SAND2012-6058P

Module 1: Workshop Introduction

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- Recognize the workshop goal
- Recognize performance testing recommendations from INFCIRC/225/Revision 5
- Describe performance-based physical protection and the benefits of such an approach
- Define performance testing
- Describe the different types of performance tests
- Describe a performance testing program and its purpose

Workshop Goal

Provide participants with sufficiently detailed instruction and practical application experience to enable them to performance test the effectiveness of the guard and response force programs at CNEN's nuclear facilities.

Workshop Structure

- The workshop includes lectures, demonstrations, and exercises
- The workshop has been designed to maximize interaction among your team and provide you with knowledge and tools you can take back to your site

Guidance on Performance Testing (INFCIRC 225 Revision 5)

- To ensure that physical protection measures are maintained in a condition capable of meeting the State's regulations and of effectively responding to the State's requirements for physical protection
- The State's competent authority should ensure that **evaluations based on performance testing are conducted by operators at nuclear facilities and by shippers or carriers for transport**
- Evaluations should be reviewed by the State's competent authority, and should **include administrative and technical measures, such as testing of detection, assessment and communications systems, and reviews of the implementation of physical protection procedures**
- Establish **quality assurance poli**cy and programs to ensure the PPS designed, implemented, operated, and maintained in a condition of effectively responding to the design basis threat and that it meets the State's regulation, **including prescriptive and/or performance-based requirements**

Prescriptive-Based Versus Performance-Based Physical Protection

Prescriptive Based Protection

PPS design and evaluation based on specification and implementation of a ***set of required features***

Example:

- Two intrusion sensors with video assessment
- Security locks on gates, doors, and containers

Performance-Based Protection

PPS design and evaluation based on specifying and ***achieving an overall system effectiveness*** against the Design Basis Threat (DBT) or current evaluation of the threat for theft and sabotage.

Example:

- PPS will, with a probability of P* or greater, 1) detect intrusion and 2) delay unauthorized entry until the response arrives.

Benefits of Using Performance-Based Performance

- Provides system performance metrics
- Verifies that the system performs “effectively”
- Allows better resource allocation
- Increases confidence that the PPS meets requirements

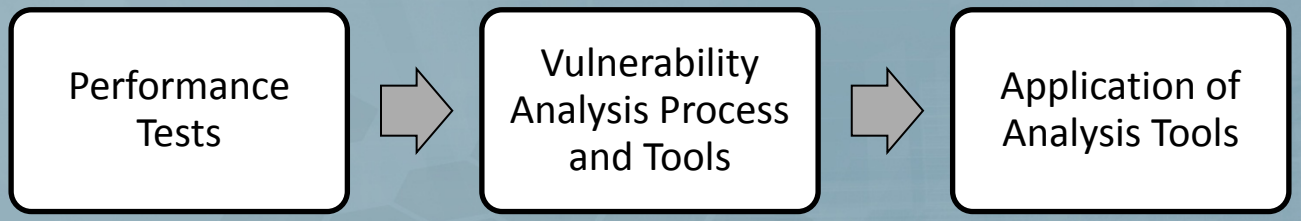
Performance Tests

- ***Performance Tests:*** Evaluate the performance of people, procedures, and/or equipment, technology, hardware
- Performance tests are methodical means to:
  - Establish or confirm a performance level of a PPS element
  - Provide comprehensive assurance of performance on a required basis
  - Determine element's baseline performance for system design
  - Test PPS elements over their planned range of operation
- Performance testing results
  - Identify if element(s) tested performed adequately
  - If not, identifies the weakness or substandard performance

Types of Testing

- Tests that can measure effectiveness
  - Operability and functional tests
  - Sub-system performance tests
  - Whole system performance tests

Performance Testing Program



- A testing program is needed to ensure elements implemented comply with requirements
  - All elements of the PPS function at the appropriate level of performance and work together as an effective system
  - Accomplished by systematically evaluating protection systems through performance, operability and effectiveness testing
- Performance Testing Program must be developed to:
  - Validate system performance
  - Evaluate operational continuity of all protection system components
  - Test protection elements whose failure would reduce P_E to an unacceptable level
  - Provide necessary input to the Vulnerability Analysis Methodology and the application of each analysis tool
- Requires performance test activities and results to be documented

Aspects of Performance Testing Programs

- ***Operator:*** Any person, organization, or government entity licensed or authorized to undertake the operation of a nuclear facility.
  - Technology/systems: operability and performance
  - Proficiency/Readiness: Feedback for training
  - Guards/Response Forces: Effective and timely response to prevent unauthorized removal or sabotage of nuclear material
  - Evaluations
- ***Competent Authority:*** A governmental organization or institution that has been designated by a State to carry out one or more nuclear security functions.
  - Inspections
  - Evaluation Reviews
  - Feedback for Training Organizations
  - Technology Testing Organizations

Features of Performance Testing

	Licensee Tests		Competent Authority Tests	
PP System Function	**Ongoing**	**Validation**	**Inspections**	**Reference Tests**
Detection	Operability/ Functional Proficiency Readiness	Performance Back-Hat End-to-End	Performance Back-Hat End-to-End	Test New Equipment Against Requirements
Delay	Physical Integrity Control Functionality	Site Specific Data for Vulnerability Evaluations	Physical Integrity Control Functionality	Generic Barrier Data for Vulnerability Evaluations
Response	Proficiency Readiness Alarm Response	Limited Scope Force-On-Force	Limited Scope Force-On-Force	Reference Weapons Effects Data for Vulnerability Evaluations

Summary

- INFCIRC/225/Revision 5 provides performance testing recommendations
- Performance-Based Protection increases confidence that the PPS meets requirements
- Performance testing programs plan, execute, and document experiments conducted to provide confidence that performance-based PP requirements are met
- Performance testing is used to evaluate the performance of people, procedures, and/or equipment, technology, hardware

Module 2: Guard and Response Force Functions Overview

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- State the definitions for the two types of response force
- List the performance measure for a guard/response force
- List the four levels and associated tests of guard/response performance testing

Response Force Definitions

- Guard Forces
  - A person who is entrusted with responsibility for patrolling, monitoring, assessing, escorting individuals during transport, controlling access and/or providing initial response
- Response Forces
  - Persons, on-site or off-site who are armed and appropriately equipped and trained to counter an attempted *unauthorized removal* of nuclear material or an act or sabotage

Guard/Response Force Testing (Planning)

- Post and patrol actions in event of alarm
- Chain of command and succession of command
- Knowledge of area
- Coordination with backup units
- How to recognize diversionary tactics
- How to work as a response force member

