy systems and their associated budgets. For demand to decline, the DoD must adopt a longer view that acknowledges full life-cycle and maintenance costs. In addition, new systems must be able to take advantage of commercial wide-body lift if we are to meet deployment goals.

Logistics Survivability. The Task Force noted with concern that the U.S. logistics system remains vulnerable to attack. No action of significance has happened over the past three years. DoD must begin at once to assess and reduce these vulnerabilities. To this end, the Chairman of the Joint Chiefs of Staff (CJCS) should review existing assessments and plans and ensure that prompt remedial actions are taken. In addition, gaming and assessment efforts should incorporate real-world threats such as information warfare and chemical and biological weapons. Such gaming and exercises should also play logistics realistically, rather than assuming that logistics support operates flawlessly, which is clearly most unlikely.

Conclusion

For the U.S. military to maintain its position of global leadership, it must transform its logistics system. Failure to do so imperils our ability to deploy and sustain our military forces to meet the new threats we will face in the future. Driven by global security changes, the U.S. military strategy is shifting toward acquiring expeditionary capabilities, particularly the Army and the Air Force. However, current logistics concepts and

capabilities continue to be largely based on the previous strategy that depended on in-place forces, supplemented by additional deployments. This logistics perspective put future strategy execution increasingly at risk. Joint Vision 2010/2020 cannot be executed without logistics transformation. Logistics requires top leadership, management focus, and active support. Incentives to improve legacy reliability and new resources for modernization are essential if we are to transform military logistics.

With the needed top-management focus and incentives, the logistics system can be transformed. As the first study observed, logistics transformation "is not held up by knowledge of what to do, not primarily a structural issue, nor is it limited by lack of people, technology, or resources." What continues to limit progress is the lack of an "overall business and information systems architecture focal point—a 'champion' (in the Arthurian sense)." This remains true, hence the repeated call for a strong and effective logistics system architect.

Ultimately, logistics transformation must have top-level leadership commitment. The new DoD team (including the Secretary of Defense and the CJCS) must personally lead the transformation effort for it to succeed. In addition, the new Deputy Under Secretary of Defense for Logistics and Material Readiness (DUSD (L&MR)) must engage senior DoD leadership and review all options for accelerating the transformation process and elevating its visibility within OSD. Critical throughout will be a clear focus, quantifiable milestones, and a mechanism for recalibrating efforts between and among the military services. Again, success means more than efficient logistics; success means agility and dominance on the future battlefield.

Detailed Overview

Terms of Reference:

- **The DSB Task Force on Logistics Transformation was Chartered to:**
  - **Review and evaluate DoD's progress on the transformation of the DoD logistics system**
  - **The "1998 DSB Report on DoD Logistics Transformation" serves as the baseline.**
  - **Specifically address:**
    - **Assessing the capability of unified and specified Commanders in Chief (CINCs) to "pull" the required support from the logistics system.**
    - **Empowering a system's architect to define and enforce an integrated system.**
    - **Enhancing the deployment and sustainment capabilities of the logistics system.**
    - **Reducing logistics demand as a major contributor to meeting CINC needs and increasing flexibility.**
    - **Addressing logistics vulnerabilities in exercises and operational plans.**
  - **In addition address:**
    - **Future plans and programs.**
    - **Barriers inhibiting rapid transformation.**
    - **Further implementation actions that are required.**

The Primary Themes of the 1998 Logistics Transformation Study

- As concluded in the Joint Operations Superiority Summer Study, the principal operational challenge facing the U.S. military in the 21st Century is strengthening and preserving its capability for early, then continuous, application of dominant control effects across the full spectrum of conflict.

- The military logistics system is a critical enabler of deployment, then sustainment, of dominant full spectrum engagement effects.

- Today's U.S. military suffers from a separation of logistics from operations, an organizational principle of long standing, and a reliance on mass, rather than efficiency and certainty, to be effective. As now configured, the logistics system frequently constrains operations and drains scarce resources needed for force modernization.

