Logistics/MANPRINT Demonstration Plan

For the

Single Net Solution - Remote Deployment Device (SNS-RDD)

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Date: 1-24-2011
Logistics/MANPRINT Demonstration Plan

SNS-RDD

Date: 9-28-2010

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TABLE OF CONTENTS

Section Title
1.0 INTRODUCTION
   1.1 General
   1.2 System Description
   1.3 Logistics/MANPRINT Demonstration
      1.3.1 Purpose and Scope
      1.3.2 Objectives
      1.3.3 Methodology
   1.4 Verification Plans
      1.4.1 Maintenance Concept
      1.4.2 System Support Package
      1.4.3 Technical Publications
      1.4.4 Training Curriculum
      1.4.5 Maintainability Characteristics
   1.5 Success Criteria
   1.6 Demonstration Test Report

2.0 DEMONSTRATION IMPLEMENTATION
   2.1 Personnel
      2.1.1 Government Support Personnel
      2.1.2 Soldiers
      2.1.3 Team Responsibilities
      2.1.4 Qualification and Indoctrination of the Team
   2.2 Schedule
   2.3 Facilities
   2.4 Equipment Configuration
   2.5 System Support Package Elements
      2.5.1 Spares and Repair Parts
      2.5.2 Expendable Supplies
      2.5.3 Tools and Test Equipment
      2.5.4 Technical Manuals
      2.5.5 Training Material
   2.6 Other Support Materials
2.7 Candidate Items and Task Selection

2.8 Demonstration Procedures
   2.8.1 Pre-Demonstration Readiness Check
   2.8.2 Remove and Replace Phase
   2.8.3 Performance Check Phase
   2.8.4 Data Review Phase
   2.8.5 Demonstration Ground Rules

2.9 Data Acquisition Procedure

3.0 APPENDIX
Appendix A Test Candidate List
Appendix B Test Data Collection Sheet Detailed
Appendix C Detailed Demonstration Procedures
Appendix D System Support Package (SSP)
Appendix E Maintainability
Appendix F Simulated Fault List
Appendix G Items Needed to Support the LMD
Appendix H Detailed Agenda
Appendix I Directions to Picatinny Arsenal / building 68
1.0 INTRODUCTION

1.1 General.

This Logistics/MANPRINT Demonstration (LMD) Plan will be used by the Government to describe and perform a tailored LMD on the Single Net Solution - Remote Deployment Device (SNS-RDD). The purpose of the LMD is to determine the logistics supportability and maintainability of the SNS-RDD within the U.S. Army. This plan has been prepared in accordance with (IAW) the requirements established in AR 700-127, Integrated Logistics Support (ILS); DOD Instructions 5000.2-R, “Operation of the Defense Acquisition System”, and DA PAM 700-56, Logistics Supportability Planning and Procedures in Army Acquisition.

During the LMD, Human Research & Engineering Directorate (HRED) personnel from Army Research Laboratory (ARL) will conduct a separate Human Engineering evaluation. A feedback survey will be administered to all the Soldiers who participate in the LMD. The results and observations from this Manpower and Personnel Integration (MANPRINT) analysis will be attached to the final Log Demo test report.

1.2 System Description

**Single Net Solution (SNS)**
The SNS is a man-portable device that is designed to provide a nonlethal means of stopping threat vehicles. The SNS consists of a net with 2 rows of barbed spikes along its leading edge. The SNS is pulled across the road, and the spikes penetrate into the tires of any vehicle that drives over them. The spikes remain attached to the tires, allowing the SNS to entangle itself around the front wheels of the vehicle, bringing the vehicle to a stop. Providing a nonlethal alternative to stopping vehicles mitigates the risk of death or injury to noncombatants. The SNS is a one-time-use item; it cannot be reused after it successfully captures a vehicle. The SNS is very similar in form, fit, and function to the M2 Vehicle Lightweight Arresting Device (VLAD).

