May 31, 2010

Dr. Paul Rispin, Program Manager
Office of Naval Research, Code 331
875 North Randolph Street, Room 273
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Subject: Deliverable Number 0022, Project Management Plan Annex C – Revised
             Phase 2 Program and Deliverables

Reference: Strategic Mobility 21 Contract N00014-06-C-0060

Dear Paul,

In accordance with the requirements of referenced contract, we are pleased to submit
this SM21 Project Management Plan Annex C – Revised Phase 2 Program and
Deliverables for your review.

Your comments on this document are welcomed.

Regards,

Dr. John Hwang
Strategic Mobility 21 Principal Investigator

cc: Administrative Contracting Officer (Transmittal Letter only)
        Director, Naval Research Lab (Hardcopy via U.S. Mail)
        Defense Technical Information Center

Strategic Mobility 21

Project Management Plan Annex C – Revised Phase 2 Program and Deliverables

Prepared for:
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In fulfillment of the requirements for:
FY 2006/2007 Contract No. N00014-06-C-0060
CLIN 0022

Prepared and Submitted by:
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May 31, 2010

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14. ABSTRACT

The purpose of the Program Management Plan (PMP) dated September 29, 2006, is to define the program management processes, initial functional capabilities, and technical development of the Strategic Mobility 21 (SM21) program. The principal management and technical guidance for SM21 has been defined in the PMP, which includes Annex A - Initial Capabilities Document (ICD) and Annex B - Technical Plan.

The purpose of this report Annex C is to definitize the SM21 program for the current Phase 2 activities, deliverables and transition. Annex C encompasses two over-arching themes. First, we have the opportunity to collaborate on the Agile Port System (APS) demonstration so that we may define the information technology requirements that will support the integration of the APS with the Joint Deployment Distribution Support Platform (JDDSP). Second, we have the opportunity to develop the "best of breed" Service Oriented Architecture (SOA) capabilities in conjunction with the Dole experimentation.

15. SUBJECT TERMS

Joint Operational Concept Document (JOCD), Joint Capabilities Technology Demonstration (JCTD), Joint Capabilities Integrated Development System (JCIDS), Program Management Plan (PMP), Joint Deployment Distribution Support Platform (JDDSP), Agile Port System (APS), Service Oriented Architecture (SOA), Initial Capabilities Document (ICD),

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3. DATES COVERED. Indicate the time during which the work was performed and the report was written, e.g., Jun 1997 - Jun 1998; 1-10 Jun 1996; May - Nov 1998; Nov 1998.

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Abstract

SM21 has established a consortium of public and private, governmental and non-governmental, academic, and other impacted parties to develop and demonstrate emerging processes and technologies to expand the productive capacities of Southern California ports while balancing regional quality of life issues as well. The SM21 Joint Operational Concept Document (JOCD) introduced the SM21 program as the functional equivalent of a Joint Capabilities Technology Demonstration (JCTD) in advanced logistics concepts. The purpose of the Program Management Plan (PMP) dated September 29, 2006, is to define the program management processes, initial functional capabilities, and technical development of the Strategic Mobility 21 (SM21) program. The principal management and technical guidance for SM21 has been defined in the PMP, which includes Annex A - Initial Capabilities Document (ICD) and Annex B - Technical Plan.

This PMP further defines the JCTD and the associated management of the four-year program. The JCTD will be managed as a modified Department of Defense (DoD) JCTD and will follow the basic guidance issued for the development and execution of JCTD programs. The initial SM21 capabilities, described in Annex A, are associated with the Joint Deployment Distribution Support Platform (JDDSP) demonstration. As proposed under the SM21 program sponsored by the California University Long Beach Foundation, the JDDSP is the inland dual use[1] component of the Agile Port System (APS) concept. The APS concept was developed by the Center for the Commercial Deployment of Transportation Technologies (CCDoTT).

The purpose of this report Annex C is to definitize the SM21 program for the current Phase 2 activities, deliverables and transition. Annex C encompasses two over-arching themes. First, we have the opportunity to collaborate on the Agile Port System (APS) demonstration so that we may define the information technology requirements that will support the integration of the APS with the Joint Deployment Distribution Support Platform (JDDSP). Second, we have the opportunity to develop the "best of breed" Service Oriented Architecture (SOA) capabilities in conjunction with the Dole experimentation. These changes are reflected in the attached Appendix B to Annex C - Statement of Work Revision 1, dated 10 February 2009.

After this introductory section, we highlight aspects of the program in six sections:

- SM21 Mission, Strategy and Capabilities Development
- SM21 Program Overview
- 4 Major Thrusts and Program Evolution
- SM21 Principals and Deliverables
- Anticipated Outcomes
- Transition: From Federation to Enterprise

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[1] Dual-use refers to facilities or technologies that serve both the commercial and military sectors.

SECTION 1.0 - INTRODUCTION

SM21 has established a consortium of public and private, governmental and non-governmental, academic, and other impacted parties to develop and demonstrate emerging processes and technologies to expand the productive capacities of Southern California ports while balancing regional quality of life issues as well. The SM21 Joint Operational Concept Document (JOCD) introduced the SM21 program as the functional equivalent of a Joint Capabilities Technology Demonstration (JCTD) in advanced logistics concepts. The purpose of the Program Management Plan (PMP) is to define the program management processes, initial functional capabilities, and technical development of the Strategic Mobility 21 (SM21) program. The principal management and technical guidance for SM21 is defined in the PMP dated September 29, 2006, which includes Annex A - Initial Capabilities Document (ICD) and Annex B - Technical Plan.

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Annex A is formatted as an Initial Capabilities Document (ICD) and provides the foundational requirements to develop the JPPSP demonstration program using the DoD Joint Capabilities Integrated Development System (JCIDS) procedures.

Annex B - Technical Plan addresses the technical management parameters of the SM21 program and describes the program's technical approach. The Technical Plan is based on the DoD ACTD tenet of maintaining a flexible approach to the advanced development process and to avoid excessive rigidity and formality in documentation and process.

As discussed at the quarterly reviews in 2008 and 2010, we requested extensions to the SM21 project from its original end date of 30 September 2009 to 31 October 2010, at no additional cost to the contract. These requests are due to a longer timeline needed for transitioning efforts, as well as coordination of delays with some of the outside parties with whom we are collaborating.

In addition, at this point of the project, we have conducted an extensive internal program review and have made shifts in some of the approaches we initially proposed. Two over-arching themes have emerged. First, we have the opportunity to collaborate on the Agile Port System (APS) demonstration so that we may define the information technology requirements that will support the integration of the APS with the Joint Deployment Distribution Support Platform (JDDSP). Second, we have the opportunity to develop the "best of breed" Service Oriented Architecture

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(SOA) capabilities in conjunction with the Dole experimentation. These changes are reflected in the attached Appendix B - Statement of Work Revision 1, dated 10 February 2009.

This Annex C has the purpose to definitize the SM21 program for the current Phase 2 activities. After this introductory section, we highlight aspects of the program in six sections:

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SECTION 2.0 - SM21 MISSION, STRATEGY AND CAPABILITIES DEVELOPMENT

The SM21 program has been designed to improve the effectiveness and the efficiency of commercial distribution logistics and military force deployment and sustainment operations through an improvement in information quality and business processes. The improved information quality will enable a collaborative distribution management environment supported by dynamic planning, re-planning, and execution tools. It will also provide deploying military units (the war-fighter) capabilities to directly improve force deployment decision-making and will make relevant force deployment and sustainment distribution information available to authorized stakeholders.

The program supports the design and development of the Joint Deployment Distribution Support Platform (JDDSP). The JDDSP was initially defined in Annex A to this PMP. A primary component of the JDDSP is a dual-use inland multi-modal terminal and distribution facility. Dual-use refers to facilities or technologies that serve as a basis for both commercial and military products or use of those facilities or technologies.

Hence, the mission of the SM21 program is as follows:

- Enable the transformation of Joint Defense logistics by applying Service Oriented Architecture and Business Process Reengineering to the deliver function of the supply chain logistics
- Extend this process to other functions such as reset, retrograde, and redeployment
- Develop an agile workforce to apply these processes in order to execute commanders intent

The strategy for the program includes the following major components:

- Design the Joint Deployment and Distribution Support Platform by applying Service-Oriented Architecture strategies and demonstrate platform capabilities in both a commercial and a military environment
- Develop a suite of models to enhance goods movement and supply chain management
- Apply these models to commercial imports and military joint force deployment
- Deploy these capabilities to expeditionary theater opening and warfare, as well as to selected commercial activities
- Develop transition plans for business operations
- Develop the roadmap for Joint Logistics Education Training
- Use lessons learned and immersive training to upgrade the knowledge, skills and experience of target training audiences

Our program focus is directed at materiel visibility and personnel visibility. DoD in "Focused Logistics" defines joint asset visibility as the capability to provide users with timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It also includes the capability to act upon that information to improve overall

performance of DoD's logistics practices. It includes in-process, in-storage, and in-transit business processes. In-process assets are items that are being either repaired or procured. They include items that are in repair at depot-level repair organizations, both organic and commercial; in repair at intermediate-level repair organizations; or on order from DoD vendors and not yet shipped. These assets are categorized as either "due in from maintenance" or "due in from procurement" in DoD inventory management systems. Similarly, with our experimentation with commercial businesses, e.g., Dole, we find similar requirements for materiel visibility and traceability.