Guard/Response Force Testing (Tactics)

- Cover and concealment
- Precautions to avoid or survive ambush
- Proper movement in and around buildings
- Proper daytime and nighttime response
- Proper deployment from a vehicle
- Limitations on use of weapons
- Use of Force Continuum

Guard/Response Force Testing (Training)

- Targets to be protected and adversary scenarios
- Procedures and orders
- Contingency plans
- Communications disruption
  - Jamming and deception
- Protection during uncommon facility states
- Effectiveness of tactical training

Response Force Testing (Practice)

- Provides motivation
- Maintains skills
- Verifies that training resulted in desired capability
- Verifies that tactical plan is used
- Understand practice provides opportunities for adversary to observe actual tactics

Performance Testing Methodology

A combination of performance testing is used to evaluate the performance of the guard and response force

Levels of Response Performance Testing

- Level I
  - Time Motion Studies
  - Limited Scope Performance Test
- Level II
  - Mission Drills
  - Alarm Response Assessment Performance Test
- Level III
  - Small scale Force-on-Force exercises
- Level IV
  - Full scale Force-on-Force exercises
- Each level becomes more complex to conduct

Level I

Time Motion Studies

- Are considered the foundation for the response element
- Tests responders arriving to a designated response point during a required time
- Determines and validates required response times to arrive at various response locations derived from a response plan
- Conduct a large number of studies for each tactical position to quantitatively justify the average response time for each position

Level I

Limited Scope Performance Tests

- Narrowly focus on the performance and effectiveness of a sub-set of response elements
- Used a validation tool
- Used to determine or verify that the tested response elements work together
- Determine the level of a security force's skill or capability
- Validates possession of a requisite knowledge or skill to perform a specific task
- Validates the individual human element of the PPS.
- Is a continuous process to validate probabilities documented within the vulnerability analysis

Level II

Mission Drills

- Considered rehearsals for Limited Scope Performance Tests
- Maintain sustainability
- Training for Limited Scope Performance Tests
- Train the Trainer (Supervisors)
- Determine the level of a security force's skill or capability
- Reinforces the level of a security force's skill or capability
- **Practice before you Play!**

Level II

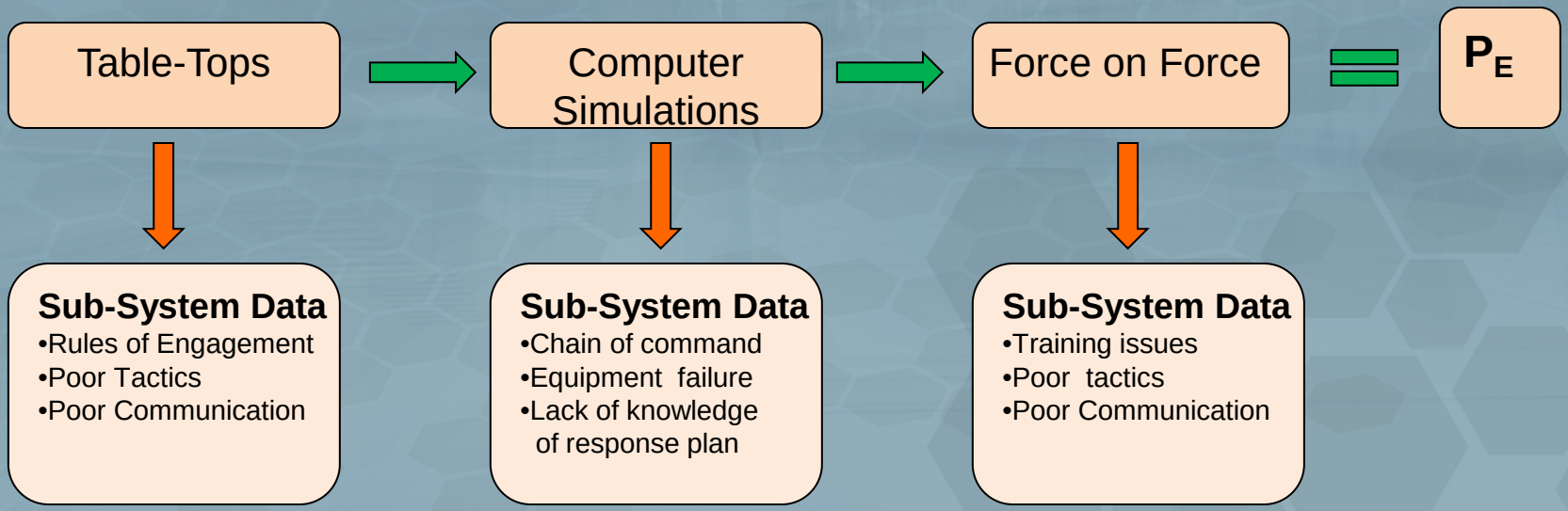
Alarm Response and Assessment Performance Tests

- Performance test response force readiness and response to an alarm at a specific location
- Measures specific performance actions :
  - Communications
  - Personnel protective measures
  - Equipment availability and serviceability
  - Coordination activities
  - Tactical Movement

- Tests are “no notice” performance tests
- Must be coordinated with facility representatives
  - Safety requirements are met
  - Security is not compromised
  - Limit disruption to operations

Whole System Data Points

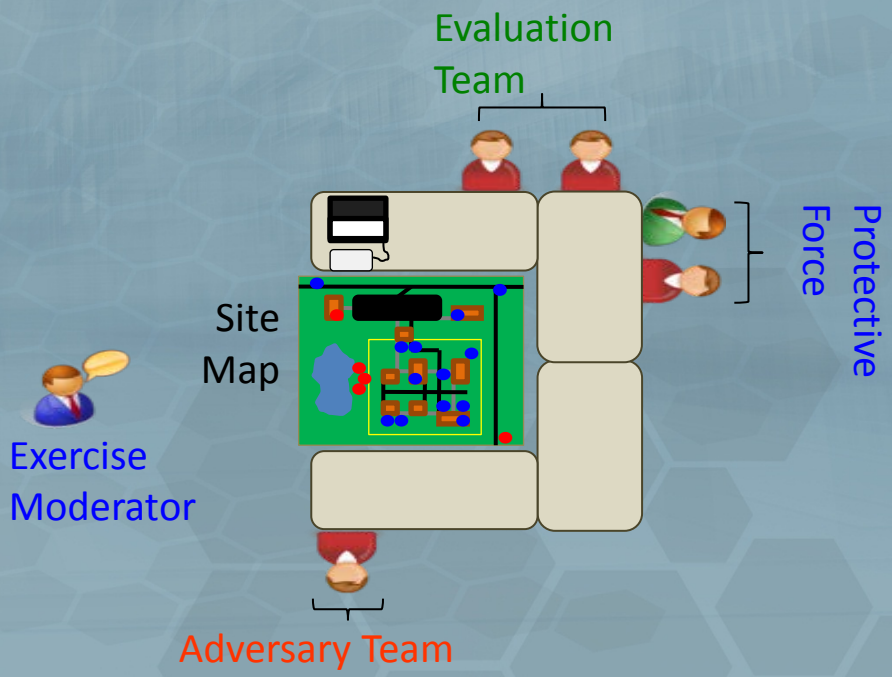
- Methods concurrently determine two types of data
  - P_E for a PPS
  - Collects response force sub-system performance testing data