![Figure 1-1: SNS-Deployed](image)
The SNS and its components are packed in a carrying bag. A pouch on the top flap of the carrying bag contains a copy of the manufacturer’s instruction manual. A pouch on the side of the carrying bag marked “Deployment Lanyards” contains two plastic bags with components for lanyard deployment. One plastic bag contains two 28-foot deployment lanyards. A second plastic bag contains two plastic anchor pegs and two 10-foot anchor lanyards. This pouch also contains four white coil connectors, which are used to secure the anchor lanyards to the SNS.

![Figure 1-2: SNS- stored in the carrying bag](image)

**SNS - EQUIPMENT DATA**

NSN .............................................................. 4240-01-567-7307  
Part number................................................... 13021911  
Total weight .................................................. 75 lb  
Dimensions.................................................... 16.4 x 19.7 ft (5 x 6 m)  
Material ......................................................... High modulus polyethylene fiber  
Packed .......................................................... All components are packed in Carrying Bag

**Remote Deployment Device (RDD)**
The RDD is a spring loaded, mechanical winch, that pulls the SNS across a road or access point in less than 2 seconds. The RDD’s internal springs are charged via a hand cranking lever. The RDD can be activated at a range of up to 100 m (328 ft) via a remote footswitch. This allows for a safe standoff distance from the SNS. Unlike the SNS, the RDD is reusable and will be retained for use with replacement SNS’s.
1. Large metal anchor pegs
2. Foot switch
3. Small masonry nails
4. Coil Connectors (Red and White)
5. Hammer
6. Ground pulley (hidden)
7. Standard Cable
8. Extension Cable
9. Spare 9 Volt battery
10. Bolt cutters

**RDD - EQUIPMENT DATA**

<table>
<thead>
<tr>
<th>NSN</th>
<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part number</td>
<td>TBD</td>
</tr>
<tr>
<td>Total weight</td>
<td>155 lbs</td>
</tr>
<tr>
<td>Dimensions</td>
<td>18 x 20 x 25 inches</td>
</tr>
<tr>
<td>Packed</td>
<td>All components are packed in hardened case.</td>
</tr>
</tbody>
</table>

**Using the RDD to Deploy the SNS**

The RDD and SNS are staked on alternate sides of a road or access point. The RDD is then attached to the folded SNS. The RDD is hand wound to provide the spring force that pulls the SNS into the deployed position. When remotely activated from the foot switch, the spring force is released and the SNS is deployed denying access to wheeled vehicles. The SNS-RDD configuration is provided in Figure 1-5.

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Figure 1-5: SNS-RDD configuration.
1.3 Logistics/MANPRINT Demonstration

1.3.1 Purpose and Scope

A logistics/MANPRINT demonstration, as defined by AR 700-127 Integrated Logistics Support dated 29 April 2009, is the nondestructive disassembly and re-assembly of a system using its related peculiar/specific test measurement and diagnostic equipment (TMDE), training devices and support equipment.

The purpose of the LMD is to accomplish the following:

A. Evaluate the supportability of the materiel design.
B. Evaluate the adequacy of maintenance planning for the system (such as maintenance concept, task allocation, troubleshooting procedures) and its peculiar support equipment.
C. Evaluate the preliminary System Support Package (SSP).
D. Review the draft equipment technical manuals (TM) to ensure all content requirements are met.
E. Validate and update Logistic Management Information (LMI) data.
F. Evaluate diagnostic procedures in the TM to detect faults inserted in the system.
G. Evaluate human factors engineering aspects and MANPRINT of operator and maintainer tasks

A. Assumptions

All maintenance tasks conducted during the test will be nondestructive.

B. Simulations

Faults will be introduced into the system to exercise the soldier’s ability to use the various Troubleshooting procedures in the TM.

