DEFENSE CONTRACT PROPERTY MANAGEMENT SYSTEMS AUDITS: A Primer Version 2, Based Upon the 2007 FAR Rule

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CHAPTER 1

Defense Contract Property Management Systems Audit Primer
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MODULE 1

History of Auditing

- By the end of this module, you should be able to:
  - Describe the history of audits.

- By completing the lesson, you should be able to:
  - Explain the historical applications of an audit and list the types of auditors.

System Survey! System Analysis! Audits! These are all actions that have been going on for years, decades and in some cases even centuries, though known by different names. And now with the publication of the 2007 Government Property rule – we have the new PROPERTY MANAGEMENT SYSTEM AUDIT. There has developed a body of literature surrounding the audit process with rules and requirements, standards and techniques. In fact, auditing has been around for thousands of years - Yes, that was THOUSANDS!!! Swanson and Marsh (1991) state,

> There is little room for doubt that auditors were going about their daily activities as far back as 3000 B.C. In those days high officials in Babylon validated major transactions with their signatures on stone tablets. Records of work in internal control evaluations in India exist, dating from the 4th century B.C. An association of auditors, created in Venice, quickly gained high status and carefully regulated the activities of its members (p.xi).

Yet, when you look at the field of property administration there is a real lack as to the application of the established rules and techniques. This course is the Department of Defense's attempt to clarify and codify those rules and techniques for the property administrator in an effort to develop a more competent, highly skilled professional prepared to meet our rapidly changing environment. [NOTE: It is assumed that you have successfully completed PPM 151, IND 101 or now IND 100 and have the requisite competencies to fully grasp this material at the knowledge, comprehension and application levels.] Good luck and let's have at it!!!

HISTORICAL LINEAGE

How one becomes a Property Administrator (PA) can be analyzed in another forum. For this discussion, the more important question is "How does one learn to do an audit, or in our subculture's language a 'System Analysis or System Survey'?" Generally, the first step in the old days was to read the old and now OBSOLETE Armed Services Procurement Regulation (ASPR) Supplement # 3. Contained within this document was coverage of the survey process (NOTE: The words system survey and system analysis were the old terms – as a reminder, the NEW CORRECT TERM is Property Management System Audit (PMSA)). Unfortunately, this coverage was minimal at best. How then did the PAs in the past learn how to conduct a system survey? These actions were often learned and performed through an oral tradition. The senior level PA in the office would help his or her Industrial Property Management Specialists learn the ropes of the survey process. How had they learned the process? Through their PAs, who had learned it through their PAs, who had learned it through their PAs, and so on, and so on, etc., etc., ad infinitum! But were the proper tools and techniques conveyed through this method. Many times yes, some times no. Another avenue by which experience came into the property field was that of individuals crossing over from one field into another. Specifically, auditors from another Government activity, e.g. Defense Contract Audit Agency (DCAA), may have switched careers and brought with them their tools and techniques. These auditors bring with them their experiences using the audit guidelines found in the Defense Contract Audit Agency Manual (DCAAM). A former Quality Assurance representative may bring his or her experience using MIL-STD 105 E. Many of these documents had and still have applicability to our environment. (Note: Some of these documents and regulations no longer exist. They are mentioned only to provide historical evidence.)

"Wait a minute" you say. "I'm not an accountant or a DCAA auditor or Quality Assurance Representative. What does that have to do with me?"

Well, quite a bit. Let's look at accounting versus auditing just for a minute. Many folks confuse accounting with auditing. It is a logical confusion as most audits are concerned with financial matters. But, there is a difference. Arens and Loebbecke (1988) state "Accounting is the process of recording, classifying and summarizing **ECONOMIC** (Emphasis added) events in a logical manner for the purposes of providing financial information for decision making" (p.3). In our Property Management System Audit (PMSA) we are concerned with checking and verifying systems, processes and data.

Another definition of auditing is obtained from the Auditing Concepts Committee (1972). It states that auditing is, "A systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to the interested users."

Now, if we only change one word in that entire sentence we have what **WE** do! Change the word "economic" to "property." If we read the changed sentence it now states "A systematic process of objectively obtaining and evaluating evidence regarding assertions

about **PROPERTY** actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to the interested users." Is this not exactly what we do during a property control system analysis? Yes! Our concern is with determining whether the recorded information properly reflects the events that occurred during the period of audit. For instance -- the proper acquisition of property, the timely receiving of property, the act of identifying the property, the maintenance of that property, and we could go on through the numerous events that take place within the property environment. Why is there confusion between auditing and accounting? Because many audit actions are concerned with financial actions. In the world of Government property that may not always be the case. In point of fact we are generally more concerned with the actions or transactions occurring and the attributes regarding the property and not so concerned with the financial actions that occur surrounding the property. Others have that tasking, specifically the aforementioned DCAA auditor.

Atkisson, et al, (1986) amplify and more clearly delineate the responsibilities of the auditor stating,

> The responsibilities ... are often extensive and require the use of many different audit approaches. In a particular assignment the auditor may review policies and procedures of the company to determine if they are adequate. He may perform surveys and overall comparisons of information to determine trends. He may perform a study and evaluation of the existing internal control system of the company to determine its reliability. (p.187)

But even this description does not fully describe all that the Government PA is involved with in the course of performing a system analysis. Yes, there is the requisite review of the contractor's policies and procedures but we will see in the course of this text that there is much more required.

TYPES OF AUDITORS

There are countless different auditors out there. Rest assured that we are not alone! There are Certified Public Accountants. These auditors probably have the most complex and complete set of guidelines that exist today regarding auditing. There exist the Generally Accepted Auditing Standards (GAAS) published by the American Institute of Certified Public Accountants (AICPA). Embedded within these standards are the "Statements on Auditing Standards" which total 49 different standards.

There are the auditors that work for the General Accounting Office (The investigative arm of Congress). There are the Internal Revenue Service Auditors. Many large companies have Internal Audit folks and their respective professional association, the Institute of Internal Auditors (IIA) with its commensurate guidelines. Within the Department of Defense there are the auditors from the DCAA [NOTE: Maybe their manuals and directives are even more voluminous than the aforementioned AICPA and

IIA put together - who knows?]. In addition, there are quite a few other Governmental "auditors." Talley (1988) used an Air Force Regulation, AFCMD Regulation 178-1 to delineate some of these functions. They consisted of:

Quality Assurance
Finance
Engineering
Program Management
Procurement and Subcontracts
Production and Manufacturing
Logistics and Customer Support
Marketing and Planning
Contracts and Estimating
Industrial Property Management
(Yes, even us!)

I know, I know, AFCMD doesn't exist anymore. But, the important part is that each of these function performed their own audits. They all had their own evaluative criteria or specific items/events that they were looking for. So even though we may think we, in property, are different from everybody else, in point of fact, we are very similar!

What we are involved with is more generally regarded as "operational auditing." Swanson and Marsh (1991) define operational auditing as,

> ... a systematic process of evaluating an organization's effectiveness, efficiency, and economy of operations under management's control and reporting to appropriate persons the results of the evaluation along with recommendations for improvement. Its objectives are to provide a means of evaluating an organization's performance and to enhance performance by making recommendations for improvements. Operational auditing requires measuring the degree of correspondence between actual performance and acceptable criteria and focuses on management's planning a control system (P. 114).

Sounds familiar doesn't it?

Flesher (1996) provides further analysis of an “operational audit.” He states “An operational audit is a nonfinancial audit, the purpose of which is to appraise the managerial organization and efficiency of an entity or one of its subdivisions... Operational auditing is a review and appraisal of the efficiency and effectiveness of operations and operating procedures... Operational auditing is using common sense, or logical audit techniques, with management perspective, and applying them to the organization’s objectives, operations, controls, communications, and information systems. The auditor is more concerned with the who, what, when, where, why and how of running an efficient and profitable business than just the accounting and financial aspects of the business functions” (pg 242).

From a DoD perspective a PMSA is generally regarded as "operational auditing." Operational auditing is defined as a systematic process of evaluating an organization's effectiveness, efficiency, and economy of operations under management's control and reporting to appropriate persons the results of the evaluation along with recommendations for improvement. Its objectives are to provide a means of evaluating an organization's performance and to enhance performance by making recommendations for improvements. Operational auditing requires measuring the degree of correspondence between actual performance and acceptable criteria, i.e., contractual requirements and the criteria set forth in Appendix A, and focuses on management's planning a control system. A PMSA differs from a financial audit as financial audits are under the cognizance of the Defense Contract Audit Agency and address the accounting and cost issues of the contract. The PA may be involved with certain areas of a financial audit in reviewing property management items that impact and affect financial issues. Operational auditing is a review and appraisal of the efficiency and effectiveness of operations and operating procedures. Operational auditing uses logical audit techniques, with a sound business management perspective, and applies them to the organization's objectives, operations, controls, communications, and information systems. The Property Administrator, as an operational auditor is concerned with who, what, when, where, why and how of running an efficient property management process rather than just the accounting and financial aspects of the business functions.

Lastly, we could address one other form of audit -- that is a "Compliance" audit. Flesher (1996) also addresses this form of audit. "There are many requirements in existence that constrain the activities of organizations. These requirements can be imposed externally or internally, and may take the form of laws, regulations, standards, policies, plans and procedures."

As a Government employee the Property Administrator is acting as an AUDITOR! Though we are not generally viewed in that light, we have occupied that position for many, many years and decades.

AUDIT GUIDANCE

With the publication of the new FAR Government property clause we, in property management, became aware of the requirement to use Voluntary Consensus Standards (VCS). The Government's use of VCSes came into play through three different operations:

Law/Statute
An Office of Management and Budget Circular and
The Federal Acquisition Regulation

Law

Public Law 104-113, entitled the ``National Technology Transfer and Advancement Act of 1995 '' amended the Stevenson-Wydler Technology Innovation Act of 1980 to include the following requirement.

(1)In general.--Except as provided in paragraph (3) of this subsection, all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.

(2) Consultation; participation.--In carrying out paragraph (1) of this subsection, Federal agencies and departments shall consult with voluntary, private sector, consensus standards bodies and shall, when such participation is in the public interest and is compatible with agency and departmental missions, authorities, priorities, and budget resources, participate with such bodies in the development of technical standards.

So here we see more than a decade ago direction to and a requirement for the Federal Government to start using VCSes. In point of fact, the law issues direction that Federal agencies "SHALL" participate with VCS bodies. Interesting note to Federal Government employees – you have your statutory marching orders.

The Office of Management and Budget

On February 19th, 1998 the Office of Management and Budget (OMB) published OMB circular A-119, entitled "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities."[1] This OMB circular was technically an implementation of the National Technology Transfer and Advancement Act of 1995 mentioned earlier. The OMB Circular states as its purpose, "This Circular directs agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical." It is through this Circular that we see the direction to implement what the law directed.

Well, how does this impact the Government procurement process and more importantly how Government property in the possession of contractors is managed?

The Federal Acquisition Regulation.

The Federal Acquisition Regulation (FAR) is the acquisition document binding upon all Federal Agencies (Unless exempted from the requirement. And yes, there are a few Federal Agencies that do NOT follow the FAR.). FAR Part 11 entitled Selecting and Developing Requirements Documents contains guidance and direction to the Procurement officials their responsibilities regarding the use of VCSes. FAR 11.101, Order of Precedence for Requirements Documents states in paragraph (c), In accordance with OMB Circular A-119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," agencies must use voluntary consensus standards, when they exist, in lieu of Government-unique standards, except where inconsistent with law or otherwise impractical. The private sector manages and administers voluntary consensus standards. Such standards are not mandated by law (*e.g.*, industry standards such as ISO 9000).

[1] A discussion of this OMB circular may be found at http://ts.nist.gov/Standards/Conformity/upload/fr-omba119.pdf and the actual circular may be found at http://www.whitehouse.gov/omb/circulars/a119/a119.html.

So, we can see that the Use of VCSes is not something new or even radical. Rather it is a natural evolution of Government's procurement and acquisition requirements – even in its directions regarding the management of Government property.
With this background information quite clearly we are required to use VCSes where applicable. Our audits are one such area! Therefore, we need to determine if there are any VCSes that apply to this realm – the realm of auditing.

GENERALLY ACCEPTED AUDITING STANDARDS (GAAS)

GAAS is a technical document that we will reference numerous times in this course. There are many books written about GAAS. I would recommend that as a property professional you invest some of your funds and acquire a few of these texts to assist you in understanding the framework and drivers of the auditing profession. Historically, though we did not follow STRICT audit guidelines, we did come really close through the use of the guidance, direction and methodologies set forth in the now rescinded DoD Manual for the Performance of Contract Property Administration, DoD 4161.2-M. When followed correctly, this manual provided the Property Administrator a sequence of event s that paralleled the requirements of GAAS.

Two texts that I would recommend:

Miller GAAS Guide (Most recent Edition), Bailey, Larry P., Harcourt Brace Professional Publishing, New York. ISBN – 0-15-602273-7.

Practitioner's Guide to GAAS, 2008, Ramos, Michael J., John Wiley and Sons, Somerset, New Jersey. ISBN – 978-0470-13531-0.

There is a wealth of information regarding the audit process and audit standards and risk assessment standards that are and will be extremely valuable to the Property Administrator. And we will be citing these references throughout the course.
One EXTREMELY interesting note is given as direction to the auditor under the Miller GAAS Guide. In Chapter 27 it states,

Government Property
As part of the contract arrangement, a governmental agency may provide a contractor with property that will be used in fulfilling the terms of the contract. The government contractor should establish appropriate internal controls to ensure that government property is safeguarded and accounted for in a manner consistent with the terms of the contract. (page 27.20)

Though GAAS is not a VCS, it quite clearly IS an INDUSTRY LEADING PRACTICE – and the Government most clearly should be following it to the maximum extent practicable.

Ahhhh, but there are OTHER audit standards with which we as Federal Government employees must comply!

GOVERNMENT AUDIT STANDARDS

In addition to GAAS we have an extremely important Government document – the Government Accountability Office (GAO) Government Auditing Standards – GAO-07-731G. This text is more affectionately referred to as the GAO Yellow Book. Why? Because it had for many years and still has in some hard copy print versions, a yellow cover.

THE GAO YELLOW BOOK

What is the GAO Yellow Book? The GAO Yellow book is a compilation of "professional standards and guidance… commonly referred to as generally accepted government auditing standards (GAGAS), provide a framework for conducting high quality government audits and attestation engagements with competence, integrity, objectivity, and independence. These standards are for use by auditors of government entities and entities that receive government awards and audit organizations performing GAGAS audits and attestation engagements. GAGAS contain requirements and guidance dealing with ethics, independence, auditors' professional competence and judgment, quality control, the performance of field work, and reporting."[2]

GAGAS is not a government unique document but rather comes from numerous professional associations and even Voluntary Consensus Standard Bodies (VCSB). These groups include:

a. The American Institute of Certified Public Accountants (AICPA)
b. The Public Company Accounting Oversight Board (PCAOB)
c. The International Auditing and Assurance Standards Board (IAASB)
d. The Institute of Internal Auditors, Inc. (IIA)
e. American Evaluation Association (AEA)
f. Joint Committee on Standards for Education Evaluation; and:
g. American Psychological Association (APA).

An extremely august listing to say the least and bodies with tons more experience in auditing than our property folks!

I would recommend that you DOWNLOAD the GAO Yellow Book at:

http://www.gao.gov/govaud/ybk01.htm

or you will find it in the LIBRARY section of the IND 103 BLACKBOARD Class.

In addition to the Yellow Book a supplemental text is available. This is entitled Government Auditing Standards: Implementation Tool, GAO-08-210G. It is available at:

http://www.gao.gov/new.items/d08210g.pdf

Again, I would recommend that you download this text and keep it as part of your property professional library! We will be making reference to these and other texts throughout this class!

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[2] GAO Yellow Book, Page 5, Reference 1.03.

Well, where does that leave us?

I would like to share with you some closing thoughts in regard to audits – and they comes from a VERY POWERFUL book entitled the Defense Contract Audit Agency Contract Audit Manual, DCAAM 7640.1, the latest edition, found at http://www.dcaa.mil/cam.htm.

This manual provides some additional guidance on auditing. It states,

2-000 Auditing Standards

2-001 Scope of Chapter

a. The term "audit" is used to refer to a variety of types of evaluations of various types of data by a person other than the preparer of the data. There is no commonly accepted definition of precisely what constitutes an audit that can be assumed to apply to all cases in which the term is used. In order to be understood, the term "audit" must be accompanied by an explanation of the type of data being evaluated;… of the purpose and scope of work undertaken.
b. Omitted by the author….
c. Government Auditing Standards (GAS) directly incorporate all AICPA standards as they are issued, unless GAO excludes them by separate formal pronouncement. When the Yellow Book incorporates standards of the American Institute of Certified Public Accountants (AICPA) or other authoritative bodies, such as the Office of Management and Budget, these standards become Generally Accepted Government Auditing Standards (GAGAS). It is important to understand the various standards and how they affect DCAA audits. Generally the Yellow Book standards govern:

> *(1) the quality of the audit performance, including audit planning and supervision,*
> *(2) the nature and extent of audit evidence to be obtained by means of auditing procedures, and*
> *(3) the nature and content of audit reports.*

Throughout this class we will be seeing a great deal of information citing the documents listed above. Why? Where before we were able to cite the DoD Property Manual, 4161.2-M, as our DoD mandated authorizing document – our “raison d’être” per se. Now, due to its rescinding, we must now weigh in with other related document serving as source and reference for what we do and why we do it and how we do it and when we do it! Not an easy task to bring together diverse documents – but we’ll give it a try!

On to the next chapter!

Defense Contract
Property Management System Audit (PMSA)
Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 2

PMSA Terms

By the end of this module, you should be able to:

- Describe the terms involved with a Property Management System Audit (PMSA).

By completing the lesson, you should be able to:

- Define associated terms.

THE RESCINDED DOD PROPERTY MANUAL (DoD 4161.2-M)

Since 1991, as Department of Defense Property Administrators, our primary guidance was the Department of Defense (DoD) Property Manual 4161.2-M. It has been rescinded and as of the date of this class it has not been replaced with a new document. Quite clearly the “Old” manual did not address the “New” requirements set forth in the “New” Government property (GP) clause, i.e., FAR 52.245-1. Unfortunately, without a replacement certain terms go without a regulation based definition. Therefore, for the sake of education, I have used the “Old” definitions – and tweaked them, to bring them in line with the “New” FAR GP Clause and its vocabulary.

This Primer is meant to provide descriptive guidance in performing a PMSA. Does that mean that it covers every single area? No! Rather it provides you the broad general guidance applicable to the property Processes. Please keep in mind that there exist a myriad, a plethora, a whole bunch of different environments out in our world. There are the small "mom and pop" shops with one item of Special Tooling. There are the multi-billion dollar international corporations that have billions of dollars worth of Government property with operations stretching around the world. One book, one manual could not exhaustively cover the range of contractors that we deal with in the DoD. Neither can any one individual be so presumptuous as to say "This is the only right way to do an analysis." Rather we chose to provide broad guidelines and allow you, the PA, to exercise your judgment, your intelligence within your particular environment.

So, let’s move on to some definitions that we need to understand.

DEFINITIONS

Let's start by operationalizing some of the definitions we will use in dealing with performance of a Property Management System Audit. Many of these definitions come from the world of inferential statistics, others from quality assurance; still others come from our own language and culture -- the language of property administration. These words consist of:

Property Management System Audit - A systematic objective review and evaluation of a contractor's property management system (PMS) including both the procedures and the application, implementation and compliance with:

- the Government Property Clause,
- the terms and conditions of the contract, and
- any voluntary consensus standards or industry leading practices selected by the contractor for incorporation and application in its PMS.

Standard Audit - A systematic review in accordance with GAAS or GAGAS of the contractor's PMS where all applicable Processes, Process segments and criteria are reviewed. This may take place through a plant visit(s) for itinerants or where a PA is resident at the contractor's site.

Limited Desk Audit - A systematic review of the contractor's PMS generally without the benefit of a plant visit. This usually takes the form of a desk audit and uses the assistance of other Government technical representatives, e.g., QAR, IS, etc. A plant visit(s) may be deemed necessary by the PA based upon risk factors and assessment of these factors.

Process - A segment of a contractor's property control system based upon the life cycle approach set forth in the Government Property clause, FAR 52.245-1(f). The segments established by the FAR consist of: acquisition, receipt, records, physical inventories, subcontractor control, reports, relief of stewardship responsibilities, utilizing Government property, maintenance, and property closeout. These Processes provide the PA a logical, orderly way of organizing the processes involved with the control of property management. [CRITICAL NOTE – it is important for the Property Administrator to understand that a number of processes are NOT called out in (f) of the GP clause – yet still need to be audited. In addition, a number of processes are subsumed under other processes that may not lend themselves to single population auditing. We will discuss this further in the body of this text.]

Segment - A subdivision of a Process. Since not all property and not all processes surrounding that property are the same, Process Segments were established to assist in the proper framing of a population under a process. These Process segments assist the PA in selecting the proper populations for sampling driven by their common characteristics.

Criteria/Criterion - (Plural/Singular forms of the word) an evaluative item of a PMS Process or Process segment subject to audit and analysis by the appropriate method.

Specifically, criteria are the questions that are posed of the contractor's PMS. Many of these questions involve more complex answers than a simple "yes or no." They require and analysis of the data embedded in the question. For example, "Property control records conform to FAR..." This question requires an analysis of the record card or automated data to assure that the basic information required by the FAR is provided on that record, i.e., FAR 52.245-1(f)(iii)(A) plus any addition data requirements imposed via a VCS or ILP. Generally a yes or no answer is inappropriate for most criteria as it does not provide any audit evidence.

Population - An aggregation of documents or records, or even physical assets, or possibly even actions selected for review due to common characteristics. The term population is also known as a "lot." This is one of the more critical aspects of performing the system analysis. The population must be based upon **COMMON CHARACTERISTICS**. This is driven by the simple belief that you compare apples with apples and oranges with oranges. We will spend a goodly amount of time on defining your population – so, more on this later!