Therefore, our aim is to achieve capabilities for DoD and commercial business applications and regional planning, through the development of JDDSP reference platform models, application of Service-Oriented Architecture (SOA) strategies, integration of modeling and simulation efforts, and demonstration of operational concepts through experimentation.

We conducted various interviews and coordination with military and commercial businesses at the SCLA, Victor Valley, and Savannah Port, Georgia, etc., in the course of research activities. We have been prompted that logistics personnel are needed by employers, and logistical education and training, although are offered in numerous academies, community colleges and universities, the courses and curricula are sparse and disorganized among all levels. Hence, there is an opportunity to focus on personnel visibility and assemble articulated curricula, offer assistance and services to high school students, current employees, and, in particular, military veterans to enter or advance in the logistics discipline and services. From our program, our collective experience, knowledge and technologies constitute a natural spin-off to assist in the personnel visibility by capitalizing on the JLETT training, our demonstrations as pilots, and the potential to develop logistics educational business. We strive to form a consortium to a structured logistics training program and tracking of personnel to their educational pursuits and career opportunities.

The following figure depicts the major aspects of the program leading to new capabilities.
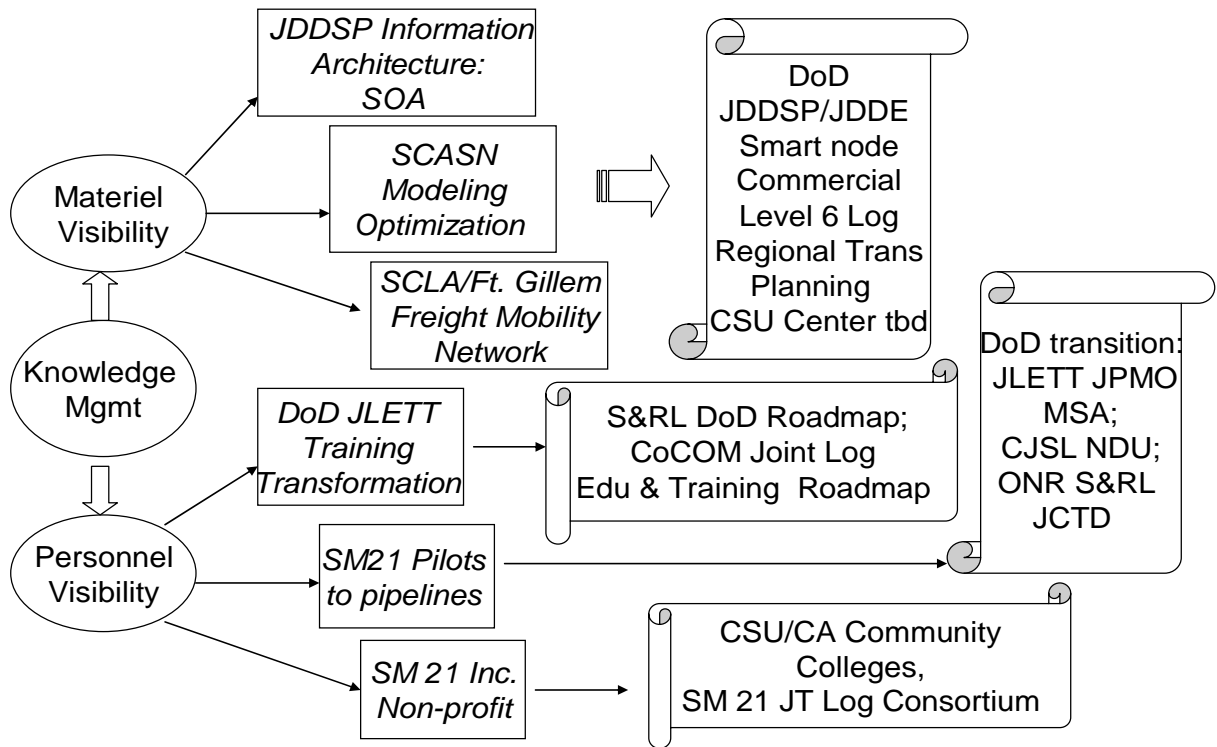
Figure 1. Capabilities Development

SECTION 3.0 - SM21 Program Overview

The revised program is in Appendix B. The following outline highlights the significant tasks.

Task 1 encompasses all activities required to ensure the efficient and effective execution of this project. Primary activities include: SM 21 program management including project coordination, technical program management and strategic planning, execution planning and monitoring of same, and administration.

- Task 1.0 : Strategic Planning, Coordination and Review
  - Task 1.1 – Project Oversight

Task 2 involves the implementation of a Joint Experimentation Campaign necessary to translate the joint logistics advanced concepts contained in the SM 21 CONOPS and Integrated Development Document (ICD) into validated solutions to identified joint capability gaps through the conduct of modeling and simulation and joint experimentation

- Task 2.0 : Joint Logistics Experimental Training Testbed (JLETT) Modeling and Simulation, Joint Experimentation Campaign, Sense and Respond Logistics and Joint Sea Basing
  - Task 2.1- Strategic Mobility 21 Modeling and Simulation
  - Task 2.2 – Joint Network-Centric Logistics Experimentation
  - Task 2.7 - Sense and Respond Logistics (S&RL) and Joint Sea Basing Focused Logistics Architecture and Joint Experimentation Campaign

Task 3 focuses on the development of dual use capabilities and products, evaluation through use of elements of the DoD JCIDS process, integration with a DODAF and commercial service oriented architecture (SOA), and commercial best practices as part of an overall concept to deployment of the joint physical, system, operational, and joint training and education advanced logistics concepts embodied in the Joint Deployment and Distribution Support Platform (JDDSP), CONOPS and dual use Joint Integrated Logistics Center (JILC) component of the Agile Port System (APS).

The JDDSP smart node concept within the DoD Joint Deployment Distribution Enterprise (JDDE) outbound logistics and inbound commercial intermodal analysis built upon the regional modeling, simulation and analysis in the twin physical and information domains and was refined though joint experimentation with both military and commercial strategic partners.

- Task 3.0 : Joint Deployment and Distribution Support Platform (JDDSP) Concept Development Dual-Use Capabilities and Product Development, Service Oriented Architecture Integration and Deployment
  - Task 3.1 – JDDSP Concept Development
  - Task 3.2 - JDDSP Prototype Concept Evaluation, System Integration, Capability Evaluation, and Deployment
  - Task 3.3 - JDDSP SOA Architecture
  - Task 3.4 - JDDSP Capabilities and Services Development and Deployment

- Task 3.5 - E-Commerce- Green Freight Corridor Network Prototype Design and Feasibility Study
- Task 3.6 - Southern California Regional Intermodal Dray Scheduling and Appointment System and Shipper Free Time Monitoring Prototype Design and Demonstration
- Task 3.8 – Military and Commercial Value Stream Analysis

Task 4 involves the management of the transition process for DoD joint capabilities under JCIDS and DoDAF strategy and technology insertion into existing programs of record, the development of joint advanced logistic concepts for joint education and training purposes and incorporation into the Joint Training Enterprise (JTEN) Joint National Training Capability (JNTC) and Joint Knowledge Enabled Logistics Distance learning capability (JKKDC) of USJFCOM, and for dual use capabilities into the Joint Integrated Logistics Capability, and POM program transition from RDTE and into DoD-wide Operations and Maintenance funding cycle**.**

- Task 4.0: Transition Sponsorship, Joint Logistics Education, Training and Readiness (Curriculum, Capability Development), and SM 21 POM Program Transition Consortium Management
    - Task 4.1 - Transition Plan Integration and Execution
    - Task 4.2 - JLETT Transition Planning and Execution
    - Task 4.3 - Transition of deployed capabilities and technology insertion, and multi-modal data service center
    - Task 4.4 - Development of SM 21 Joint Community of Interest
    - Task 4.5 - Phase II Final Report, Transition Business Plan and Next Steps –The Way Ahead

SECTION 4.0 - 4 Major Thrusts and Program Evolution

The revised program is structured with four major thrusts in mind:

- Joint Deployment Distribution Support Platform (JDDSP), Service Oriented Architecture (SOA) based Supply Chain Enhancements
- Modeling & Southern California Agile System Network (SCASN)
- Experimentation
- Transition
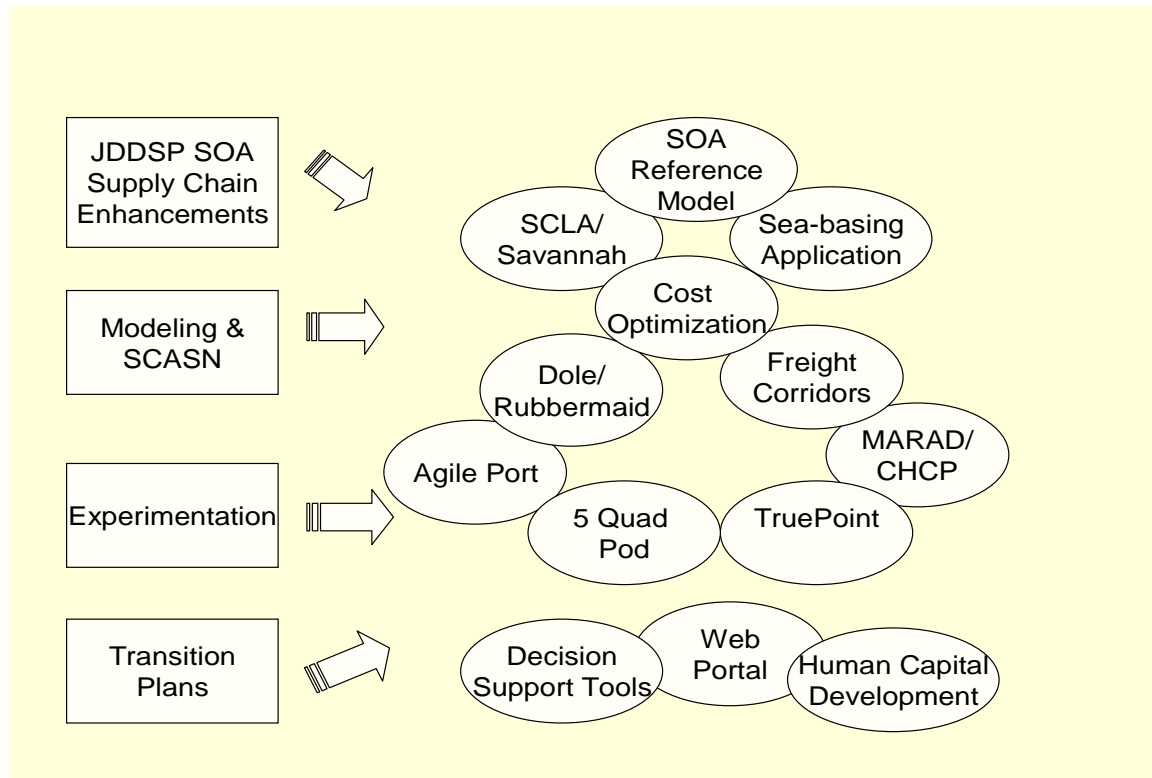
Figure 2. 4 Thrusts and Example Activities

The program has been evolving from research and development to a business enterprise in the near future as shown in the following diagram. Our research efforts have been directed in (1) the development of the JDDSP reference platform models with the application of Service-Oriented Architecture strategies; (2) the analysis of value chain and demonstration of operational concepts applying modeling and simulation and experimentation efforts; and (3) the development of SOA-based decision support tools for JDDSP operation with an agile port perspective. Ensuring stakeholders' interests and agendas, we apply our research to Southern California Logistics Airport, Fort Gillem, and Dole, to validate our concepts and tools such as GTMS and SCASN. With transition in mind, we capture the knowledge and develop our electronic-business and transition plans toward the creation of a future business enterprise which will provide technologies and services to both the military and commercial establishments, and support them through JLETT concepts for human capital development and education and training services.

The following figures show the four thrusts and example activities and the evolution from research to business enterprise.
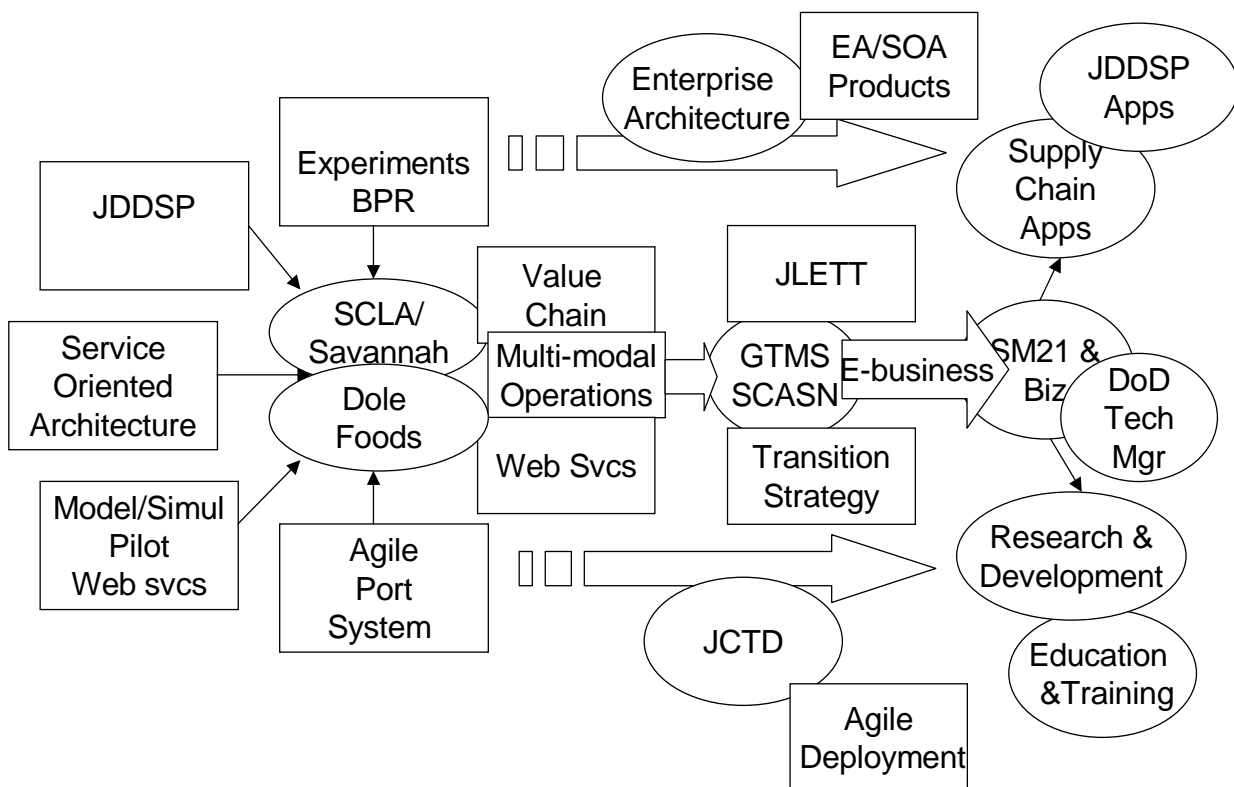
Figure 3. Transition from Federation to Enterprise

SECTION 5.0 - SM21 Principals and Deliverables

In Appendix B, the research efforts to the tasks lead to deliverables. The following table highlights the deliverables resulting from the current research efforts.

1.3	SM21 Final Report
2.1	Final Modeling & Simulation Technical Report
2.2	Phase II Final Report Annex: Joint Experimentation Plan Lessons Learned and After Action Report
3.1	SM21 CONOPS Revised
3.2	Initial Capabilities Document (ICD) Revised
3.3	Smart and Secure E Corridor stakeholder evaluation - Savannah Workshop Report
3.4	Dwell Time Reduction and Scheduling/Appointment System Study
3.5	SM21 Service Oriented Architecture (SOA) Reference Model
3.6	IT Planning document for APS Demonstration Document
4.1	SM21 Transition Plan
4.2	SM21 Transition Plan Revised Annex B for JLETT: USJFCOM JNTC and JKKDC Joint Logistics Knowledge Management Strategic Plan
4.3	SM21 Community of Interest Lessons Learned and Recommendations