1.3.2 Objectives

<table>
<thead>
<tr>
<th>LMD OBJECTIVES</th>
<th>ENTRANCE CRITERIA</th>
<th>EXIT CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review SNS-RDD Technical Manual</td>
<td>Using Soldiers and the necessary tools, perform all the tasks listed in the TM (Cold Weather gloves and MOPP IV required).</td>
<td>Identify all necessary changes to the TM for inclusion prior to fielding.</td>
</tr>
<tr>
<td>Identify system supportability deficiencies.</td>
<td>During Soldier performance of TM tasks, identify any missing tools, special tools or TMDE.</td>
<td>Identify all missing tools and other supportability items, which will be made available to the Soldier when system is fielded.</td>
</tr>
</tbody>
</table>
Evaluation of the System Support Package

During Soldier performance of TM tasks identify any missing parts or expendables. Identify all missing SSPCL items. They will be made available to the Soldier when system is fielded.

Identify operator and maintenance hazards.

Using Soldiers and the necessary tools, perform all the tasks listed in the TM (Cold weather gloves and MOPP IV required). Identify all potential hazards to the Soldier and equipment. Necessary changes to the TM will be made and included prior to fielding.

Identify unit level maintenance skill requirements and time standards.

Using Soldiers and the necessary tools, perform all the tasks listed in the TM (Cold Weather gloves and MOPP IV required). Identify any tasks that should be done at a different maintenance level prior to fielding. Record the time it takes to perform the tasks and correct the TM if necessary.

Operator training

New Equipment Training (NET) will be conducted. Soldiers will receive both classroom and hand-on training. Identify all necessary changes to the training package for inclusion prior to fielding.

1.3.3 Methodology

The corrective maintenance tasks to be demonstrated are listed on the Test Candidate List provided in Appendix A. The Test Data Collection Sheet, provided in Appendix B, will be completed for each item demonstrated and will be included in the LMD Report. All demonstrated maintenance tasks will be timed events and will be successfully demonstrated a minimum of one time.

1.4 Verification Plans

The LMD will address and include verification that the LMD objectives are analyzed and documented. Emphasis will be placed on verification that the logistic elements identified in the following sections are adequate to support the system.

1.4.1 Maintenance Concept

Field Maintenance – Operators will perform setup and capture procedures as required in the TM. Operators will also perform preventive maintenance, checks and services on the SNS-RDD and troubleshooting procedures in accordance with TM 5-4240-XXX-XX. Operators will remove and replace required cables, charging handle, cable guide, etc…..as required in the TM.
Sustainment Maintenance – Any internal malfunctions of the RDD will require that the RDD be sent back to the manufacturer for major disassembly and repair. The manufacturer will repair the RDD through contract logistic support (CLS).

1.4.2 System Support Package
The system support package (SSP) is a composite of the support resources that will be evaluated during LMD and tested and validated during technical and user tests. The SSP Component List (SSPCL) will be utilized as the primary source document to identify and verify all required major items of support, such as: support equipment, technical publications, expendables, spare and repair parts, and tools. The SSPCL is attached as Appendix D.

1.4.3 Technical Publications
The Government TM 5-4240-XXX-XX will be utilized as the primary source document for operation, PMCS, troubleshooting, and operator maintenance procedures.

1.4.4 Training Curriculum
System overview training for the LMD will take place onsite prior to the start of the Log Demo. A Training Support Package (TSP) is presently being developed by the ARDEC New Equipment Training (NET) office for the SNS-RDD. The NET training will consist of a combination of classroom training and hands-on, practical exercises. A detailed breakdown of the training schedule can be seen in Appendix H.

1.4.5 Maintainability Characteristics
Maintainability characteristics of the system will also be verified during the LMD. If any improvements are noted during the LMD, they will be documented in the LMD Report. Appendix E.

