INTEGRATED LOGISTICS SUPPORT PLAN (ILSP)

for the

PORTS AND WATERWAYS SAFETY SYSTEM (PAWSS) PROJECT

A Level 1 Major Acquisition

Prepared/Submitted by: _____ _____
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Endorsed by: _____ _____
Date Program Director
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Approved by: _____ _____
Date Chief of Staff (G-CCS)

EXECUTIVE SUMMARY

This Integrated Logistics Support Plan (ILSP) serves as the master logistics planning document that describes necessary logistic activities, assigns responsibility for those activities, and establishes a schedule for completion. It is one of the initial planning documents required IAW COMDTINST M4150.2D, and is a “living” document which will be updated as the system progresses from acquisition through termination.

The Ports and Waterways Safety System (PAWSS) project is a Vessel Traffic Services (VTS) system that engages local port stakeholder involvement and encourages partnerships and alternative funding. The system is a navigation safety related information system that consists of sensors, communications, personnel and decision support equipment that permits the Coast Guard to disseminate information to assist the mariner.

The system will be based on an existing off-the-shelf VTS system. The System Integration Contractor (SIC) will integrate, install, test, and maintain this off-the-shelf system. Provision will be made for third party maintenance or the possible transfer of maintenance functions to the government at a later date.

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CHAPTER 1. INTRODUCTION

A. GENERAL. The United States Coast Guard (USCG) Ports and Waterways Safety System (PAWSS) Project will provide a navigation safety related information system that facilitates the safe and efficient transit of vessel traffic thus preventing collisions, rammings, groundings and associated environmental damage. It is a Level 1 Major Acquisition Project. The PAWSS project VTS will be based on an existing off-the-shelf VTS system. Attention will be focused on flexibility and adaptability with the ability to increase capacity and permit the addition of new functions. This Integrated Logistics Support Plan (ILSP) is the basic planning document for all logistics support for the PAWSS project. Its objective is to describe the necessary logistic support activities and assign responsibility for completing those activities.

1. Integration Process. The System Integration Contractor (SIC) will be responsible to plan, modify their off-the-shelf Vessel Traffic Service (VTS) system (if necessary), integrate, install, test, and maintain the system. This effort will be accomplished using a two phased approach. In Phase 1. the SIC will receive two Task orders: one to install a test system at Gretna Light in New Orleans, LA (NOLA) for use in evaluating Digital Selective Calling/Automatic Identification System (DSC/AIS) as a primary sensor in VTS systems, and a second to design the Vessel Traffic Center (VTC). In Phase 2, future Task Orders will be issued for system modification if necessary, and installation in new or non-PAWSS VTS ports, installation of enhancements in ports with previously installed PAWSS Project VTS capability, establishment and operation of a support facility, documentation, training, and maintenance of the system. The first Task order in Phase 2 will be to install a VTC in NOLA.

2. Maintenance Philosophy. The PAWSS project is an off-the-shelf VTS system. The state of the market for VTS systems throughout the world, as verified by extensive market research, is for the system vendor to provide support for the system. As a result, we have identified the SIC as the most effective choice to provide maintenance. It is possible to transfer maintenance to a third party such as the local port authority or the government at some time in the future. The SIC will provide support for the first year after system acceptance, with options to provide support for follow on years.

B. BACKGROUND. Background information is contained in the PAWSS Acquisition Plan, Project Management Plan (PMP), System Specification, and Statement of Work.

1. Mission Employment. The Mission Needs Statement (MNS) requires systems to safeguard the nation's ports, waterways, port facilities,

vessels, persons, and property in the vicinity of the port, from accidental or intentional destruction, damage, loss, or injury.

2. Operational Environment. PAWSS will provide a shore based navigation safety related information system. The system includes electronic equipment in office spaces requiring environmental control, as well as sensors and communications networks at remote sites. Remote sites will be located in a harsh, variable weather environment.

3. Service Life. The system life cycle is fifteen years following the first port (NOLA) acceptance.

C. LOGISTICS SUPPORT CONCEPTS.

1. Objectives. This ILSP outlines the requirement to support the PAWSS project VTS system.

2. System Logistics Components. The SIC or a third party will provide all logistics and support as part of the contract in accordance with the system specification. Detailed requirements are contained in the Statement of Work (SOW).