Table 1. Deliverables

The deliverables and timeline for completion of these deliverables are shown in the following figure. The deliverables 3.5, 4.1, 4.2, 2.2 and 1.3 (in oval shapes) are more comprehensive and pave the way to transition to enterprise businesses.
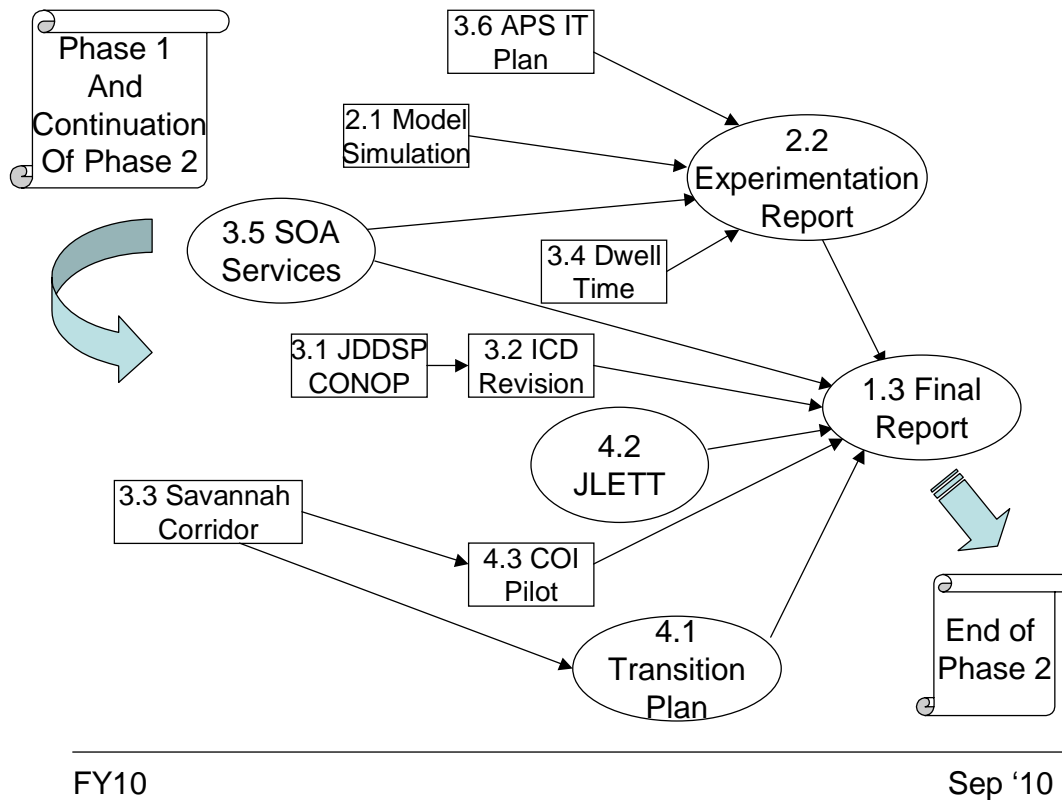
Figure 4. Schedule of Deliverables.

Organizationally, Dr. John Hwang is the Principal Investigator, and the following program principals are responsible for the completion of the deliverables.

- Dr. Larry Mallon, Transition Director
- Col. Ed Savacool, USA retired - Director of Technology and Services

SECTION 6.0 - Significant Outcomes

The following table shows the significant outcomes in relation to the four program thrusts:

A. JDDSP SOA Applications to Enhance Supply Chain	1.3, 2.1, 2.2, 3.1, 3.2, 3.5
B. SCASN Modeling	2.1, 3.3
C. Joint Experimentation	2.2, 3.1, 3.3, 3.4, 3.5, 3.6
D. Human Capital Development	4.1, 4.2, 4.3

Table 2. Outcomes and Deliverables

SM21 envisions a multitude of follow-on research and developmental efforts, and applications. The following list is intended to indicate potential outcomes as SM21 completes its current phase and enters its transition to its future enterprise business environment.

A. Outcomes – JDDSP SOA Applications to Enhance Supply Chain

- (1) Dole experiment: JDDSP/SOA applications validation
    - Outcome: Validated SOA applications with first strategic partner
- (2) Newell Rubbermaid (SCLA Joint Education Consortium Pilot)
    - Outcome: Validated JDDE logistics education/training model in a commercial domain
    - Outcome: Extend capability to San Bernardino County wide consortium

B. Outcomes – SCASN Modeling

- (3) USDOT and state DOT validation and adoption of SCASN and integration with SOA applications and Positive Train Control
    - Outcome: Regional supply chain, public-private partnership for transportation infrastructure and policy
    - Outcome: Cloud/grid computing incorporation in Federal Highway bill reauthorization as enabler of Smart Corridors

- (4) SCASN - USJFCOM J7 validation, verification, accreditation
    – Outcome: Formal adoption of SCASN model and integration with Joint Force Trainer Toolkit USJFCOM J7 and JDAC USTRANSCOM
- (5) JLETT - US DoD validation, verification, accreditation
    – Outcome: Formal adoption

C. Joint Experimentation

- (6) JDDSP capabilities joint experiment w/MARAD and OP42 Joint Sea Base/ISB/AB S&RL
    – Military Outcome: PACOM Joint exercise proof-of-concept validation
    – Commercial Outcome: S&RL & dynamic inventory optimization
- (7) MARAD USDOT CHCP Joint Experiment - SOCAL Truck drayage Dwell Time Monitoring (CCDoTT FY 09 Joint Experiment)
    – Outcome: Scale to regional marine terminal truck scheduling and appointment system
- (8) ONR Code 30-33 S&RL proposed US Navy JCTD for FY 10
    – Outcome: 3-year JCTD and 2-year user evaluation
- (9) 5 QUAD POD - Joint Experiment with Joint Medical Command/TATRC
    – Outcome: Potential follow-on RDTE common multi-modal conveyance
- (10) APS CCDoTT/SM 21 Joint Force Deployment Demonstration - J4 single-load stow plan
    – Outcome: SOA applications on-boarding and validation by USJFCOM and USTRANSCOM Joint Force Training Toolkit
    – Outcome: Technology insertion in Joint Force Deployment ACTD for user evaluation

D. Human Capital Development

- (11) 3rd Infantry Division Reset/retrograde/redeployment: (a) life cycle equipment tracking/visibility, and (b) personnel tracking visibility data collection with G4 US Army Sustainment Command
    – Outcome: Validation of material and personnel visibility
- (12) Transformation of Joint Logistics education and training under JLETT roadmap
    – Outcome: Stand up Joint Deployment Distribution Training Center at Ft. Eustis under USJF COM J7 and with US Army Fort Lee Logistics Center of Excellence, USTRANSCOM
- (13) JLETT JDDE Joint Logistics Community of Interest Network Practice
    – Outcome: JLETT hosted site at Defense Acquisition University
    – Outcome: Integration with J4, DLA, USTRANSCOM, USJFCOM, USAF, Global Logistics, NAV Op 42, USMC, USA Ft. Lee, with commercial and academic as part of JDDE

SECTION 7.0 - Transition Plans – from Research to Enterprise

This section addresses a plan to transition the separate SM21 research projects to commercially-viable and financially-sustainable products and services. The associated task elements are found in Task 4.0: Transition Sponsorship; Joint Logistics Education, Training and Readiness; and, SM21 POM Program Transition Consortium Management.

The existing SM21 research program will transition its activities to achieve four end states:

1. Funded RDT&E and insertion in a program of record (POM);

2. At least one commercial enterprise with a mission to deliver SOA-enabled logistics products and services to commercial and military customers;

3. A non-commercial enterprise (non-profit, or social/hybrid) with a mission to facilitate human capital development and logistics knowledge sharing;

4. A university-sponsored project to continue basic, applied, and advanced research. This will be a more narrowly-scoped effort patterned after the existing ONR-funded project.

The SM21 research program is expected to transition into various businesses in a new enterprise:

- Joint Deployment Distribution Support Platform (JDDSP) – a JDDE smart node

- Joint Logistics Education and Training Transformation Testbed (JLETT) – Joint training and experimentation support

- Level 6 Logistics LLC - products and services for commercial and military applications

- SM 21 Inc. (non-profit) - Chair SM 21 JT Logistics Education Training Consortium (Integration) and future capabilities development (IRAD)