- Failure to seamlessly blend military logistics with operations will be a showstopper for DoD's planned "Revolution in Military Affairs (RMA)"—a motivation that demands immediate action.

- DoD must recognize that logistics transformation is "a BIG DEAL … a VERY BIG DEAL." Continuing to regard logistics as the secondary "tail" to warfighter doctrine, training and armament will have unacceptable consequences in the 21st Century battlespace resulting in decreased ability to achieve national security objectives and cost.

- The military logistics system can be reformed. A "Transformed Logistics System" can be responsive to CINC (Joint Task Force Commander) needs; support rapid closure of combat power; permit a smaller footprint—both people and equipment; be more agile, responsive, and survivable than today's system; fully integrate business processes and information systems; be well integrated with industry; and be significantly less expensive.

Previous Study's Findings & Recommendations

- Unified and specified CINCs are unable to perform their Title 10 responsibilities to plan and manage theater logistics. CINCs must be able to "pull" required support from the logistics system.

- DoD's logistics system is fragmented with no end-to-end control, integration, performance measures, and accountability. Transformation of logistics business and information systems must be led by a logistics systems architect with power to define and enforce an integrated system.

- Deployment and sustainment methods and equipment must change. Ability to deploy in undeveloped areas and under unfavorable conditions must improve; better use of commercial capability is needed.

- Decreasing logistics demand is a major element of cutting cost and improving flexibility. Force structure, weapons systems, and equipment must be upgraded to reduce consumption.

- Logistics vulnerabilities need more attention. Exercises and plans must anticipate and deal with physical and information attacks on the logistics system.

Phase I Study - Summary, Findings, & Recommendations

- **The Task Force believes the five following issues are key to the success of logistics transformation:**

1. **CINCs RESPONSIBILITY—**The Task Force concluded much more work is needed to provide Commanders in Chief (CINC) and their Joint Task Force (JTF) Commanders with the capability needed to manage logistics system support for large and/or complex contingencies. The development of needed tools and systems must be completed and extensive experimenting/training/exercises conducted to refine plans and concepts of operations (CONOPS).

2. **LOGISTICS SYSTEM ARCHITECT --** The Task Force was encouraged by DoD actions to empower a logistics systems architect to define an integrated logistics system. The effort is off to a solid start, but much work remains to be done.

3. **DEPLOYMENT & SUSTAINMENT --** The Task Force found numerous initiatives underway to enhance the deployment and sustainment capability of the logistics system, but the impact to date of these actions is modest and the pace too slow.

4. **DEMAND REDUCTION --** The Task Force found little progress or attention to reducing demand for logistics or the required airlift/sealift support.

5. **LOGISTCS SURVIVABILITY--** The Task Force noted with concern that logistics vulnerabilities in exercises and operational plans have received little if any additional attention or emphasis.

- **BARRIERS --** The Task Force found the usual barriers that resist major change in any large organization. These must be addressed directly and overcome if we are to achieve true logistics transformation.

- **FINALLY --** The Task Force continues to be concerned that logistics transformation has not yet been adequately imbedded in the priorities of the Department's senior leadership. Success requires the leadership and involvement of the Secretary and Deputy Secretary, the Chairman, and the Service Secretaries and Chiefs.

CINCs have Title 10 Responsibility for Logistics in Theater

PHASE I STUDY FINDINGS

- A JTF Commander has challenging logistics responsibilities to manage large and/or complex contingencies.
  - Changing operational situations and logistics vulnerabilities demand flexible management capabilities
  - Must be tailored to operational needs in Joint Vision 2020 environment
- To do the job, the JTF Commander must have a robust logistics management capability.
  - Experienced people/leadership
  - Decision support tools and systems: asset visibility, planning, control
  - Probability of success is enhanced by vigorous training/experimentation/exercising