3. Support Requirements. The facilities and support organizations expected to be used by the project are listed in Chapter 2, Section C, and in the PAWSS Project Management Plan.

4. Logistics Support Improvements. The VTS Upgrade and VTS 2000 Projects offer lessons learned (i.e. existing COTS VTS systems do exist; ability to leverage software support among other VTS customers). Specific benefits and features of the PAWSS Project logistics support program are detailed in the logistics element area discussions in Chapters 3 and 4.

5. Partnership Arrangements in Future Ports. In future ports partnership arrangements may involve shifting support from the Coast Guard to the local port authorities. The port authorities will have the option of continuing maintenance through the SIC or third parties.

6. Logistic Support Transition. The SIC will provide various elements of logistics support through several task orders. The task order to install the VTS system in the VTC will include tasking for training support and technical data. A task order will be issued after acceptance of the VTC system for maintenance, supply and computer resources support. The first year after acceptance will be AC&I funded and managed by the PM (G-AVT). The SIC contract allows annual maintenance options

throughout the 7 year life of the SIC contract. The decision on the contract management option (HQ unit, MLC, District, VTS, or partner) after the first year as well as the contractor (SIC, third party or CG) is tied to the number of ports to receive a new VTS system. As a result, this decision cannot be made until KDP IV when the number of ports is determined.

D. LOGISTICS SUPPORT ANALYSIS (LSA).

1. LSA Concepts and Objectives. The system integration will be an off-the-shelf VTS design. The SIC will provide LSA support for the first year. Thereafter, the Coast Guard may purchase support services from the SIC, a third party, or support the system in-house.

2. LSA Strategy. The SIC will develop an LSA Strategy for Coast Guard approval that ensures system availability goals are met. The strategy will include a LSA Plan that provides details on LSA tasks, tracking, reporting and products.

CHAPTER 2. PROJECT MANAGEMENT

A. INTEGRATED LOGISTICS SUPPORT (ILS) MANAGER. The ILS Manager for the PAWSS Project, is initially located at Coast Guard Headquarters (G-AVT). Primary functions of the ILS Manager are to coordinate logistics support functions for the PAWSS project. This is accomplished through participation in logistics planning meetings of the ILS Management Team (ILSMT), the preparation of Logistics Plans such as the ILS Plan (ILSP), and the day to day functioning as the logistics point for the Project. In future ports the function of the ILS Manager will be dependent on partnership arrangements in coordination with the sponsor.

1. Specific Duties of the PAWSS ILS Manager.

   a. Serves as the focal point for logistics support, element integration, and overall supportability issues.

   b. Develops, coordinates, maintains, and updates the ILSP.

   c. Coordinates, schedules, and chairs the Integrated Logistics Support Management Team (ILSMT) meetings.

   d. Coordinates logistics support resource requirements and identifies deficiencies in logistic support for the Project Manager.

   e. Maintains the schedule of events/milestones and coordinate logistics concerns with other project events.

   f. Ensures ILS is considered in contractual and technical project concerns. This includes providing logistics support requirements and input to the Statement of Work (SOW), Contract Data Requirements List (CDRL) items, contract attachments, etc. The ILS Manager is a proactive member of the team responsible for establishing, developing, reviewing, and evaluating contractor requirements and deliverables.

   g. Reviews project documentation and develops logistics input. The ILS Manager will review and ensure that logistics concerns are addressed identified in applicable project documentation (e.g., Operational Requirements Document (ORD), Acquisition Plan (AP), Project Management Plan (PMP), Test and Evaluation Master Plan (TEMP), Transition Plan, Project Termination Plan (PTP), etc.).

h. Attends project reviews as part of the project management team to ensure that logistics support is integrated in technical processes and program efforts.

i. Establishes initial operational support, facilitates continued operational support, and post production support (PPS) requirements planning. Along with the Acquisition Project Manager, Facility Manager, Support Manager and receiving unit managers, the ILS Manager establishes and ensures that operational logistics support is planned from acquisition to system termination.