1.5 Success Criteria
The success criteria for the LMD will be based on the successful completion of all operator level corrective maintenance tasks. The LMD will be deemed successful if all maintenance tasks have been successfully completed and the above-listed logistic assets, documents, procedures and processes are verified as adequate to support the fielded system. If discrepancies or omissions are discovered, they will be documented in the LMD Report. Acceptance of tasks successfully completed will be signed off by specified personnel.

1.6 Demonstration Report
The Government will prepare and deliver a draft LMD Report within 15 days after the completion of the LMD. It will document the results of the LMD and identify any
recommended improvements to system supportability. A final report will be submitted NLT 30 days after completion of the LMD.

2.0 DEMONSTRATION IMPLEMENTATION

2.1 Personnel

2.1.1 Government Support Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Phone Number</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark C. Davidson</td>
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<td><a href="mailto:mark.davidson2@us.army.mil">mark.davidson2@us.army.mil</a></td>
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<tr>
<td>ARDEC</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<tr>
<td>ARDEC</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ARDEC</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ARDEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keith Gunn</td>
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<td>(973) 724-7415</td>
<td><a href="mailto:keith.gunn@us.army.mil">keith.gunn@us.army.mil</a></td>
</tr>
<tr>
<td>ARL HRED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kim Johnson</td>
<td></td>
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<td><a href="mailto:Kimberly.M.Johnson@us.army.mil">Kimberly.M.Johnson@us.army.mil</a></td>
</tr>
<tr>
<td>ATEC</td>
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<tr>
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<tr>
<td>ARL-HRED</td>
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<tr>
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</tr>
<tr>
<td>USAMPS</td>
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</tr>
<tr>
<td>CW3 Richard P. Hyer</td>
<td>Systems Integration</td>
<td>(804) 734-0642</td>
<td><a href="mailto:Richard.hyer@us.army.mil">Richard.hyer@us.army.mil</a></td>
</tr>
<tr>
<td>CASCOM</td>
<td>Division</td>
<td></td>
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2.1.2 Soldiers

Operator for SNS-RDD

<table>
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<th>MOS</th>
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<th>NUMBER REQUIRED</th>
<th>RESPONSIBLE AGENCY</th>
<th>DATES REQUIRED</th>
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<td>Unspecific</td>
<td>Operator</td>
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<td></td>
<td>February 8-10, 2011</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>(the 10th is a backup)</td>
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</tbody>
</table>
The Soldiers will perform all the operation, PMCS, troubleshooting, and maintenance tasks on the SNS-RDD during the LMD.

**RDD Maintainer/Field Maintenance**

N/A. No field level maintainer will be required for the SNS-RDD LMD.

### 2.1.3 Team Responsibilities

The principal members of the LMD team will have the following responsibilities:

**Test Director** – The test director will be an ARDEC Life Cycle Supportability Division employee (ILSM) who will be responsible for the overall conduct of the LMD and acts as the primary Point of Contact (POC) for the Government representatives on the test team. The test director will provide a pretest briefing to all personnel, preside over the conduct of the test, and be responsible for test planning and executing, documentation, and reporting. Additionally, the test director will act as a subject matter expert relative to logistics issues and maintenance procedures.

**Maintenance Engineer** – The maintenance engineer will be a Government engineer who will provide support for fault insertion, fault identification and test data recording and will act as a subject-matter expert relative to system and equipment configuration, operation, and maintenance.

**Operator** – Will be a Soldier(s) in the rank of E2 thru E7 (specific MOS not required) who will be responsible for the system operation. The operator will have received NET training prior to operating/repairing the SNS-RDD. It is important that the user understands the operation and hazards prior to unpacking the devices.

**Maintenance Technician** - The Maintenance Technician (if required) will be a Soldier operator who will be responsible for system operation, fault detection, fault isolation, repair by removal and replacement of assembly/sub-assemblies, and the confirmation of proper operation of the system after maintenance.