CURRENT SITUATION

- DLA has successfully integrated management of three supply classes
  - Fuel, food, pharmaceuticals
- Needed tools are under development—much more to do
- Inadequate funds for training & exercising
  - Dollars are limited and this area is often seen as a bill payer
  - Insufficient number and range of exercises to test vulnerability/disruptions
- No standing peacetime JTF logistics function
  - "Pick-up" game for each contingency (ad hoc)
  - Works for limited contingencies, but not tested in larger operations since Desert Storm
- Regional CINCs have a very limited voice in setting critical logistics requirements
- Logistics support is seldom tested realistically in exercises and war games. Rather it is assumed that logistics does not constrain operations, which is not realistic. More realistic exercises would focus more attention on shortcomings and weaknesses in our logistics system.

CINCs have Title 10 Responsibility for Logistics in Theater

RECOMMENDATIONS

- Accelerate action to ensure the JTF Commander and the supporting CINC staff can effectively exercise their logistics management responsibility:
  - Complete development of needed tools/systems
  - Fund extensive exercises for a full range of contingencies—protect training and exercise funds from "bill paying"
  - Realistically play logistics support in exercises and war games to provide a solid assessment of our logistics support capability and shortcomings
  - Based on exercises and experiments, determine the need for and composition of a standing JTF logistics capability
- Support programs to simplify JTF logistics challenge, e.g., accelerate integration of additional supply classes.
- Develop Advanced Concept Technology Demonstrations (ACTDs) and exercises to be led by a warfighting CINC probably Pacific Command (CINCPAC) or European Command (CINCEUR) to ensure the warfighter requirements, concepts, and capabilities for logistics support are spelled out for the services and supporting organizations (DLA, USTRANSCOM, etc.).

Logistics Systems Architect

PHASE I STUDY FINDINGS

- **OSD has established a logistics systems architect to define the entire logistics business process. Architect to be provided adequate contractor support**
- **To do the job, the logistics architect must have buy-in and full support from the Chairman and Service Chiefs in addition to all elements of OSD.**

CURRENT SITUATION

- Substantial progress being made defining a logistics architecture though much remains to be done
- Effort has full support of USD (AT&L) but the degree of support from other elements of OSD and the Services is still a question
- J-4 of Joint Staff fully supports effort
- Logistics Transformation Leadership Group is a positive step in engaging the Services

RECOMMENDATIONS

- USD (AT&L) should continue its strong support of the logistics system architect and ensure the institutional viability of the logistics architect function
  - Establish and enforce performance metrics for the logistics architect
  - Develop a definitive road map for executing the logistics transformation architecture
- Logistics architect, acting through the USD (AT&L), should review and approve applicable Service & Agency logistics transformation projects, including decisions on funding, to ensure compliance with the logistics architecture.
- The Secretary and Deputy Secretary of Defense (SecDef) must ensure OSD, the Services, and Joint world also support this effort. Control of funding is an important element of this.

Deployment & Sustainment

PHASE I STUDY FINDINGS

- **A large number of initiatives are underway to enhance the deployment and sustainment capability of the logistics system. The direction is right, but the impact of these actions is still modest.**
- **To get the job done in support of Joint Vision 2020, we need to pick up the pace and exploit commercial capabilities.**

CURRENT SITUATION

- SecDef designated CINC, U.S. Transportation Command (USCINCTRANS) as the "Reinvention CINC," freeing USTRANSCOM from certain regulatory constraints in improving business practices.
- The Strategic Distribution Management Initiative, a partnership between DLA and USTRANSCOM, appears promising.
- Little has been done to exploit the substantial lift capacity of the commercial wide-body aircraft fleet or new sealift technology. Unless these capabilities are used, DoD will be unable to meet its mobility requirements.
- Military airlift fleet is used intensely for long-haul missions during peacetime, which is costly and impacts service life and surge capabilities.
- Little progress has been made in enhancing capability to deliver through underdeveloped port facilities (e.g., Joint Logistics over the Shore (JLOTS) progress is disappointing).

Deployment & Sustainment (cont.)