B. **INTEGRATED LOGISTICS SUPPORT MANAGEMENT TEAM (ILSMT)**. The ILSMT serves as a source of expertise to manage ILS throughout the system life cycle. The ILSMT will meet as frequently as the needs dictate. One of the ILSMT's primary functions is providing input to the ILSP. The ILSP will be reviewed for accuracy and completeness by the ILSMT and applicable support managers. ILSMT membership is stated in enclosure 3. Other responsibilities and functions of the ILSMT include:

1. Planning, scheduling and implementing ILS tasks.

2. Coordinating the efforts of ILS element managers and other personnel assigned ILS-related tasks to ensure that adequate interfaces are established.

3. Scheduling and monitoring all major logistic events and action milestones to achieve timely and complete logistic support and directing the correction of problems to maintain schedules.

4. Documenting the actions and decision of the ILSMT in official minutes for distribution to members.

5. Monitoring contractor and Coast Guard ILS schedules and performance; and establishing methods of operation between Contractor and Coast Guard teams.

C. INTEGRATED LOGISTICS SUPPORT MANAGEMENT DUTIES.

1. ILS Manager. Coordinates the activities of support managers participating in logistics support planning, prepares the ILSP, and chairs ILSMT meetings.

2. Sponsor. Develops Mission Needs Statement (MNS) and Operational Requirements Document (ORD), develops operational training and maintenance concepts.

3. Project Manager. Responsible for all Project matters; plans and executes the logistics support planning process; procures and delivers required logistics support material, facilities, personnel and services to system managers; responsible for Configuration Management from conception through deployment.

4. Districts. Through partnership arrangements in individual ports, districts will provide input to define operational requirements and logistics planning, with particular emphasis on local concerns.

5. Support Managers. Serves as a source of specialized expertise in their respective area. Provides advice and assistance to the Project Manager as needed.

CHAPTER 3. LOGISTICS SUPPORT ELEMENTS

A. GENERAL. It is anticipated that all support will be contracted by the government from either the SIC or a third party. The possibility exists that the Coast Guard may provide system logistics support at a later date. This issue will be decided by KDP4.

B. MAINTENANCE PLANNING

1. Concept. Maintenance will initially be contractor provided. The SIC will be responsible to maintain the system during the integration period and for a minimum of one year after IOC of the first port. Maintenance will involve both preventive and corrective maintenance. After this interim support, the USCG plans to exercise one of three options: (1) continuing maintenance support through the SIC, (2) contracting maintenance through another party, or (3) utilizing USCG assets. As the acquisition progresses, these options will be further evaluated to determine the best option. In addition, partnership arrangements in future ports may create additional alternatives.

2. Equipment Categories. System electronic equipment is categorized as Electronic (Shore-based) and Information Resource Management (IRM).

3. Maintenance Types. At KDPIV a decision(s) will be made to address maintenance options: a central maintenance contract for all VTC's in the Coast Guard, Area contracts managed by each MLC, Individual District contracts for each VTC, or provided by local maritime community through partnership agreements.

    a. Preventive Maintenance. Preventive maintenance will be performed as necessary, and is limited to tasks such as periodic replacement or cleaning of filters, parameter adjustments, visual inspection, and routine cleaning. Preventive maintenance will satisfy and improve reliability or availability requirements.

    b. Facility Maintenance. Routine facility maintenance (i.e., cleaning, painting, repairs to structures), will be managed by the appropriate MLC.

    c. Corrective Maintenance. Corrective maintenance such as fault identification and localization, component removal/replacement, and system restart/sustainment will be covered by maintenance contract(s).