**Government Representative** – The Government Representative is responsible for supervising the participating Government personnel and is the primary interface for the Test Director. The representative is responsible for detailed observation of all demonstration activities, identification of any apparent supportability deficiencies, and generation of supportability action items where appropriate and justified. Representatives include: ARDEC, CASCOM, ATEC, ARL (HRED).

**Office of the Project Manager Close Combat Systems (OPM-CCS) will:**

- Have overall management, planning, programming, coordination, and chairmanship for the SNS-RDD system.
• Invite other commands and agencies, as appropriate, to participate in the LMD. Advise all participants of any changes in scheduling.

• Coordinate all activities related to the LMD and resolving problem areas.

• Approve or disapprove technical changes recommended during the LMD.

ARDEC, Life Cycle Supportability Group will:

• Perform as LMD Test Director.

• Verify the adequacy of the maintenance concept/plan, System Support Package, and maintenance repair levels.

• Ensure publications conform to the approved maintenance concept / plan

• Sign the LMD Worksheets; authenticate that the recorded data is correct. Maintain records and prepare reports; to include the final LMD Report and Executive Summary.

2.1.4 Qualification and Indoctrination of the Team
The Government supporting personnel should be program personnel and representative of the acquisition and user community. These individuals will receive a briefing outlining the purpose and conduct of the LMD prior to the official start of the demonstration.

2.2 Schedule
LMD is scheduled for February 8-10, 2011 (the 10th is a back-up day) and will cover the operation and limited maintenance of the SNS-RDD. System overview training will precede the start of LMD. See Appendix H for a detailed agenda.

2.3 Facilities
The LMD will be conducted at Picatinny Arsenal, building 68, main conference room. See Appendix I for directions. The Government facility can accommodate up to 20 people with adequate tables for equipment, tools, non-lethal weapons, and personnel.

2.4 Equipment Configuration
The SNS and RDD are Commercial-off-the-Shelf (COTS) items. They will be configured as if they were just packaged by the manufacturer.

2.5 System Support Package Elements
The SSP elements to be verified by the LMD procedures will be physically present at the demonstration location as identified below. A System Support Package Components List (SSPCL) is an attachment at Appendix D. This will be evaluated during the LMD.

2.5.1 Spares and Repair Parts
Failures will be simulated, to the greatest extent possible, by a combination of destructive and non-destructive methods. There will be replacement parts on-hand if they are needed (footswitch, footswitch cables, RDD cables, SNS, all SNS components, etc…).

2.5.2 Expendable Supplies
1. Standard 9 volt batteries
2. Red coil connectors
3. White coil connectors
4. Stakes (plastic, metal, masonry nails)

2.5.3 Tools and Test Equipment
1. Hex head wrench – 2 mm
2. Hex head wrench – 4 mm

2.5.4 Technical Manuals
The SNS-RDD Government manual will be utilized as the primary source document for operation and maintenance procedures. They will contain equipment operating instructions, troubleshooting, and maintenance procedures. The Government formatted TM 5-4240-XXX-XX Operator’s Manual has been developed. The MANPRINT and safety issues will be addressed in the TMs to ensure they are addressed to the maximum extent possible and conform to established user capabilities.

2.5.5 Training Material
A copy of all training material will be provided by Government and will be available at the demonstration site.

2.6 Other Support Materials
Material peculiar to the LMD will be available on site. These include SNS-RDD, test data forms, stop watch, and digital camera.

2.7 Candidate Items and Task Selection
The corrective maintenance tasks to be included in the demonstration are listed in Appendix A. Candidate items will be demonstrated in a test sequence based on such factors as ease and length of time to perform under normal operation, equipment access, etc. Candidate items will be assigned a test sequence.

2.8 Demonstration Procedures
The demonstration of each individual task will generally follow the phases outlined below. Data will be continuously collected, as required, as the demonstration proceeds. More detailed step-by-step procedures are included in Appendix B for reference.