Level III

Table-Top Exercise

- A method to simulate an adversary attack on a site's existing or proposed PPS
- Analyzes PPS Functions (Detection, Delay, Response)
- Provides insight into a PPS that can stand alone or be used in other analysis tools



Level III

Computer Simulations

- Computer simulation of small force engagement
- Determine effectiveness for tactical movement, weapon and explosive calculations, etc.

- Provide real-time results of engagements between the response force and an adversary
- Used to determine probabilistic PH/PK calculations

Level IV

Force-On-Force Exercise

- INFCIRC/225/Revision 5 definition of Force-on-Force Exercise:
  - A performance test of the physical protection system that uses designated personnel in the role of an adversary force to simulate an attack consistent with the threat or the design basis
- Provides information on the response force's:
  - Permits the site to evaluate the response force's capability under stressful, realistic conditions against a DBT-based adversary
  - Provides the site security analysts with valuable system effectiveness data
  - Extremely valuable training activity for response forces

Summary

- Performance Testing is a means to realistically test the effectiveness of response force programs
- Ensures that response protection elements are performing as designed and provide the required protection level
- Sub-system and whole system performances testing are used to evaluate the performance of the guard and response force functions
- Two levels of Sub-System guard and response force performance testing
  - **Level I**; Time Motion Studies and Limited Scope Performance Tests
  - **Level II**; Mission Drills and Alarm Response Assessment Performance Tests
- Table-tops, Computer Combat Simulations, and Force on Force exercises are Whole-System performance tests.
- There are two types of Force on Force Exercises
  - **Level III**; Small-Scale
  - **Level IV**; Whole -Scale

Module 3: Controller and Evaluator Training

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- Describe the difference between a controller and an evaluator
- List the duties of a controller and an evaluator
- Describe a controller/evaluator training program

Controllers

Controllers: People responsible for enforcing rules of engagement, safety rules, and other control measures

- A controller is a person whose role is to:
  - Ensure that the objectives are sufficiently tested
  - The level of activity keeps players challenged
  - The pace (flow) of the performance test proceeds according to the scenario
- A controller ensures that all safety and security requirements are met
- A controller maintains an environment free of the hazards associated with each test and method
- A controller is responsible for the overall conduct of the performance test or exercise
- A controller should be specifically trained for each type of test

Controller Duties

- Understand the type of performance test that is to be conducted
- Understand the controller assignments (locations)
- Understand and enforce the responsibilities (Safety 1st & Performance Evaluation)
- Stopping an Exercise due to:
  - Unsafe conditions or acts are observed
  - A real alarm is sounded
- Accounts for testing equipment
- Completes the required test/exercise forms

Evaluators

Evaluators: People assigned to a performance test location to document and evaluate individual, team, and organizational performance based on performance test objectives and performance criteria.

- Evaluators are unbiased, objective, technical or functional experts
- An evaluator ensures that all safety requirements are met and to maintain an environment free of the hazards associated with each test and method
- An evaluator should be specifically trained for each type of test

Evaluator Duties

- The key responsibilities of the evaluator are to:
  - Observe the exercise
  - Report afterwards on what went well and what went poorly
  - Monitor decisions made in the exercise and then report on them
- Evaluators should not:
  - Interact with individuals being tested or responders
  - Contribute information or opinions
  - Interfere with the performance test or exercise in any way
- Evaluators should direct all questions or comments related to the performance test to the controller if necessary

Controller/Evaluator Training Program

- A formal training program for controllers and evaluators
- A program that is organized to provide pertinent information concerning the performance testing development, control, and evaluation processes
- Provides well detailed description of responsibilities for each specific controller and evaluator

Controller/Evaluator Training Program, continued

- Prepares controllers/evaluators to effectively perform their assigned functions
- Ensures a system of command and control is in place
  - Necessary to ensure that all safety and security requirements are met and to maintain an environment free of the hazards associated with each performance test
- A controller and evaluator each has specific responsibilities that require total concentration
- In many cases due to limited personnel and resources, the controller/evaluator duties can be combined

Controller/Evaluator Training Program, continued

- Each phase requires specific Controller/Evaluator Training
- Each performance test or exercise must always be coordinated with appropriate facility personnel
- Certain performance testing may require that personnel being tested remain unaware that a test is being conducted (no-notice verses notice Performance tests)
  - Particular care must be taken to ensure that these types of tests (no-notice) are well coordinated and all safety factors are considered

Equipment

Conduct of Operations

- Sample Required Equipment
  - Safety Vests
  - Radios
  - Map of area
  - Tactical gear, Bags with correct weights (equipment)
  - Stop Watches
  - Vehicle(s)
  - Metal Detector
  - Data Collection Sheets

Exercise Artificialities

- In your roll as controllers and evaluators, you will be part of implementing some simulations (training aids)
- Training aids may impact performance

- Example:
  - Using a cell phone in place of a gun or knife when searching for metal
  - Inert objects: Red Gun
  - Alarms - Alarm activations are simulated through the use of inject cards when necessary

Summary

- Each performance testing phase consists of controller/evaluator training, designed to prepare controller/evaluators to perform their duties.
- Command and Control
  - To ensure that all safety and security requirements are met
  - Maintain an environment free of the hazards associated to tests
- Roles and Responsibilities
  - Performance tests and exercises must always be coordinated with appropriate facility personnel
  - The conduct of performance testing depends on the selection and assignment of top-quality controllers and evaluators
- Controllers are primarily responsible for enforcing rules of engagement, safety rules, and other control measures.
- An evaluator's function during a test/exercise is to be **unbiased and objective,** while observing and documenting performance testing activities and conditions.