4. Maintenance Levels. Coast Guard maintenance levels are defined in COMDTINST M10550.25. The maintenance concept for system equipment maintenance ranges from organizational to depot level.

a. Organizational Level. Organizational level maintenance will be performed by commercial contract and will involve preventative measures, fault identification, localization, and removal and replacement of faulty components.

b. Intermediate Level. Not applicable.

c. Depot Level. Depot Level Repair of all but the most simple component failures will be completed by the Original Equipment Manufacturers (OEMs). Components removed by the Maintenance Contractor will be replaced with a spare and the defective component sent to the appropriate OEM vendor for repair, repaired on site, or discarded, as appropriate. When a replacement component arrives from the OEM, the SIC will test the component on the test bed to ensure functionality and configuration management prior to installation in the system. The contractor will be required as part of the contract to plan for and maintain provisioning levels to ensure system availability.

5. Miscellaneous. Not applicable.

6. Element Detail Planning. The SIC will provide a detailed Integrated Support Plan (ISP), Maintenance Schedule, Technical Manuals, as well as commercial manuals and drawings. The ILSMT will be responsible to review this Plan to ensure all maintenance concerns are addressed.

C. SUPPLY SUPPORT.

1. Concept. Maintenance and supply support will be contracted. Per the contract the SIC will provide maintenance and supply support and develop a Transition Support Plan to facilitate assumption should a third party or the Coast Guard assume support. The SIC will buy initial spares under Task Order. Follow-on spares will be bought using Basic Ordering Agreements (BOAs). Spare equipment levels must be chosen and managed to ensure system availability.

2. Element Detail Planning. As part of the contract the SIC will submit detailed supply support planning documentation for the PAWSS project.

D. TRAINING AND TRAINING SUPPORT.

1. Concept/Approach. The system will use the existing National VTS Standardized Training Program funded by G-M for VTC watchstanders and software administrators. This training program consists of 3 phases:

   a. Phase I, fundamentals of VTS is taught at VTS Puget Sound.

   b. Phase II, equipment training. Initially the SIC will teach trainers, then the trainers will teach at each VTS.

   c. Phase III, geographical/local procedures are taught on-site at each VTS.

   Life Cycle Training Cost (estimates) for Phase II are included in the Life Cycle Cost Estimate developed by G-AVT. Phase I and III training costs are included in the G-M training Plan for FY98 and beyond. AFC-56 funds have been identified and quotas will be coordinated from Training Quality Control TQC).

2. Element Detail Planning The SIC will provide hands-on equipment operations training for Government personnel such as: (1) VTC operators and supervisors; (2) system administrators; and (3) instructors for each course. Training will be in accordance with standard commercial practices. The SIC will prepare a detailed Training Plan. The plan will include the schedule and location of all training, instructor qualifications, details of how training will be conducted for the VTC operators of the port of NOLA, and follow on ports. The SIC will conduct the training using the approved training manuals and will provide the instructors and any tools, special fixtures, and facilities needed. All tools, special fixtures and equipment as appropriate shall become the property of the Government. The ILSMT will be responsible to review the SIC Training Plan to ensure all training support concerns are addressed.

E. SUPPORT AND TEST EQUIPMENT

1. Concept/Approach. The SIC will provide all support and test equipment, test program software, simulators, Computer Aided Software Engineering (CASE), Computer Aided Design/Computer Aided Manufacture (CAD/CAM), and other tools if applicable, as well as data and documentation for the system.

2. Element Detail Planning. To be determined.

F. MANPOWER AND PERSONNEL

1. Concept/Approach. Manpower and Personnel requirements are being developed by G-MOV and G-WTT using the USCG Staffing Standards Manual, COMDTINST M5312.11a, Chapter 25 and are reflected in the Life Cycle Cost Estimate produced by G-AVT. In the early phase, NOLA data will be collected to allow the sponsor to evaluate staffing standards for the new mode of DSC/AIS watchstanding. The Coast Guard will refine these estimates as the COTS integration is finalized; e.g., number of operational sectors, the impact of DSC/AIS technology and the Coast Guard/stakeholder personnel mix.

2. Element Detail Planning. Personnel and Resource costs are currently being determined. The advent of DSC/AIS technology, a departure from traditional VTS operational practice, should render cost savings compared to current VTS operations, but data is unavailable at this time. Additional savings to the Coast Guard may be realized due to stakeholder participation and the level of stakeholder commitment to offset military manning and rotation concerns. The ILSMT will be responsible to review staffing plans of the sponsor to ensure adequate resources are provided.