2.8.1 Pre-Demonstration Readiness Check
Organization and assembly of the demonstration material including preparation of the facility will be performed prior to the actual conduct of the LMD to the greatest extent possible. A readiness check will be performed before each maintenance task is demonstrated to ensure that all necessary test assets, required power, and equipment initialization and configuration procedures have been accomplished and that test personnel are ready to proceed with the demonstration.

2.8.2 Remove and Replace Phase
The operator prepares to remove and replace the assembly/sub-assembly by identifying the maintenance procedure in the System Manual and the source of the required spare assembly/sub-assembly. The remove and replace phase time begins when the operator begins the preparation noted above and ends when a serviceable assembly/sub-assembly is physically, and properly, replaced on the system. The replaced component will be tested by either a visual or physical inspection. The Test Director will enter all data collected on the test data sheet.

2.8.3 Performance Check Phase
The performance check phase will be conducted by the Maintenance Technician to determine that the system has been properly reassembled and is operating properly. The performance checks phase time begins when the operator declares its start and ends when proper operation is restored, observed, and declared. The Test Director will enter all data collected on the test data sheet.

2.8.4 Data Review Phase
This phase will be utilized by the Test Director to review the individual task data collected. All observations and potential action items will be discussed and recorded. All participants will attest to the data accuracy by initialing or signing the test data sheet. This can be accomplished after each demonstration or after each task is demonstrated.
2.8.5 Demonstration Ground Rules
The following ground rules will apply throughout the duration of the LMD:

1. The Test Participants and Data Collectors will be in an area cordoned off from the observers. Control of people in the area outside the ropes will be at the discretion of the Test Director. Attendance should be limited to those assigned to monitor or conduct the testing.

2. Conversations in the test area between monitoring personnel are not permitted during the performance of a test.

3. The Test Director and/or the MANPRINT Evaluator will terminate the test if in the director’s opinion the safety of personnel or equipment is being jeopardized. Documentation of the reason(s) will be provided for each such event.

4. The corrective maintenance times to be measured are the inherent times as opposed to the operational times. Accordingly, the concept of the test is that the recorded time of execution of the tasks will include only sections that are directly related to the task. The following activities are excluded from the time measurements:
   - Obtaining technical documentation
   - Obtaining spares
   - Obtaining tools
   - Administrative actions
   - Any other test interruptions not related to the test objective

2.9 Data Acquisition Procedure
Data collected for each selected task demonstration will be recorded on a Test Data Collection Sheet (Appendix B). The test sheet will identify the candidate item, timeline data collected, supportability element accomplishment or deficiency, notes and remarks, Government Test Director sign-offs, and identification of any action items generated. The test data sheets will be submitted, along with applicable analysis, in the LMD Test Report.

2.10. MANPRINT Assessment Conference (After Action Review)
Following the LMD, the MANPRINT evaluator will conduct a MANPRINT Assessment Conference AAR with all testers, evaluators, and Soldiers that witnessed or participated in the LMD. The AAR will focus on test and experiment data, observations, subject matter expert insights, and other knowledge that may affect the capability of users to operate, maintain and support the system and perform mission tasks. The MAC will discuss all issues relating to the domains of manpower, personnel, training, human-factors engineering, system safety and health hazards, and assign a rating of critical, major, or minor to each issue.
• Critical. Warrants immediate resolution to preclude serious injury, seriously degraded mission performance, or unacceptable impact on manpower, personnel, or training (MPT).

• Major. Could result in bodily injury, reduced system performance, diminished capability of the system to perform its mission, or significant negative impact on MPT.

• Minor. Could result in Soldier discomfort, system damage, or negative impact on MPT.