Sample - A number of items: e.g., documents, records, articles, or actions selected from a population/lot for a review in order to draw inferences regarding and generalizable to the status of the population. There will be extensive discussion of this concept throughout the entire course and later in this literature.

Sample item - A single document record, article, asset or even an action from the Sample.

Sample Item Element - A single element from a sample item subject to evaluation; For example, if we were analyzing the records requirement for an item of Government property some of the sample items elements that we would be looking for would be: name or nomenclature, description, national stock number, quantity received, quantity issued, balance on hand, etc.

Defect - a deficiency such as a lack of contractually required data, erroneous data, untimeliness (Ok, so it's a New York word) of data, inadequate areas or controls, etc.

Item Defect - Where a sample item has one or more defects.

Element Defect - Where across sample items the same element is defective (See Sample Item Element).

These are just a few of the definitions that we will be discussing, more will be forthcoming. They are essential elements of a Property Management System Audit. We will see their APPLICATION in the forthcoming chapters.

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MODULE 3

Audit Practices

By the end of this module, you should be able to:

- Explain the 10-step audit practice.

By completing the lesson, you should be able to:

- List the 10 steps in the commercial audit process in order.
- Describe the underlying concept of each step.

A TEN STEP STATISTICAL AUDIT PROCESS How do we take the pulse of a contractor's property system - one that may be quite extensive and involve untold property items, valued in the millions of dollars? A management measurement tool is employed to do an analysis in a timely and efficient basis. We call this tool the statistical audit process. While this process can and is successfully used to evaluate many diverse Processes, we will tailor our discussion to its application in evaluating contractor property systems.

Why ten steps? In a review of the literature from a number of professional associations it was determined that these ten steps represented the "essence" of the audit practice. There are a number of professional associations that deal with auditing – but the two largest are the American Institute of Certified Public Accountants (AICPA) (http://www.aicpa.org) and the Institute of Internal Auditors (IIA)(http://www.theiia.org). Both of these organizations have a rich and robust body of literature that the working property professional should become aware of and potentially read as they grow and mature in their chosen profession. Please note that these audit practices are NOT Government practices – rather they are practices applied in the COMMERCIAL as well as the Government world!

While there could certainly be more steps in a variety of different applications and environments, these ten comprise the core actions around which a statistical audit approach for property management can be planned and implemented.

Here they are:

1. State objectives of the audit test
2. Define Attributes/Transactions
3. Define the Population/Sampling Unit
4. Specify Acceptance/Rejection rate
5. Determine Sample Size
6. Randomly Select Sample

7. Perform Audit Procedure
8. Analyze Defects/Deviations
9. Generalize from Sample to Population
10. Determine status of Process/Process Segment

I would like to take a minute and briefly walk you through these steps and provide some rudimentary explanation and explication of the process. We will provide more and greater depth and detail to these items as we go through the course.

#1 Objectives of Audit Test

- Determine the Process or Process Segment subject to review

What are you testing? This is an important first question to answer in planning a statistical audit. Recall that from the Government viewpoint the Contractor's Government property system is viewed in terms of Processes and 37 process segment. A review of the DoD Manual for the Performance of Contract Property Administration, Historically, we, the contract property community, have long held to the belief that property management was process oriented – even though we called them "categories" under the old and obsolete Armed Services Procurement Regulation (ASPR) Supplement # 3 or "Processes" under the rescinded DoD 4161.2M. The FAR GP Clause of 52.245-1 legitimatized that belief – making it a contractual requirement. Therefore the Property Administrator needs to be quite comfortable with the concept of a PROCESS orientation as well as a well defined knowledge of what occurs under that process.

So, the question remains – what are you testing?

The ACQUISITION of stuff?
The RECEIVING of stuff?
The RECORDS maintained on stuff?
The performance of PHYSICAL INVENTORIES?
The DISPOSAL of Property?
Etc.
Notice that each of these actions is actually a PROCESS for accomplishing an act or action. So we are testing how well the contractor manages a PROCESS for accomplishing some form of act or action in accordance with a prescribed standard – in our case the Federal Acquisition Regulations (FAR) Part 45.5.

#2 Define Attributes/Transactions

- Determine what data items of this Process or Process Segment that you will be testing

Having selected the Process or Process segment, the next planning step is to define the data points such which may be attributes or transactions to sample (test).

These may include:

- Date of posting
- Timeliness of posting
- Quantity Acquired
- Quantity Received
- Quantity posted
- Location
- Record accuracy
- Etc.

Remember that this is the planning phase and the attributes and transactions need to be selected BEFORE the statistical review BEGINS. The contractor is required by the applicable Government Property clauses and other applicable FAR/DFARS clauses to maintain records of Government property. Therefore, the "bits of data" that we will be reviewing have ALREADY BEEN PRESCRIBED by the contract and should be available for review.

A CRITICAL NOTE – please note also that contractors must now also comply with VOLUNTARY CONSENSUS STANDARDS (VCS) or INDUSTRY LEADING PRACTICES (ILP). These items may echo the data requirements of the GP Clause or they may ALSO have ADDITIONAL DATA KEEPING REQUIREMENTS. In other words – THERE MAY BE OTHER ADDITIONAL CRITERIA NOT REQUIRED BY THE GP CLAUSE, BUT THAT THE CONTRACTOR MUST HAVE IN ITS SYSTEM TO COMPLY WITH ANY VCS OR ILP THAT THEY HAVE CHOSEN TO USE!!! We will discuss this concept later in the class and in this text.

Amidst all of these records, selecting the proper data item(s) to reveal property system performance is one of the keys to a successful audit engagement.

#3 Define Population/Sampling Unit

The term "Population" is defined as, "An aggregation of documents, records, assets, or actions selected for review due to common characteristics." The term "Sampling Item (unit)" is defined as, "A single document, record, article or action from the sample." Having already determined the Process and Process segments for our audit tests and further refined the focus using criteria under each segment, the most critical planning phase begins with the definition of the population and sampling unit. This is essentially establishing the "bulls-eye" in the target. This "bulls-eye" target, the population and the sampling unit should capture two important elements:

> **First** – the population and the sample unit must have homogeneity – in other words there must be shared common characteristics. You do not want to be testing items that are DISSIMILAR! You are looking to test items – populations that have items that are comprised of items that have the SAME characteristics. Let me provide an example of dissimilar items – and the potential for combining

them into one population erroneously. One of the processes called out in the GP Clause of FAR 52.245-1(f) is that of Utilization. Embedded under utilization are: Use, Consumption, Storage and Movement. If I were to ask you to combine all of these under one population how would you DEFINE that population? Are usage records the same as consumption records are the same as storage records are the same as movement records? The answer, quite clearly is NO! for the process of storage you may not even look at records – you might visit the specific SITE where property is STORED. While for Consumption you might be doing a very DETAILED analysis of records and blueprints and drawings and bills of material, and material requirements lists. HOMOGENEITY!!! Remember that word – we will discuss it in greater detail later.

Second – a time frame must be established. When dealing in terms of a property system audit, a common timeframe would be 1 year or back to the last system audit.

REMEMBER: THIS IS PROBABLY THE MOST CRITICAL STEP IN THE ENTIRE PROCESS.

#4 Specify Acceptance/Rejection Rate

u Determining the acceptance/rejection rate is the next step in the planning process.

In the past we used the old Property Manual, DoD 4161.2-M for this task. Since no Department of Defense guidance exists it would be wise and prudent to continue to use the guidance provided in this rescinded manual until such time as some form of replacement is published. "Wait," you say! "I can't use that manual – my agency rescinded it!" Well, lacking any other guidance would you consider it – after more than two decades of successful use – to be invalid? Lacking anything else – it is not a bad place for application of some standard STATISTICAL APPLICATIONS. The old manual provided sampling for a 90% confidence level, stating:

> *"b. When using a sampling plan, the Government's risk shall not exceed 10% (a 90% confidence level) excepting slight variations due to changes in population sizes. Appendix B contains sampling plans for use in achieving this 90% confidence level. Using this sampling plan the Government will discover defects of 10% or more, if they exist, 90% of the time. There may be times where, due to the criticality of a process, dollar value or sensitivity of the property that a sampling plan with a higher confidence level may be used."*

What this means is that Government's risk shall not EXCEED 10% - hence the minimum 90% confidence level.

Note however, that other, higher confidence levels may be needed depending upon differing populations and differing criticality of risk. For example: If we were looking at the Contractor's control of the government furnished material, platinum or plutonium. It would not be unreasonable to require a 100% confidence level for obvious reasons.

The Property Manual, DoD 4161.2-M, Appendix B provided a 90% confidence level, double sampling plan to facilitate sample measuring. Here is a copy of that table.

APPENDIX B 1
90% CONFIDENCE DOUBLE SAMPLING PLAN

(90% confidence of rejecting lots having 10% or more defects)

Lot Range	Sample Size 1	Accept if Defects in Sample 1 Are	Reject if Defects in Sample 1 Are	Continue with Sample 2 if Defects in Sample 1 Are	Sample Size 2	Accept if sum of Defects in Samples 1 and 2 Equals or is Less Than	Reject if Sum of Defects in Samples 1 and 2 Equals or Exceeds
1-18	All	0	1	-	-	-	-
19-50	18	0	1	-	-	-	-
51-90	21	0	2	1	21	1	2
91-150	25	0	3	1 or 2	25	2	3
151-400	32	0	4	1,2 or 3	32	3	4
401-10,000	34	0	4	1,2 or 3	34	3	4
10,001-35,000	40	0	5	1,2,3 or 4	40	4	5
35,001-100,000	46	0	6	1,2,3,4, or 5	46	5	6
100,000 +	52	0	7	1,2,3,4,5, or 6	52	6	7

#5 Determine Sample Size

Once the confidence level is selected, the sample size, suitable to the size of the population (lot range) should be determined. The above table ALSO provides a sample size for you to use to obtain this 90% confidence rate.

The table is self explanatory and is easy to use.

But give it a try… you want a 90% confidence rate and you have a population of 6792. How may SAMPLE NUMBERS will you select? If you look at the table above – find the range of 401 to 10,000. Why? Because 6792 falls within that range. Look at the second column. How many Sample Items will you select? 34!

#6 Randomly Select Sample

Selecting a random sample is seemingly a simple task, yet more complex than one might think. We will cover sampling in MUCH greater detail later in this course – this is just a "teaser" until we get to the meat of the matter!!

So, how DO we select or draw the sample in an unbiased way? Bias creeps into choice selections everyday. Yet bias, or lack of randomness, can destroy the very basis of the measurement being taken. Recall that we are selecting a few from the vast many. Then we are permitting the attributes of the few to represent the many. Improperly chosen, wrong conclusions can be drawn on the sample and extrapolated to the population/lot.

How can we achieve a true representative sample?

Well, here are four approaches to sample selection:

- Random Selection
- Stratified Random Sampling
- Systematic Sampling or
- Use Random number tables found in virtually every statistics book out there!!!

Now, we really haven't taught you how to do ANY of these – rather we are wetting your appetite for the actual PROCESS of performing this task. More later on this topic!

#7 Perform Audit Procedure

The culmination of all the planning comes together under this step. The population was determined, the sample selected to evaluate the applicable criteria. These criteria (ESTABLISHED BY BOTH THE FAR GP CLAUSE REQUIREMENTS and the VCS AND/OR ILP REQUIREMENTS) are the standards against which attributes and transactions are tested and evaluated.

The results of these tests are the WRITTEN AND DOCUMENTED work papers that capture the raw data of the evaluation. These work papers help form the basis of the documented audit evidence upon which conclusions will be drawn regarding the contractor's Property system – they are the AUDIT EVIDENCE of your work!

#8 Analyze Defects

The eighth step is to analyze the defects found as a result of the statistical analysis. Care must be exercised to ensure validity of your findings. For example we have to carefully distinguish between:

- System defects versus a NON-Systemic deficiency

Isolated defects do not necessarily equal a system deficiency. Isolated system defects may not point to a systemic problem. Therefore good evaluation and good judgment need to be applied to what the data is saying

- Materiality

Are the noted defects important or otherwise significant? Not all findings carry system impact and judgment must be judiciously applied to determining their true significance

- Major versus Minor deficiencies

Even if there is a system deficiency that the evaluated data discloses, how significant is it?

- Qualitative versus Quantitative

A finding may be quantitatively significant ("Hey look, they were off by ten, or twenty items) and yet be statistically insignificant when considered in light of the QUALITATIVE IMPACT and the overall number of findings ("Yea, but the value of the items was only fifty cents total").

Therefore SOUND evaluation and GOOD judgment must be applied

#9 Generalize from Sample to Population

Having analyzed the defects from several perspectives, step nine requires that an inference be made between the statistical sample and the overall population.

If "x" was found in the statistical Sample, what inference, or generalization can correctly be drawn on the overall population?

#10 Determine the Status of Process/Process Segment and SYSTEM

Of course the whole purpose of this statistical evaluation adventure is to determine the acceptability of the Process or Process segment and in turn, the acceptability of the Contractor's property system. Additionally, the need for corrective action must be assessed and requested.

Is the Government Property system satisfactory or unsatisfactory? You are to evaluate the end result in accordance with your AGENCY'S Guidance and direction. Different agencies have determined different words to indicate the status of a system – though the terms Satisfactory and Unsatisfactory are the two most frequently used terms for the end result of a Property Management Systems Audit.

Is corrective action needed? Corrective action could include correction of system defects and/or correction of disclosed items with no systemic impact

This section provided just a quick overview of the Ten Step Process in regard to performing a Contract Property Control System Analysis. Each of the steps will be discussed in greater depth and detail in the coming chapters.

Defense Contract Property Management Systems Audit Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 4

PMSA Planning

By the end of this module, you should be able to:

- Describe the concepts involved with planning a Property Management System Audit (PMSA).

By completing the lesson, you should be able to:

- Cite the reference for the Government's authority to audit the contractor.
- Cite the reference for how the Property Administrator is to perform a PMSA.
- Describe some classical types of PMSAs.
- Describe the classical use of these two types of PMSAs.
- Describe the classical frequency requirement for performing a PMSA.
- Explain the requirement for scheduling/planning a PMSA.
- Describe the Property Administrator's advance notification requirement to the contractor.
- Explain the requirement for an Entrance Conference.

AUTHORITY TO PERFORM A PROPERTY MANAGEMENT SYSTEM AUDIT

The FAR GP Clause of 52.245-1 provides us detailed guidance as to our authorities and the contractor's responsibilities in regard to a PMSA. It states in paragraph (g),

(g) Systems analysis.

(1) The Government shall have access to the contractor's premises and all Government property, at reasonable times, for the purposes of reviewing, inspecting and evaluating the Contractor's property management plan, systems, procedures, records, and supporting documentation that pertains to Government property.

(2) Records of Government property shall be readily available to authorized Government personnel and shall be safeguarded from tampering or destruction.

Quite clearly we have access to the contractor's premises and they are required to provide us access to the records of Government property.

REQUIREMENT TO AUDIT THE CONTRACTOR

While the GP Clause provides us the AUTHORITY to audit the contractor, FAR 45.105 addresses our REQUIREMENT to audit the contractor. FAR 45.105 states, "(a) The agency responsible for contract administration SHALL (emphasis added) conduct an analysis of the contractor's property management policies, procedures, practices, and

systems. This analysis shall be accomplished as frequently as conditions warrant, in accordance with agency procedures."

So we see that we SHALL CONDUCT an analysis – or our concern, an audit.

Of what? – The contractor's property management policies, procedures, practices, and systems.

When? As frequently as conditions warrant!

"O.k., so I can go in there every week – right?"

Technically you have the AUTHORITY to access the contractor's plant for audit purposes. But should be in the contractor's plant every week? Well, it depends!

Seriously, if you are resident PA – you might be physically LOCATED at that contractor's plant – but that does not mean that you are doing an AUDIT day in and day out every week. Yes, your audit as a resident PA MAY take a prolonged period of time – but this was not the intent of the statement "as frequently as conditions warrant."

Your agency may well have provided you GUIDANCE as to the **FREQUENCY** with which you audit the contractor. Let's look at this from a HISTORICAL perspective first.

HISTORICAL PERSPECTIVE ON FREQUENCY OF PMSAs

Historically, it was the "norm" to perform this PMSA once each year.

Ahhhhh, but is that REALLY necessary?

In light of declining budgets and alternate methodologies, there was an allowance for the "old" PMSA to be performed on a biennial basis - once every two (2) years. Why? Well, if you have done audits before think about some of your experiences. How many times have you gone into a contractor's plant, performed your audit and found every function/category or now the PROCESSES satisfactory? And you do this every year! And the contractor's PMSA is rated satisfactory every year. Yet, the previous regulation required you to keep doing this year in and year out.
This might be considered a real waste of time, effort and money!!!

The "OLD" DoD Manual (REMEMBER … It is now RESCINDED) had the option of performing a PMSA on a biennial basis **IF** - The contractor has demonstrated **SATISFACTORY** property control system performance for three (3) consecutive years. This means that the contractor must have been rated satisfactory for the three years prior to the planned survey or survey year.

The second option under the “OLD” DoD Property Manual was to reduce the Government surveillance and the time spent reviewing the contractor's Property Control System via the allowance for the PA to "Waive" selected processes of the analysis. It was based upon the following factors:

- Satisfactory compliance with the contractual requirements,
- Stability of the quantity, type, and use of Government property,
- The PA's emic (That means insider's view) perspective of the contractor's operation.

Why was this allowed? Again, think back to your past analyses. How many times have you gone into a contractor's plant, performed your survey/analysis/audit and found every function/category/process satisfactory? Or, how about when a goodly number of functions or processes were rated satisfactory? Yet, the previous regulation required you to keep doing every function/process year in and year out. Well, why not skip the functions/processes that were satisfactory every year and focus on those that were deficient? There appears to be some logic to this approach. But (there are always buts in this world), there are two things you must do.

1. You were required to document and substantiate **WHY** you are exempting this/these functions/functional segments, or processes/process segments and
2. This function/process or these functions/processes may not be reviewed any less often than every two (2) years.

You were provided the opportunity to use sound judgment in this scheduling of frequency and the waiving of functions/functional segments or process/process segments. It is important to properly apply these requirements in this day and age due to the economic impact these actions may have on both the Government and the Contractor.

Another act or action of the scheduling process was the notification of other functions/processes within the Government that would assist the PA in the performance of the PMSA. The PA must never forget that it is his or her ultimate responsibility to perform the PMSA. Others may "assist" but it is the PA who signs the document.

Who are some of those other technical specialists that you may call upon to assist you in the performance of the PMSA? To name a few, these technical specialists may consist of the Quality Assurance Representative for the maintenance portion of the PMSA, the Industrial Specialist for the utilization portion of the PMSA (In certain circumstances), the Safety specialist, the Security Specialist, etc. There may even be times when you need the assistance of the Defense Contract Audit Agency (DCAA) Auditor to answer some technical questions. BUT, WHEN THIS IS NECESSARY YOU MUST GO THROUGH THE CONTRACTING OFFICER. All of the other technical specialists mentioned above are usually found with the contract administration office or the office performing the administration of the contract. DCAA is a separate agency and as such your request as a PA should be processed through the normal channels. Most agencies DO NOT allow the PA to directly request the assistance of DCAA. Follow your agency guidance and direction in this matter.

HISTORICAL PERSPECTIVE ON THE LEVELS OF PMSAs

I would like to and will now move onto discussing the types or levels of Property Management System Audits. We've alluded to the various types or levels of Property Management Systems Audits – but really have not defined a few characteristics. Historically, there were two types or forms of Property Management System Audits: These were entitled either Standard or Limited. The drivers behind these two forms were the dollar value of the property and the type of property.

Under the **OLD** and now **OBSOLETE** **DFARS Sup. 3** a **LIMITED SURVEILLANCE** could be performed if:

1. The Government property totaled no more than 10 items regardless of dollar value, or
2. The Government property was valued at no more than $100,000 regardless of item count, and
3. This dollar value could be exceeded if the items were Reparables on overhaul and maintenance contracts.

Limited surveillance could **not** be used if:

1. Government property under one or more contracts was in excess of $100,000, or
2. Hazardous or Precious metals valued at more than $10,000 were provided.

In 1991 these allowances and restrictions were changed through the publication of the DoD Property manual. **WARNING – WE NO LONGER USE THE OLD SUP. 3 so these OLD requirements are obsolete.**

The old DFARS Sup. #3 was replaced by the DoD Property Manual [**REMEMBER THE DOD PROPERTY MANUAL HAS ALSO BEEN RESCINDED FOR CERTAIN AGENCIES.]**. Specifically, the DOD Property Manual allowed a **limited analysis when Government property under one or more contracts consists of no more than $500,000** exclusive of reparables on overhaul and maintenance. This first qualifier/threshold could be used by the PA and could be obtained from the PA's knowledge of the contractor and their records of the contracts that they administered.

The second criterion for the non-allowance of a limited analysis is when the contractor has sensitive property provided under a contract. The logic and rational behind this action is the current regulatory and litigious framework surrounding hazardous materials/wastes, and the control requirements over arms, ammunition, explosives and nuclear materials. Put simply, we need to be more careful with those types of property.

Standard analyses **SHALL** be used in all other instances.

IMPORTANT NOTE – With the rescinding of the DOD PROPERTY MANUAL there is no guidance as to the division of work as provided by the use of a Standard of Limited performance standard. Therefore – the only direction we can provide is that you follow your agency's direction in this matter. There is no guidance in any of the audit references, i.e., GAAS, GAGAS or even the DCAA Manual (7640.1). Therefore, though logically, intellectually and economically it makes sense to continue this practice of stratifying our workload based upon this typology – again, FOLLOW YOUR AGENCY'S GUIDANCE!

O.K., we've seen under the "old" regulations and manuals when we could and could not use a limited analysis as well as a standard analysis. What's the big deal? What was the difference between a limited analysis and a standard analysis?

The Answer: Method of performance! Generally speaking, and I must emphasize generally, a limited analysis was done without the benefit of a plant visit. You could consider it a form of a desk audit. Rather than traveling to the contractor's plant, the PA would use the eyes and ears of other Government representatives • the Quality Assurance representative and the Industrial Specialist, to name just a few. This in addition to his or her own telephonic conversations with the contractor.