Module 4: Time Motion Studies

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- Describe the purpose of a Time Motion Study
- Describe the steps of a Time Motion Study
- Discuss the controller/evaluator roles in a Time Motion Study
- Develop a Time Motion Study plan
- Conduct a Time Motion Study

Definition of Time Motion Study

A Time-Motion Study determines and validates required response times to arrive at various response locations.

Purpose of a Time Motion Study

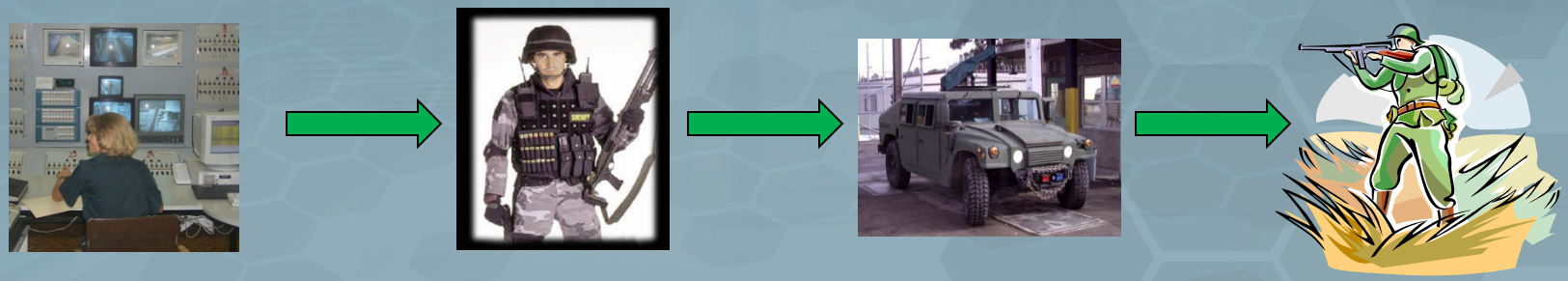
Why Conduct a Time Motion Study?

- No Guessing or Estimating (Example: Table-top exercise)
- Is considered the foundation for the response element
- The process to determine how long it takes to perform a certain task
  - Response Force Time
  - Adversary Time
- Tests responders arriving to a designated response point during a required time

Time Motion Study
"How it Works"

- Time begins at the responders beginning point to the dedicated response point.
- Included in the overall response time:
- Put on all required equipment and firearms (if applicable)
- Travel or traverse time
- Enter through entry gates, doors, or other type of barriers.

Total Response Time



Planning: Sample Equipment

- Safety Vests
- Radios
- Map of area
- Tactical gear, Bags with correct weights (equipment)
- Stop Watches
- Vehicle(s)
- Data Collection Sheets for Time Motion Studies (TMS)

Planning: Roles and Responsibilities

Responder:

- Follow a scripted path such as deploying from a vehicle, locking gates, or carrying equipment, and moving to a specified response location
- Responder will be timed from the most distant point/area of their assigned post or patrol to their response location
- Included in the overall time, the time it takes to don all required equipment and firearms (if applicable), and use entry gates, doors and fences

Planning: Roles and Responsibilities, continued

- Controller
  - Controllers are primarily responsible for enforcing rules of engagement, safety rules, and other control measures, as well as ensuring the timely and proper accomplishment of specific scenario events.
- Evaluator
  - An evaluator's function during a test/exercise is to observe and document exercise activities and conditions.

In many instances, controller/evaluator functions can be combined. However, each role has specific responsibilities that require total concentration to be performed effectively.

Conducting a TMS

- Responder(s) will be in a regular duty configuration
- Responders will use the shortest route possible to their response location
- Responders will be instructed to proceed to the starting location and move tactically to the end location
  - The responder will be timed from the most distant point/area of their assigned post or patrol to their response location
  - Included in the overall time, the time it takes to don all required equipment and firearms (if applicable), and use entry gates, doors and fences
  - Number of trials

Conducting a TMS (Sample Time-Line)

1230 hours

- Meet at conference room (provide location and room)
- TMS Data Collection Brief
- Safety Briefing
- Assignments (controllers, responders)

1245 hours

- Head to starting points

Conducting a TMS
Sample Time-Line, continued

1300 hours

- Ensure all controllers are in place
- Conduct radio check

1445 hours

- TMS , 2nd iteration

1530 hours

- TMS, 3rd iteration

1630 hours

- Debrief

Conducting Time Motion Study

In Class Demonstration

Conduct Post-TMS Briefing

The purpose for a post-TMS briefing is to:

- Gather all participating controllers and evaluators
- Gather evaluation sheets
- Discuss the test results to determine if pass/fail criteria were met
- Discuss found deficiencies
- Determine next steps and/or mitigations measures

Analyzing Time Motion Study

- Use average of results
- Did we meet goal (Compare two timelines)
  - Established baseline
  - TMS time
- Identify recommendations
- Documentation
  - After action reports
  - Contingency plans
  - Emergency plans

Summary

- Response Force times are considered the foundation in a response element as it is essential for the responders to arrive to a designated response point during a required time.
- Time Motion Studies determine the required response time to arrive at various response locations.
- Included in the overall time are the time it takes for a responder to don all required equipment, and the time it takes to enter through entry gates, doors, or other types of barriers.
- A Time Motion Study Data Collection Sheet should always be used to accurately account for all data collected during the test.

Example
Time-Motion Study Data Collection Sheet

Title:

Date:

Description: ***Describe the purpose of the Time Motion Study to be conducted and how many will be conducted***
This Time Motion Study (TMS) has been developed to determine:

Safety conditions and instructions: (Brief the Responders on the following)
Describe any safety conditions responders and controllers should know about

Time-motion conditions of the test: ***Describe when and where the Time Motion Study will be conducted and any equipment needed.***

Controllers Name_____

Time/Date: _____

Recorded Times for Internal/External Response to:

Iteration & Name of Responder	Start Location	Start Time	Completion Time	Total Time	Note any Delays/Comments
1st					
2nd					
3rd					

Suggested Example
Conduct of Operations
For
Conduction a Time Motion Study

Sample Required Equipment

1. Safety Vests
2. Radios
3. Map of area
4. Tactical gear, Bags with correct weights (equipment)
5. Stop Watches
6. Vehicle(s)
7. Data Collection Sheets for Time Motion Studies (TMS)

Sample Timeline

1230 hours

- Meet at conference room (provide location and room)
- TMS Data Collection Brief
- Safety Briefing
- Assignments (controllers, responders)

1245 hours

- Head to starting points

1300 hours

- Ensure all controllers are in place
- Conduct radio check

1445 hours

- TMS , 2nd iteration

1530 hours

- TMS, 3rd iteration

1630 hours

- Debrief

Class Exercise
Time Motion Studies

Session Objectives:

After the session the participants will be able to do the following:

1. Develop and conduct a general Time Motion Study (TMS).
2. Review the practical TMS in the classroom.
3. Conduct the practical TMS in the classroom.