Results and recommendations for corrective action will be tracked by the MANPRINT evaluator.
### Appendix A

**Test Candidate List – Part I**

Single Net Solution - Remote Deployment Devise (SNS-RDD) – Field Test Candidate List

Date: TBD

<table>
<thead>
<tr>
<th>List No.</th>
<th>Task/Equipment Description</th>
<th>Maintenance Level Task</th>
<th>TM Work Package Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Operator Instructions</td>
<td>Any MOS</td>
<td>xxxxxxx</td>
</tr>
<tr>
<td>2</td>
<td>Operator Troubleshooting</td>
<td>Any MOS</td>
<td>xxxxxxxx</td>
</tr>
<tr>
<td>3</td>
<td>Operator Maintenance</td>
<td>Any MOS</td>
<td>xxxxxxxxxx</td>
</tr>
</tbody>
</table>
# Appendix B

## Test Data Collection Sheet

<table>
<thead>
<tr>
<th>SNS-RDD LMD - TEST DATA COLLECTION SHEET</th>
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<tr>
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<td>Test Equipment Source</td>
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<tr>
<td>Test Equipment Required</td>
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<tr>
<td>Spares Source</td>
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<tr>
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<td>Remove and Replace</td>
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<td><strong>SIGNATURES</strong></td>
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<tr>
<td>Test Director</td>
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<tr>
<td>Government Representative</td>
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<tr>
<td>MANPRINT Representative</td>
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</tbody>
</table>
Appendix C

Detailed Demonstration Procedure

The procedure to be utilized for system evaluation will follow the guidelines below:

a. The Test Director briefs the participants, ascertains the readiness of the test to begin, and directs the test to begin.

b. The Operator (Soldier E2 thru E5) will demonstrate the proper usage of the SNS-RDD and repair.

   1. Operator will remove SNS-RDD from its carrying container and properly assemble/set up the system.
   2. Next the operator will demonstrate the proper PMCS and requirements prior set up procedures.
   3. Operator will demonstrate that they have the ability to properly operate the SNS-RDD by operating the systems in the following modes.
      a. Setup SNS-RDD for a normal setup
         i. Anchor to soft ground (dirt/soil)
         ii. Anchor to pavement
      b. Setup SNS-RDD for a reverse setup
   4. The Test Director/Maintenance Engineer will simulate a failure in the equipment. Operator will diagnose the failure and then repair the failure themselves. A list of faults can be seen on page F of the Appendix.

c. In the event of a task interruption, the Test Director completes the data sheet, stating the reason for the interruptions. Resumption of the testing then proceeds on a fresh Test Data Collection Sheet. During a test interrupt, it is the responsibility of the Test Director to restore the test article configuration to operational.

d. If a failure of the equipment occurs which is not due to the simulated maintenance action and this failure occurs while the Operator is attempting to repair the simulated task, both failures shall be repaired. The total repair time will be measured and recorded on the Test Data Collection Sheet.

e. Before the demonstration can end, all tasks must be completed. Upon completion of the last maintenance task, the Test Director will obtain the required signatures on the last Test Data Collection Sheet, and will then declare the demonstration complete.

f. Other LMD tests:
   b. System configuration review - Document findings on Appendix E
Appendix D

PRELIMINARY SYSTEM SUPPORT PACKAGE (SSP)

System Support Package (SSP). The SSP is a set of support elements (support equipment, technical manuals, training support packages, expendables, spares and repair parts, tools and test measurement, and diagnostic equipment (TMDE)) planned for a system in the operational (deployed) environment, tested and evaluated during DT, LMD and OT, to determine the adequacy of the planned support capability.

The PEO/PM/MATDEV, in coordination with the independent evaluators or assessors, will ensure that the SSP is sufficient to permit evaluation of logistic supportability issues in the TEMP.

<table>
<thead>
<tr>
<th>Description</th>
<th>Items</th>
<th>Detail</th>
<th>Comments / Findings</th>
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<td>4 mm Allen wrench</td>
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SIGNATURES

Test Director
Government Representative
MANPRINT Representative
Appendix E

Maintainability Characteristics
Document any improvements noted during the LMD.