G. PACKAGING, HANDLING, STORAGE, AND TRANSPORTATION (PHS&T)

1. Concept/Approach. As part of the installation the SIC is responsible for PHS&T. The government will accept the system after successful on site testing.

2. Element Detail Planning. The SIC will conduct PHS&T in accordance with standard commercial practices.

H. FACILITIES

1. Concept/Approach. The Coast Guard is identifying VTC and remote site locations for the first port. The SIC will perform port site surveys per task order for remaining ports, recommend sites, and upon approval of the sites the SIC will implement facilities. The Coast Guard will approve, monitor, and provide oversight.

2. Element Detail Planning. Refer to the SOW, System Specification and Task Order.

I. COMPUTER RESOURCES SUPPORT

1. Concept/Approach. The system is a COTS integration effort that requires minimal software development. The SIC will provide all facilities, hardware,

system software, software development (if required) and support tools, documentation and personnel to support the system.

2. Element Detail Planning. Refer to the SOW and System Specification.

J. TECHNICAL DATA.

1. Concept/Approach. The SIC will provide to the VTS commercially available manuals and system documentation, augmented with unique system level and port specific documentation. Non Developmental Item (NDI) hardware items will have their own vendor supplied Technical Manuals (TMs) which will not be supplemented unless circumstances warrant.

2. Element Detail Planning. Technical Manuals and Drawings. The SIC will provide as built integration and organizational level maintenance documentation, and drawings.

K. DESIGN INTERFACE.

1. Concept/Approach. The COTS design shall minimize life cycle support costs. Support resources shall maintain or preferably increase the system's overall reliability and maintainability by contributing to the achievement of operational availability goals.

2. Element Detail Planning. The system will meet the RMA requirements in the specification.

CHAPTER 4. OTHER PROGRAM SUPPORT

A. HUMAN RESOURCES MANAGEMENT. Human Resources (HR) planning and budgeting for the project is being considered as part of the Life Cycle Cost Estimate (LCCE). There are no human resource shortfalls identified at this time. The system sponsor will collect data to evaluate HR required by the new mode of operating posed by the PAWSS project.

B. CONFIGURATION MANAGEMENT (CM)

1. Concept. Coast Guard PAWSS project CM policy and procedures will be detailed in the PAWSS CM Plan. The SIC will ensure that the Coast Guard has access to the SIC's CM system and meet the CM requirements stated in the SOW and CDRLs.

C. LIFE CYCLE COSTS. Life Cycle Costs for PAWSS are contained in the Life Cycle Cost Estimate. The cost estimates for the LCCE were derived using DOD Planning Guidance, an industry software cost model Price-S, analysis of the initial proposal provided by the Phase I System Integration Contractors for VTS 2000, as well as input on costs for recently installed VTS systems.

D. METRICATION. All equipment will be COTS, therefore metrication is not applicable.

E. MISCELLANEOUS.

1. Quality Assurance. The SIC will implement, manage and maintain a QA program that complies with ISO9000. The SIC will incorporate Government participation into QA activities.

2. System Performance Monitoring (SPM). SPM will be performed in accordance with the system specification.

3. System Safety. The SIC shall ensure that the system safety efforts outlined in the System Safety Program Plan (SSPP) are incorporated in the ILSP document, as well as ensuring compliance with other applicable safety and environmental health standards and guidelines. The SIC must also ensure that safety and environmental health issues are identified within the various logistic support elements outlined in Chapter 3 and 4 of this document as required. This effort includes hardware and software updates/issues, as well as identifying and monitoring critical software/hardware.