The QUESTION then remains – which audit do I perform – a Standard or a Limited and WHEN do I perform them? Let's run through a few scenarios. Since there is NO REGULATORY nor POLICY guidance for this topic these represent my OPINION and are presented for intellectual disputation only!!!

DISCUSSION ON FREQUENCY OF PERFORMING PMSAs

FIRST REQUIREMENT AND OVERARCHING RULE – you are to follow the guidance and direction provided by your agency for the frequency of performing a PMSA!!! The following is NOT TO BE CONSTRUED AS OFFICIAL DOD POLICY! IT IS PROVIDED FOR EDUCATIONAL DISCUSSION ONLY! ALL OF THE FOLLOWING IN ITALICS IS TO BE CONSIDERED EDUCATIONAL DISCUSSION ONLY AND IS NOT TO BE APPLIED. YOU MUST FOLLOW YOUR AGENCY'S GUIDANCE!!!

But a more pragmatic approach – Quite clearly the requirement to audit exists. It is the frequency that allows for debate and discussion. Are the old rules of allowing a biennial audit or a waiving of processes obsolete and overcome by events? Not at all.

OPINION -- There are a number of options available based upon existing practices. I would endorse the well planned and thought out application of a:

Waiving of a selected PROCESS or selected PROCESSES within a PMSA for contractor evidencing EXEMPLARY performance in those selected PROCESSES over an extended period of time where SOME PROCESSES were rated unsatisfactory.

BIENNIAL PMSA for contractors evidencing satisfactory performance in their PMS over an extended period of time

TRIENNIAL PMSA for evidencing EXEMPLARY performance in their PMS over an extended period of time.

Wait – can we do this? Well, there is no document telling you that you can, but there is no document telling you that you cannot! Rather, what I would be looking for, if I were to evaluate your work, would be the consistent application of sound judgment and documentation of your reasons for taking such actions. ***[NOTE – ONCE AGAIN!!! If your agency has guidance and direction in this area you MUST follow their guidance and direction.]***

What you are doing is applying a simple "Risk Management" approach to your work.

APPLICATION OF A RISK MANAGEMENT TYPOLOGY TO PLANNING A PMSA

Performance of PMSAs may require detailed tests, examinations, and evaluations over an extended period of time. However, an analysis of a contractor's PMS involving small dollar amounts of property and simple property control methods may often be accomplished without plant visits or extensive testing by the PA. To more efficiently and effectively utilize resources, the depth and detail of the PMSA will be based on the PA's system level risk assessment.

In a planning group of experienced Property Administrators made up of all DoD Agencies, i.e., Army, Navy, Air Force and DCMA, as well as other non-DoD Agencies, e.g., NASA and Risk Management Typology was created. This Risk Management typology consisted of three levels of risk based upon three contract variables – Performance, schedule and cost. The three levels of risk were:

Critical Risk
Moderate Risk and
Minimal Risk.

On the next page is a table representing these risk criteria/variables.

RISK CATEGORY	***PERFORMANCE***	***SCHEDULE***	***COST***
CRITICAL RISK *• Data casts significant doubt on the ability of the PMS to meet contractual requirements or a major disruption in the management of Government property, impacting performance, schedule or cost is highly probable.* *Contractors accountable for $1 billion or more of GP shall be rated critical for PMSA planning purposes*	*•The Government has withdrawn its assumption of risk of loss.* *•Recurring significant LTDDs, where repair or replacement of the property delays contract performance.* *• Recurring significant instances of unauthorized use, disallowance of acquisition costs, or unauthorized acquisition* *• Deficiencies disclosed during the previous PMSA or by the contractor through its self assessment process have not been corrected over an extended period of time, unless an extension has been approved by the PA in accordance with agency directives.* *•An event(s) occurred involving Sensitive property that presents an increased potential danger to public health or personal safety*	*• PMS systemic deficiencies significantly impact schedule when the PMS has been rated Moderate and one of the conditions below exist:* *•Recurring significant LTDDs, where repair or replacement of the property delays schedule.* *•Recurring significant inventory deficiencies which cause schedule delays.*	*•PMS deficiencies significantly increase cost and one of the conditions below exist:* *•Recurring Significant repair or replacement of LTDD property needed for contract performance* *•Significant or extensive corrective actions/ plans are required.* *•Majority are cost contracts.*
MODERATE RISK *• Data casts doubt on the ability of the PMS to meet contractual requirements, disruption in the management of GP, impacting performance, schedule or cost is probable.* *• Contractors accountable for $500 million or more of GP shall be rated Moderate for PMSA planning purposes*	*• Recurring instances of LTDD where repair or replacement may delay contract performance.* *• Recurring minor instances of unauthorized use, disallowance of acquisition costs, or unauthorized acquisition* *•More than +/- 5% physical inventory variance on material ($ value or quantity).* *•More than +/- 2% physical inventory variance for ST/STE/E*	*•PMS deficiencies may impact schedule.* *•Recurring LTDD where repair or replacement of the property delays contract performance.* *•Inventory balance discrepancies which causes schedule delays.*	*•PMS deficiencies may impact cost or delivery:* *•Recurring repair or replacement of LTDD property needed for contract performance* *•Numerous corrective actions are required.*
MINIMAL RISK *•Performance data provides confidence in the ability of the PMS to meet requirements. Minimal or no impact will occur in meeting performance, cost or schedule objectives.* *Contractors accountable for less than $1 million of GP may be rated Minimal for PMSA planning purposes.*	*•PMS has minimal/no impact to performance.*	*•PMS has minimal/no impact to schedule.*	*•PMS has minimal/no cost impact.*

So we see numerous quantitative and qualitative variables that effect the risk assessment rating of a contractors PMS. These include:

Dollar value of Government Property accountable to that contractor
Historical occurrences of Loss, theft, damage or destruction
Physical Inventory Adjustments
Possession of Sensitive Property
Unauthorized use of Government Property

The PA should perform a RISK ASSESSMENT at the beginning of the fiscal year to determine a risk assessment rating for each contractor under their cognizance to enable them to properly determine:

a. *The Frequency of that PMSA*
b. *The type of PMSA they will perform,*
c. *The Processes subject to review if a PMSA is performed*

BASED UPON THE RISK ASSESSMENT!

[WARNING – ONCE AGAIN THIS DOES NOT REPRESENT OFFICIAL DOD POLICY].

Let's try and make this a simple decision tree:

1. *If the contractor is rated <u>CRITICAL</u> in regard to the risk assessment – you shall do a <u>STANDARD</u> System Audit of all processes on an <u>annual</u> basis.*
2. *If the contractor is rated <u>MODERATE</u> in regard to the risk assessment – you shall do a <u>STANDARD</u> System Audit of selected processes on a <u>biennial</u> basis.*
   a. *If the Audit is scheduled to be done biennially then in no situation will any process be reviewed no less than once every four years.*
3. *If the contractor is rated <u>MINIMAL</u> in regard to the risk assessment with less than $1 million dollars worth of Government Property (Acquisition Cost) – you shall do a <u>LIMITED</u> AUDIT, i.e., a <u>DESK</u> AUDIT with no site visit, on an annual basis. You shall do a STANDARD AUDIT no less than once every four years.*

Notice that the scenario painted requires that you, as the PA, determine the efficiency and effectiveness of the contractor's PMS in the SCHEDULING of your PMSA. Some contractors may require an annual STANDARD PMSA. Others, due to their Risk Assessment Rating, may require only a desk audit as their PMSA – with a full blown STANDARD PMSA once every four years to ensure that we do not relinquish the Government's fiduciary responsibilities.

We, the Government would be remiss in our responsibilities if we do not provide guidance to the working PA in regard to the types of PMSAs, as well as objective guidance on the frequency of performing this work. Why? If we fail to provide guidance there are natural consequences that may occur:

PAs may fail to review a contractor and the Government property in its possession for multiple years – failing to ensure that the Government property was being used only for authorized purposes (A statutory violation)

O.k., now I wish I could provide you a CONCRETE, REGULATION DRIVEN statement as to the FREQUENCY of performing a PMSA. I cannot as DoD does not have one. But I can reference some other documents in regard to the frequency of audits.

FAR Part 44.3 discusses Contractor Purchasing Systems Review -- A CPSR. FAR 44.302 establishes the requirements and state the following, "b) Once an initial determination has been made under paragraph (a) of this section, at least every three years the ACO shall determine whether a purchasing system review is necessary. If necessary, the cognizant contract administration office will conduct a purchasing system review."

Notice that it does not MANDATE a CPSR every three years – just a determination WHETHER a CPSR is necessary. The basis for this the past performance of the contractor, complexity and dollar value of subcontracts, etc. Hmmmm, it appears that the CPSR folks – really the ACO, does a quasi risk assessment and makes a determination. Similar to what we read earlier in this chapter.

That three year timeframe seems to echo through a number of audit processes. If we were to look at a Voluntary Consensus Standard, that being ISO 9000, we would find that same three year requirement. Specifically for a company or any activity that has an ISO registration and certification their certification is for three years. At that point they are required to have another certification audit performed – regardless of their performance over that three year period. On an interesting note – this ISO Assessment is done by an EXTERNAL BODY (That also requires accreditation of the body doing the auditing) – and the auditee PAYS the auditor.

Lastly, there are other Government requirements that SPECIFY an actually audit frequency for some of our Government contractor brethren. The OMB Circulars are binding up on our non-profit University folks. Universities like Stanford, and MIT and Harvard and Yale are bound by numerous OMB circulars. For example, the Property requirements for property acquired by non-profit universities are covered by OMB Circular A-100. But their AUDITS – as required by OMB Circular A-133 entitled Audits of States, Local Governments and Non-profit organizations – are set at a BIENNIAL FREQUENCY. Cut and dry, black and white, every two years an audit is required of these entities as set forth in OMB 133.220(b), Frequency of Audits.

Now let me offer a small opinion. It is critical that DoD establish a workable plan for allowing their PAs to apply a rubric to determine WHEN they are to do audits. Leaving them tempest tossed on the seas of contracting change is a very dangerous course – whether that is for the Government or for the contractors.

REVIEW OF PROCEDURES

One of the areas that often receive short shrift in the performance of a PMSA is that of reviewing the contractor's written procedures. Yes, I am sure that you have reviewed these procedures before – probably when you were first assigned that contractor as one of your PA responsibilities. You might even have reviewed it when "significant" changes were submitted to you for review in accordance with FAR 52.245-1(b)(1) which requires, "During the period of performance, the Contractor shall disclose any significant changes to their property management system to the Property Administrator prior to implementation."

But, have you really properly prepared yourself for the engagement, the PMSA, if you have not reviewed the contractor's written procedures?

A curt Response, NO!

The written procedures are part and parcel of the contractor's PMS. They are inexorably linked to the PERFORMANCE of the processes. You need to know WHAT and HOW and WHERE and WHO will be performing -- AND TO WHAT STANDARD!!!

So, let's think about this review for a moment. My first comparison is to compare the WRITTEN PROCEDURES to the CONTRACTUAL REQUIREMENTS. What does the contractor's CONTRACTS require they do in regard to Government Property.

Well, the Government Property clauses are our FIRST requirement. Contained within the clause are various EXPLICIT requirements. Explicit requirements that MUST be addressed in the contractor written procedures as part of their PMS. I need to ensure that those are properly and adequately addressed within the procedures and PMS. I also need to review for any special CLAUSES as well as for any special TERMS and CONDITIONS. This is where things can get rather complex – as we have experienced in our work throughout the world. We have found that some DoD activities like to create their own clauses – some of which are in conflict with the FAR GP Clauses. Some of which impose REQUIREMENTS that are above and beyond the FAR requirements. It is critical that you as the PA are aware of these requirements and that the contractor has met those requirements within their PMS as per the terms and conditions of the contract. [Philosophically we could discuss whether or not those other Ts&Cs are incongruous with the FAR requirements – but that would be a whole 'nuther class.]

O.k., so you know the FAR.
You know the FAR GP and other clauses.
You have reviewed the contractor's WRITTEN PROCEDURES and the contractor has adequately addressed all of these requirements!
Are you done?

NO!!!

What about the application of Voluntary Consensus Standards (VCS) and Industry Leading Practices (ILP)?
Remember that the contractor is required to manage Government property in accordance with the contract but also with VCSes and/or ILPs. The FAR GP Clause of 52.245-1(b) again provides clear concrete direction in this regard. It states,

> *"(1) The Contractor shall have a system to manage (control, use, preserve, protect, repair and maintain) Government property in its possession. The system shall be adequate to satisfy the requirements of this clause. In doing so, the Contractor shall initiate and maintain the processes, systems, procedures, records, and methodologies necessary for effective control of Government property, CONSISTENT WITH VOLUNTARY CONSENSUS STANDARDS AND/OR INDUSTRY-LEADING PRACTICES AND STANDARDS (Emphasis added) for Government property management except where inconsistent with law or regulation."*

APPLICATION OF VCSes and ILPs

Therefore, your review of the contractor's written procedures – EVEN BEFORE YOU START YOUR AUDIT – MUST include a review of those VCSes and/or ILPs applied to the contractually required processes. If your contractor has selected a VCS from a VCS body for application within the PMS, this must be addressed. At a minimum I should look for the following:

1. a citing of the VCS, i.e., the VCS Body from which it came,
2. the VCS Number or identification and
3. the date of that VCS.

Since you may not have a copy of the VCS nor access to this VCS you may request to review the contractor's copy of this VCS. [Note – do not ask the contractor to make you a copy of the VCS. This could be problematic from a legal/ethical standpoint as this could be viewed as a COPYRIGHT infringement or violation. In addition, it may become necessary for your agency to provide funding for the acquisition of a variety of VCSes from a variety of VCS bodies such that you can effectively evaluate these documents for analysis and audit.]

Great, you have the contractor's written procedures, as part of their PMS, and you have the VCSes or ILPs that the contractor is using to comply with the GP clause in establishing the application of the PROCESSES. Now, what?

Well, you need to apply some judgment and evaluation!

First, does the VCS or ILP "fit?" Yes, does it FIT? In other words is it a VCS that is DIRECTED at the PROCESS in question. Does it cover the ACTIONS or TRANSACTIONS described within the Government's Process Requirements? Let me provide a few examples:

1. ASTM International is a VCS body that, working with the National Property Management Association (NPMA), has crafted a number of property related VCSes. [Note – if you are NOT a member of NPMA or the ASTM International I would encourage you to participate and become a member. In point of fact, membership, by Federal employees, in VCS bodies in encouraged through Office of Management and Budget's Circular A-119 "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," available at http://www.whitehouse.gov/omb/circulars/a119/a119.html. In regard to NPMA membership, that is more of a matter of participating in an association aligned with your profession.]
2. ASTM International has published a VCS on Liability for loss, damage or destruction (LD&D) of property. It contains some excellent information. One area that it does a great job in is in regard to REPORTING of the LD&D. It parallels the reporting requirements set forth in the FAR GP Clause, 52.245-1.
3. Therefore, there is a "good fit" between the VCS and the FAR Requirement.

This is an example where the use of a VCS works quite well.
But in other situations there may NOT be a good fit.

1. ISO, the International Organization for Standardization, http://www.iso.org/iso/home.htm, also publishes VCS. Many contractors are ISO Certified. Some have approached the Government property and said, "Hey, were going to use our ISO Procedures for Government Property Management." That, in and off itself does not provide a good "FIT." For example, though many of the ISO Standards provide for the establishment and maintenance of records – there is no specificity as to the detail of the records, i.e., the specific record fields, data fields that are to be established and maintained. The FAR Process requirement for RECORDS under FAR 52.245-1(f) (1) (iii) is quite specific and detailed as to the data fields. Notice – there is a disconnect.
2. Now, if the contractor says that they want to use ISO 9000 (Depending upon the TYPE of business they are in) for the process of MAINTENANCE – then I would be far more amenable to that application. Why? Because ISO has great specificity regarding maintenance due to it impact on quality. The FAR GP Clause language regarding maintenance leaves much to the contractor's expertise vis-à-vis the Government prescribing "HOW" maintenance is to be done.

So, YOUR step by step process consists of the following:
1. Read the procedures.
2. Compare the FAR requirement with the applicable VCS or ILP for goodness of fit and ensure that it is truly applicable to the PROCESS called out in the GP Clause.

Lastly, and this will be of GREAT IMPORTANCE AND SIGNIFICANCE later in this class, you must determine if there are any DATA POINTS or METRICS or PERFORMANCE STANDARDS or OUTCOMES specified in the VCS or ILP. In other words you are looking to see if there are any objective measurable quantifiable points that could provide an auditable data element. If there are objective – based upon observable evidence, versus subjective – based upon YOUR feelings, data points these should be addressed within the contractor written procedures. The performance standards set forth in the VCS or ILP should be carried over into the contractor's procedures as part of the PMS.

We will talk about this in greater detail when we discuss the actual auditing of the PROCESSES later in this class.

PLANNING AND SCHEDULING OF A PROPERTY MANAGEMENT SYSTEM AUDIT

The GAO Yellow Book directs us to PLAN our PMSA. Paragraph 7.06 states quite simply, "Auditors must adequately plan and document the planning of the work necessary to address the audit objectives."

These two areas are inexorably linked, as they must be treated together yet have application separately. Let me discuss "Scheduling" first and then the interaction with "Planning" second. Fiscal years roll around pretty quickly and when the end of one and the beginning of another occur, well, there is work to be done. For the itinerant PA it requires the preparation of a schedule for the entire fiscal year of the contractors that will be visited. Basically, this planning and scheduling is a MANAGEMENT TOOL! It allows your boss, or supervisor or even the director of the property center to see your workload. This schedule will set forth **WHEN** you plan to conduct the PMSA of that contractor. For the resident PA, say at a contractor's Plant, or an Army Ammunition Plant (AAP), or a Supervisor of Shipbuilding (Supship) this may entail the scheduling of one PMSA over the span of the entire year. Rather than specifying that a survey will be performed it should specify which portions of the survey should be performed - when! In other words, what functions or functional segments/process or process segments will be reviewed at specified points during the fiscal year?

Well, all of this seems simple enough, but how do I know which contractors to schedule at what times during the year as well as which functions or functional segments/process or process segments to schedule? This is where planning comes into play. Each PA needs to properly and adequately **PLAN** for the performance of a PMSA. Can we tell you exactly how to do it, step by step, check box by check box? NO! Why? Because there is a great deal of diversity in our world. Each and every contractor is different and if anyone was foolish enough to say they had the only way to plan or conduct an analysis they would be "The Fool." Systems analysis and the concurrent planning is a complex task that requires the development of strategies over a period of times. Strategies that may be borrowed, intuitively developed, or even stolen from techniques you've seen others successfully use.

As requirements within the planning stage the GAO Yellow Book provides the following information in paragraph 7.09 and 7.10. It states,

> ***7.09*** *Scope is the boundary of the audit and is directly tied to the audit objectives. The scope defines the subject matter that the auditors will assess and report on, such as a particular program or aspect of a program, the necessary documents or records, the period of time reviewed, and the locations that will be included.*
> ***7.10*** *The methodology describes the nature and extent of audit procedures for gathering and analyzing evidence to address the audit objectives. Audit procedures are the specific steps and tests auditors will carry out to address the audit objectives. Auditors should design the methodology to obtain sufficient, appropriate evidence to address the audit objectives, reduce audit risk to an acceptable level, and provide reasonable assurance that the evidence is sufficient and appropriate to support the auditors' findings and conclusions. Methodology includes both the nature and extent of audit procedures used to address the audit objectives.*

So, what MUST the PMSA plan contain? The following is only a brief description:

- A Listing of the processes, process segments and criteria that are applicable. [NOTE: Not every process, process segment or criterion is applicable to every PMSA. You need only perform those functions/processes that apply to your environment. DO NOT DO UNNECESSARY WORK WHICH IS NOT PERTINENT!!! WE HAVE ENOUGH WORK TO DO WITHOUT GOING OFF TANGENTIALLY.]
- A listing of the **ESTIMATED** line items of property by type. How do you get this **ESTIMATE**? One way is from past analyses, yet another possibility would be the contractor's physical inventory listings, etc. Notice that there are multiple methodologies and this will provide helpful information later on in defining your populations subject to sampling
- A record of your evaluation of the written property management procedures portion of the contractor's property management system. Even at this stage you should be noting any areas that may be deficient for correction or updating. In some cases there may be areas where the contractor is doing too much and your recommendation might be to reduce the level of effort in an attempt to achieve a greater economy.
- Lastly, when there is/are process/process segments that you are **NOT** going to review you must document **WHY** you are waiving these requirements. For example, has the contractor been satisfactory over the past three years or longer? Do you have a handle, an "emic" perspective, regarding this contractor? Has the workforce and the amount of Government property been relatively stable over the past few years? These are all questions that could be discussed. There is far more you can do at this stage and we will discuss the planning aspects later in this discussion.

Now why then are planning and scheduling inseparable? Because without an idea as to the quantity of Government property in the contractor's possession and the complexity of the contractor's property management system how can you adequately logistically PLAN for the scheduling of an entire year. EXAMPLE: Leaving a standard audit for the end of the fiscal year, i.e., September would not be a prudent move when you know it takes you at least eight (8) weeks to perform the analysis. The fiscal year would have ended before you finished your audit. Therefore, you must exercise good judgment when planning your schedule. I will not use the word "proactive" as this is not being proactive. Rather this is using simple, God given common sense.