- Strategic partner with ONR - S&RL JCTD for eventual transition into JPMO S&RL

- LogisNET LLC (Reserved) - Global logistics data services

The following figure illustrates the alignment of SM21 transition task elements to these end states:
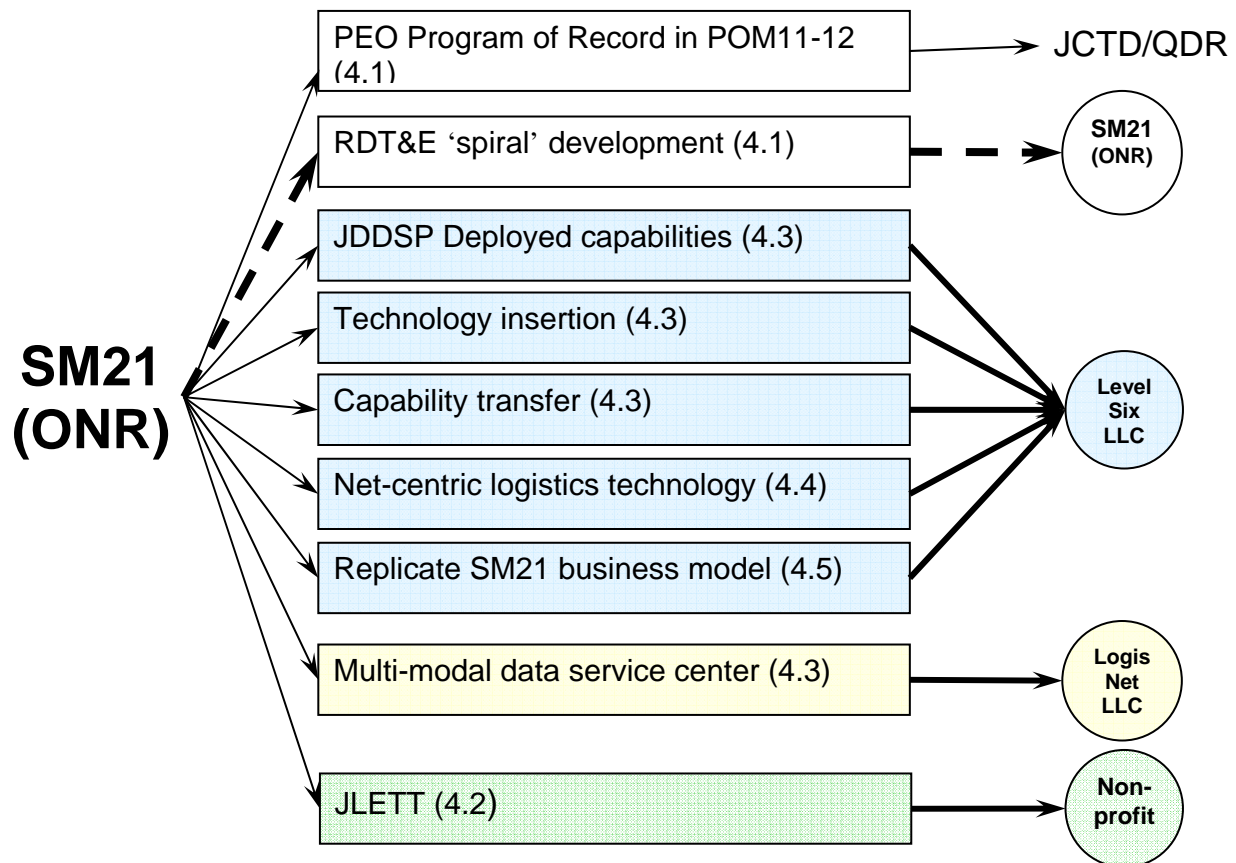
Figure 5. Transition from Research to Enterprise.

Transition oversight and management will be executed by a Transition Director (previously introduced). The management plans to achieve each transition end-state are described below.

1. *Funded RDT&E and insertion in a Program of Record.* Because SM21 research is premised on a strategy of evolutionary (formerly 'spiral') development, this task element presumes that the research must be sustained as a supported program of record within the DoD. Necessary steps include gaining recognition as a validated requirement, and acquiring POM funding support from a program sponsor.

   a. End state: adequate and balanced levels of RDTE, procurement (Other), and O&M (either direct or revolving) funding across the Future Years Defense Plan.

   b. Management plan. Execution will proceed along several simultaneous paths:

      1) engage with Service systems commands and Combatant Commanders to ensure current awareness of SM21 capabilities;
      2) receive JROC approval/validation of JCIDS capability requirement;
      3) participate in a JCTD to demonstrate SM21 capabilities; and,
      4) demonstrate SM21 Modeling & Simulation capabilities during the 2010 QDR

wargame, Dynamic Commitment.

2. *Commercial for-profit enterprise*.   SM21 operational capabilities are those directly enabled by the SOA architecture (e.g., deliver function of the supply chain, drayage, compliance).

   a. <u>End state</u>: SM21 operational products and services are deployed to commercial and military customers by a for-profit, commercial entity.

   b. <u>Management plan</u>. The following milestones must be accomplished:

      1) Form at least one for-profit, commercial enterprise capable of conducting business with commercial and military customers;
      2) Write a comprehensive business plan that, among other things, describes the enterprise's markets and competitors, and a plan for market entry;
      3) Staff the enterprise as needed through a combination of organic and outsourced capabilities;
      4) Resolve any intellectual property issues that may complicate the transition of ownership to the enterprise;
      5) Transition generic production version of SOA-based applications to commercial enterprise; and
      6) Assign non-disclosure and sub-agreements as necessary to maintain continuity of business operation.

3. *Commercial non-profit enterprise*. SM21 supporting capabilities are those relating to logistics human capital development and knowledge sharing.

   a. <u>End state</u>: SM21 supporting products and/or services are offered to commercial, military, and public sector customers by a non-profit (or social/hybrid) commercial entity.

   b. <u>Management plan</u>. The following milestones must be accomplished:

      1) Form a non-profit (or social/hybrid), commercial enterprise capable of conducting business with commercial, military, and/or public sector customers;
      2) Write a comprehensive business plan that, among other things, describes the enterprise's markets, customers/partners, and competitors, and a plan for market entry;
      3) Staff the enterprise as needed through a combination of organic and outsourced capabilities; and
      4) Resolve any intellectual property issues that may complicate the transition of ownership to the enterprise.

4. *Continued academically-sponsored/federally-funded research*. A more narrowly-focused SM21 research and development effort will continue the evolution of SOA-enabled logistics information capabilities, and maintain technological currency. Such research must be coordinated with organic R&D that is conducted by either (or both) of the for-profit and not-for-profit commercial enterprises.

a. <u>End state</u>: SM21 becomes, or is aligned to, a federally-funded research and development center.

b. <u>Management plan</u>. The need for a separate, academically-sponsored, federally-funded research and development program will be assessed as the business plans for the commercial enterprises are compiled. A beginning presumption will be made that such a program is not needed; to recommend one, a business case must be presented that clearly defines and distinguishes the R&D activities of the program vis-à-vis those of the commercial enterprises.

Appendix A: Acronyms

ACTD	Advanced Concept Technology Demonstration
APOE	Aerial Ports of Embarkation
APS	Agile Port System
CCDoTT	Center for the Commercial Deployment of Transportation Technologies
CDRL	Contract Deliverable Requirements List
CHCP	Container Handling Cooperative Program
CLIN	Contract Line Item Number
COCOM	Combatant Command
COI	Community of Interest
CONOPS	Concept of Operations
CONUS	Continental United States
COTS	collaboration tools (visual and audible)
DHS	Department of Homeland Security
DISA	Defense Information Systems Agency
DLA	Defense Logistics Agency
DoD	Department of Defense
DODAF	DoD Architecture Framework
FEA	Federal Enterprise Architecture
FNC	Future Naval Capability
GIG	Global Information Grid
GIS	Geographic Information System
GE	Grid Enterprise
GTMS	Global Transportation Management System
ICD	Initial Capabilities Document
IRAD	(integration) and future capabilities development
ISB/AB	Intermediate Staging Base Advanced Base
IPT	Integrated Project Teams
ITV	In-transit Visibility
JALTD	Joint Advanced Logistics Technology Demonstration
JCIDS	Joint Capabilities Integrated Development System
JCTD	Joint Capabilities Technology Demonstration
JDAC	Joint Deployment Analysis Center
JDDE	Joint Deployment and Distribution Enterprise
JDDSP	Joint Deployment Distribution Support Platform
JIC	Joint Integrating Concept
JILC	Joint Integrated Logistics Center
JFCOM	Joint Forces Command
JLETT	Joint Logistics Experimentation and Training Test-bed
JPMO	Joint Program Management Operations
JOCD	Joint Operational Concept Document
JDDSP	Joint Deployment Distribution Support Platform
JKKDC	Joint Knowledge Enabled Logistics Distance Learning Capability
JNTC	Joint National Training Capability

JPPSP	Joint Power Projection Support Platform
JROC	Joint Requirements Oversight Council
JTEN	Joint Training Enterprise
JTTP	Joint Tactics, Techniques and Procedures
LMI	Logistics Management Institute
M&S	Modeling and Simulation
MS&A	Modeling, Simulation, and Analysis
MARAD	Maritime Administration (US Department of Transportation)
MARFORPAC	Marine Forces Pacific
MCP	Mission Capability Package
MOA	Memorandum of Agreement
NDU	National Defense University
O&M	Operations and Maintenance
OCD	Operational Concept Document
ONR	Office of Naval Research
PACOM	Pacific Command
PMIS	Project Management Information System
PMP	Program Management Plan
POLB	Port of Long Beach
POLA	Port of Los Angeles
POM	Program Operating Memorandum
PPP	Power Projection Platform
QDR	Quadrennial Defense Review
RDTE	Research Development Test and Evaluation
SCASN	Southern California Agile Supply Network
SCAG	Southern California Association of Governments
SCLA	Southern California Logistics Airport
SM21	Strategic Mobility 21
SOA	Service Oriented Architecture
SOW	Statement of Work
S&RL	Sense and Respond Logistics
TATRC	Telemedicine and Advanced Technologies Research Center
TAV	Total Asset Visibility
TC-AIMS II	Transportation Coordinators' Automated Information for Movement System II
USAF	United States Air Force
USDOT	U.S Department of Transportation
USJFCOM	U.S. Joint Forces Command
USTRANSCOM	U.S. Transportation Command

Appendix B: Revised Statement of Work

STRATEGIC MOBILITY 21

VOLUME I – Attachment 1

**Statement of Work
(Expansion)**

Revision 1
February 10, 2009

Strategic Mobility 21

STATEMENT OF WORK (Expansion)

TASK 1.0 – STRATEGIC PLANNING, COORDINATION AND REVIEW

Task 1.1 – Project Oversight

Description: This task encompasses all activities required to ensure the efficient and effective execution of this project. Primary activities include: SM 21 program management including IPT coordination, technical program management and strategic planning, execution planning and monitoring of same, and administration. Implicit in these activities are scheduling competencies and functionality to ensure the responsive execution of plans within budget, lead engineer competencies and functionality for review and decision support of technical matters, and the integration of contracting functionality into the dynamic program planning and execution process. The supporting tasks include: Project Management Information System (PMIS) management and administration, performing technical oversight and evaluation of all program deliverables. Related supporting tasks include the use of COTS collaboration tools (visual and audible) to reduce program travel needs, and increase the sharing of knowledge and awareness within the program. Additional tasks include collaboration with research partners to develop appropriate corrective actions to deviations in the project timeline; oversight of the deliverable review process; and the review and coordination of proposed project modifications.