Activity–Conducting a Time Motion Study (TMS)…Response

The goal to this exercise is to understand how to collect timing data for a response path as part of a Time Motion Study (TMS). If a response plan requires a responder to arrive at a certain location within a certain time, TMS data will be needed to determine if that time requirement can be realistically achieved.

In this exercise, the Instructor/Controller will create a path in the classroom that will represent the steps in a response force path. For example, the path may include:

- Taking off your shoes
- Moving to another location
- Putting your shoes back on
- Putting on a back packs (to simulate putting on equipment)
- Walking around the tables
- Going to a designated location and touching the door knob or other object

The steps represent actual obstacles a responder must overcome along that response path.

Next, collect the total time required to complete all of the steps in the path; refer to this total time as the Total (response) Time. Have three different team members run the response path while the controller collects the data in the table below. Use the stop watch Record times to nearest seconds.

Module 5: Memorandum of Understanding

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- Describe the Purpose and Importance of a Memorandum of Understanding
- Describe each step of a Memorandum of Understanding
- List the Benefits and Challenges of a Memorandum of Understanding
- Develop a Memorandum of Understanding

Memorandum of Understanding (MOU)

- Is a written agreement to identify the working relationships and guidelines between interacting departments and agencies
- Helps define relationships between organizations and agencies
- Establishes a clear understanding of how an agreement is going to be implemented

Purpose of a MOU

- Develops and strengthens partnerships between all organizations as they work more closely together
- Allows involved agencies to specifically understand that they are agreeing to the same thing and the terms are clearly identified
- Provides a clear distinction of functions and the level of involvement of the agencies involved
- Gives all of those involved in the agreement a chance to see on paper what they all have agreed to

Importance of MOU

- Commitment for a clear understanding of each organization/agency
- Sets expectations for each organization/agency
- Allows organizations/agencies to share knowledge through agreed upon interactions
- Lists specific roles and responsibilities in writing, to avoid future misunderstandings

Significance of MOU

- Defines the rights and responsibilities of each involved organization
- Describes in detail what everyone agrees to do, specifies the length of the agreement and what is expected from each organization
- Describes the common understandings for each agency
- Clarifies the type of support that will be provided
- Develops and maintains effective ways for communication or participation

Guidelines of MOU

Essential Information for developing a MOU:

- Names of organizations/agencies
- Overview of mission and activities
- Roles/responsibilities of each organization/agency
- Specific resources to be exchanged
- Agreements should be specific (number of responders, response time, response locations, communications, etc.)
- Integrated communications with all agencies involved
- Off-site operations, such as pursuit

Guidelines of MOU, continued

- Date and of the MOU
- Duration of MOU
- Termination/modification clause
- Management signatures
- Joint training between agencies
- What services each agency contributes -- during and after the joint venture

Benefits of MOU

- Reduces cost for resources
- Provides for increased resources available between organizations
- Provides for increased response force personnel (external response)
- Provides Command and Control
- Resolves many jurisdictional issues
- Allows increased pursuit capabilities
- Builds teamwork
- Outlines roles and responsibilities

Challenges of MOU

- Difficulty ensuring performance
- Difficulty attaining dedicated resources
- Mandatory response times
- Requires response training for external personnel
- Classified information considerations
- Integrated secure communications
- Inviting key leaders of each organization to meet together to discuss the feasibility of developing a MOU
- Misperceptions about each other's goals, missions, and philosophy
- Difficulty coordinating/conducting joint training exercise

In Class Exercise

Developing a
Memorandum of Understanding

Summary

- A Memorandum of Understanding is a written agreement to identify the working relationships and guidelines between interacting departments and agencies
- A Memorandum of Understanding defines the rights and responsibilities of each involved organization
- A Memorandum of Understanding describes in detail what everyone agrees to do and specifies the length of the agreement and what is expected from each organization
- A Memorandum of Understanding has certain challenges to address such as ensuring performance, attaining dedicated resources, and meeting mandatory response times

EXAMPLE TEMPLATE

HOW TO DEVELOP
A
MEMORANDUM OF UNDERSTANDING BETWEEN

Identify and list the site or facility protecting sensitive assets

AND

Identify and list the external agency or organization that will provide assistance

EXTERNAL ASSISTANCE AND RESPONSE

INTRODUCTION:

This Memorandum of Understanding (MOU) between **(List who this agreement is with, Internal and External agency),**

_____

sets forth understandings with regard to dealing with threats associated with theft, sabotage or hostage attempts against
List the your site, facility, or area that needs this assistance agreement

_____

PURPOSE:

The purpose of this Memorandum of Understanding is to
Briefly describe the purpose of this Memorandum of Understanding

AUTHORITY:

List any documents, regulations, state statutes, requirements, directives, orders, procedures or authorizations that will give validity to this document.

RESPONSE GUIDELINES:

A. **Immediate Notification:** When suspicious activity, a terrorist threat, or an actual incident with a potential or actual incident occurs, a representative of the ***(List the internal organization or department who will make notifications to the external support agency_____)*** will immediately notify the (***list the external support agency/department)***

_____

of the incident, and relay the status of the situation, and the location of the internal Command Center.

B. **Command and Control:** ***Describe who has control of guard and/or response forces and who has control of external responders. Describe how on-scene officers will coordinate and communicate with eternal responders.***

C. **External Response:** ***Describe the actions and what resources will be provided by the external response agency.***

D. **Pursuit:** ***Identify who will be responsible for pursuit operations, command and control for stopping fleeing adversaries who may have escaped the boundaries of your facility or site.***

E. **Internal Facility Responsibilities:** Where ***(External Facility, list facility)*** ***_____ has initiated response to the Internal Facility incident, the Internal Facility will:***

1. Maintain responsibilities as the lead agency for hostile adversary situations involving security interests within the boundaries of the **Internal Facility property_____.**

2. Ensure that all of their response resources remain available and responsive to fully and immediately support the tactical operations.

3. Ensure that all of their response resources remain available and responsive to fully and immediately support tactical operations.