NOTIFICATION TO THE CONTRACTOR

O.K., you've scheduled your analyses and you've possibly even done some of the planning. Are there any other requirements? Yes! You need to notify the contractor that a PMSA is going to be performed. In the past we notified the contractor of the occurrence – and had a requirement to do so 30 days before the PMSA. The GAO Yellow Book, under item 7.48, requires that we notify the contractor in writing. It states,

> *"Determining the form, content, and frequency of the communication is a matter of professional judgment, although written communication is preferred. Auditors may use an **ENGAGEMENT LETTER** (Emphasis added) to communicate the information. Auditors should document this communication."*

Well, if you ponder the previous actions of scheduling and planning you will find that we already know, at the beginning of the fiscal year, when we are going to perform the PMSA. Why then don't we inform the contractor? Some have said "Well, I don't want them to know when I am coming into the plant! If they know when I'm going in to do my analysis they'll fix everything!" Huh? What? Where did this idea come from? **IT IS WRONG**! This is not an adversarial relationship. We are there to protect the Government's interests. Not sneak up on the contractor! That is not our role. Therefore, historically under the "old" DoD Property Manual we had a requirement to notify the contractor in writing no later than 30 days prior to the commencement of the analysis.

There may be times and instances that though you as the Government PA have done your scheduling there is a conflict with the contractor at the time scheduled. This may be due to other audits, major program requirements, surge capacity needs to be met, even war, as we saw with Desert Storm/Desert Shield, Operation Iraqi Freedom/Operation Enduring Freedom. In these instances the analysis may be rescheduled to a more mutually acceptable time. The PA must be careful that the analysis is not delayed past the end of the fiscal year except under the most extreme circumstances.

ENTRANCE CONFERENCE

Great! You've done your scheduling, you've done your planning **and** you've notified the contractor of the planned PMSA. The time arrives to actually enter the contractor's place of business and start doing the analysis. Right? Well, not just yet. You see there is the small matter of an **ENTRANCE CONFERENCE** - really no small matter as this entrance conference sets the stage for the contractor and the Government as to the expectations of both parties. Within the Defense Contract Audit Agency (DCAA) Manual 7640.1 we see an excellent discussion of the requirement and purpose of an entrance conference. Under Section 4-302.1 entitled "General Procedures for Entrance Conferences" it states,

> *a. … hold an entrance conference with the contractor's designated representative(s) at the start of each separate audit assignment (or each group of assignments to be covered in a single field visit). Document the date, participants' names and titles, and primary discussion points, including specific identification of requested data to control what was requested and provided during the audit….*
> *b. As a minimum, explain the purpose of the audit, the overall plan for its performance including the estimated duration, and generally the types of books, records, and operations data with which the auditor will be concerned. If applicable, the following matters should be handled during or shortly after the entrance conference:*
>
> *(1) …..Omitted by author.*
> *(2) Ask the contractor to designate primary and alternate officials with whom audit matters are to be discussed during the course of the assignment. However, make it clear that such an arrangement does not preclude access to other knowledgeable contractor personnel as needed during the audit*
> *(3) and (4) Omitted by Author*
> *(5) Arrange to review the planning documents, working papers, and audit reports of the contractor's internal and external auditors for any audits or reviews performed or planned that may curtail the planned scope of work. See 4-202 for guidance on coordinated efforts with the contractor's auditors*

The entrance conference is critical! It is a wonderful opportunity to impress upon the contractor and the Government the importance of property management/property administration. You should avail yourself of this opportunity to the fullest extent possible.

Oh, and there are two other reasons• First, it has to do with professional negligence. In a court case, which you will read later in this class, brought by General Dynamics against the United States In this case the United States Government and DCAA were found to have committed professional negligence and breached this duty of due professional care. Item 77 in the case charges that the auditor DID NOT hold an entrance interview. There are numerous other references within the court case documents that cite the provision of

conducting an entrance conference • it is your responsibility to exercise “due professional care” in the conduct of this assignment

Second, it has to do with LIABILITY. If you remember from IND 100 that generally the government DOES NOT hold contractors liable for the Loss, damage, destruction or theft of Government property under certain types of contracts. And the key to this decision is the FAR defined concept of MANAGERIAL PERSONNEL. We encourage you to conduct the PMSA Entrance Conference with individuals fitting the definition of MANAGERIAL PERSONNEL! Why? Those individuals have the AUTHORITY to direct the changing of a contractor PMS. Yes, you probably will deal with a Contractor Property Manager for most actions relating to Government property. But there are times when that additional attention, the additional AUTHORITY brought to the table by contractor’s MANAGERIAL PERSONNEL can greatly effect the changing of a PMS from a system with deficiencies to a system running smoothly!

So, some guidance from the “Old” DoD Property Manual… It stated that you, the PA, should discuss:

- That a scheduled PMSA will take place (Remember, you've already notified the contractor in writing - this should come as no surprise.).
- The timeframe for performance.
- The functions or now PROCESSES that are subject to review.
- The areas of a contractor's operation that you will be visiting.
- Other pertinent items:
- Previously disclosed deficiencies (Both those resolved in the last analysis as well as those possibly still unresolved since the last analysis.).
- Current Status of the Property Control System now a Property Management System, i.e., Compliant or Non-compliant, Adequate or Inadequate.

Lastly, it is prudent for the PA to discuss the proposed criteria that are to be used in the performance of the PMSA. In point of fact it would be most expedient to provide the contractor a listing of the criteria prior to the PMSA. Why? Because we are trying to perform in the most efficient, economical, effective manner possible - the most efficacious fashion possible. By providing the contractor this information you facilitate your being provided the proper information when needed and nothing is imposed upon the contractor as a surprise. Remember - our job is **NOT** to sneak up on and surprise the contractor! Rather it is to protect the Government's investment, the Government property, through the application of acceptable surveillance techniques. If there are defects you stand that 90% confidence level of finding them, regardless of what the contractor does - if you perform your PMSA properly.

Defense Contract Property Control Systems Analysis Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 5

Statistics & Sampling

By the end of this module, you should be able to:

- Prepare a random sample number list

By completing the lesson, you should be able to:

- Define the make up of a population
- Determine a sample size using the "Old" DoD Property Manual
- Select/choose random sample numbers from the Random Sample Number Table

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STATISTICS

Well, finally we get to some discussion about statistics! A really amazing field, and one that everyone, I REPEAT, EVERYONE NEEDS TO KNOW ABOUT AND UNDERSTAND! Why? Because every professional today needs to have an understanding of statistics that goes well beyond the common knowledge of the mean, median and mode. You read the newspapers everyday and there are statistics cited. You read a magazine and there are data (Tiny little note: Data is plural, Datum is singular - remember that!) reported. Within those reports you might find discussions of a standard deviation, correlational analyses, multiple regression, even factor analysis. Do you need to know how to compute these items? Not necessarily - you can use a calculator or a computer to do that. But, you do need to know what they "**mean**" (No pun intended!). You do have to understand their underlying principles and usage of the various and sundry equations. An excellent text that I would recommend for every PA is entitled Statistics A Spectator Sport by Richard M. Jaeger, published by Sage publications, Newbury Park, NJ. It is a brilliant book in that it does not use a single formula or mathematical equation. It is purely descriptive in nature and explains, in English, the meaning and use of statistics.

Though we are of the belief that every PA should have had courses in statistics such may not be the case today. Therefore, we are going to attempt to teach you just a few of the basics. So let's try this part together.

INFERENTIAL STATISTICS - We see a lot of data coming across our desks everyday. We see loads of numbers. But, sometimes we have to go beyond those numbers. We have to make inferences; we have to infer something from the number we do have about numbers we don't have. When we perform our system analysis we have a population or populations that we are going to test or audit or analyze. We defined the term population earlier in this paper as "An aggregation of documents, records, assets, or

actions selected for review due to common characteristics. Also known as a "lot." Generally we think of populations as people. But in our case a population usually consists of inanimate objects, e.g., Government property, records, automated record keeping systems, etc. Now, it would be impossible for us, in most cases, to review every single record in the contractor's operation. There is just no way for us to do that. Rather, we break our system analysis into segments and for each of these segments we determine a population and from that population we pull a **SAMPLE**. From this analysis of the **SAMPLE** we make inferences about the **LARGER POPULATION** from which the **SAMPLE** was selected.

O.K., let's take this slowly for a minute and see what it says.

STEP # 1 - We determine our population subject to analysis - the population is determined by items having **COMMON CHARACTERISTICS** (We will have more information on selecting a proper population later in this paper.

STEP # 2 - We select a sample from this population.

STEP # 3 - We analyze/study the sample for the criteria and make a determination regarding the sample.

STEP # 4 - We reach a generalizable conclusion from the sample as to the population from which the sample was taken.

"Well, that sounds easy enough to do. I can do that. Just get a bunch of the documents together and look at a few of the documents from that bunch and if I find any errors the contractor is unsatisfactory. "

"Right?"

"Wellllll, not exactly! We need to go further in our discussion of selecting a **POPULATION** and this new concept about selecting a **SAMPLE**."

SELECTING POPULATIONS

[NOTE: EXTENSIVE INFORMATION IS PROVIDED TO THE PA IN APPENDIX A OF THIS REFERENCE REGARDING THE SELECTION OF PROPER POPULATIONS FOR EACH FUNCTION/FUNCTIONAL SEGMENT.]

The proper selection of a population for analysis is one of the most critical steps in the performance of a system analysis. Properly framing the population **MUST** be carefully performed otherwise the results that you obtain may not be applicable or generalizable. How may you frame a population? Let's talk about certain techniques. First thought - it depends on what you are measuring. A common usage of verbiage in this area is that of "transactions."

Many of the functions that we review during the system analysis are based upon types of TRANSACTIONS that have occurred. For instance, the function of acquisition is to determine whether acquisitions, purchases, made over a period of time have been adequate. Notice that you have an ACTION occurring and these ACTIONS are occurring over a period of time. TRANSACTIONS are taking place. The function of receiving would also be considered a transactional functional area. We are checking the adequacy of the receiving TRANSACTIONS or ACTIONS that have taken place. This is one method used to establish a population. The transactions are one of our drivers for selecting a population.

O.K., then we use all acquisitions right? Well, not exactly. We need to more clearly define our TIME FRAME for covering the transactional items that we have selected as the first defining parameter for our population. In the "old Supplement 3" there was the allowance to go back for a period of ninety days. In other words you would select, as your population, those acquisitions that had occurred in the past ninety days. If your population was not sufficiently large in size you could increase this time frame another ninety days, repeating this action for another ninety days and again until you reached the time frame of one year. THIS NINETY DAY TIME FRAME FOR SELECTING YOUR POPULATION NO LONGER EXISTS!!! The "Old" DoD Property Manual (And remember that this document has been rescinded) requires that you use as your time frame ONE YEAR OR BACK TO THE LAST SURVEY - whichever is less.

It appears then that there are two parameters that drive the selection of transactional functions: the types of transactions that are occurring and the timeframe during which they occurred. Ahhh, but there is one other parameter - the functional segment or process segment that is subject to review. The functional segment is structured as a subelement under a function and therefore may help you determine how to properly frame your population. The functional segment may be driven by the type of property, either origin (GFP Versus CAP), or classification (Material, Special Tooling, Special Test Equipment, Facilities, or APP), or even the purpose of the property.

Generally, auditors, for example Certified Public Accountants, deal only with transactions and transaction cycles. For example some of the major classes of transactions consist of:

Sales
Purchases
Cash Receipts
Cash Disbursements and
Production.

But for the world of Government property, in addition to "Transactional" functions and functional segments, there may be functions whose populations are non-transactional. This is where we do not measure transactions over a time frame but rather test other parameters or "Attributes." For example, the function of storage. How would we frame our population? Would we ask the contractor to show us all transactions that have taken place in the storage areas? Wait a minute - what transactions in the storage area? There is receiving, there is issuing, but these are not the function that we are reviewing which is

storage. We are auditing the actual storage areas for housekeeping, etc. Our population here would consist of all locations where property is stored! For this non-transactional function, or function where we are testing for attributes, I am not concerned with the transactions that may have occurred in the areas where property has been stored. Rather, I am concerned with the actual locations where property is stored. We could do the same with the function of Records and other functions and functional segments where we determine our population not based upon transactions but rather on the handling of the property at a certain time. We will discuss this distinction later under each of the functions/functional segments used for our system analysis.

SAMPLING

Let us assume then that we have selected our population for a Function or Functional Segment. And through the defining of this population under this function we have a collection of documents. Let's say we are using the function of "Records," the functional segment of "All Records of Government Property." We have a computerized listing, provided by the contractor of all special tools in the contractor's possession. Or we might have a manual record system, a card file. Here we have a population. Both of these items, the computerized listing and the manual system have 1467 items listed.

"How then do we select our sample?"

"Simple - I'll just select maybe five or ten percent of the records."

"You will? Wait a minute! Ten percent of 1467 is 147 records. Are you going to have the time to review 147 records?"

"Well maybe I'll just do five percent".

"Great, now you'll only review 74 items."

“O.K., I get your point. Then how do I know how many items TO select as my sample?"

"Ahhh, am I glad you asked."

There are a number of different sampling methods available, probabilistic and non-probabilistic. Under probabilistic there is random sampling, replacement versus nonreplacement sampling, and systematic selection. Under nonprobabilistic there is block sampling, haphazard selection, and judgmental (Yeah, we'll talk about this later) to name just a few. Generally, we use a probabilistic method, using nonreplacement random sampling. But, in some cases you may use judgment sampling, in some cases you may use systematic selection and even another form of nonstatistical sampling - purposive or purposeful sampling. These will be discussed later and under what conditions they may be used.

In regard to Statistical Sampling the Government Accountability Office (GAO) provides its direction for sampling. IN GAO 07-731G Government Auditing Standards it states in paragraph 7.63, "**7.63** When sampling is used, the method of selection that is appropriate will depend on the audit objectives. When a representative sample is needed, the use of statistical sampling approaches generally results in stronger evidence than that obtained from nonstatistical techniques."

The number of items to select from a population was computed for you in the "Old" DoD Property Manual 4161.2-M. You can find this table in Appendix B. It is also contained in the LIBRARY for this course. It is referred to as a double sampling plan and has a 90 percent confidence level. Let's digress just for a minute and talk about two of these terms: the double sampling plan and the confidence level.

Confidence level

Flesher (1996) gives an excellent description of "confidence level" or "reliability." He states "The confidence level or reliability is the probability that a sample will accurately represent the population from which it was selected. For example, a sample with a 95 percent confidence level would be said to accurately reflect the population 95 percent of the time. That is, if 100 samples were selected from the population, 95 of those samples would accurately reflect the population."

The Government, through the "Old" DoD Property Manual, has already established for us that the confidence level we will use is at **90%.** I have taken the liberty of including TWO OTHER Sampling tables with different confidence levels. One at a 95% confidence level and one at a 97% confidence level. These were designed SPECIFICALLY for the DoD Property community through a research report prepared for the Defense Contract Administration and Services organization – the old DCAS, DCASR and DCASMA operations – the precursor for Defense Contract Management Command (DCMC) and the Defense Contract Management Agency (DCMA). The origins of these organizations can be traced back to Secretary of Defense McNamara under Project 60 – but that is a whole 'nuther paper!

In other endeavors higher confidence levels may be required; Levels such as a 95% confidence of rejecting lots having 10% or more defectives or a 97% confidence of rejecting lots having 10% or more defectives. Notice that the Government is not asking for a 100% confidence level. Rather, it has consciously determined that 90% is an acceptable confidence level for the work being performed by the contractor. If we were doing Quality Assurance work for the Nuclear Navy that confidence rate would be far higher. Why? Because there would need to be a far greater degree of compliance at that higher rate. The Government has established what it believes to be an acceptable rate for us. This confidence rate is then one of the drivers for the number of samples that we select.

Double sampling plan

There are a number of different sampling plans available also. Under the old DFARS Sup. 3, (You know, back in the old days when I was a working PA) prior to 1983, there was the requirement for a single sample to be drawn from the population. This entailed, for many large populations, that 65 samples be drawn!!!

This was extremely time-consuming and though it provided a correct statistical significance to the findings and did provide a valid acceptance/rejection rate there were more efficacious methods available. If you review some of the early statistics and auditing texts, some of which are referenced throughout the paper, you will find that double sampling did not come along until the late sixties, the early seventies. Prior to this, the single sampling technique was most frequently used. Through the academic research conducted by the mathematicians and statisticians a double sampling plan was found to provide the same reliability and validity as a single sample and one could save time and money using that double sampling plan. I thanked my lucky stars when the powers that be allowed the use of double sampling plan in 1983. For those of you who remember selecting and reviewing 65 samples, my hat goes off to you. The current sampling plan is superb in comparison.

The double sampling plan allows for the use of a smaller sample size with no reduction of the confidence level. If you really are interested I can give you the formulae for computing the sample size under a double sampling plan? For those of you interested in the formulae here are some basic items:

(1)Hypergeometric Distribution

$$P(x) = \frac{\binom{D}{X}\binom{N-D}{n-x}}{\binom{N}{n}}$$

N = lot size
D = number of assumed defects in lot
n = sample size
x = number of defects in sample
P(x) = Probability that n sample will have x defectives and is selected from lot of size N with D defects.

(2) Binomial Distribution

$$P(x) = (n)\,(x)\; p^{x}\; (1-p)^{n-x}$$

p = population fraction defective, 0 =< p <=1

(3) Double Sampling Formula

$$P_a = \sum_{x=0}^{c_1} P(x) + \sum_{x=c_1+1}^{r_1-1} [P(x) \sum_{j=0}^{c_2-x} P(j)]$$

P_a = probability of lot acceptance
c_1 = acceptance number for first sample
r_1 = rejection number for first sample
c_2 = acceptance number for second sample (Defects in <u>both</u> samples must not exceed this number)
j = number of defects in second sample

At this point I imagine that all of you are saying " Thank you for sharing this with us but we really didn't want to see all of these formulae. This is TOOOO much information!"

"No? O.K., see if I care that you don't want to do some algebraic equations!"

Suffice it to say that those wonderful people with the green eyeshades sat down and computed for us the number of samples that we need to select. All of these sample sizes are set forth in the references for this course. The double sampling plan requires the selection of two samples. Vance and Neter (1956) state the following in regard to double sampling plans,

> Another type of sampling plan involved two possible stages of decision making. Initially only part of the total sample is selected, and a final decision of acceptance or rejection is reached at once if the sample indicates exceptionally good or poor quality. Otherwise the remainder of the sample is selected and a final decision whether to accept or reject is made at that time. This is called a double sampling plan because it may involve two sampling stages.

"Well, tell me what is the sample size for the population of 1467 records that we are going to review?"

THE ANSWER: 34

"Sure, that was easy. So all I need to do is select the first 34 items from the bunch of records and review those. Right?"

"Well, not exactly. Because another fundamental issue in terms of inferential statistics is that the sample must be **RANDOM!!!**"

RANDOMNESS

"Wait a minute. You didn't say anything about that before! I know where the problems are. I can select any items I want to! Why do the items selected have to be random?"

"Because inferential statistics is based upon some very strict rules." Carmichael and Willingham (1989) define random selection as "... a sample that is selected in such a way that every item in the population has an equal chance of being selected" (p. 247. Arens and Loebbecke (1988) state,

> A random sample is one in which every possible combination of items in the population has an equal chance of constituting the sample. The only way an auditor can be confident a random sample has been obtained is by adopting a formal methodology that is designed to do this (p. 391).

Random sampling helps to protect against and preclude the inherent **BIAS** that most of us have. Very simply, by using random sampling you apply the rules of statistics and the contractor cannot claim that your sample is biased and therefore not generalizable to the larger population from which it was selected. Block sampling, where you just wanted to pick the first 34 items from the list, even though it is not biased, is also unacceptable. Carmichael and Willingham (1989) state,

> Certain selection methods that have been used by auditors in the past are methods that cannot be expected to produce representative samples. This means these methods are not acceptable to statistical or nonstatistical audit sampling.

What is one of these methods? Block selection!

"Well, how can I be sure my sample **IS** random?"

The "Old" DoD Property Manual provided Appendix C for just such a purpose – and every statistics book has a RANDOM NUMBER TABLE. There are other methods, such as the computer programs that are available. Even MS-Excel ™ has this ability. But, you may not have access to a computer all the times so let's walk you through selecting a random sample using Appendix C and discuss the concepts of starting point, column, row and routing.

STOP! DO RANDOM NUMBER SAMPLE EXERCISE!

Now that you have all muddled through the process of using the random number tables in Appendix C let me provide some concrete direction as to "How" the tables may be used. This is nothing new. Direction was contained in the old DAR/ASPR Supplement No. 3. I have copied that DIRECTION as to how to use the table – and I hope that this explains to you the actual PROCESS of selecting Random numbers. It stated,

> (c) Random Number Table. The following information is a guide which may be used in drawing a sample with a table of random numbers. Other randomization techniques may be applied provided they are defined beforehand in the property administration survey plan and exhibit clear protection against bias. Care must be exercised to assure that the number of items in the lot is not overestimated so as to avoid selection of random numbers greater than the lot. For example, **if the lot is 9,000, only numbers lower than 9,001 shall be selected**. Using a random table to draw a random sample requires four steps which are:
>
> (i) First Step: A pattern must be established between the numbers in the table and items in the lot to be sampled. It is possible to use the whole random number or any portion thereof. For instance, the number 18,967 may appear in the table. If the lot size is more than 99 but less than 1,000, a

three digit number is required and either the first three digits 189 or the last three (967) may be used. If the lot size is more than 999 but less than 10,000, a four digit number is required and either the first four digits (1,896) or the last four (8,967) may be used. Once this pattern has been established, it must be consistently used throughout the sample selection process.

(ii) Second Step: A procedure for selecting the numbers from the table must be selected. Any systematic path for going through the table, if the path is clear and does not cross over or reuse any number previously used, is acceptable. It is possible to proceed across rows, down columns, diagonally, clockwise, counter-clockwise, or in the same combinations of these methods; however, it is usually desirable to choose a simple pattern and go down columns or across rows.

(iii) Third Step: The starting point in the table shall be selected at random. The most used method is to open the table of random numbers to any page and to use the number upon which the pencil point falls as the starting point.

(iv) Fourth Step: Beginning at the starting point and proceeding through the table as planned in the Second Step, record the numbers found in succession in the table, using all or part of the number as planned in the First Step. Duplicate numbers shall be skipped. The selection process shall be continued until the required sample size is drawn.

Number taken from the random table shall be arranged and recorded in numerical order.

If we were to review texts on sampling we would find similar directions. The process of using random number tables is fairly uniform and consistent.