Technical Approach: Preparation of monthly reports, quarterly program reviews, guest and role-based access to SM 21 program management web site, internal quality assurance and quality control under SM 21 Program Management Plan, integration of commercial and military subject matter experts in Integrated Project Teams (IPT), use of consortium forums, and independent review as necessary. It is anticipated that the following IPT structure will be employed: (1) Modeling and Simulation, Experimentation and Demonstration Planning and Execution, (3) Capability/Systems/Product Development and Delivery, and (4) Transition. This program will be conducted using the Best Practices set forth for project management by the Project Management Institute.

TASK 1.0 DELIVERABLES

- **Coordination and participation in the Quarterly ONR Program Management Reviews**
- **Program Management Plan Update**
- **SM21 Final Report**

Task 2.0 – Joint Logistics Experimental Training Testbed (JLETT) Modeling and Simulation, Joint Experimentation Campaign, Sense and Respond Logistics and Joint Sea Basing

This task involves the implementation of a Joint Experimentation Campaign necessary to translate the joint logistics advanced concepts contained in the SM 21 CONOPS and Integrated Development Document (ICD) into validated solutions to identified joint capability gaps through the conduct of modeling and simulation and joint experimentation.

Task 2.1- Strategic Mobility 21 Modeling and Simulation

2.1 Description: This task supports program modeling and simulation for the development of the Joint Deployment Distribution Support Platform (JDDSP) concept and other supporting elements of the SM21 program through the development of a family of simulation models built on the same ARENA based platform and capable of sharing input and output data and optimization algorithms (least cost direct path, genetic etc). Specific modeling efforts include: (1) Refinement, extension, and utilization of the Southern California Agile Supply Network (SCASN) model development using ARENA including extension of optimization algorithms; (2) Strategic rail network analysis in collaboration with Class 1 railroads within defined geographic regions; (3) Refinement of the Multi-modal Terminal simulation model and adaptation of the model to the seaport operating terminal environment; (4) Planning for the adaptation of COTS warehouse and distribution center management simulation software; (5) Collaboration with Logistics Management Institute (LMI) on the Joint Sea Basing EXTEND based modeling and simulation.

Technical approach: The revised PMP Technical Plan will be used to guide modeling and simulation scenario development and employment, experimentation and demonstration/pilots during the program year. This means the program will continue to be focused on military and commercial (dual use) capability driven customer requirements. The strategic direction of the program will be guided by the Operational Concept Document (OCD), and the Initial Capabilities Document (ICD) subject to revision. The program technical elements will be validated, as appropriate, using the Strategic Mobility 21 Multi-modal Terminal and SCASN and derivative models. The intent is to continue a structured program process that will set the stage for validation by the JCIDS process and transition to a program of record.

Model development and employment projects may include:

- **2.1.1 Deployment and Extension of the ARENA SCASN model** to include (in order of priority):
    - Three Power Projection Platforms (PPP's), the Port of Tacoma; and three Aerial Ports of Embarkation (APOE's), one of which will be the SCLA APOE. This effort is designed to enable support to the PNW Agile Port System analysis and demonstration and California Transportation Commission Trade Corridor analysis. The model will also be used to support the SCLA - JDDSP associated experimentation including Joint Sea Basing support.
    - The following DoD distribution nodes located within California will be integrated into the model: Nebo and Yermo USMC facilities located in Barstow, CA; Defense Logistics

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Agency (DLA) San Joaquin depot; Sierra Army Depot; and Martinez Ocean Terminal (MOTCO - former Concord Naval Weapons Station.).
- o The following Four Trade Corridors will be integrated into the SCASN model as a trade corridor network model: San Diego-Otay Mesa via Camp Pendleton/March AFB to Inland Empire to support DoD deployment and to AZ Border (I-8); POLA-POLB to SCLA and Barstow (current capability); Inland Empire (SCLA) to Sacramento via Central Valley (I-5 Corridor and Class one rail lines), Highway 395 and High Desert Corridor, and SF Bay Area to NV Border (I-80 Corridor and UP main line)
- o Integration of up to six additional distribution/sustainment nodes located within CONUS to support the Sea Base logistics flow analysis.
- o Extension of existing optimization algorithm to current and expanded model

2.1.2 Employment of SCASN model and multi-modal terminal model to develop and test output and input file sharing among the SM21 SCASN and the Multi-modal terminal model and the following models and simulations to enable specific experiments and analysis
- o Integration and input and output file sharing with the Agile Port System (APS) terminal throughput model developed by TranSystems for the PNW APS development and demonstration
- o Integration and input and output file sharing with the Sea Base Extend model being used by LMI to analyze Sea Basing logistics network planning, configuration, and throughput analyses.

2.1.3   DELETED

2.1.4 Extension of multi-modal terminal model to derivative marine terminal model and test output and input file sharing among SCASN –multi modal terminal model to enable specific experiments and analysis:

- • Initial planning and coordination required to establish future year file sharing with the strategic Class I rail network models. (Long haul rail synchronization) The initial focus of the file sharing between the models will be to support strategic analysis associated with the Southern California Logistics Airport (SCLA), configured as a JDDSP with BNSF and UP railroads, and Warner Robins with NS and CSX railroads.

2.1.5   DELETED

2.1.6   DELETED

2.1.7   DELETED

Task 2.2 – Joint Network-Centric Logistics Experimentation

Description: This task involves the collaborative planning associated with the conduct of a logistics experimentation campaign using, when appropriate, DoD Code of Best Practices for Experimentation.   JDDSP experimentation will be guided by the SM 21 Operational Concept

Document (OCD) and Initial Capabilities Document (ICD), and the SM21 Technical and Experimentation Plan. The campaign will test the hierarchy of requirements from ITV/AIT to multi-modal dynamic re-planning and consequence management using an appropriate set of approved metrics.

Technical Approach: This task includes Baseline testing, experimentation, and execution of lead responsibility for joint experimentation/pilot campaign planning and execution. The PMP Technical Plan, and Demonstration and Experimentation Plan will guide campaign planning. Selected experiments/pilots will be identified in a final experimentation execution plan. Experiments will be conducted in accordance with the execution plan.

Task 2.3 DELETED

Task 2.4 DELETED

Task 2.5 DELETED

Task 2.6 DELETED

Task 2.7 Sense Respond Logistics (SRL) and Joint Sea Basing Focused Logistics architecture and Joint Experimentation Campaign

Description: This task supports Task 2.2, Experimentation/Pilot Programs, through the incorporation of joint experimentation to evaluate the potential of future logistics capabilities. A number of leading edge technologies associated with Sense and Respond logistics and grid computing will be considered, along with the potential application of these technologies to Joint Sea Base logistics. Joint Sea Base logistics analysis will be completed through collaboration with the Logistics Management Institute.

Technical Approach: This task involves taking the Joint Sea Basing logistics template developed in Phase I and initiating the development of the appropriate hypotheses in collaboration with LMI. Direct coordination with USTRANSCOM, DLA, DISA and JFCOM will be conducted to define a CONUS Sea Base distribution experimentation campaign. This initial year experimentation may further demonstrate the portability and scalability of JPPSP future logistics operational capabilities in a distributed adaptive environment such as CWID or Sea Viking 08 with III MEF and MARFORPAC. Sense and Respond logistics lessons learned with prognostics will play into this. Collaboration with IBM in SRL and grid computing environment could also be explored.

This task includes:

- Exploration and identification of potentially complementary technology and applications as elements of an integrated architecture/capability in support of the goal of network centric logistics architecture. This architecture could include IBM grid computing, MANET HFN networks applicable to austere environments and CHD, SRL prognostics etc.

- Development of SRL Joint Sea Basing Experimentation Campaign Plan based upon M&S in collaboration with the LMI managed Sea Base Logistics Optimization Project, DLA, DISA, and USJFCOM.
- Concept extension of the JDDSP SOA architecture to Joint Sea Basing.