RECOMMENDATIONS

- Reexamine the current use of C-17s and C-5s for routine long-range lift missions shifting mission to commercial wide-body airlift fleet.
- Assess the concept of a rebalanced military/civilian cargo fleet that operates the C-5 and C-17 fleets at the minimum level necessary to maintain aircrew proficiency and sustain reserve readiness. Identify and quantify the amount of peacetime throughput/shortfall that must be filled by other airlift means.
- The database gathered from this inquiry provides the baseline for sizing the amount of service life required in the military transport fleet, as well as the annual peacetime lift shortfall that could be filled by commercial operators using commercial or military aircraft.
- This study would also provide a database for OSD consideration of creative schemes to cover the shortfall by various means, to include greater civilian capability or directed set asides of annual throughput levels for outsourcing lift by U.S. carriers.
- Based on this assessment, strengthen DoD's ability to use commercial wide-body aircraft for contingency deployments
  - Enhance Civil Reserve Air Fleet (CRAF)
  - Incorporate defense features in commercial aircraft conversions (over 400 747s)
- Establish and strictly enforce JLOTS development and procurement schedule and milestones to provide significant over the beach and undeveloped port capability.
- Longer term, evaluate the use of fast, shallow-draft sealift per the findings at the recent Army Wargame at Carlyle.

Demand Reduction

PHASE I STUDY FINDINGS

- Task Force found little attention or progress in reducing demand for logistic support and airlift/sealift for contingency operations
- Reducing demand requires concerted emphasis on:
    - Reducing legacy systems' maintenance requirements
    - Reducing the consumption of consumables
    - Designing new systems to be more reliable and require fewer people to operate and maintain
- New equipment designs must also take into account the need to minimize lift requirements and maximize the ability to use commercial wide-body aircraft.

CURRENT SITUATION

- Legacy systems dominate Operation and Support (O&S) budgets for the next 20 years, yet reducing support and maintenance costs gets little attention or investment. Efforts to allocate even a few hundred million to this effort have had sporadic success.
    - This drives costs up, availability down, and skilled manpower out of the Services.
    - Growth of O&S budget crowds out funds for recapitalization ("death spiral")
- O&S costs continue to increase as systems age (e.g., flying hour costs up 40% to 60% over last five years) and operational availability rates have declined and are predicted to go lower.
- The Services seldom invest in reliability improvements even though they provide large, near-term payoffs in reducing O&S costs and improving availability rates.
- A Product Support Reengineering Implementation Team was recently formed: 30 pilot programs have been established to improve reliability and reduce O&S costs of aging legacy systems.

Demand Reduction (cont.)

CURRENT SITUATION (cont.)

- Reliability is often sacrificed for other system requirements as a key performance indicator of new acquisitions
- Concern for full life-cycle costs of new systems is inconsistent (Joint Strike Fighter (JSF) a success story)
- DoD has still not enforced the sizing requirements across the Services to make equipment commercially deployable whenever possible
- CJCS emphasis on expeditionary nature of future forces will require significant reductions in deployable footprint and personnel. Recent experience in Kosovo contingency demonstrates that much remains to be done.

RECOMMENDATIONS

- OSD should direct each Service to develop a detailed strategy and plan to significantly reduce O&S costs of legacy equipment.
  - Services develop and present assessment of future O&S costs for fielded systems over the next 18 years and identify drivers which affect system availability, readiness, and cost
  - Invest in high-return, quick pay-off reliability improvements
  - Focus on systems that will be operational for at least five years and redesign systems to reduce manpower
  - Rely more heavily on contractor maintenance
  - Provide incentives to reduce O&S costs, e.g., keep savings for reinvestment in service transformation programs
- Make deployability by commercial wide-body aircraft a key design feature and develop a plan to redesign or replace outsized legacy gear to enhance deployability