<table>
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<tr>
<th>List No.</th>
<th>Equipment Description</th>
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<td>MANPRINT Representative</td>
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Appendix F

Simulated Faults for User
These faults will be inserted into the system. Then, the operator will have to troubleshoot the system and isolate the fault. The operator will then remove and replace the faulty component and then demonstrate that the system is operational.

1. Dead battery in footswitch
2. Faulty footswitch
3. Faulty footswitch cable

The operators will then demonstrate all maintenance tasks (remove and replace various components on the RDD). This includes replacing the brake, cable guide, anchor mount, charging handle, and cable.
Appendix G

Items Needed To Support The LMD:

- Personnel – OPERATORS: Four Soldiers E2 thru E7, Specific MOS not required
- One Complete RDD and Two SNS’s
- Two (2) Safety goggles (provided by MANPRINT)
- Two (2) sets – Cold Weather Gloves (provided by MANPRINT)
- Documentation –
  - Government Manuals (-10) – 15 copies
  - System Support Package Components List
  - Data Collection Worksheets
  - Draft Training Support Package (TSP)
- Miscellaneous –
  - Digital Camera
  - Note paper / pens
  - Two (2) Stop watches
  - 9V batteries (fresh)
- Faulty Equipment (for fault insertions) –
  - Footswitch Cable
  - Footswitch
  - 9V batteries (dead)
- Tools –
  - 4mm Allen wrench, NSN TBD
  - 2mm Allen wrench, NSN TBD
- Mission Oriented Protective Posture (MOPP)
Appendix H

Detailed Agenda

Monday, February 7, 2011

Travel Day

Tuesday, February 8, 2011

0830: Arrival at Picatinny, building 68. Introductions/meet-and-greet
0900: Classroom training for the SNS
1030: Outside practical exercise for the SNS
1200: Lunch
1300: Brief outside demonstration of the RDD
1330: Classroom training for the RDD
1500: Outside practical exercise for the RDD
Day will end no later than 1700 hrs.

Wednesday, February 9, 2011

0830: Outside practical exercise for SNS and RDD, review of previous day
0930: Outside practical exercise – reverse setup for SNS and RDD
1030: Classroom training for troubleshooting procedures
1100: Classroom training for RDD maintenance procedures
1200: Lunch
1300: Soldiers will perform all operation procedures while being observed. This includes normal setup and reverse setup
1430: Soldiers will perform the operation procedures while wearing MOPP IV gear
1500: Faults will be inserted into the system, soldiers will have to operate the system then identify and correct the fault
1600: Maintenance tasks will be performed by the soldiers
1700: After Action Review (AAR)

Thursday, February 10, 2011

This day will be reserved as a backup day (if the LMD goes over schedule).

Travel Day

The timing for most events is only approximate. The duration of each lesson and practical exercise may be increased or decreased depending on soldier and instructor feedback.
Appendix I

Directions to Picatinny Arsenal / building 68

NOTE: Please don’t rely on Google Maps for directions inside Picatinny Arsenal, some of the street names are incorrect!

1. Take Rt 80 to Exit 34 for Rt 15 North.

2. Take Rt 15 North approximately ¼ mile. The main entrance for Picatinny Arsenal will be on the Right. Go through this entrance.

3. After going through the main entrance, continue on that road (Parker Road) until you reach the first traffic light. At that light, turn left onto 1st Street.

4. Go approximately .4 miles, then turn right onto 3rd Ave.

5. Go approximately ¼ mile, building 68 is on the left. The parking lot is right next to the building.

   Note: Building 68 is located directly behind building 20. It might be difficult to see building 68 from the road, but just look for building 20, they share the same parking lot. Also, the front half of a white missile is standing up in front of building 20….this is a good landmark to look for.

6. Enter building 68 through the last set of doors, at the far end. (while looking at the front of the building these doors will be at the far right end)

The next page contains a map of Picatinny Arsenal. The directions are marked on the road with red dots. Building 68 is circled in red.