CORRESPONDENCE BETWEEN THE RANDOM NUMBERS AND THE POPULATION ITEMS

Excellent! You have successfully selected a set of random numbers from a random number table. Pragmatically I recommend that in the future you use a nifty little web site call the RANDOMIZER!!! It is found at WWW.RANDOMIZER.ORG. It is a heck of a lot easier and there is nothing wrong with the use of a computer to perform that job. Brink and Witt (1982) advocate the use of computers in the audit process. They state, "There are various statistical sampling programs available in the software packages. Some commonly used ones are as follows:

1. Random Number Generators ...
2. Determining Sample Size ...
3. Appraisal of results."

Folks, putting it simply, computers are here to stay. They are not just a passing fancy like the car and the telephone but are powerful tools developed for your use.

So you have in front of you 34 random numbers. [NOTE: Really you should have 68 random numbers as you must pull both samples, i.e., the double sample numbers, before selecting those items from the population. Otherwise, when you go back to pull another sample all items in the population must stand the chance of being selected and there is that probability that you will select an item that you have tested previously and that was already found deficient. This is the distinction between replacement and nonreplacement sampling. The sample item number can only be selected once! Therefore we use a nonreplacement method.]

So, what do you do with those 34 (68) numbers? You establish correspondence between the random numbers and the population items. If it is a computer listing this should be a fairly easy task. Ahhh, but your listings may not always be numbered. What do you do now? Vance and Neter (1956) state, "In some cases auditing populations are not already numbered... In these cases numbers may be assigned to the items so that random numbers can be used" (p.123).

I know, I know, this is time consuming and laborious. If you can come up with a better way let me know. Otherwise you have to number the items in some sequential fashion. Even the old, aforementioned Sup. 3 stated,

> If the units of the lot to be examined are already consecutively numbered, the units having the numbers corresponding to those taken from the random table become the sample units. Otherwise, the sample units shall be found by counting down to the numbers taken from the random table.

Therefore, if your population is a set of record cards you will have to sequentially count out the cards and assign numbers to those cards, if not already done, for the purposes of linking a sample number to an item in the population.

GENERALIZABILITY

"What does all of this work do for us?" Well, from the standpoint of inferential statistics it provides us a mechanism by which we determine and define our population and attributes or transactions that we wish to audit, select our random sample numbers and correspond those sample numbers to our population, thereby select our sample, record and analyze the data from that sample, reach some conclusions and then, hopefully, our conclusions would be generalizable to the larger population from which the sample was taken. Notice, that we need not review every item in the population. Rather through inferential statistics we can review only a small portion, a **RANDOM SAMPLE** of the population and reach some conclusions about the entire population from which the sample was drawn. Pretty nifty trick, huh? Does it work? Absolutely!!!

But only if the statistical underpinnings are properly applied.

CLASSES OF CRITERIA

[NOTE: REMEMBER THAT THE "OLD" DOD PROPERTY MANUAL 4161.2-M HAS BEEN RESCINDED. THEREFORE THE FOLLOWING INFORMATION IS PROVIDED TO GIVE YOU A BASELINE AS TO PAST PERFORMANCE METHODS. ONCE AGAIN, YOU ARE TO FOLLOW YOUR AGENCY POLICY and GUIDELINES IN APPLYING THESE CONCEPTS.]

The "Old" DoD Property Manual specified that for each criteria there is a "CLASS" designated. What relationship does this have to Inferential Statistics, and to all of the information just discussed? These classes dictate, for the PA, whether statistical sampling shall/must (Command/imperative) be used or some other form of nonstatistical sampling may be applied. There were three classes listed at the top/beginning of Appendix A in the "Old" DoD Property Manual. These are:

CLASS I STATISTICAL SAMPLING

CLASS II JUDGMENT SAMPLING

CLASS III PURPOSIVE SAMPLING

This requirement established for the PA that he/she must use statistical sampling for any criterion designated as a CLASS I criterion. The PA may use judgment sampling on any CLASS II criteria or he/she may upgrade that CLASS II criteria to a CLASS I criteria. Notice that the "Old" DoD Property Manual had this allowance as a note to the heading of Appendix A. It states "A CLASS II sampling may be changed to a CLASS I sampling by the PA dependent upon the circumstances and situations affecting the analysis."

Great, so this means that I could also change a CLASS I to a CLASS II. NO! NO! NO! There WAS **NO** allowance to "downgrade" a criterion that requires statistical sampling to judgment sampling. There **WAS** the allowance to "upgrade" from a judgment sampling to a statistical sampling.

COMMENTARY

Since the "Old" DoD Property Manual was rescinded and no further guidance has been issued by DoD my first recommendation is that you following your agency's policy and guidance. Where none has been issued I would encourage you to apply the above discussed concept and align the PROCESS CRITERIA along the lines of which criteria require statistical sampling and which require or would allow judgment sampling.

JUDGMENT SAMPLING

We have delved into the world of statistical sampling quite heavily, but we haven't discussed the use of judgment sampling. What exactly is judgment sampling? In a classic text Vance and Neter (1956) describe judgment sampling as,

> A Judgment ... sample is one where the selection of specific sample items depends to a large extent upon individual judgment, or where judgment decisions are made about portions of the population for which the sample did not obtain the necessary information... Judgment samples may at times be quite useful, but their results cannot be evaluated on the basis of the sample by statistical methods (p.17).

[NOTE: Everything old is new again! These guys talk about Deming in the present tense even though the literature they cite is over forty years old. AMAZING!]

Arens and Loebbecke (1988) also provide input in this area. They state,

> Many auditors believe that it is desirable to use professional judgment in selecting sample items for tests of transactions. When sample sizes are small, a random sample is often unlikely to result in representative samples. ...judgment methods of selection are often useful and should not be automatically discarded as audit tools. In many situations, the cost of unbiased or more complex selection methods outweighs the benefit obtained from using them.

But, they also issue a warning similar to Vance and Neter, "It is improper and a serious breach of due care to use statistical measurement techniques if the sample is selected by the haphazard, block, or any other nonprobabilistic approach" (p.397).

The “Old” DoD Property Manual uses CLASS II - Judgment Sampling only in those areas where populations may not be that large, criteria are not that critical but still necessary, or where the cost of using statistical methods would far outweigh the benefit reaped by either the Government or the contractor. How then should a PA select that judgment sample? Well, in a number of ways. In some instances all items might be selected, e.g., the Process of Storage. I would not statistically sample the storage areas for housekeeping. It would be more cost effective to use judgment to test those areas. This is just one example. But, as stated before there may be instances where, though a criteria is listed as a CLASS II criteria I have the option of "upgrading" that criteria to a CLASS I and using statistical sampling.

If you were to peruse the entire Appendix A you will notice that there are no criteria with a CLASS III rating. Why is this included? We will discuss the use of PURPOSIVE/PURPOSEFUL SAMPLING later in this text. But, suffice it to say, it also is a nonstatistical method and needs to be handled and used very judiciously.

NEW DEVELOPMENTS

With the publication of the new Government Property clauses and policy of FAR Part 45 in May/June of 2007 the Government has moved away from the prescriptive regulatory application and moved towards the use of Voluntary Consensus Standards (VCS) and Industry Leading Practices (ILP).

Throughout this document I have made reference to numerous "OLD" documents. I have referenced the old Armed Services Procurement Regulations, the ASPR. I have also referenced the old Department of Defense Manual for the Performance of Contract Property Administration, 4161.2-M, which I have referred to as the "old" DoD Property Manual. These documents are dead – but they still have utility. The have utility for contracts awarded BEFORE June of 2007 where they are bound by the old regulations (And which have NOT been modified to incorporate the NEW GP Clauses) and their surveillance/auditing by you the Government PA.

These documents DO NOT have complete applicability to the NEW GP Clauses!!! Care must be taken to use those sections that CAN be used. Care must be taken to NOT impose any of these requirements on the contractor – as this manual is NOT contractually binding upon the contractor.

There are portions of the "old" DoD Property Manual mentioned in this chapter that STILL have applicability – those portions include the SAMPLING PLANS, RANDOM NUMBER TABLES – and selection of RANDOM NUMBERS.

As we the Government have tasked the contractors to embrace VCSes and ILPs so too WE, the Government, must embrace VCSes and ILPs! I would recommend that you reference the GAO Yellow Book that we discussed earlier in the chapter. I would also recommend that you read the Defense Contract Audit Agency Manual, DCAAM 7640.1, in regard to SAMPLING!!! It has great depth and detail from a number of different perspectives – and will allow you to grow intellectually as an auditor in the field of Government Property Administration and Management.

APPLICATION OF STATISTICAL SAMPLING AND JUDGMENT SAMPLING UNDER THE POTENTIAL AUDIT CRITERIA USED FOR THIS CLASS

Later in this class you will reference a document entitled POTENTIAL AUDIT CRITERIA. You will notice that it is VERY similar in feel and flavor to the "Old" DoD Property Manual Appendix A – the listing of Criteria for performing a Property Control System analysis (Yes I said PCSA versus PMSA – as I am referencing the OLD document).

In the NEW AUDIT CRITERIA you will find that there is no column tasking you to use either a Class I or Class II process, i.e., statistical sampling or judgment sampling. Why? Because there are too many unknown variables! Huh? What?

Seriously, contractors are now tasked to use VCSes and ILPS. I cannot create an Audit Criteria for variables that I do not know. Therefore, you, the Property Administrator, are now going to have to determine which form of testing -- statistical sampling or judgment sampling, is applicable to the criteria you are testing! Look, you are the expert in that contractor's PMS and the performance of the PMSA! We are asking you to intelligently decide, based upon your INSIDER'S PERSPECTIVE of that contractor WHEN to use a STATISTICAL APPROACH, and WHEN to use a JUDGMENT APPROACH for determining how to sample. I know this isn't easy, but following the principles of Total Quality Management in this case it definitely is one of those items that should be flowed down to the expert in the field versus having the Pentagon tell you how to do your job.

Defense Contract Property Management Systems Audit Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 6

PROCESSES AND OUTCOMES

At the completion of this module, you should be able to:

- Describe the Property Management Systems Audit (PMSA) process for the selected processes

By completing the lessons, you should also be able to:

- List the processes under a PMSA
- List the process segments under the processes called out in the Government Property clause of FAR 52.245-1(f) including:
  Acquisition, Receiving, Records, Physical Inventory, Reports, Utilization, Maintenance, Subcontractor Control, and Contract Closeout as well as the EMBEDDED processes, e.g., identification, consumption, and disposition to name a few
- Define the population for the process/process segment
- Define the criteria for the process/process segment
- Describe the characteristics of the criteria reviewed under the process/process segment

Ladies and gentlemen, now we are starting to get into the technical "meat" of property audits – the actual processes that we are to audit. This is a the longest chapter that you are going to have to read, so get a cup of coffee, sit back and plan to spend some time looking through each of the processes that are called out in the FAR GP Clause and that we, within the Department of Defense are required to use as our baseline for auditing Government property in the possession of contractors.

Processes

In Appendix A of the "**OLD**" DoD Property Manual there were **fifteen** processes subject to analysis by the PA, as applicable to the contractor being reviewed.

These processes were:

Property Management
Acquisition
Receiving

Identification
Records
Movement
Storage
Physical Inventory
Reports
Consumption
Utilization
Maintenance
Subcontractor Control
Disposition and
Contract Closeout

Under the **NEW** GP Clause of FAR 52.245-1(f) we see that there are **ten** processes called out for application in the contractor's Plans and Systems. The PROCESSES called out are:

Acquisition
Receiving
Records
Physical Inventory
Subcontractor Control
Reports
Relief of Stewardship responsibility
Utilization
Maintenance
Contract Closeout

Now, because we are in the **AUDIT** mode we need to do a little intellectual disputation and understand that though these above ten processes appear in the clause – that there are two problems presented in this representation:

1. Not all of the PROCESSES are found under the "Contractor plans and systems" paragraph of the GP clause, and
2. A number of processes are "EMBEDDED" under a singular heading.

Let talk first about…

PROCESSES OUTSIDE OF THE CONTRACTOR PLANS AND SYSTEMS PARAGRAPH OF THE GP CLAUSE – 52.245-1(f).

The first process we need to address is that of disposition. Disposition has an entire paragraph devoted to it under the GP Clause of 52.245-1. Paragraph J, entitled Contractor inventory disposal, and it has a PROCESS feel and flavor to it – with numerous SUB-PROCESSES embedded within it. Yet, from a strict constructionist standpoint – it is not a process. Why? Because it is not addressed in the plans and systems paragraph where we see the process and outcomes requirement.

Does that mean we should NOT audit that process? ABSOLUTELY NOT!!!

In point of fact the PROCESS of DISPOSITION is a CRITICAL PROCESS for you to audit – as it, versus many of the other processes that are called out, is driven by LAW! Not just regulation, i.e., the FAR, but by LAW/STATUTE – the Federal Property and Administrative Act of 1949, as revised.

So, we have another process to review OUTSIDE the GP clause's process paragraph.

How about the "old" process of Property Management? No longer is it called out as a "process" requirement. Yet we see Paragraph (b) of the GP Clause entitled "PROPERTY MANAGEMENT" imposing a requirement with a very clear OUTCOME – in point of fact an outcome or outcomes that overarch and permeate every OTHER process.

Should we then ignore this process and outcome requirement because it is not called out in the plans and systems paragraph?

ABSOLUTELY NOT!

If one were to review the ASTM International Voluntary Consensus Standards relating to Property management we would find numerous references to plans and procedures and even the overarching concerns of property MANAGEMENT – not just property control. The Equipment Management Process Maturity Model (EMPM), ASTM E2452-05 is one methodology for determining the level of maturity found within an entity's property management system[1].

So, if we were to list ALL of the PROCESSES described in the GP CLAUSE of 52.245-1 – NOT JUST THOSE LISTED IN PARAGRAPH (f) we find that there are SIXTEEN (16) PROCESSES. These are:

- Property Management (1) -- Not in Process Paragraph
- Acquisition of Property (2)
- Receiving of Government property (3)
  - Identification of property (Embedded) (4)
- Records of Government property (5)
- Physical Inventory (6)
- Subcontractor Control (7)
- Reports (8)
- Utilization of Government property
  - Utilize (9)
  - Consume (Embedded) (10)

[1] It is critical that in teaming with contractors using the EMPM that the PA obtain the CRITERIA used to establish the subjective rating determined by the contractor Many of the criteria echo the original concerns set forth in Appendix A of the "OLD" DoD Property Manual. Without audit evidence supporting the criteria embedded within the EMPM there may be no reliability or validity to the contractor's EMPM determined level.

Move (Embedded) (11)
Store (Embedded) (12)
Maintenance (13)
Property Closeout (14)

Relief of Responsibility (15) – Let's rename this LIABILITY as the real description set forth under relief of responsibility does impose this as a process and outcomes issue but rather a description of WHEN the contractor is no longer "responsible" for Government property. **TECHNICAL CORRECTION** - As an academic note, it would probably be simpler and more easily understood to rename this LIABILITY for L, D, D and T of GP – with the accompanying REQUIREMENT to have a PROCESS to promptly disclose and report any instances of L, D, D and T of GP including the outcome of the report set forth in (vi) (a) of the GP clause.

And lastly…
Disposition (16).

Now, you will notice that I "broke out" the EMBEDDED processes that were/are subsumed under the top level process – UTILIZE Government property is a good one to start with. Under this top level process there are really FOUR embedded processes – Utilize, Consume, Store and Move Government property. You may wonder why I SEGREGATE them into there own processes. Simple! They all have DIFFERENT POPULATIONS as a process.

Let me try and explain that a little more and you will see this later on in this chapter. Let's compare utilizing property with consuming property.

What type of property is utilized?
Equipment, Special Tooling and Special Test equipment (And yes we could even throw in Real Property (RP) if RP is accountable to your contractor.

What type of property is consumed?
Material.

The records that you would be reviewing under utilization may NOT be (And probably aren't) the same records that you review for consumption. Therefore the POPULATIONS need to be properly stratified which leads to the breaking out of the processes.

Let's look at storage and movement.
Again, the POPULATIONS are different for these processes. Where for storage you are going to review the actual, physical storage LOCATIONS, for movement you are going to review the MOVEMENT of property and the documents that affect that movement.

If we were to lump these processes together for audit purposes it is highly probable that our findings would be specious – simply put, they would be wrong, and the contractor would have every right to debate and dispute the 'rating" we assigned this process.
It is NOT my intent to create MORE work for the Government Property Administrator. I am only trying to accomplish two things:

1. To ensure that the Government Property Administration performs a thorough and complete AUDIT of the contractor's PMS when tasked to do so and
2. To provide CLARITY in defining and APPLYING POPULATIONS for each of the process and outcome requirements. And this is critical!!! If you define a population incorrectly – your results will be incorrect. They will be specious! So, if you were to define a population for Utilizing Government property under the GP clause, FAR 52.245-1, Paragraph (f)(1)(viii) – and attempt to test the four embedded processes with that ONE POPULATION your results will most definitely have no statistical reliability or validity and quite possibly (In fact probably) you will find the contractor "unsat" due to the specious population.

THE INCREDIBLE DISAPPEARING APPENDIX A

Under the "OLD" DoD Property manual there was a wonderful, useful tool for the Government PA. It provided objective CRITERIA for the various contract requirements imposed by the OLD GP clauses as well as the requirements of FAR 45.5.

Well, the "OLD" DoD Property manual has been rescinded – as we have discussed a number of times in the Primer. So, what should we use?

CRITICAL

YOU ARE TO USE THE GUIDANCE PROVIDED BY YOUR RESPECTIVE AGENCY, i.e., Army, Navy, Air Force and DCMA (As well as any of the outlying activities like Office of Naval Research (ONR), National Reconnaissance Office(NRO), etc.).

But let me be pragmatic for a moment. There was a team of expert Property professionals brought together to rewrite the DoD Property Manual. For whatever reason, the product was not published. But, all of the various components of the document still exist and I am taking the liberty to use one of these documents for educational purposes. When Official Policy is published these materials will be updated and the new requirements will be incorporated.

WARNING!!!

THE DISCUSSION OF THIS LISTING OF CRITERIA IS NOT TO BE CONSTRUED AS OFFICIAL DOD POLICY OR REGULATION OR REQUIREMENT. BUT, SINCE THERE IS NO OFFICIAL POLICY THEY ARE BEING PRESENTED AS EDUCATIONAL MATERIALS ONLY. REPEAT, THEY ARE PROVIDED FOR EDUCATIONAL PURPOSES ONLY.

AGAIN, YOU ARE TO USE THE GUIDANCE PROVIDED BY YOUR AGENCY!

THE GAO Yellow Book, GAO-07-731G, is quite specific in its direction to identify AUDIT CRITERIA. In Paragraph 7.37 it provides the following guidance:

> ***7.37*** *Auditors should identify criteria. Criteria represent the laws, regulations, contracts, grant agreements, standards, measures, expected performance, defined business practices, and benchmarks against which performance is compared or evaluated. Criteria identify the required or desired state or expectation with respect to the program or operation. Criteria provide a context for evaluating evidence and understanding the findings, conclusions, and recommendations included in the report. Auditors should use criteria that are*

relevant to the audit objectives and permit consistent assessment of the subject matter.

***7.38** The following are some examples of criteria:*

***a.** purpose or goals prescribed by law or regulation or set by officials of the audited entity,*

***b.** policies and procedures established by officials of the audited entity,*

***c.** technically developed standards or norms,*

***d.** expert opinions,*

***e.** prior periods' performance,*

***f.** defined business practices,*

***g.** contract or grant terms, and*

***h.** performance of other entities or sectors used as defined benchmarks.*

We can't leave you hanging here – so the following pages provide you ALL of the PROCESSES and CRITERIA that you may be dealing with in a narrative form. In addition, we ENCOURAGE you to look over the POTENTIAL SAMPLE AUDIT CRITERIA SHEETS in the COURSE DOCUMENTS Tab of the BLACKBOARD COURSE and then under the LIBRARY OF READINGS AND REFERENCES.
AGAIN – these CRITERIA ARE NOT DOD CRITERIA. YOU ARE TO FOLLOW YOUR AGENCY'S GUIDANCE IN THIS AREA.

We need to provide you an overview of each process and the process segments and criteria that are embedded under each process. To do that we will walk you through all fifteen processes and the process segments embedded under each process. As stated, we will be walking you through each of the fifteen processes and their process segments.

To assist you in learning this material, we have established a pattern, an approach that we will try and follow throughout this module.

- Specifically, we will introduce each process with a brief description.
- We will then list the process segments.
- We will then identify the Class of the criteria (Class I or II) used for that process or process segment.
- We will then provide you a description of the potential population for this process or process segment.

- Lastly, we will address the type of questions that should be posed to obtain the information needed to answer the criteria posed by Appendix A of the DoD Property Manual.

So, ladies and gentlemen, let's look at the processes! Ahhhhh, but there is one more item BEFORE we get to that aspect of this chapter.

VOLUNTARY CONSENSUS STANDARDS (VCS) AND INDUSTRY LEADING PRACTICES (ILP)

It would be IMPOSSIBLE for us to address every possible VCS and ILP – they are myriad in number and application. And, due to the diversity of the contractors performing work with the Government it would be impossible to list every VCS you're your contractor may choose to use. Rather, it is CRITICAL that you be aware first of the contractual requirement that the contractor USE VCSes and/or ILPS and then HOW they apply these items within the contractor's Property Management System.

As our occupation grows and matures into a profession it is important for us to understand that the depth and breadth of coverage provided by VCSes and ILPs is expanding exponentially. And we require the contractor to USE those items.

Well, how am I supposed to audit to that standard?

Exactly, you are to audit to that standard.

Yeah, that's what I asked – how do I audit to them?