TASK 2.0 DELIVERABLES

- **Interim Modeling & Simulation Technical Report**
- **Phase II Final Report Annex: Joint Experimentation Plan Lessons Learned and After Action Report**

Task 3.0 – Joint Deployment and Distribution Support Platform (JDDSP) Concept Development Dual-Use Capabilities and Product Development, Service oriented architecture Integration and Deployment

This task focuses on the development of dual use capabilities and products, evaluation through use of elements of the DoD JCIDS process, integration with a DODAF and commercial service oriented architecture (SOA), and commercial best practices as part of an overall concept to deployment of the joint physical, system, operational, and joint training and education advanced logistics concepts embodied in the Joint Deployment and Distribution Support Platform (JDDSP) CONOPS and dual use Joint Integrated Logistics Center (JILC) component of the Agile Port System (APS).

The JDDSP smart node concept within the DoD Joint Deployment Distribution Enterprise (JDDE) outbound logistics and inbound commercial intermodal analysis built upon the regional modeling, simulation and analysis in the twin physical and information domains and was refined though joint experimentation with both military and commercial strategic partners.

This task evolved on twin tracks dictated by strategic partner direction, involvement and sponsorship. Absence of current commitment of Class 1 rail intermodal service at Southern California Logistics Airport (a required prerequisite to joint experimentation beyond modeling and simulation) during the current research phase required recruitment of commercial strategic partners to develop the JDDSP concept through spiral development of information technology capabilities built upon a service oriented architecture (SOA) that fills validated military and commercial logistics requirements including end to end in transit visibility (ITV) and total asset visibility (TAV). This required: (1) the use of lean six sigma and value stream mapping to validate IT "black holes" for example in the container movement from marine terminal to regional warehouse and distribution center by local dray; (2) the development of a SOA architecture as the basis for knitting together selected technologies to mitigate the end to end visibility joint requirement; (3) planning for the conduct of individual and multi-company experiments to test the hypothesis of the feasibility of the solution, and (4) execution of pilot experiments to develop the parameters of a functional solution with dual use implications.

The other track was dictated by the emergence of the collaborative Agile Port System (APS) demonstration with CCDoTT, US Transportation Command (USTRANSCOM) and later US Joint Forces Command, US Army Forces Command (FORSCOM) and Army G-4. The selected site for the APS Joint Force Deployment demonstration was the port of Savannah, Georgia and the Third Infantry Division (Mechanized) based at Fort Stewart, Georgia. The APS demonstration was conceived as a demonstration of the physical components of the APS model or JDDSP in the military domain of outbound logistics or Joint Force Deployment (inland marshaling and staging, just in time loading and synchronized arrival of unit equipment and containers and sequential vessel loading to minimize commercial port footprint and dwell time to de-conflict military and commercial port operations. The results would clearly be applicable at the SCLA facility on the west coast.

For the APS demonstration the IT components of the JDDSP embodied in the SOA would be simulated pending further joint experimentation with USTRANSCOM and USJFCOM in subsequent program phases.

Task 3.1 – JDDSP Concept Development

Description: This is the central demonstration and program transition task to follow the Joint Capabilities Integrated Development System (JCIDS) and DoD Architecture Framework (DoDAF) process to develop the JPPSP concept as one Mission Capability Package (MCP) of a Joint Deployment and Distribution Support Platform (JDDSP) suite of capabilities. This includes taking experimentation results through any necessary desktop, command post and scheduled exercise demonstration in preparation for future Joint Requirements Oversight Council (JROC) validation and implementation.

Technical approach: This task includes:
- Development of scenarios to test and validate wherever possible various JPPSP and JDDSP capabilities through scheduled USJFCOM and USTRANSCOM desktop and command post exercises
- Continuing joint logistics requirements review and integration
- Update and modification of ICD and OCD as necessary based upon requirements review and results of experimentation campaign
- Conduct of analysis of alternatives; DOTMLPF analysis as basis for future Joint Requirements Oversight Council (JROC) review; and validation
- Seeking a JROC proponent and liaison with HQUSMC, CASCOM, TRADOC, TECOM and other DoD doctrinal organizations
- General format compliance with formats, general concepts and processes contained in the Joint Capabilities Integration and Development System (JCIDS)

Task 3.2 JDDSP Prototype Concept Evaluation, System Integration, Capability Evaluation, and Deployment

Description: This allied task seeks to develop, integrate, evaluate and deploy the JDDSP dual-use prototype system design at the former George AFB, Victorville, CA including initial design

attributes, joint logistics operational capabilities, physical footprint/layout as an integrated dual-use part of the multi-modal hub/transfer (air and surface) facility and information technology architecture.

Technical Approach: This task includes:

- Evaluating DoD joint force deployment throughput requirements with J4 staff, USTRANSCOM, USJFCOM, FORSCOM and integrating them into SCLA and JDDSP prototype design
- Evaluating force sustainment and distribution requirements with DLA, USTRANSCOM and Army Material Command, and FEMA strategic distribution initiative as necessary
- Evaluating the commercial freight movement requirements with regional planning organizations and commercial shippers
- Translating the conceptual JDDSP design attributes into a prototype design specification and validation using the Multi-modal Terminal simulation model and SCASN model and potentially supported other models such as strategic rail network models. A military force deployment validation scenario would be based upon multiple brigade combat modules deploying from multiple PPP under a west coast combat loaded, no notice deployment scenario. Commercial scenarios would be based upon validated customer requirements.
- Integration of military and commercial capabilities and deployment of JDDSP operational capabilities at SCLA, in support of PNW demonstration and alternative sites as designated
- Requirements generation, evaluation and development of additional Mission Capability Packages in Force Sustainment, Distribution, Reset/Retrograde, FEMA complex humanitarian disasters, NORTHCOM homeland defense as required
- Analysis of alternative JDDSP configurations located at the following possible locations: Barstow, CA; Huntsville AL, Warner Robins GA; Ft Dix/McGuire AFB NJ; or Letterkenny, PA

Task 3.3 JDDSP SOA Architecture to meet commercial requirements and DISA/FISMA required standards for dual-use systems and DoD Architecture Framework (DoDAF) and Federal Enterprise Architecture (FEA)

Description: Definition and development of the SM 21 JPPSP dual-use, network-centric, service oriented architecture.

Technical approach: This Task includes initiating development of a SM 21 JDDSP Service Oriented Architecture (SOA) appropriate for dual-use, with the development of this capability leverages the furnished SM21 Architecture Reference Model. The contractor will review the current SM21 products and artifacts regarding SOA architecture and create specified DoDAF products from this review. The SOA design and development will be based on the principles of network-centric warfare, and will be compliant with DODAF and FEA standards. The development will include the establishment of a baseline configuration, and will identify expected tailoring/configuration needs to permit installation and execution in both military and commercial logistics domains.

3.3.1 SM 21 Data Center System Architecture

Description: Master database to capture data from multiple sources to support SOA architecture

Technical approach: Use archival data to test database design and develop interface protocols and translators to receive and process near real time data from multiple sensors Creation and maintenance of a database with all elements of SM21 that are under consideration for transition beyond the SM21 Program.

Task 3.4 JDDSP Capabilities and Services Development and Deployment

Description: Development and deployment of JDDSP functional capabilities and services

Technical Approach: This task includes continued development of the JDDSP Service Oriented Architecture to:

- Provide Southern California freight flow analysis and planning support in support of the regional and Southern California Association of Governments (SCAG) and State transportation planning agencies.
- Design and ongoing capability development of a web-based regional freight shipment information portal. The portal will incorporate geographic information system (GIS) attributes and military-commercial logistics shipment monitoring into a common operating picture, which could include BCS-3 interoperability for military logistics. Among other functions, the web portal will link the JDDSP multi-modal facility with selected marine terminals, commercial shippers, and DOD Power Projection and Logistic Platforms for rail and truck shipment tracking demonstration purposes.
- Access to the project management information system (PMIS), public access to general project and system information, and existing databases, such as infrastructure attributes, that could be made available to authorized personnel for research and model development.
- Collaborative force deployment network synchronization among multiple DoD logistics personnel[3] and legacy systems (ICODES, TC-AIMS II, USMC MDSS, TC-ACCIS etc).
- The CSULB - GOPPI Wiki-based development will be reviewed to determine the applicability of the technology for use in the SM21 portal
- Access to the SM 21 public web site using role based access;
- Evaluation of technology required for future integration of a common military and commercial logistics relevant operating picture (LOGCROP) similar to the military BCS-3 COP or CFAST portal.
- Testing and evaluation of military and commercial application of Five QUAD POD
- Optional evaluation, testing and experimentation of other JDDSP services and functional capabilities at the discretion of the Program Director.