Logistics Survivability

PHASE I STUDY FINDINGS

- **Vulnerability of logistics systems and supply chain remains a point of serious weakness in U.S. military operations**
- **CINCs lack the resources and knowledge to adequately integrate the vulnerability scenarios in each exercise**
- **Survivability deserves much greater attention and actions should be taken promptly to minimize vulnerabilities of key logistic modes**

CURRENT SITUATION

•Task Force found little progress since our earlier report. Little attention or priority given to vulnerability of logistics systems in exercises and planning, though some CINCs starting to address the problem

•RECOMMENDATIONS (Unchanged from earlier DSB report):

- CJCS direct J-4 (in concert with J-34) to comprehensively review and validate existing logistics/prepo vulnerability assessments and response/contingency plans
  - -Provide initial report in four months, and detailed results to SecDef within nine months
- Include red team assaults against logistics in every wargame and simulation exercise, joint and service (CJCS)
- Apply same information warfare (IW) standards to logistics as being used for other portions of the command, control, computers, and intelligences (C3I) system (process owner)
- CJCS direct J-4 action to ensure that logistics-unique aspects of chemical and biological warfare (CBW) are included in planning for operations and logistics

•Use realistic assumptions regarding logistics support capabilities and stock of supplies and munitions in exercises and war games

Final Thoughts

- Failure to achieve true logistics transformation presents great future risk to our dominant military power
  - JV2020 is critically dependant on true focused logistics
  - DoD must have a logistics system that is equal to or better than the best-in-class global commercial logistics systems
- Failing to truly transform DoD logistics will have serious consequences:
  - The cost of operating major systems will continue to increase
  - The availability of those systems will continue to decrease
  - Future readiness will erode and essential re-capitalization will be delayed
  - The ultimate consequence: good people will leave the Services
- Given the commitment to use aging legacy systems for many years, reliability and maintainability improvements will yield dramatic dividends
- A new logistics paradigm would enable us to increase the size of the existing force should a near peer emerge in the future.
- The success of these dramatic reforms will insure the success of Joint Vision 2020 and maintenance of our military dominance.

Annex A:
Terms of Reference

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

ACQUISITION AND
TECHNOLOGY

SEP 26

MEMORANDUM FOR CHAIRMAN, DEFENSE SCIENCE BOARD

SUBJECT: Terms of Reference -- Defense Science Board Task Force on Logistics Transformation - Phase II

You are requested to form a Defense Science Board (DSB) Task Force to review and evaluate DoD's progress on the transformation of the DoD Logistics System.

Using the "1998 DSB report on DoD Logistics Transformation" as a baseline, you are to assess the progress to date in implementing the recommended actions. Specifically:

- Providing unified and specified Commander in Chiefs (CINCs) with the capability to pull the required support from the logistics system.
- Empowering a Systems Architect to define and enforce an integrated system.
- Enhancing the deployment and sustainment capability of the logistics system.
- Reducing the logistics demand as a major element of cutting costs and increasing flexibility.
- Addressing logistics vulnerabilities in exercises and operational plans.

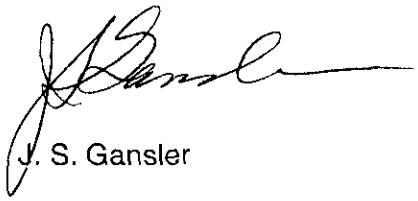
In addition, the Task Force will:

- Review future plans and programs to determine their compliance with the recommendations related to the 1998 DoD Logistics Transformation report.
- Determine the nature of barriers inhibiting the rapid Transformation of the DoD Logistics System. Particular attention should be paid to technical, legal, and operational issues, but need not be limited to these areas.
- Determining if any further implementation actions are required.

The Task Force should submit an interim report at the end of October and a final report by December 15, 2000.

The study will be co-sponsored by the Under Secretary of Defense (Acquisition, Technology and Logistics) and Deputy Undersecretary of Defense for Logistics. Mr. Phil Odeen and Dr. Bill Howard will serve as the Task Force Co-Chairmen; CAPT David Newberry, USN will serve as the Executive Secretary; and CDR Brian Hughes, USN, will serve as the Defense Science Board Secretariat Representative.