4. Coordinate with law enforcement agencies for assistance and response to the security incident.

5. Continue to cooperate with the **(List the External Facility)** _____ as required relative to the incident.

6. The **Internal Facility_____** will provide external responders with assistance in establishing roadblocks for events requiring the limiting of traffic flow from the **Internal Facility_____.**

7. The Internal Facility will provide the external responders with a clear request for assistance and give an unclassified reason why the assistance is necessary.

RESOLUTION:

A. Identify who will maintain primary security and control of sensitive material if recovery is required.

B. The Internal and External Facility security forces will coordinate necessary actions to terminate the security incident and return to normal operations.

RESPONSE AND ACCESS:

Both Internal and External Facilities_____

_____

may request support for law enforcement response within the boundaries of **List your Facility**_____ property. The request for assistance will be coordinated and approved through each agency's chain-of-command structures. Law enforcement support is intended to enhance integrated response for life / safety incidents, coordinate the transfer of jurisdictional control, and to provide increased safety and security to personnel within the boundaries of **List your Facility**_____

In the event assistance is requested by the Internal Facility for a response to an emergency at **List Facility** or other disasters affecting **List Facility**_____ will grant access, via the **Identify and list the location where external responders will enter the Internal Facility**_____

MUTUAL SUPPORT GUIDELINES

A. The guidelines in this Memorandum of Understanding are intended to be applied by either agency **(List the Internal and External Facility/Agency)** _____

for mutual support to suspicious activity, a terrorist threat, or an actual incident with a potential or actual terrorist incident to critical locations located inside the boundaries of **List the Internal Facility**_____

B. Time Motion Studies will be conducted by **(List the Internal and External Facility/Agency)** _____ To establish a response timeline for **(List the External Facility/Agency)** _____ to arrive on-scene at **(List your Facility)** _____.

Response Force times are considered the foundation in a response element as it is essential for the responders to arrive to a designated response point during a required time. Time Motion Studies determine the required response time to arrive at various response locations. Included in the overall time are the time it takes for a responder to don all required equipment and firearms (if applicable), and the time it takes to enter through entry gates, doors, or other types of barriers.

AMMENDMENTS AND TERM

A. This Memorandum of Understanding shall become effective on the date of the last signature of the parties involved. Any changes or amendments to or termination of this agreement will be subject to approval of all parties involved. This Memorandum of Understanding may be terminated by either party upon written notice. This Memorandum of Understanding will be reviewed periodically and modified as necessary.

The procedures and protocol in this Memorandum of Understanding will, at a minimum, be exercised annually (every 12 months) through Time Motion Studies, to determine a required response time to arrive on scene and establish required response points for all applicable law enforcement agencies to ascertain the effectiveness and to revise, update or amend this Memorandum of Understanding as required. The extent or complexity of **(List the External Facility/Agency)** _____ participation in the Time Motion Studies shall be coordinated by **(List the Internal Facility/Agency).**

_____

B. This Memorandum of Understanding is effective unless formally revised or terminated by **(List the Internal and External Facility/Agency)**

_____

ACKNOWLEDGEMENT:

The undersigned recognizes **(List the Internal and External Facility/Agency)** status as a friendly force and agree to the conditions set forth in this Memorandum of Understanding.

_____ _____

Name Name

Date: _____ Date: _____

Module 6: Limited Scope Performance Testing

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- Describe the purpose of a Limited Scope Performance Test
- Describe the steps in a Limited Scope Performance Test
- Develop a Limited Scope Performance Test Plan
- Conduct a Limited Scope Performance Test

Limited Scope Performance Test (LSPT)

- Evaluates any plan, operation, and/or procedure
- Evaluates an individual's knowledge or capability to perform a specific task
- Validates the effectiveness of an individual's skill or capability or of specific elements of the security program
- LSPT's may be either performance or knowledge based. (Pass/ Fail)
- LSPT's can be either announced or unannounced to those being tested

Purpose of LSPT's

- Training for personnel
- Motivating personnel
- Identifying system effectiveness or recommending areas for improvements
- Validating Security systems

LSPT's Examples

- A new type of duress alarm has been installed at all guard posts.
- A walk-thru metal detector has been repaired after it was reported that the detector was malfunctioning
- A new procedure is written that changes the vehicle search procedure from searching vehicles outside the Protected Area before they enter, to searching vehicles in the Protected Area after they enter

LSPT Examples, continued

- Vehicle Search
  - Demonstrate the proper techniques to conduct a systematic search on a vehicle
  - It is a test to search for contraband
- Hand-held Metal Detector
  - Provide function test (is it operating/working)
  - Demonstrate the proper techniques on an individual for contraband with 100% proficiency (effectiveness)

Steps for Conducting LSPT's

- Planning
- Conducting
- Analyzing

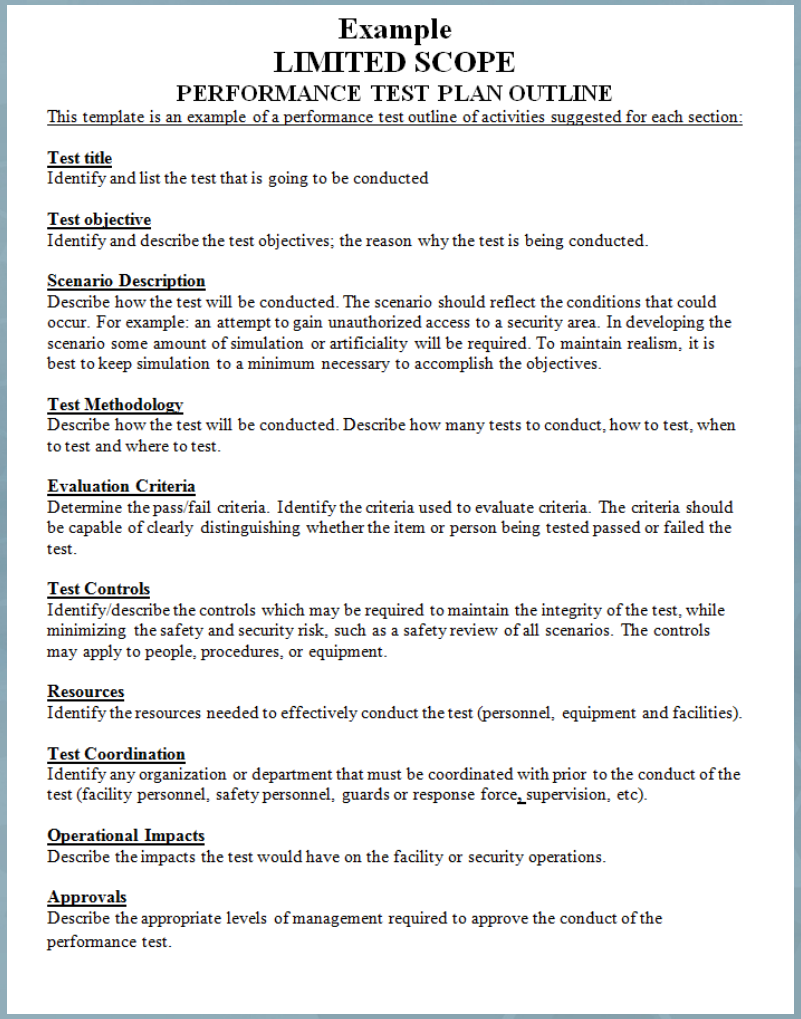
Planning LSPT's

- An LSPT plan will be developed before an LSPT can be initiated.
- LSPT plan may contain more than one scenario and/or more than one iteration