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[3] Military and commercial shipment planners that might become involved in force deployment planning include: Unit Movement Control Teams, Installation Transportation Officers (ITO) located at each involved Power Projection Platform; SDDC ship stow and movement control planners; commercial rail, truck, and bus transportation planners.

Task 3.5 E-Commerce- Green Freight Corridor Network Prototype Design and Feasibility Study

Description: Initial SOA system architecture and feasibility study of design elements for Task 2.1.

Technical Approach: This Task includes:

Integrate expanded SCASN Task 2.1 into smart and secure trade corridor network effort.

Task 3.6 -- Southern California regional Intermodal dray scheduling and appointment system and shipper free time Monitoring Prototype Design and Demonstration

Description: Collaborative feasibility study with Maritime Administration USDOT to investigate options for reducing container dwell time at marine terminals and regional intermodal dray scheduling and appointment system.

Technical Approach: MARAD will work with SM21 to undertake the investigation of opportunities to increase throughput at U.S. marine terminals. MARAD and SM21 will undertake this investigation to achieve broad consensus and to expedite the implementation of agreed upon solutions. The goals of the project will be to reduce dwell time at ports and the logistics footprint of the cargo to ensure that transit time to theater is minimized in keeping with security and transportation requirements.

a. Dwell Time. Based on recommendations by marine terminal operators the parties, or their designated contractor, will conduct a survey of the current practice of dwell time at marine terminals, analyze the results and make recommendations to industry. This would be followed by an evaluation of alternatives that would outline common practice, based on agreed upon criteria and standards. This may require further consideration at the Federal level. All options will be submitted to the marine terminal operators for review, discussion and possible implementation.

b. Appointment Systems. Although used on a limited basis, appointment systems show promise in reducing in-gate/out-gate congestion. Recent advances in information technology systems make it now possible to implement appointment systems on a wide scale. MARAD proposes to work with SM21to demonstrate such a system. The objective is to use an existing organization to configure an appointment system based on defined criteria and procedures.

Task 3.7 - Long haul rail surface freight synchronization using multi-modal operating system design, rail tracking system, and enhancement tools

Description: This task involves developing the capability to manage military force deployments and the shipment of commercial containers by rail from multiple locations for coordinated loading on a single ship. The intent is to develop the ability to plan the synchronization of rail shipments to minimize the amount of cargo required to be on a terminal for export at any time. The objective is to have the cargo arrive on the terminal just-in-time for loading in the correct loading sequence.

Technical Approach: This task includes evaluation and use of best of breed solutions. Tentative solutions include:

- Trancentric technologies
- One Network technologies
- Class 1 Railroad Data Integration through EDI

Task 3.8 – Military and commercial Value Stream Analysis

Description: Business operations research and strategic analysis of the impact of the JDDSP/multi-modal freight hub operational logistics capability on freight movement.

Technical approach: Extension of Phase I Economic feasibility and single company value stream analysis to additional regional nodes and distribution lanes within the SOCAL. Working with Dole, as a major importer, evaluate processes and technology that will optimize the flow of containers through SOCAL to destination. The analysis will focus on at least one major containerized shipment importer, Dole, and, if practical, one (to be selected) containerized shipment exporter.

This task encompasses the following activities:

- Continuation and expansion of the Dole Value Stream Analysis. This analysis will include distribution process mapping and joint experimentation and demonstration. Using the previous completed work involving the Dole Supply Chain, the value chain will be generically extended to Victorville, CA, and the related surface movement, storage and cost elements for each node and segment of a Rubbermaid products supply chain will be defined and incorporated into the generic value chain.

TASK 3.0 DELIVERABLES

- **SM 21 CONOPS Revised**
- **Initial Capabilities Document (ICD) Revised**
- **Smart and Secure E Corridor stakeholder evaluation - Savannah Workshop Report**
- **Dwell Time Reduction and Scheduling/Appointment System Study**
- **SM 21 Service Oriented Architecture (SOA) Reference Model**
- **IT Planning document for APS Demonstration Document**

Task 4.0: Transition Sponsorship, Joint Logistics Education, Training and Readiness (Curriculum, Capability Development), and SM 21 POM Program Transition Consortium Management

This task involves the management of the transition process for DoD joint capabilities under JCIDS and DoDAF strategy and technology insertion into existing programs of record, the development of joint advanced logistic concepts for joint education and training purposes and incorporation into the Joint Training Enterprise (JTEN) Joint National Training Capability (JNTC) and Joint Knowledge

Enabled Logistics Distance learning capability (JKKDC) of USJFCOM, and for dual use capabilities into the Joint Integrated Logistics Capability, and POM program transition from RDTE and into DoD wide Operations and Maintenance funding cycle**.

Task 4.1 Transition Plan Integration and Execution

Description: This task is designed to receive transition related information from tasks 2, 3 and 4, evaluate the potential for transition of those reported efforts through use of an SM21 business model/plan evaluation filter, and execute and modify as necessary the Transition Plan to successfully transition the SM 21 program into a combination RDTE spiral development and PEO program of record in FY 10 POM.

Technical Approach: This task includes:

- Development and implementation of a business model/plan used to execute the transition plan through capability deployment and technology at multiple venues and development and execution of an enterprise architecture and program management plan and Program Management Intranet portal to oversee the SM 21 program transition.
- SM 21 RDT&E program transition to FNC POM
- USJFCOM/USTRANSCOM/Combatant Commander/service component PEO transition
- Execution and modification of Transition Plan

Task 4.2 JLETT Transition Planning and Execution

Description: This task involves the evaluation of joint military and commercial logistics education and training under the JLETT with USJFCOM, the CSU and community college systems. Collaborative development of knowledge enabled logistics capability, JFCOM JSIC future logistics operational capability battle laboratory, and membership in USTRANSCOM JDDE CBAT and JFCOM JNTC as associate stakeholder.

Technical approach: Strategic focus upon DoD transition sponsorship beyond JCIDS JROC approval of JPPSP to include spiral development of other Mission Capability Packages and JDDSP family of concepts. It anticipates continued OSD AUSDATL as Joint Logistics Capability Portfolio Manager support of a DoD O&M wide program to transition SM 21 applied research (SRL, network centric logistics) and logistics process transformation into FY 09-10 POM program of record in collaboration with JFCOM as DoD Joint Deployment Process Owner and Executive agent for joint experimentation as Knowledge Enabled Logistics associate stakeholder and joint logistics innovation cell and center of excellence persistent site in JNTC, and USTRANSCOM as Joint Distribution Process Owner and AIT/TAV lead agency as Focused Logistics CBAT. This task includes among the following:

- Development of JLETT strategic plan for joint military and commercial logistics education (professional certification, degree, contract) training and readiness, and workforce development elements and organizational components of transition plan including validation of capability gaps and user requirements
- Preparation of joint logistics pre-deployment training mission rehearsal training plan with MOP and MOE integrated with pre-deployment unit training at the Ft Irwin National Training Center (NTC), 29 Palms, and SCLA urban warfare training

- National Distance learning certification, integration with National Defense University and NIPRNET qualification for JKDDC
- Development of core database of Joint Knowledge Development and Distribution capability knowledge enabled logistics lessons learned in OIF OEF as element of JFCOM JNTC

Task 4.3 Transition of deployed capabilities and technology insertion, and multi-modal data service center

Description: Strategic business model validation, and commensurate effort to transition this capability beyond the current SM21 Program.

Technical Approach: This task includes initiation and best efforts toward:
- Transition of JDDSP/JILC prototype including deployed capabilities and technology insertion at SCLA, and Warner Robins-Macon Georgia
- Transition of JLETT extension to Warner Robins-Macon GA area
- Development, deployment and transition of multi-modal data service center to SCLA (with backup capability at Warner-Robins GA)
- Transition of SM21 to Future Naval Capability (FNC) within ONR and DoD wide POM program of record within OSD, service components and combatant commanders

Task 4.4 Development of SM 21 Joint Community of Interest (COI)

Description: Network centric logistics technology and capability transfer

Technical approach: This task includes the development of an SM 21 joint military and commercial community of interest and practice (COIN-P) pilot to facilitate and support SM 21 transition and capture of knowledge and lessons learned through modeling, simulation and analysis, joint experimentation and concept development into a web centric knowledge management system including capture, repository and delivery through various communication devices such as wikis, blogs, podcasts, seminars, etc. Both military and commercial user groups would be invited to participate. The use of other professional symposia and workshops as technology transfer vehicles will also be explored.

Task 4.5 Phase II Final Report, Transition Business Plan and Next Steps –The Way Ahead

Description: Final report and strategic plan to replicate SM 21 business model

Technical approach: This task encompasses the evaluation and refinement of the SM 21 Business Transition Plan and summary review of research and experimentation findings and recommendations of each of the project clusters for the future, directed at DoD and commercial joint communities of interest.

TASK 4.0 DELIVERABLES

- **SM21 Transition Plan**

- **SM 21 Transition Plan Revised Annex B**
- **SM 21 Community of Interest Pilot Lessons Learned and Recommendations**