It is a rather simple process:

1. Read the contractor's PROCEDURES contained within the PMS.
2. Reference any VCSes or ILPs called out in that procedures.
   a. Including specific VCS # and date or
   b. Where ILPs are used, provide the basis for this usage.
3. Determine if there are any OBJECTIVE MEASURABLE OUTCOMES contained within the Procedures based upon the VCSes of ILPS
   a. These OBJECTIVE MEASURABLE OUTCOMES may consist of timeframes for performance or reporting – in other words ACTIONS that SHALL be taken, allowable quantity variances, frequency of use, etc.
   b. There may be requirements ABOVE and BEYOND the FAR requirements. If this is the case then the contractor – in performing in accordance with the VCS needs to meet THOSE PERFORMANCE STANDARDS, even if they exceed the FAR requirements.
   c. Any requirements in the FAR that are NOT in the VCS or ILP still need to be APPLIED – UNLESS – and this is a critical issue – the PA determines that these outcomes or data requirements are NOT

4. Ensure that on your WORKSHEETS – discussed in an earlier chapter – that you include columns to OBJECTIVELY EVALUATE the contractor's performance to these VCSes and ILPs.

O.k., now onto the PROCESSES and their OUTCOMES!!!

Process 1: Property Management

Purpose:

The PA is responsible for ensuring that the contractor establishes and maintains an adequate and compliant PMS. The basic objective is to determine the effectiveness of the contractor's property management system and the possible systemic impact of any deficiencies identified. An additional objective of this review is to provide a management overview identifying causal factors that may contribute to deficiencies in other processes and process segments. Subjective evaluations may include outlining the scope of the PMSA performed, summarizing the processes and process segments reviewed, and examination of any deficiencies identified for possible trends. Lack of training provided to the contractor's personnel, ineffective communication between organizational elements, failure to be responsive to identified deficiencies, failure to establish current and adequate procedures, or failure to provide adequate protection for Government property to prevent LTDD are examples of trends that may have an adverse impact on the contractor's PMS.

The contractor is also required to perform its own self assessments or audits of its Government property

Process Segments:

- Management
- Contractor Self Assessments/Audits of Government Property

Process Segment: Management

QUESTIONS:

Are there procedures?
Are the procedures maintained in an up-to-date fashion?
Is the PA made aware of significant changes prior to implementation?
Are contractor personnel made aware of procedures?
When there are deficiencies does the contractor take prompt corrective action?
When there are deficiencies does the contractor take interim steps to protect the Government Property?

These are subjective evaluations that only experienced PAs should determine to be satisfactory or unsatisfactory as they threaten the approval/disapproval of a contractor's PMS.

Process Segment: Contractor Self Assessment and Internal Audit of GP

The contractor is also required to perform their own self assessment. FAR 52.245-1 (f)(3) states, *"The Contractor shall establish and maintain procedures necessary to assess its property management system effectiveness, and shall perform periodic internal reviews and audits."*

So we see that there is a CONTRACTUAL requirement for the contractor to perform their own audits or assessment. These can take a VARIETY of different forms and formats. More traditional audits may be performed by the Internal Audit groups or large contractors using the standards of the Institute of Internal Auditors, external audits using Generally Accepted Auditing Standards (GAAS). The contractor may choose to use the form and format of the GAO Yellow book, or even Statistical Process Control (SPC) methods based upon a Metrics based systems. Lastly, the Contractor may choose to use a VCS, such as the ASTM International's Equipment Management Process Maturity Model (EMPM), ASTM E2452-05. [PERSONAL NOTE: The EMPM is an excellent tool! But the Government PA must ensure that the contractor has established OBJECTIVE MEASURABLE CRITERIA for addressing and determining the MATURITY LEVEL assigned. The Maturity level is a SUBJECTIVE determination made by the contractor, but it needs to be based upon the OBJECTIVE CRITERIA that support this level. Under the EMPM it is not until you get deep into the process that these criteria come to light – similar to the criteria set forth in the "Old" DoD Property manual (Again, now obsolete).] Last item, there are no restrictions on the PA PARTICIPATING side by side with the contractor in working through the EMPM process – in fact I strongly ENCOURAGE IT!.

Significant deficiencies disclosed through these types of internal audits should be reported to the PA as well as corrective actions taken by the contractor to correct and prevent recurrence of the problems. Where deficiencies were disclosed through the contractor's internal audit and not corrected, the PA shall notify the contractor and request prompt correction.

QUESTIONS:

- Does the contractor perform the internal assessments/audits as specified/scheduled in PMS?
- Does the contractor initiate corrective action(s) when deficiencies are disclosed?
- Does the contractor coordinate with Government PA so as to preclude duplication?
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?

Process 2: Acquisition

Purpose:

The primary objective of conducting a PMSA on the acquisition of Government property is to ensure that only those items and quantities authorized by contract terms and conditions are acquired or fabricated and to ensure the validity of the property classifications. To meet this objective, the PA's analysis shall include a review of the actual procurement and fabrication documents, including material requisitions, purchase orders, contract transfer documents, petty cash documents, fabrication orders, or engineering change proposals, as applicable. These documents may serve as the population for selection of the sample to be analyzed.

The PA may also review the cost vouchers submitted to the CO for payment to obtain information regarding the dollar value of direct charges for property against the contracts to ensure that reviews encompass all property charges to the contract. Another objective is to determine if contractor acquisitions involve excessive quantities resulting in unnecessary costs and increased storage and handling charges.

Examination of the items acquired is necessary to determine if the property is appropriate for direct charge under the contract and reasonably required in the performance of the scope of work. Examination of manufacturing order quantities is also necessary to determine if excessive quantities of parts or assemblies (taking into consideration minimum buys, bulk purchases, mortality, economic order or manufacturing quantities, etc.), were manufactured.

Process Segments:

- Acquisition Authority
- Classification of Property
- Requirements Computation
- Ordering Practices
- MILSTRIP Acquisitions

Process 2: Acquisition

Population:

The same population may be used for the first four process segments:

- Acquisition Authority,
- Classification of Property,
- Requirements Computation, and
- Ordering Practices.

[NOTE -- The population for the process segment of MILSTRIP requisitions is **different** than the population used for the first four process segments.]

Process Segment: Acquisition Authority

Primarily focuses on the contractor's buying or fabricating or making or transferring Government property.

Population: All purchase orders, material requisitions, contract transfer documents, petty cash documents for property to which the Government would have title - since last PMSA or one year, whichever is less.

QUESTIONS?

- Are purchasing, material control, and engineering aware of contractual requirements for Government property acquired by the contractor?
- When material is moved between contracts as a cost transfer, e.g. MMAS or credit/debit system, is there adequate documentation?
- Is there documentation of CO consent where required, e.g., special terms and conditions in the contract, purchases over the dollar threshold in Subcontract Clause, FAR 52.244-2, or where there is no approved purchasing system, etc.
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?

Process Segment: Categorization/Classification of Property

Population: Use same population AND SAMPLE for this process segment as for the process segment of ACQUISITION AUTHORITY.

QUESTIONS:

- Is property properly classified, e.g. Material, Special Tooling, Special Test Equipment, and Real Property, for purposes of acquisition to preclude property being acquired without the proper authorizations. For example, misclassifying STE instead of Equipment to allow direct charging of the item.

Process Segment: Requirements Computations

Population: Use same population AND SAMPLE for this process segment as for the process segment of ACQUISITION AUTHORITY.

QUESTIONS:

- Why is the contractor buying the property?
- Is there a need for the property supported by the proper documentation, e.g. Bill of Material, Material Requirement Lists, Tech drawings, etc?
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?

Process Segment: Ordering Practices

Population: Use same population AND SAMPLE for this process segment as for the process segment of ACQUISITION AUTHORITY.

QUESTIONS:

- On the acquisition document is there the required data: Item name, description, price, quantity, contract #, etc?
- Items and quantities acquired are reasonable and needed?
- Is there a balance on hand already?
- Is there over acquisition (Buying more than is needed)?
- Is there an Economic Order Quantity in place? (Talk to production people as needed)
- Time frames for ordering are reasonable (What do the PMS procedures say?)
- Does the Kr. monitor the ordered but not yet received items? How?
- Are modifications to orders controlled so as to not buy stuff the G doesn't need?
- How are Purchase Orders controlled and distributed?
- Is it adequate?
- Is it in accordance with the PMS?
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?

Process Segment: MILSTRIP Requisitions

Population: ALL MILSTRIP REQUISITIONS for the past year or since last PMSA whichever is less.

QUESTIONS:

- How are requisition documents maintained?
- Are the documents properly prepared? (Same data as for other property + MORE!)
- Is the contractor using the correct Fund codes, Priority Designator, as specified in the contract? (See FAR 52.251 and the MILSTRIP MANUAL http://www.dla.mil/j-6/dlmso/eLibrary/Manuals/MILSTRIP/Default.asp.)
- Are emergency priorities used and if so is the use proper, i.e., authorized in the contract?

Process 3: Receiving

Purpose:

Receiving Process: The PA's responsibilities, as part of the PMSA program, include a review of the contractor's receiving system to ensure that the system specifies:

- Physical inspection of the shipping containers for evidence of obvious damage, comparison of incoming receipts with due-in records to determine if the correct item and/or quantity was received, and immediate notification to shipper (driver) of obvious damage disclosed during the initial receiving of Government property.
- Special handling instructions regarding the acceptance inspection and/or test requirements, sensitive property; i.e., precious metals, explosives, corrosive chemicals, etc., and special storage requirements.

Documentation supporting receipt. The PA must ensure that procedures require the receiving documents be maintained, distributed, and contain the entries necessary for the protection of the Government's interest. The PA should examine receiving reports and the supporting documents such as Government shipping documents (DD Form 1149, "Requisition and Invoice/Shipping Document"; DD Form 250, "Material Inspection and Receiving Report"; DD Form 1348-1, "DoD Single Line Item Release/Receipt Document"; and MCA reports). The population may be determined from the contractor’s receiving dock log, MCA reports for GFM, and even fabrication records if the property IF the property is entered into the contractor’s PMS through receiving, where applicable.

Process Segments:

- Receiving Process
- Discrepancies Incident to Shipment

Process Segment: Receiving Process

Population: All receiving reports generated for one year or since the last PMSA, whichever is less. (NOTE: Care should be taken as to how property fabricated in-house is input/received into the contractor's PMS.)

QUESTIONS:

- Is the property promptly examined upon arrival to verify quantity received against shipping document, condition upon receipt against shipping document and other transit-related discrepancies?
- Timeframes for "Prompt" action as specified in PMS. [Judgment] Carrier's signature obtained, where applicable?
- Is the receiving report (RR) promptly prepared (TIMEFRAME IN PMS)?
- Does the receiving report have the required data?
- Reconciliation (How is the RR compared against the requisition, PO, etc?
- Are warranty items specified on RR?
- Are RR distributed as specified in PMS?
- Are items protected during the receiving process?
- Are there any reusable containers involved?
- Are the reusable containers properly controlled?
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?

Process Segment: Discrepancies Incident to Shipment

Population: All contractor records indicating discrepancies incident to shipment. In addition, Government prepared documentation such as an SF 361 "Transportation Discrepancy report" or an SF 364 "Report of Discrepancy" may be other sources to use as part of the population.

REAL WORLD WARNING AND RISK!!! The contractor is not responsible for preparing the SF 361/364. Rather the contractor is only required to REPORT the discrepancy to the Government. The PA or other government employee (Transportation or quality Assurance) may be responsible for preparing the SFs. Therefore, using these documents may not provide a good "fit" for the population.

QUESTIONS:

- How does the contractor handle misdirected shipments?
- Are misdirected shipments adequately segregated?
- What caused the discrepancy?
- Was it investigated and documented?
- Did the contractor report the discrepancy to the PA in the time period set forth in the PMS?

Process 4: Identification

Purpose:

The PA is responsible for ensuring that the contractor has established proper procedures for the identification, marking, and recording of Government property upon receipt or fabrication. The basic objective is to determine the effectiveness of the contractor's system in identifying Government property. A thorough analysis would validate that the assigned numbers are recorded on all applicable documents, as well as marked on the particular pieces of property. The PA shall use as the population all property records. Testing of this process may be accomplished during the testing of other process segments.

Process Segment:

- **Identification Process**

Population: You may use the same population as for the Receiving Process Segment. That is, all receiving reports generated for one year or since the last PMSA, whichever is less. (Again NOTE: Care should be taken as to how property fabricated in-house is input/received into the contractor's PMS.)

WARNING!!! A drawback to this approach is that not all items may have gone through the full receiving and inspection process. Therefore, some items may NOT have had labels, tags, bar codes, etc., affixed to the items.

Another possible population would be to use the same population as used for testing the process of records. By using this population you ensure testing ALL property, both old and new items, to ensure that identification is applied and continues to be applied, i.e., that for “old” pieces of property the identification tag or label has not fallen off and not been replaced.

QUESTIONS:

- Has the item had the proper form of identification applied?
- Is the form of identification as specified in the PMS?
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor’s PMS?

NOTE – Care should be taken when dealing with the IUID Requirements. These are NOT driven by the GP Clause rather there are separate clausal requirements for this application!

Process 5: Records

Purpose:

The PA is responsible for ensuring that the contractor has established proper records for all Government property. The basic objective is to determine the effectiveness of the contractor's system of records for accountability of Government property in accordance with the GP clause of FAR 52.245-1(f)(1). In conducting reviews of the records process, the PA should examine the contractor's STEWARDSHIP records and support documentation by physical verification. The following guidance is provided to aid the PA in selecting appropriate documents for establishing a population and selecting samples:

a. The population for the process of records may be obtained from the following: stock records (whether manual or automated, for all classes of Government property, except for material accountable under a receipt and issue system), historical records, fabrication records, custodial records, warranty item records, and scrap and salvage records. NOTE: ALL Government property MUST HAVE A RECORD. The depth and detail on the record is subject to variability based upon:

i. The PA's approval of any deviation to the record keeping requirements (Which is NOT a formal FAR Deviation but allows judgment on the part of the PA) and/or

ii. The VCSes and ILPs adopted by the contractor. Note – even if a VCS allows deviation to the record keeping requirement it must be approved by the PA.

b. Samples from these populations shall be reviewed for proper postings of receipts, issues, returns, inventories, adjustments, and disposition, in an accurate, complete and timely fashion. Documentation should be available to support all entries. These support documents may consist of receiving reports, requisition slips, issue documents, inventory adjustment vouchers, transfer documents, shipping documents, etc. Verification of the actual physical property (location, description, quantity, etc.) is required as part of this review. In addition to the records to property review, the PA shall perform a property to records review to ensure that records have been established and the locator system is adequate.

Process Segments:

- Records of All Government Property
- Receipt and Issue System for Government Material
- Material Management Accounting System (MMAS) Records
- Property to Records Reviews

Process Segment: Records of All Government Property

POPULATION: All property records, e.g. inventory control records, tool crib records, equipment records, real property records, etc. NOTE: This process segment is often done erroneously through the breakdown of the population by type/classification of property. Remember that one of the premises behind inferential statistics is common characteristics.

Your population should be as large as possible. Therefore, all types of property have the same RECORD KEEPING requirements and under this rule the property may be considered ONE POPULATION. So the first part of the population should consist of the **ACTIVE** PROPERTY RECORDS.

In addition, the population must take into consideration all property records **CLOSED** since the last PMSA so as to be able to answer the criterion addressing closed records.

As more and more contractors are using automated systems, some even commercial off the shelf (COTS), the generation of reports to provide these listings is far simpler than years ago when manual records were the norm.

QUESTIONS:

- Do the KTR.'s records comply with the FAR GP Clause record keeping requirements, FAR 52.245-1(f)(1)(iii)?
- Is the support documentation available for record posting, e.g. Receipts, Issues to the Floor, Credits slips, etc? Are they accurate and complete?
- Are transactions PROMPTLY posted?
    - What is the timeframe specified in the Ktr.'s PMS for this action?
    - Do they comply with this timeframe?
- Are records established for assets that did not enter the system through the normal receiving process? E.g. ST fabricated in-house, fabricated parts, cannibalized unit parts?
- Is record closed by proper posting entry? (NOTE: As this population does not focus on closeout the majority of records will still be in active status. Therefore it is important to properly frame the population.)
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor’s PMS?

Process Segment: Receipt and Issue System for Government Material

Population: A different population is applicable for this process segment. Notice first that this record keeping system applies ONLY TO MATERIAL! A “receipt and issue system” (R&I) allows the contractor to maintain a file of appropriately cross-referenced documents evidencing receipt, issue and use (Really CONSUMPTION) of material. Generally speaking an R&I System is maintained OUTSIDE of the normal property record keeping process – though numerous Commercial Off The shelf (COTS) Property Management Systems have an R&I Module.

Therefore, my population for this process segment would be all "Receipt and Issue" documents maintained by the Kr. in accordance with the PMS including those closed since the last PMSA or one year, whichever is less.

QUESTIONS:

- Under receipt and Issue records is there a file of appropriately cross referenced documents to support the acquisition and consumption/use of this property?
- Is property under the R&I System consumed “IMMEDIATELY” as defined by the contractor and approved by the PA?
- If material is not consumed immediately, is there a periodic review to ensure that the property is returned to the stock room with a record established?

Process Segment: Material Management Accounting System (MMAS)

Population: A different population is applicable for this process segment. Notice first that this applies ONLY to MATERIAL – but EXCLUDES Government **FURNISHED** Material. Second, the ACO is the team lead for performing this review though he/she may request the assistance of DCAA, other government specialists as well as you, the PA. We have include a series of Criteria under our POTENTIAL AUDIT CRITERIA for this Process Segment.

NOTE # 1 -- A Review of the MMAS standards, as set forth in DFARS 252.242-7004. is NOT performed other than at the request of the ACO.

NOTE # 2 – There are a number of “standards” that were established under the MMAS, one for Record Accuracy and one for Physical Inventory accuracy. As a contractual requirement of DFARS 252.242-7004 Contractors SHALL use the standards/requirements set forth in the clause unless a VCS or ILP requires a HIGHER standard.

Property to Record Reviews:

In addition to the normal "record to property" analysis it is required that the PA performs a "property to record" review. This entails the random selection of property from the floor with the property then being traced back to the record to assure that a record has been generated or is being maintained.

If the PA plans to use statistical sampling, and the commensurate 90 % acceptance and rejection rates it is important that the PA be aware that the selection of the property from the floor be random. True randomness cannot be achieved simply by walking around the factory/plant and saying "I'll take that one, and that one, and that one." It may sound random but the statisticians would dispute this claim. Rather a random plan must be generated before the selection process starts.

A simple technique or plan to assure randomness is to use the same sample size determined under the Process Segment of "All Records of Government Property" and prior to reviewing these items, determine that you will select either the item above, below, to the left or to the right of the sampled item as your "property to record" sample. This way you remove the possible accusation of selecting a BIASED sample.
If the PA chooses to do a judgment sample for this process analysis he/she must be aware that the results from this review would NOT be generalizable to the larger population from which selected. Any discrepancies/deficiencies would be isolated in nature. You could ask the contractor to correct those uncovered discrepancies BUT you could NOT ask for a corrective action plan as the discrepancies are not generalizable to the population from which they were selected. [Remember, you chose the judgment sample! You could have used statistical analysis.]

"Wait a minute! I found a bunch of errors. And you're saying this is not a systemic problem?"

"That's right!" You may think it is systemic, but you could not statistically PROVE that point as you did not use random sampling. Using a judgment sample you might think you have a systemic defect but statistically you CANNOT make that statement!

Process 6: Physical Inventory

Purpose:

The PA is responsible for ensuring that the contractor has scheduled and performed physical inventories of Government property in accordance with the contractor's approved PMS. The basic objective is to determine the effectiveness of the physical inventory process about physically locating and counting Government property, comparing the results to the records, posting the findings and adjustments, and reporting the adjustments to the PA.

Process Segments:

- Performance
- Recording
- Material Records Adjustments
- Reporting of Inventory Findings

Population: The PA has the option of performing the PMSA of the contractor's physical inventories either during the performance of the inventory or subsequent to its completion. In either case, the tests shall evidence physical counts of selected items, verification of the entries on count slips, comparisons with records, preparation of documents necessary for any adjustments required, approval of adjustments, and the referral of lists of all recorded adjustments to the PA. Populations and their respective samples may be drawn from records of Government property or from physical inventory documentation such as count slips, inventory tickets, computer printouts, or similar items. Subjective evaluations may include a review of the techniques employed by the contractor to accomplish the physical inventory; e.g., ensuring the inventory was accomplished and completed as scheduled, ensuring the inventory was not performed by the individual(s) responsible for keeping the records, and inventories are performed at contract completion, when required.

Process Segment: Performance

Population: Populations may be arrived at using a variety of techniques. One method, for contractors with limited amounts of Government property who use a wall-to-wall inventory would be to use the entire physical inventory listing compiled through the accomplishment of the physical inventory. This may be in the form of a computer printout, in the case of an automated system, or the actual count sheets in a manual system. Another method may be used when a cyclic physical inventory is performed. This involves the selection of a sample from the items completed during that cycle, e.g., those items counted in a one month period, etc., rather than waiting for the entire physical inventory to be completed.

QUESTIONS:

- What process is the contractor using for performing the required physical Inventories? Cyclical, stratified, Inventory by Exception, etc.
- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Are the physical Inventories performed in accordance with the schedules and procedures (PMS) approved by the PA?
- Review submission letters for statement of dates performed, when applicable.
- Who performed the inventory? How do you know who performed the inventory?
- What procedures does the contractor have for performing physical inventories upon contract completion or termination?
- Have these procedures been used during the past PMSA cycle? Have you, the Government PA, waived these requirements for transferred items?
- Has the property, during the course of the physical inventory (including inventory by exception) been sighted and counted, either manually or electronically?
- Is there documentation or data to support this?
- Was the count accurate?

Process Segment: Recording

Population: The same population(s) may be used for performing this Process Segment as for the Process Segment of PERFORMANCE.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Was the inventory posted to accountable record within a reasonable period of time in accordance with the contractor's PMS?
- What is the time frame specified within the contractor's PMS? NOTE: In the case of automated systems this may be immediate or done as a down load to a mainframe or desktop PC.
- In a manual system, were the quantities on the record the same as the quantities on the count slips?
- Were the entries specified as the periodic physical inventory?