Note: LSPT's should be conducted with the highest regard for the health and safety of personnel, protection of the environment, and protection of property

Develop an LSPT Plan

Refer to the LSPT Plan Outline



Example
LIMITED SCOPE
PERFORMANCE TEST PLAN OUTLINE

This template is an example of a performance test outline of activities suggested for each section:

Test title
Identify and list the test that is going to be conducted

Test objective
Identify and describe the test objectives; the reason why the test is being conducted.

Scenario Description
Describe how the test will be conducted. The scenario should reflect the conditions that could occur. For example: an attempt to gain unauthorized access to a security area. In developing the scenario some amount of simulation or artificiality will be required. To maintain realism, it is best to keep simulation to a minimum necessary to accomplish the objectives.

Test Methodology
Describe how the test will be conducted. Describe how many tests to conduct, how to test, when to test and where to test.

Evaluation Criteria
Determine the pass/fail criteria. Identify the criteria used to evaluate criteria. The criteria should be capable of clearly distinguishing whether the item or person being tested passed or failed the test.

Test Controls
Identify/describe the controls which may be required to maintain the integrity of the test, while minimizing the safety and security risk, such as a safety review of all scenarios. The controls may apply to people, procedures, or equipment.

Resources
Identify the resources needed to effectively conduct the test (personnel, equipment and facilities).

Test Coordination
Identify any organization or department that must be coordinated with prior to the conduct of the test (facility personnel, safety personnel, guards or response force, supervision, etc).

Operational Impacts
Describe the impacts the test would have on the facility or security operations.

Approvals
Describe the appropriate levels of management required to approve the conduct of the performance test.

Conducting LSPT's

- Ensure proper personnel are in place
- Ensure that all safety concerns have been addressed
- Controllers and evaluators have the necessary documentation and equipment for data collection
- Execute the test

Conduct post-LSPT briefing

The purpose for a post-LSPT briefing is to:

- Gather all participating controllers and evaluators
- Gather evaluation sheets
- Discuss the test results to determine if pass/fail criteria were met
- Discuss found deficiencies
- Determine next steps and/or mitigations measures

Analyzing LSPT's

- Determine results
  - Evaluate results against pass/fail criteria
- Identify deficiencies
  - Are the failures individual performance issues or systemic issues
  - Are their training deficiencies
- Identify recommendations
  - Corrective actions
- Documentation
  - After action reports
  - Contingency plans
  - Corrective action plans

Challenges of LSPTS's

- The challenge is to design exercises that balance realism and safety
- In order to achieve that balance, some elements of artificiality or simulation that substitute for reality are introduced into the exercise/test
  - Example: using a cell phone as a substitute for a hand gun

Summary

- Performance testing is the most appropriate and useful method of evaluating a response force's ability to perform certain routine and emergency duties in its operating environment
- Performance tests are used
  - to realistically evaluate and verify the effectiveness of the response force
  - identify needed guard and response force training and areas requiring system improvements
  - validate implemented improvements; and motivate personnel
- Each performance test exercise will have limitations and artificialities
- Certain performance testing may require that personnel being tested remain unaware that a test is being conducted
- Particular care must be exercised to ensure that these types of tests are well coordinated and safety factors are considered

In Class Exercise

Develop a Performance Test Plan

Example
LIMITED SCOPE
PERFORMANCE TEST PLAN OUTLINE

This template is an example of a performance test outline of activities suggested for each section:

Test title
Identify and list the test that is going to be conducted

Test objective
Identify and describe the test objectives; the reason why the test is being conducted.

Scenario Description
Describe how the test will be conducted. The scenario should reflect the conditions that could occur. For example: an attempt to gain unauthorized access to a security area. In developing the scenario some amount of simulation or artificiality will be required. To maintain realism, it is best to keep simulation to a minimum necessary to accomplish the objectives.

Test Methodology
Describe how the test will be conducted. Describe how many tests to conduct, how to test, when to test and where to test.

Evaluation Criteria
Determine the pass/fail criteria. Identify the criteria used to evaluate criteria. The criteria should be capable of clearly distinguishing whether the item or person being tested passed or failed the test.

Test Controls
Identify/describe the controls which may be required to maintain the integrity of the test, while minimizing the safety and security risk, such as a safety review of all scenarios. The controls may apply to people, procedures, or equipment.

Resources
Identify the resources needed to effectively conduct the test (personnel, equipment and facilities).

Test Coordination
Identify any organization or department that must be coordinated with prior to the conduct of the test (facility personnel, safety personnel, guards or response force, supervision, etc).

Operational Impacts
Describe the impacts the test would have on the facility or security operations.

Approvals
Describe the appropriate levels of management required to approve the conduct of the performance test.

Example

Limited Scope Performance Plan (LSPT)

VEHICLE SEARCH

In Class Exercise

Test Objective

Test Methodology

Evaluation Criteria

Test Controls

Resources

Test Coordination

Operational Impacts

Approvals

Example 1

Suggested

Blank Vehicle Search Checklist Template

PASS/FAIL CRITERIA

USE THIS SECTION TO LIST THE TASKS AND PASS FAIL CRITERIA THE INDIVIDUAL MUST PERFORM FOR THE LSPT.