CHAPTER 5. MILESTONES

A. MAJOR PROJECT EVENTS

ACTION	FY DATE
Key Decision Point (KDP) I (VTS2000)	JUL 92*
Mission Needs Statement Approved	JUL 92*
Acquisition Plan Approved for VTS2000	MAR 93*
PORD complete (VTS2000)	APR 94*
KDP2 (VTS2000)	JUN 94*
Award Competitive Phase I SIC Contracts (VTS2000)	APR 96*
VTS2000 ended	OCT 96*
PAWSS Reset TSARC	JAN 97*
VTS Technology Symposium	FEB 97*
System Demonstrations	JUL 97
Draft RFP	AUG 97
ORD Complete	SEP 97
KDP 2/3 (PAWSS)	SEP 97
Release RFP for SIC	1Q1998
Release RFP for Transponders	1Q1998
Communications Coverage Update	1Q1998
Award PAWSS SIC Contract	3Q1998
Begin Installation - First Port	FY98/99
DSC/AIS Evaluation - First Port	FY1999
Install System in VTC	FY99
Install Remaining Independent Surveillance	FY99
System Improvement Phase I	FY99
DT&E Acceptance Testing	FY99
OT&E	FY99/00
IOC First Port	FY00
Complete Port Discussions	FY00
KDP 4	FY00

* Completed

B. LOGISTICS MILESTONES

Integrated Logistics Support Plan (draft)	JUN 97
Refine ILS requirements	JUL 97
Integrated Logistics Support Plan (final)	AUG 97
Award PAWSS SIC Contract	3Q1998
Begin Installation - First Port	FY98/99
Train NOLA Watchstanders	FY99

First Year System Maintenance	FY99
IOC First Port	FY00
Determine Support Approach	FY00
Update ILSP	FY00
KDP 4	FY00

ENCLOSURE (1) - ACRONYMS

AP	Acquisition Plan
BOA	Basic Order Agreement
CALS	Continuous Acquisition and Life-cycle Support
CASE	Computer Aided Software Engineering
CCB	Configuration Control Board
CDRL	Contract Data Requirements List
CEU	Civil Engineering Unit
CG	Coast Guard
CM	Configuration Management
CMP	Configuration Management Plan
COTS	Commercial Off-The-Shelf
COTS/GOTS	Commercial Off-The-Shelf/Government Off-The-Shelf
GFE	Government Furnished Equipment
GOTS	Government Off The Shelf
ILS	Integrated Logistics Support
ILSMT	Integrated Logistics Support Management Team
ILSP	Integrated Logistics Support Plan
IOA	Independent Operational Assessment
IOC	Initial Operational Capability
ISP	Integrated Support Plan
KDP	Key Decision Point
LCCE	Life Cycle Cost Estimate
LSA	Logistics Support Analysis
MLC	Maintenance and Logistics Command
NDI	Non Developmental Item
NOLA	New Orleans
OEM	Original Equipment Manufacturer
ORD	Operational Requirements Document
OT&E	Operational Test and Evaluation
OTS	Off-The-Shelf
PAWSS	Ports and Waterways Safety System
PHS&T	Packaging, Handling, Storage, & Transportation
PMP	Project Management Plan
PORD	Preliminary Operational Requirements Document
QA	Quality Assurance
RMA	Reliability, Maintainability and Availability
SE	System Engineer
SIC	System Integration Contractor
SOW	Statement of Work
SPM	System Performance Monitoring
SSPP	System Safety Program Plan
TM	Technical Manual
USCG	United States Coast Guard

VTC	Vessel Traffic Center
VTS	Vessel Traffic Service

ENCLOSURE (2) - REFERENCE DOCUMENTS

COMDTINST M4150.2D, System Acquisition Manual, 27 Dec 94

COMDTINST M10550.25, Electronics Manual, 05 Jun 89

Acquisition Plan (AP), Aug 97

Life Cycle Cost Estimate, Aug 97

Operational Requirements Document (ORD), Sep 97

Project Management Plan (PMP), Aug 97

ENCLOSURE (3) - ILSMT MEMBERSHIP

Project Manager	G-AVT
Sponsors Representative	G-MOV
Port Stakeholders	
Support Manager	G-SCE
ILS Manager	G-AVT
Acquisition Technical Support	G-A-2
Quality Assurance	G-A-3
Facilities	G-SEC
Training Manager	G-WTT
System Safety	G-WKS-2
Manpower and Personnel	G-WR-2
Logistics Policy	G-SLP
Project Counsel	G-LPL
System Engineer	SETA Corp
Systems Integration Contractor	