Process Segment: Material Records Adjustments

Population: The documentation may consist of the contractor's required listing of all discrepancies reported to the PA. From this listing all reports of MATERIAL adjustments should be used as the population from which to select a sample. In a cyclic or inventory by exception basis, only those items reported discrepant during the specified period of counting, issuing, maintaining, etc will be used as the population. These discrepancies need to be evaluated from the standpoint of prompt and timely posting to the accountable records as well as reasonableness.

QUESTIONS:

- Were the material adjustments posted to the stewardship records? [NOTE: Many PAs make the mistake of believing that they must approve the adjustments prior to the contractor posting the results. This is incorrect in that the PA is only involved from a liability standpoint and therefore his/her decision has no impact or role in regard to the actual physical count that the contractor made.]
- Were the material adjustments PROMPTLY posted to the accountable records?
- What is the timeframe for posting specified in the contractor's PMS?
- Were these entries clearly identified as inventory adjustments on the accountable record?

Process Segment: Reporting Inventory Results

Population: The documentation may consist of the contractor's required reporting of all discrepancies reported to the PA and, where requested, to the Contracting Officer.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Were the results of the physical inventory submitted to the PA in the time stated in the contractor's PMS?
- If the contractor did not report as stated in its PMS was a delay authorized by the PA?

Property to Record Reviews

In addition to the normal record to property analysis it is required that the PA performs a property to record review. This entails the random selection of property from the floor with the property then being traced back to the record to assure that a record has been generated or is being maintained. It is important that the PA be aware that the selection of the property from the floor be random. A simple technique to ensure randomness is to use the same sample sizes determined under the Process Segment of "All Records of Government Property" and prior to reviewing these items, determine that you will select either the item above, below, to the left or to the right of the sampled item as your property to record sample. This way you remove the possible accusation of selecting a biased sample.

The main concern in this Process is to assure that all property was physically inventoried. The PA shall select a random sample of the same size as the sample selected for either performance or recording. A random selecting of the property on the floor must be chosen as described above and then verified to see if this property was physically inventoried and posted to the records! The purpose of this property to records review is to assure that all property was in fact inventoried. Reason: Only the property actually counted will show up on the reports -- there may have been some property "missed."

Process 7: Subcontractor Control

Testing Subcontract Control. The PA is responsible for ensuring that the prime contractor has established adequate control over its subcontractors who have been provided Government property. This may take place either through the prime contractor performing surveillance of its subcontractors or through the prime contractor electing to rely upon the Government's surveillance through the operation of a support property administration delegation. The PA should be aware of all subcontracts, purchase orders, Interdivisional work authorization (IDWAs), Interorganizational transfers (IOTs), etc., that contain or provide Government property to a subcontractor. The population for analysis may be predicated on these documents. Areas within the subcontract process that are of critical concern are:

a. The flowdown of proper clauses and provisions; e.g., the requirements of the GP Clause FAR 52.245-1, the proper liability provisions -- either the FULL risk of loss or the LIMITED risk of loss requirements depending upon the type of contract, listings of GFP, etc.
b. The adequacy of the contractor's system of surveillance incorporated in its PMS and applied throughout the life of the subcontract, etc.

Process Segment: Prime Contractor Responsibilities

Population: I want to look at all purchase orders, subcontracts, IDWAs, IOTs, etc., regardless of when they were issued that have GP furnished to the subcontractor or authorize that subcontractor to acquire GP, that are still active as well as those that have been closed since the last PMSA. (Notice, no one year time frame here.)

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Does the PO have all of the required data: Listing of Property as well as flowdown of contractual requirements?
- Are these flowdown provisions accurate and correct?
- How does the prime perform surveillance over the subs?
- Is the surveillance adequate?
- What documentation do you have that it is adequate?
- Have there been any reports of L,T,D or D from/at a sub?
- Have they been handled in accordance with the approved PMS?
- Is the process described in the PMS adequate?
- Does the subcontract specify property disposal directions and timeframes?
- Do these timeframes allow compliance with the timeframes set forth in FAR 52.245-1(j)?

Process 8: Reports

Testing Reports Preparation. The PA is responsible for ensuring that the contractor has established a proper method of creating, preparing and submission of reports that reflect the status of Government property, as required by contract or regulation. The basic objective is to determine the accuracy, completeness, and timeliness of submission. Evaluation may include reviewing such reports as the NASA 1018, AF G009, Physical Inventory results, Reports of Discrepancies and other reports as required by contract terms and requirements.

Process Segments:

- Accuracy and Completeness
- Report Submission

Process Segment: Accuracy and Completeness

This process focuses on the procedures that the contractor has established for the collection of data used in submitting the various reports that are contractually required. In this Process Segment the PA should review for coverage in the contractor's property control procedures and the supporting documentation.

Population: The population for this Process Segment consists of the contractor property control procedures and the documents that support the procedures for the contractually required reports, including but not limited to: NASA form 1018, AF GOO9 and DO34s, Physical Inventory results, , Reports of Discrepancies etc., back one year or to the performance of the last PMSA. NOTE: There is an inherent weakness to this population in that you will not see any reports that were NOT submitted – thereby potentially rendering an incorrect evaluation. PAs need to be knowledgeable of ALL of the CONTRACTUALLY required reports to ensure proper reporting

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Is there a responsible office/job title assigned the process to compile the necessary data and submit the reports within the Contractor's PMS and the commensurate procedures?
- Has this office/individual followed the approved PMS?
- Are the Sources of data clearly established in the contractor's PMS?
- Are these sources accurate/complete and how can these be verified (Is your decision based upon the status of the other processes of the PMSA? If so, were any other processes rated unsatisfactory that impact or affect the records used in compiling this data?)
- Does the contractor have an internal system to verify the report's accuracy?

Process Segment: Report Submission

This process focuses on the actual submission of reports.

Population: This population should consist of all contractually required reports.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Was there adequate lead time allowed in the contractor's PMS for the collection of data?
- Were the reports distributed/submitted as specified in the contractor's PMS?
- Were the reports submitted by the contractually specified date(s)?

NOTE – I HAVE NOT DISCUSSED REPORTING LTD&D UNDER THIS HEADING AS IT FITS BETTER UNDER THE RELIEF OF RESPONSIBILITY//LIABILITY PROCESS HEADING. SEE PROCESS 9 ON THE NEXT PAGE!

Process 9: Relief of Stewardship Responsibility/LIABILITY

CRITICAL NOTE: If you were to carefully review the language under FAR 52.245-1(f)(1)(vii) entitled Relief of stewardship responsibility, you will find that it is NOT a process statement with an outcome. It states,

"the Contractor shall be relieved of stewardship responsibility for Government property when such property is—

(A) Consumed or expended, reasonably and properly, or otherwise accounted for, in the performance of the contract, including reasonable inventory adjustments of material as determined by the Property Administrator; or a Property Administrator granted relief of responsibility for loss, damage, destruction or theft of Government property;

(B) Delivered or shipped from the Contractor's plant, under Government instructions, except when shipment is to a subcontractor or other location of the Contractor; or

(C) Disposed of in accordance with paragraphs (j) and (k) of this clause.

Rather it is a description of WHEN the contractor s granted relief of responsibility. This may happen through the contractor:

CONSUMING MATERIAL
Inventory Adjustments (Via a Physical Inventory)
LTD&D actions by the PA granting relief and
Shipment (Except to a Subcontractor) and/or
Proper disposal.

As such it would be very difficult to define a population to assess this "outcome." Rather, each of these ACTIONS that lead to relief are covered under OTHER processes. For example – proper consumption of material is covered under the process of Consumption, Inventory adjustments are covered under the process of Physical Inventory, Disposal is covered under – well – disposal, and shipment may be covered under Movement. The only one NOT covered would be the PROCESS of Liability – or the actions involved with a liability case.

Since it is NOT a process statement with an outcome, I have taken the liberty of converting this to address the issue of LIABILITY – one of the methods by which a contractor may obtain relief of responsibility.

Process Segment: Reporting L,T,D and D

This process focuses on the reporting of instances of L,T, D and D.

Population: All reported instances of L,T,D and D. Note - you may also use all cases on the Liability Register, maintained by the PA, since last PMSA, or one year, whichever is less. In addition, a purposive sample may be drawn from the records to see if there were any cases of L,T,D and D NOT reported.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Does the contractor promptly report all L,T,D and D?
- Do the timeframes for reporting agree - Timeframe for reporting set forth in Contractor's PMS versus actual time it took to report L,T,D and D?
- Does the contractor furnish all data as required by the Government property clauses?
- Are corrective action plans instituted where necessary to preclude reoccurrence of the incident(s) of L,T, D&D?
- Where the contractor is granted relief of responsibility by the PA are the contractor's records adjusted to reflex this action.
- Where the contractor is held liable by the Contracting Officer Administering (ACO) the contract are funds forwarded to the ACO?

THE PROCESS OF UTILIZING GOVERNMENT PROPERTY

As we discussed earlier the process of utilizing GP is really FOUR SEPARATE AND DISTINCT PROCESSES. Though for listing in the FAR GP clause they are all subsumed under one process – in point of fact for AUDITING they need to be segregated in their own respective processes. That being:

USE
CONSUMPTION
STORAGE and
MOVEMENT.

With that said – let us discuss each of THESE PROCESSES!

Process 10: Utilization

Purpose:

Testing Utilization. The PA is responsible for ensuring that the contractor has used Government property in accordance with contractual authorization and the contractor's approved PMS. The basic objective is to determine if the contractor is using the Government property for the purposes and time authorized. The population should be selected from all Government property records (excluding material), and either grouped together as one population or stratified by property type with common utilization characteristics. For example, ST and STE may be grouped as one population for sampling purposes while equipment may be grouped as another. The PA must use sound judgment in determining the groupings selected for testing the utilization process. The PA should be particularly concerned with any unauthorized use, use in excess of allowable time on non-Government work, proper recording of actual use, and failure to maintain the required utilization records.

a. The contractor should use Equipment, STE, and ST only as authorized in their contracts, and have a system to determine if this property is excess to the contractor's needs. [NOTE – MATERIAL is Consumed – that is why it is not discussed under Utilization.] There must be a contractual requirement for each item in the possession of the contractor. The PA should perform utilization evaluations to ensure the proper utilization and declaration of excess. PAs should be aware that the utilization levels of these items may be affected by the purpose of the contract (overhaul and maintenance versus production), the type of testing the item was used for (continuous versus final acceptance), and lastly the reason the property was provided; e.g., as a model or for configuration standards.

b. The PA should be concerned with the authorized limits of non-Government usage as approved by the CO. In addition, the PA should be aware that non-Government use that exceeds 25% of the time available for use requires advance approval of the head of the agency.

c. PAs should conduct reviews as part of the PMSA program of vehicular equipment provided to the contractor in support of contract performance. Such reviews should be made to ensure that Government-owned vehicular equipment is in an economical operating condition and is still justified for retention by the contractor, and meets the requirements of DoD 4500.36-R.

Process Segments:

- Authorized Use
- Identification of Excess

Process Segment: Authorized Use

Population: This process segment has a few twists and turns! Be Careful!! You want to look at the **ACTIVE** usage/utilization records for all non-consumable types of property. What are they? EQUIPMENT, ST, STE, and REAL PROPERTY. This would also include all property records **CLOSED** since the last PMSA or one year whichever is less. The tricky part is that in some agencies this review is done by the Industrial Specialist (IS). If such is the case you, as the PA, are still responsible for the data that the IS puts into his/her report as the total PMSA is your responsibility.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Is the property being properly used?
- Is it being used only on those contracts that authorize its use?
- Compare the contract # on which used to the contract # recorded on the usage record.
- Is the amount of utilization within the allowable limits?

Process Segment: Identification of Excess

Population: The same as for the Process area of AUTHORIZED USE.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- How much is the contractor using the non-consumable property?
- Is it sufficient to warrant retention of the property in their possession?
- How much use is sufficient?
- Has the contractor established a minimum level of usage which would justify the item being declared excess?
- Does the contractor have a mechanism built into their PMS to screen for property that is excess/no longer needed by the contractor?
- Does the contractor follow this procedure?

Process 11: Consumption

Purpose:

The purpose of consumption analyses is to determine that materials are consumed commensurate with contract requirements, with reasonable allowances for scrap and spoilage and not diverted to other work. The PA shall evaluate consumption consistent with the contractor's environment, be that production; overhaul, modification, and repair; or research and development (R&D). Consumption may be tested using the Consumption Analysis Worksheet included in the library of this course, or automated equivalent.

Reasonableness of consumption in an R&D environment requires a somewhat different approach since bills of material are not normally available. The quantity issued for use must be determined by examining the issue or movement documentation. The decision on whether the consumption was reasonable depends primarily on judgment supported by sufficient investigation to reach a decision. When the quantity issued is relatively small, indicating immediate use, and then there is little possibility of unreasonable consumption. However, where a larger quantity is issued, the possibility of unreasonable consumption may exist. Additional discussion with Government technical personnel may be used to confirm the conclusions. The adequacy of the physical controls should also be considered as this is a factor that may have a bearing on the possibility of unauthorized use or pilferage.

A consumption analysis should be performed outside of the system analysis when the PA has identified symptoms of unreasonable consumption. These conditions are most readily visible when it is determined that the contractor has exhausted the stock of materials before contract completion or has acquired quantities that exceed planned material requirements. When these conditions are identified, consumption analyses should quantify the extent of the problem and identify causal factors. When the analysis discloses consumption of Government material that is considered unreasonable by the PA, action shall be initiated to determine the liability of the contractor for the unreasonable consumption.

The Consumption Analysis Worksheet has been developed to be used as a tool in performing these analyses. The worksheet format provides latitude to the user, and all elements do not apply to all materials being reviewed. The format may be adapted by the PA for analyses on R & D, production, or overhaul and repair contracts.

Consumption analysis reviews can be extremely complicated and the format may require modification to address certain conditions. As such, it is not considered mandatory as long as adequate consumption analysis techniques are applied when required. Each PA is responsible for the adequacy of consumption analyses and for providing sufficient training to industrial property management specialists to ensure that reviews are properly performed.

Process Segments:

- Reasonableness of Consumption
- Identification of Excess

Process Segments: Reasonableness of Consumption

This process focuses on the proper consumption of those consumable items -- material.

Population: The population for this Process Segment consists of the records of material. This includes those **ACTIVE** records currently in use AND those records from contracts **CLOSED** since the last PMSA or one year, whichever is less.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Are the materials consumed only as contractually authorized?
    - In other words, were the items issued to the proper accountable contract?
- Are the quantities consumed reasonable when compared to bill of material, material requirement list, etc?
- Is there an issue document?
    - Is it accurate and timely (as specified in the contractor's PMS)?
- Is there a (First In First Out) FIFO system for age sensitive property?
    - Is it being used?
- Have there been any reports by the contractor of over consumption?

Process Segment: Identification of Excess

This process focuses on the issue of excess that has been declared excess or is in the contractor's possession that needs to be declared excess.

Population: This population should consist of the same as above Process Segment.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- If there is a balance on hand for the property is its continued retention justified?
- How is continued retention justified?
    - Contractual authorization, additional quantities of the end item left to be delivered, etc?
- Is there a timeframe specified in the contractor's PMS for when an item is excess on the floor?
- Do using areas identify excess, in accordance with this timeframe, and promptly return those items to the appropriate stores?
- Does the contractor's PMS have a mechanism to screen for excess due to engineering changes, contract modifications, etc?
- Does the contractor's PMS have a mechanism to screen for excess due to bulk purchases or min for max buys?
- Does the contractor promptly identify excess to the Government for disposal purposes?

Property administrators may use the "Consumption analysis worksheet and instructions." THIS WORKSHEET IS NOT MANDATORY! It may be modified or altered depending upon the environment the PA is working in OR an alternate methodology may be used by the PA. This alternate methodology must protect the Government's interest and provide a clear analysis of the actual consumption of the material.

Process 12: Movement

Testing Movement:

The PA is responsible for ensuring that the contractor has established a proper method of movement for all Government property. The basic objective is to determine if Government property is moved under the proper authority, with appropriate documentation, adequate protection is provided during movement, location changes are promptly posted to the records, and any losses or damage occurring during movement are promptly reported to the PA.

Process Segment: Material Handling

This Process Segment is primarily focusing on the movement and protection while undergoing movement for all Government property in its possession.

Population: The population for this process may be drawn from all location change orders or move tickets, custodial transfer documents, maintenance work orders, issue slips, shipping tickets, and other similar documents. As these items are transactional in nature the population's timeframe for sampling should encompass one year or back to the last PMSA whichever is less.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Are the items moved under proper authority?
- What documentation supports that movement i.e., move ticket, location change order, etc?
- Were the items moved in accordance with the contractor's PMS?
- Were the items moved within the timeframe(s) specified in the contractor's PMS?
- Was there adequate protection provided during the movement?
- [NOTE] The Quality Assurance Specialist/Transportation Specialist or other technical specialist may be consulted for greater specificity regarding this question. Was there any damage to the Government Property during this movement that was or should have been reported to the Government PA?

Process 13: Storage

Purpose:

The PA is responsible for ensuring that the contractor has established a proper method of storage for all Government property. The basic objective is to determine the effectiveness of the storage process on the control, protection, and preservation of the Government property in storage. This process is normally reviewed by visual inspection of the areas where Government property is stored. Visual inspection of these areas may also be accomplished during the testing of other process segments. Subjective evaluation may include reviewing the housekeeping, access, packaging, and preservation of the Government property located in the storage areas. For example, the storage areas are clean and organized, access is limited to authorized personnel, and items are treated for short term or long term preservation. Objective evaluation may include reviewing the physical security of the Government property located either in inside storage or outside storage, if required. For example, for outside storage of Government property there is adequate lighting, fencing, or control of access to those locations to prevent theft of Government property. In addition, items stored outside are not prone to rust or deterioration and may be better suited to inside storage. Certain types of Government property, such as arms, ammunition, and explosives, may require more stringent storage requirements. Where necessary, the review of these storage areas should be coordinated with the appropriate Government technical representatives; e.g., Quality Assurance, Safety, or Security.

Process Segments:

- Storage Areas
- Special Storage Areas

Process Segment: Storage Areas

Population: The population consists of all areas where property is stored or is located awaiting usage. These areas may consist of the stockrooms including engineering stockrooms, warehouse space, factory locations, tool cribs, outside storage, etc.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Is the general housekeeping of each sample item area reasonable?
- Is Government property segregated from contractor property, when required? (NOTE: Please remember from IND 100 the difference between collocation and commingling, as well as the MMAS allowance of commingling.)
- Is there adequate/reasonable physical security provided for assets?
    - If no, why and what are or should be the protective measures?
- Is access to the Government property limited to authorized personnel, when necessary?
- Are assets properly packaged and preserved, when required e.g., special tooling stored for an extended period?

Process Segment: Special Storage Areas

Population: The population should consist of all areas that are used for the storage of Government property needing/requiring special controls. This would include arms, ammunition and explosives (A,A&E) as well as property that may carry a classified designation. In addition, when APP contractually requires special storage due to its nature special storage may be required. This process segment may require interaction with the quality assurance representative, the Defense Investigative Service (for A,A&E), etc. In addition, there may be other regulations and manuals contractually required of the contractor, e.g., Physical Security of Sensitive Conventional Arms, Ammunition and Explosives, DoD 5100.76-M

QUESTIONS:

- SEE APPENDIX 2 of the Physical Security of Sensitive Conventional Arms, Ammunition and Explosives, DoD 5100.76-M, for requirements applicable to contractors.
- Is the contractually required security and protection, e.g., bunkers, blast walls, controlled access, and provided this property?
- Are the other required controls, where applicable, properly imposed upon the property?
-

Process 14: Maintenance

Purpose:

Testing Maintenance. The PA is responsible for ensuring that the contractor has established a proper method of maintaining Government property. All property shall be reviewed to ensure that all required maintenance is scheduled and performed. The population for analysis may be selected from all items that require maintenance as part of their normal operation or stratified by property type requiring varying levels of maintenance actions. Maintenance actions and records shall be reviewed to determine that they have been performed and recorded in accordance with the maintenance portion of the contractor's approved PMS. Also, maintenance and repair records shall be analyzed to determine the cause of breakdown to ascertain the possibility of inadequate preventive or routine maintenance. If the PA is not technically qualified in the area, this process may be reviewed by technical specialists other than the PA, i.e., the Quality Assurance Representative.

Process Segments:

- Preventative Maintenance
- Capital Type Rehabilitation

Process Segment: Preventative Maintenance

Population: You want to look at the records for all types of property that require maintenance. Equipment, ST, STE, and Real Property. This would also include all property records closed since the last PMSA or one year whichever is less. Again, as in utilization, this process segment may be performed by another specialist, in this case - the Quality Assurance Representative (QAR) . If such is the case you, as the PA, are still responsible for the data that the QAR puts into his/her report as the total PMSA is your responsibility.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Does the contractor have a maintenance plan as part of its approved PMS?
- Does the contractor have the appropriate technical publications, when applicable?
- Is the item scheduled for periodic maintenance [Generally for equipment)?
- Is inspection/periodic maintenance performed as specified in the PMS? (Compare date scheduled with date performed.)
- Does the contractor promptly and properly record the maintenance that has been performed?

Process Segment: Capital Type Rehabilitation (CTR)

POPULATION: Equipment and real property are usually the only items that require CTR. Therefore your population has some delimiting factors. Only Equipment and RP would make up your population. To further delimit your population you could select only those items that had had CTR during the period since the last PMSA or one year, whichever is less. Notice we started with a non-transactional population in this process segment and converted it into a transactional population through the combining of two methods of selecting a population - type of property and timeframe, thereby downsizing the population.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Does the contractor have a mechanism in the PMS for disclosing the need for CTR?
- Is this inspection performed?
- Is there documentation to prove this inspection?
- Where CTR is done has authorization been granted by the CO?
- Was the CTR actually done?
- Was it done on a timely basis as defined in the contractor's PMS?