	PASS	FAIL
Contraband Vehicle Inspections		
Vehicle Interior Inspection		
Vehicle Exterior Inspection		

Finding Contraband		

Brief Narrative:

Date:	Time:	Location:
Name:		Post:
Evaluator's Name:		

Module 7: Testing Program Plan

Response Performance Testing

Student Learning Objectives

After completing this module, you should be able to:

- State the purpose of a performance testing program plan
- Define the various types of performance tests and exercises that may be conducted
- List tasks to be accomplished to ensure that performance testing is conducted as effectively and efficiently as possible

Performance Testing Program

- Used to evaluate a site/facility's protection elements effectively protect their security interests and activities
- Designed to ensure proper integration of components, training of personnel, and on testing procedures
- The Performance Testing Program validates the performance of all protection elements in order to provide assurance that protection systems are effective

Performance Testing Program Plan (PTPP)

The Performance Testing Program is documented in a Performance Testing Program Plan (PTPP).

- The purpose of the PTPP is to describe the performance testing activities at a particular site/facility
- The PTPP sets forth basic guidelines, procedures, and responsibilities for planning, conducting, and evaluating system performance testing

Performance Testing Program Plan

- Identifies the overall performance testing program
- Identifies what should be tested
  - Components, personnel, or procedures whose failure or degraded performance would reduce protection to an unacceptable level
- Describes how the components, personnel, or procedures are to be tested
- Describes responsibilities for testing and reporting of results

Exercise

Develop a Program Plan

Class Exercise
Developing a Performance Testing Plan

Session Objectives:

After the session, the participants will be able to do the following:

1. Develop a program plan for his/her site.

Instructions:

1. Using the provided Performance Testing Program Plan template, complete sections 1.2, 1.3, 2.1, 2.2, 3.1, 4.6, and 4.8 specific to your site.
2. Have the instructor review your comments.
3. Review the Sample Performance Testing Program Plan.

NOTE: This exercise does not include all details that would be included in a Program Plan. Refer to the sample for more details. A program plan should also include details specific to your site requirements.

Example
PERFORMANCE TESTING PROGRAM PLAN

SITE NAME

PERFORMANCE TESTING PROGRAM PLAN

THIS EXAMPLE TO BE MODIFIED PER SITE/FACILITY CONFIGURATION AND SITUATION

DATE:XXX

1.0 Introduction

1.1 Purpose

The purpose of this Performance Testing Program Plan is to identify the process and phased approach that will be implemented at _____.
The purpose of the testing program at _____is specifically designed to evaluate the effectiveness of systems that are employed at this site. This plan defines tasks to be accomplished to ensure that performance testing is conducted as effectively and efficiently as possible.

1.2 Mission

Briefly describe the mission of your site.

1.3 Applicability

Describe who and what the program plan applies to. For example, response forces and interior sensor equipment

2.0 Requirements

2.1 Program Requirements

Briefly describe what will determine the program requirements (documents, governing bodies). For example, the Design Basis Threat.

2.2 System Elements

List the components, equipment, procedures, and/or personnel that will be tested under the program.

2.3 Testing Concept

Performance testing is a test to evaluate the ability of an implemented and operating system element or total system to meet an established requirement. Individual performance tests for response are used to determine whether guard and response procedures are effective; whether personnel understand and follow the procedures; and whether personnel and equipment interact effectively.

Performance Test Exercises are means to realistically evaluate the effectiveness of response force programs; provide skills application training for personnel; identify areas requiring system improvements; validate implemented improvements and motivate personnel to perform duties in the most efficient, effective, and safest manner. To effectively coordinate an exercise or test, a process outlined below is used to properly plan and conduct these types of exercises or tests.

3.0 Performance Testing

3.1 Types of Tests

There are recognized differences among the various protective forces, physical facilities, and security interests; these differences require a flexible approach to the application of testing and evaluation techniques. A combination of specific types of performance testing is used to evaluate the performance of a security forces and components. There are several categories of performance tests. This program plan is based on the following Types of performance tests:
List the types of performance tests that will be conducted at your site to test the elements listed in 2.2. Provide a brief description of each test.

4.0 Implementation Factors

4.1 Reliability

If the failure of an element would reduce protection to an unacceptable level, it must be tested at frequencies that provide a high assurance of its reliability. Testing frequencies will reflect site-specific conditions and operational needs. Testing frequencies will be documented for each element or system.

4.2 Compensatory Measures

Compensatory measures provide temporary equivalent protection for interests in the event of a partial or total system failure, or if vulnerability has been identified. Compensatory measures are initiated when notification of a PSS component failure is received and when the time to implement repairs is deemed to exceed the time to implement the compensatory measure. Management will determine the appropriate time frame for repairs of and affected alarm component or system. Compensatory measures may not be terminated until management or designee has verified that the compensated component has been restored to full operation. Verification may be achieved through alarm testing, hands-on validation, or notification from the technician who completed the repair or otherwise restored the system to operability.

1.3 Reporting of Test Activities

4.3.1 Documentation

Program personnel are responsible for collecting test data (including periodic roll-up and analysis of data) and maintaining performance test results. Also, program personnel are responsible for maintaining records and documenting all performance tests conducted. Program personnel or other testing organizations will provide verbal notice to management of test results that indicate unacceptable performance no later than the next business day.

4.4 Maintenance

Security-related systems and components must be maintained in operable condition. A regularly scheduled testing and maintenance program must be established and documented. The maintenance and testing program enhances the continuous effectiveness and operability of related equipment. Preventative maintenance is the responsibility of each owning organization. Protection elements that have been repaired or undergone maintenance must be validated through testing before use.

4.5 Performance Test Plans

Planning guidance is provided in individual specific performance test plans.
All performance tests will be conducted according to an established plan and are modified as needed as site specific requirements dictate.

4.6 Testing Frequency

Performance testing must be conducted as stated in Table 1, *Testing Frequency*:
Complete Table 1. Add the types of tests identified in Section 3.1 of the plan, and then indicate the testing frequency for each test.

Table 1—Testing Frequency

Describe Test to be conducted and frequency

Type of Performance Test	**Minimum Performance Test Frequency**
ARAPT (Example)	One performance test per quarter for each alarmed location.

4.7 Testing of Systems and Equipment

Testing of elements will be conducted by the personnel or designated site representatives. Testing will reflect site-specific conditions and operational needs. Tests results (i.e., reports) will be retained by the site and maintained by the program to be used for evaluating the overall site security program. However, potential vulnerabilities revealed during testing will be immediately reported to the affected program manager so that corrective measures can be taken.

Tests that are employed to protect classified material may include people, procedures, and components; an example would be to test the Protective Force response to an alarm. Conversely, a test may be limited to a single essential element of the total system, such as a specific alarm and sensor test in a room storing classified material.

4.8 Feedback- and-Improvement Review Process

Briefly describe how feedback and improvement to the PPS will be communicated.