The Task Force will be operated in accordance with the provisions of P.L. 92-463, the "Federal Advisory Committee Act," and DoD Directive 5104.5, "DoD Federal Advisory Committee Management Program." It is not anticipated that this Task Force will need to go into any "particular matters" within the meaning of Section 208 of Title 18, United States Code, nor will it cause any member to be placed in the position of acting as a procurement official.



J. S. Gansler

Annex B:
Task Force Roster

Logistics Transformation – Phase II
Membership

Chairmen:
Dr. William Howard
Mr. Philip Odeen

Members:
Mr. Michael Bayer
Mr. Edwin Biggers
VADM Bill Hancock (Ret)
Gen Alfred Hansen (Ret)
Ms. Susan Livingstone

Executive Secretary:
CAPT Dave Newberry

Military Assistant:
CDR Brian Hughes

Support:
Mr. Richard Balzano
Mr. Matthew Amitrano
Ms. Donna Preski
Ms. Allison Troutman

Annex C:
Briefings Received

DEFENSE SCIENCE BOARD TASK FORCE ON LOGISTICS TRANSFORMATION – PHASE II BRIEFINGS RECEIVED

18-19 October

Overview on Logistics System Modernization	Mr. Zachary Goldstein
Joint Theater Logistics Management	Mr. Jay Erb
Preparing the Logistics Architecture to Meet the Requirements of Joint Vision 2010	Mr. Dave Berteau
Overview MSR–05 Study	CDR Chris Hase
Joint Theater Logistics Over the Shore	LTC John Watkins
Strategic Distribution Management Initiative	BG Jim Pillsbury
Joint Logistics Warfighting Initiative	Mr. Mike Smith
Overview Federal Advisory Committee Act	CDR Brian Hughes

30 October

Supporting the Warfighter: Today and Tomorrow	CAPT Peter Eltringham
Preparing the Logistics Architecture to Meet the Requirements of Joint Vision 2010	Mr. Dave Berteau
2010 Logistics Architecture	Mr. Lou Kratz
Critical Infrastructure	Mr. John Keenan

15-16 November

Defense Logistics	RADM Ray Archer
Logistics Overview U.S. Transportation Command	Mr. Webber/Mr. Seaman
Logistics Overview U.S. Joint Forces Command	BG Gary Border
RAND Study Update	Mr. David Chu

Annex D:
Acronyms Used

ACTD	Advanced Concept Technology Demonstration
C3I	Command, Control, Computers, and Intelligence
CBW	Chemical and Biological Warfare
CINC	Commander in Chief
CJCS	Chairman, Joint Chiefs of Staff
CONOPS	Concept of Operations
CRAF	Civil Reserve Air Fleet
DLA	Defense Logistics Agency
DoD	Department of Defense
DUSD	Deputy Under Secretary of Defense
DUSD (L&MR)	Deputy Under Secretary of Defense for Logistics and Material Readeness
IW	Information Warfare
JLOTS	Joint Logistics Over the Shore
JSF	Joint Strike Fighter
JTF	Joint Task Force
JV 2020	Joint Vision 2020
O&S	Operations and Support
OSD	Office of the Secretary of Defense
PA&E	Program Analysis and Evaluation
POM	Program Objective Memoranda
RMA	Revolution in Military Affairs
SecDef	Secretary of Defense
USCINCEUR	U.S. Commander in Chief, United States European Command
USCINCPAC	U.S. Commander in Chief, United States Pacific Command
USCINCTRANS	U.S. Commander in Chief, United States Transportation Command
USD (AT&L)	Under Secretary of Defense Acquisition, Technology, and Logistics
USD (C)	Under Secretary of Defense Comptroller
USD (P&R)	Under Secretary of Defense for Personnel and Readiness
USTRANSCOM	United States Transportation Command