Process 15 Disposition

Purpose:

Testing Disposition

a. The PA is responsible for determining if the contractor has a system for disclosure of excess Government property and effecting its timely disposition. The basic objective is to determine the effectiveness of the disposition process on screening, identifying, submitting inventory schedules to the proper Government representatives, obtaining the proper authority for disposal of excess Government property, and reviewing the disposal of Government property under an approved scrap procedure.

b. PCARSS should make the compiling of a listing of these actions/documents much easier on the contractor, the PA and the PLCO.

c. This process is normally reviewed by selecting as a population all disposal records including plant clearance cases, transfers, scrap tickets, GFM return documents, and other appropriate documents. These records should include a file containing proof of in-house screening and a copy of the inventory schedule or other appropriate documents. In addition, the contractor's records shall have written authority for disposal and a copy of the disposal document to provide a complete audit trail. When appropriate, the PA should ensure that the contractor has a system for properly crediting the Government with the proceeds realized from the sales of assets.

d. When plant clearance is performed in residence, portions of the disposition process analysis may be performed by the Plant Clearance Officer (PLCO) instead of the PA. This is predicated upon their continuous visibility of the disposition process. In any case, the PA should interface with the PLCO to obtain information related to system effectiveness that is visible from the plant clearance perspective.

When all property has been dispositioned through plant clearance, the PA may select samples from inventory schedules or other plant clearance documentation for this analysis. However, when multiple disposition methods are utilized; i.e., transfers, returns to supply sources, plant clearance, etc., the PA should select samples from inventory records reflecting disposition to determine that all actions taken were properly authorized. This analysis is appropriate in conjunction with the contract closure task. If the disposal action was unauthorized, the contractor should investigate and report the incident for determination of liability or other remedy before relief of responsibility.

Process Segments:

- Disclosure of Excess
- Disposal
- Approved Scrap Procedure

Process Segment: Disclosure of Excess

Population: We want to look at all plant clearance cases, closed and open, since the last PMSA or one year, whichever is less as well as all other declaration of excess documents, e.g., reports of excess, periodic screening lists generated by the contractor, etc.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Has the contractor screened these assets for any in-house use on other contracts or commercial work?
  - Is this process documented in the contractors PMS
  - Is there evidence of screening?
  - Are items promptly reported?
    - Define promptly! Check the Contractor's PMS.
  - Are the inventory schedules accurate and complete? Talk to your Plant clearance officer (PLCO).

Process Segment: Disposal

Population: All disposal actions, e.g., DD 1149 shipping documents, transfers between contracts, sales documents, scrap tickets, etc., as appropriate.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- If asset has been disposed of was there authority to do so?
- How was disposal accomplished? -Sale, Donation, Scrapping, Shipment?
- What was the time period from time disposition instruction given to time of actual disposal?
- Was it reasonable?
- Was ID removed? Was this verified by a Government Representative?

- What documents verify that disposition was accomplished. Receipts, checks, weight slips, QAR verification, etc? Be careful - there is increased scrutiny in the areas of hazardous wastes and demilitarization items.
- What happened to the proceeds of sale generated from the sale/disposal of property?
  - Check to the Government?
  - Credit to contract?
  - Credit to Overhead?

Process Segment: Approved Scrap Procedure

Population: All items processed through the contractor's Approved Scrap Procedure since last PMSA or one year, whichever is less.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Does the contractor have an Approved Scrap Procedure?
- Is the contractor complying with the Approved Scrap Procedure?
- Are only items that are allowed to be processed through the Approved Scrap Procedure using this system, i.e., production scrap and production spoilage as well as parts removed from overhaul contracts that are in scrap condition?
- Where are the proceeds from the sale of scrap going?
  - Overhead?
  - How do you verify this?

Authority for Disposition

This process is another where a reverse analysis might prove fruitful. Specifically, we have been going from the records to the property, checking to see that what the contractor has already told us about has been done. There might be items that have slipped through the cracks. A review of the inventory records to seek out disposals and then tracing these items, through their posting references would assure that all items have been processed through the approved/usual disposal routes. Through this reversal of the normal audit process we can check for the proper authority for disposal.

Process 16 Contract Closeout

Testing Contract Close-Out

a. The PA is responsible for ensuring that the contractor has a method to ensure that all contract close-out actions related to property are completed. The basic objective is to determine the timeliness and effectiveness of the contractor property close-out process.

b. This process may be analyzed during the PA's final review of contractor close-out actions, or the PA may test all contractor close-out actions over a period of time. Subjective evaluation may include reviewing the timeliness of submission of contractor close-out reports, accuracy of reports, the adequacy of the contractor's method for tracking contracts nearing completion, and the timely initiation of appropriate actions to close-out affected contracts. Objective evaluations may include verifying that the contractor has obtained all required authorizations for property transfer, completed directed disposition actions, ensured completion of liability determinations, and submitted all required reports.

c. When no contract close-out actions have been initiated or completed since the last analysis, the PA may only address the tracking of contracts nearing completion. Where no contract close-out actions have been reported, the PA should review for any contracts that have been completed but not reported for close-out.

Process Segments:

- Relief from Responsibility
- Final Contract Review

Process Segment: Relief From Responsibility

Population: All closed contracts since the last PMSA or one year, whichever is less. For these closed contracts the disposal documents involved e.g., inventory schedules, disposition documents, shipping documents, transfer documents, etc. In addition, other documents relative to relief from responsibility should be included e.g., inventory adjustment vouchers, liability determinations, etc.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Did the contractor have the authorization to transfer property?
- For idle assets, does the contractor have the authority to retain the asset? Be careful, the belief that another contract will be awarded is insufficient to justify retention. There must be some WRITTEN authorization.
- Have all inventory adjustments, liability determinations, title issues, been resolved?

NOTE: There is a real problem on the Government's part with non-responsive contracting officers. It is imperative that the PA/PLCO maintain follow-up for the proper disposal/resolution of these property matters. In addition there is a real problem with the premature close-out of contracts prior to the receipt of a DD form 1593 by the Contracting Officer administering the contract. This is another area where the PA's relationship with the CO is critical.

Process Segment: Final Contract Review

Population: For Criterion # 2 below a judgment review may be performed. This would review the contractor's PMS and the procedural portion as well as holding discussions with the contractor personnel responsible for the final contract close-out to assure that they are aware of their responsibilities.

QUESTIONS:

- Where VCSes or ILPS are applied for this process are the criteria set forth in the VCS/ILP applied through the contractor's PMS?
- Is the contractor aware of contracts approaching completion?
    - How?
- What mechanism is in place to notify the contractor or the contractor's employees of this forthcoming event?

Defense Contract Property Management Systems Audit Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 7

Worksheets and Narratives

By the end of this module, you should be able to:

- Describe how to prepare the worksheets and narratives involved with a PMSA

By completing the lesson, you should be able to:

- Explain the requirement to have worksheets as the Government's "audit evidence"
- Describe the general information required on each worksheet within the PMSA
- Describe the information that would e entered on the worksheets for each function
- Describe the information that would be included in the narrative accompanying the worksheets

RECORDING OF DATA

It is amazing how much work is entailed in just determining the correct population(s), and selecting the proper sample size and sample. But, there is even more work ahead. That work is the actual recording of the data, the second part is the analysis of the data.

"Wait a minute. I got the population, I even have the sample and sample items. What data am I supposed to record and where?"

The "where" question is easier to answer than the "what" question. So, let's take them in that order."

WHERE TO RECORD THE DATA

As foolish as it may sound, certain data need to be recorded. Again, if we may steal from a related field, the CPAs of the world, the AICPA has the Statements of Audit Standards. Arens and Loebbecke (1988) cite these standards regarding workpapers,

> According to SAS 41 (AU 338), working papers are the records kept by the auditor of the procedures applied, the tests performed, the information obtained, and the pertinent conclusions reached in the engagement. Working papers should include all the information the auditor considers necessary to conduct the examination adequately and to provide support for the audit report (p. 174).

Sawyer (1981) in one of the classic internal auditing texts provides this basis for working papers,

Working papers document the audit. They contain the records of preliminary planning and surveys, the audit program, the results of field work, and other documents relating to the audit. Working papers are prepared from the first time auditors launch their assignments until they write the final reports. Skillfully prepared working papers are the trademark of a professional!

Even the Government has established that work papers need to be maintained. In what is commonly referred to as the "Yellow Book" published by the Government Accountability Office, the investigative arm of Congress, has established the document entitled Government Auditing Standards (July 2007) – which we have discussed before. It states,

4.19 *Under AICPA standards and GAGAS, auditors must prepare audit documentation in connection with each audit in sufficient detail to provide a clear understanding of the work performed (including the nature, timing, extent, and results of audit procedures performed), the audit evidence obtained and its source, and the conclusions reached. Under AICPA standards and GAGAS, auditors should prepare audit documentation that enables an experienced auditor,52 having no previous connection to the audit, to understand*

a. *the nature, timing, and extent of auditing procedures performed to comply with GAGAS and other applicable standards and requirements;*

b. *the results of the audit procedures performed and the audit evidence obtained;*

c. *the conclusions reached on significant matters….*

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One additional reference is provided by Flesher (1996) where he states "Although an audit report is the end product of an audit, the report is supported by evidential matter. The Standards for the Professional Practice of Internal Auditing emphasizes the importance of evidential matter. Standard 420 states that auditors 'should collect, analyze, interpret, and document information to support audit results.' Audit evidence should be sufficient, competent, relevant, and useful to provide a sound basis for audit findings and recommendations. Sufficient means that audit evidence should be 'factual, adequate, and convincing so that a **PRUDENT, INFORMED PERSON WOULD REACH THE SAME CONCLUSIONS AS THE AUDITOR**" (emphasis added).

If we could again look back at the General Dynamics Corporation versus U.S. (1996 WL 200255 (C.D. Cal.)) case we can see in item # 157 that "The result was an audit report whose findings, conclusions and recommendations were not supported by evidence in the working papers even though, in the opinion of the Government's expert, the single most important aspect of due professional care is that the work papers contain sufficient evidential matter to support the result."

Various DoD agencies have prepared working papers or worksheets for use by their PAs in performing their system analysis. Yet, even within DoD agencies there may be variations amongst those districts as to the proper worksheets. Sometimes the agencies leave that decision totally within the purview of the PA - left to dangle in the wind is more like it. To assist you in this class we have provided you with a number of sample worksheets. In addition, later in this class you will be preparing your own worksheets for

various processes/process segments. Lastly, there are many AUDIT SOFTWARE programs out there – though I am not aware of one specifically tailored to Property Management and Administration. From a historical perspective, the Defense Logistics Agency had prepared a software program to assist the PA in performing this task. That software program was called the Property Control System Analyzer written and encoded by Mr. Jeff Curtis of the Defense Logistics Agency. It was available for use in Version 1, and there was supposed to be a Version 2.0 – but that never came to fruition. Computers are perfectly acceptable for use in performing system analysis. I would like to digress just for a minute and continue the discussion, started in Chapter One of this text, on computers.

Brink and Witt (1982) further discuss the use of computers.

> *The computer has proved to be an invaluable tool to auditors in applying statistical sampling. It simplifies the calculation necessary, eliminating the need for reference to formulas or tables. In addition, it facilitates the use of sophisticated techniques, thus enabling auditors to obtain precise and unbiased results. The auditor can, of course, use calculations in some instances to solve formulas when a computer is not available, but this is more time consuming. Auditors can sometimes take a portable terminal to the site when needed for statistical applications. The auditee may have a computer available.*

Computers are powerful tools and as our field matures and develops and as computer software becomes more powerful and user friendly it is hard to imagine any aspect of our professional lives not being affected or impacted by the use of computers. Now, in spite of all that I have said regarding computers for the purposes of this class we will be using manual worksheets due to the diversity of agencies attending this class. It is far more critical for you to understand the theoretical underpinning as to **"WHY and HOW"** we do something than the operation of a software program. For one reason:

1. Good theory makes for good application. What is the old Chinese proverb? "Give a man a fish he will eat for a day. Teach him **HOW** to fish and he will be able to feed himself forever." We are going to teach you how to fish, or in our case **THE How's** of doing a PMSA.

STRUCTURE OF WORKSHEETS

For the Department of Defense to attempt to prescribe or mandate the use of one type of worksheet for all departments would be ludicrous. There is such a rich diversity of environments performing the work of property administration that any one design would most certainly be flawed. Its applicability from one environment to another would and should be challenged. Rather, broad general guidelines are provided that can be tailored to each environment. Think for a moment about the breadth of property management. There is research and development work, there is overhaul and maintenance work, there are service contracts, there are Government Owned/contractor operated plants, there are bases and installations, there are even contractors performing work overseas and in war zones!!! One set of worksheets for everyone? I don't think so.

Through experience I have seen numerous different forms and formats used as the worksheets. My favorite story regarding worksheets deals with an individual, who shall remain nameless. For a class I had requested that each student bring in a worksheet. My idea was to have the students compare the diversity of worksheets, looking at the column headings and the criteria for each process. Well, most had preprinted sheets with headers and columns and lines for the sample items and even labels for the columns already done. Well, this one individual provided me with a blank sheet of ledger paper with the comment, "This is my system analysis worksheet?"

I was at first a little perturbed, then slightly amused, then startled to realize that this individual came closest to being a "true" auditor. Why? Because he realized that each environment he audited would have different operating systems and therefore he would need to organize his work differently. Personally, I don't care what you use for worksheets - just so long as it provides the **AUDIT EVIDENCE** necessary to support you findings. You can use ledger paper, preprinted worksheets, worksheets mandated by your department, agency, district or headquarters or even computer files. Each one of these aforementioned activities probably has a different idea how these items should look. You job is to accomplish two things: 1. Perform your audit and 2. Comply with your activity's directions in accomplishing this action.

There should be contained, as a minimum, the following information on the top of the worksheet(s):

Contractor's Name
Period being reviewed by PMSA
Process being reviewed
Process Segment being reviewed
Population - What documents/items/locations, etc., make up your population
Quantity of items in population
Sample Size

The next step is the form and structure of the worksheet(s) for recording the data.

WHAT DATA TO RECORD

The recording of the data provides **AUDIT EVIDENCE**. We can deal with this evidence from the standpoint of competence, relevance, independence, sufficiency, timeliness and their combined effect. The use of simple **"YES"** or **"NO"** answers may be insufficient to answer many criteria applicable under the PROCESS requirements of FAR 52.245-1(f), i.e., the Government Property clause. Rather the PA must extract data from the records and provide evidence of actually performing the audit. For example, let us select one process, and the criteria embedded in this process to support this contention. Let's use the **Process of ACQUISITION!**

FAR 52.245-1(f) states, "(i) *Acquisition of Property. The Contractor shall document that all property was acquired consistent with its engineering, production planning, and material control operations."*
So, what items would make up our population and then what questions or criteria must a contractor have to adequately comply with this process requirement?
Here is one way to do this [NOTE – this is only ONE population that may be defined. There are MANY other ways to define this population]:

1. With this Process we will be reviewing all purchase orders for contractor acquired property (CAP) as defined at FAR 52.245-1(a) for one year or back to the last audit, whichever is less, as our population. Note – this is a TRANSACTIONAL Population as we are testing ACTIONS that have occurred over a period of time, i.e., all purchases made!
2. The population consists of 2649 items. (Don't worry, I just made up this number).
3. The sample size is 34.

How do I know that the contractor has documented all property acquired AND it is consistent with engineering or production planning, etc?

So for this process and the embedded criterion we can answer yes or no for this question?

Right?

Wellllllll, not exactly. Because if I answer this criterion yes or no what evidence to I have to support that statement?

Your reply "Well, I saw the purchase order!"

Great! But that only supports that an action took place – NOT that the action was proper! Was there an item that could serve as a SUPPORTING DOCUMENT for that purchase order? Was there a purchase requisition, or a drawing or a material requirements list or a blueprint that showed that the item ordered was ACTUALLY NEEDED – and needed in the QUANTITY ORDERED?

Was there any other data you could have culled from that letter that would have substantiated that approval for the acquisition existed? This is the type of data that will allow you to replicate and substantiate your findings. How do you know what information the contractor is required to have to support their actions in this regard?
READ THEIR PROPERTY MANAGEMENT SYSTEM PROCEDURES! NOTE – you should have done this WAY before you even started the audit. I know this seems self evident – but I just wanted to reinforce this issue. The contractor will tell us, will describe to us the "Who, What, Where, When, How and Why" they will perform these actions in their PMS. Remember also that their PMS is based upon VCSes and ILPs. Therefore, if VCSes are referenced in the contractor's PMS you should ensure that the data elements set forth in the VCS are indeed APPLIED in the PMS processes.

So, for every process or process segment that I review/audit I must ensure that I have audit evidence to support:

The contractor's PERFORMANCE to that requirement and
Any criteria EMBEDDED in that Process.

Let's do one more example.

This time it is the **PROCESS of RECEIVING**. Again, this PROCESS requirement is found under FAR 52.245-1(f). It states, *(ii) Receipt of Government Property. The Contractor shall receive Government property (document the receipt), record the information necessary to meet the record requirements of paragraph (f)(1)(iii)(A)*(1) *through (*5*) of this clause, identify as Government owned in a manner appropriate to the type of property (*e.g.*, stamp, tag, mark, or other identification), and manage any discrepancies incident to shipment.*

O.k., let's try this again in defining some of the criteria!

1. This time our population is all receiving reports, etc. for the past year or to the last audit whichever is less.
2. We have 7843 receiving reports (RR).
3. Our sample size is 34.
4. We set up our worksheet to ask and answer this question under this process. Are receiving reports promptly prepared that document items and quantities received?

Yes, we can answer that question with a, "YES." But that would be inadequate!
Think about it? What would be wrong with answering this criterion yes or no?
Again, we have no **AUDIT EVIDENCE** to support our findings, one way or the other. Rather I would want to see a recording of the RR number, listing of item(s) on the RR, quantities on the RR, listing of the condition or condition codes, listing of the date received, comparative analysis of the data on the Shipping Document with the information on the RR, etc. ALL OF THIS SHOULD BE LISTED ON MY WORKSHEETS TO PROVIDE PROOF OR VERIFICATION WHEN NECESSARY TO THE CONTRACTOR THAT I AM PERFORMING MY SYSTEM ANALYSIS ON OR TO MY DISTRICT OR DIVISION STAFFERS, OR IG, OR GAO, OR EVEN A COURT OF LAW!!! This data on the

worksheets verify that you have done your job -- and done it correctly, adequately, accurately and completely. Without this data you have no substantiation, no **AUDIT EVIDENCE** that you have done your work.

HOW TO RECORD THE DATA

We talked about the "Structure of the worksheets" earlier in this chapter. It would be a good idea to get a visual representation of a worksheet. As stated, the Department of Defense does not prescribe any one standard form or format. But, there are practices that are acknowledged as acceptable. Let's take a look at one suggested form/format.

Here is a form and structure that is capable of being applied to virtually every function and functional segment through the application or assignment of the criteria to the various columns. Take for instance COLUMN 1. We would use this for listing our Sample Number.

Sample Number									

The next column would be the Sample Item Description. Basically, this would be a noun name of some kind; Nut, bolt, screw washer, etc.

Sample Number	**Item Description**								

If we were doing the Process of "**RECORDS**" from the GP Clause requirement it requires that:

(iii) Records of Government property*. The Contractor shall create and maintain records of all Government property accountable to the contract, including Government-furnished and Contractor-acquired property.*

(A) Property records shall enable a complete, current, auditable record of all transactions and shall, unless otherwise approved by the Property Administrator, contain the following:

(1) The name, part number and description, manufacturer, model number, and National Stock Number (if needed for additional item identification tracking and/or disposition).

(2) Quantity received (or fabricated), issued, and balance-on-hand.

(3) Unit acquisition cost.

(4) Unique-item identifier or equivalent (if available and necessary for individual item tracking).

(5) Unit of measure.

(6) Accountable contract number or equivalent code designation.

(7) Location.

(8) Disposition.

(9) Posting reference and date of transaction.

(10) Date placed in service.

So we have ten (10) data items listed (And there are really more if you analyze this requirements carefully) that a contractor must have on its records – whether manual or automated.

Let's say that we have selected a population of "All Material Records." [NOTE: THIS IS NOT TO IMPLY THAT THIS A CORRECT POPULATION SELECTION. RATHER IT IS BEING USED AS AN EXAMPLE OF PROPER WORKSHEET DESIGN.]
With this framed as our population and then selecting the random sample we would analyze the sample items for the following characteristics under the appropriate criteria. Remember, we can not just answer a criteria "yes" or "no." We must be able to justify our answer through the audit evidence presented on our worksheets. What would the data be? Well, the contractual requirements of FAR 52.245-1(f)(iii) would be an excellent starting place. We have just seen that it lists the following "bits" of data as being required for EVERY item of Government Property :

Name, part number and description, manufacturer, model number, and National Stock Number (if needed for additional item identification tracking and/or disposition).
Quantity received (or fabricated), issued, and balance-on-hand.
Unit acquisition cost.
Unique-item identifier or equivalent (if available and necessary for individual item tracking).
Unit of measure.
Accountable contract number or equivalent code designation.
Location.
Disposition.
Posting reference and date of transaction.
Date placed in service.

If we were to follow this progression on our worksheets it would look as follows:

Sample Number	NAME	Part Number	NSN			

Let's change the order of the data requirements just for ease in creating this worksheet. Contract number and unit price would appear to be the next logical data fields.

Sample Number	NAME	Part Number	NSN	Contract Number	Unit Price		

Notice that these criteria are applicable to every sample item that we review and that our worksheet and its respective columns are increasing. Notice also that we are NOT looking

for “yes” or “no” answers – rather we are looking for the actual data. We are looking for an item description, a National Stock Number, a contract number and a unit price to be placed in these columns from the record maintained on that sample item!

O.K., you think you have a handle on this? Let’s take a look at some of the other criteria. This may get a little more difficult. One of the other items under FAR process requirement is Quantity received, issued and on hand. Rather than add to our already burgeoning worksheet let’s treat these items as three separate columns. They would look like this:

Quantity received	Quantity issued	Balance on Hand

Seems simple enough!

“We just put down those items” you say.

My response, “Which items?”

“Well, the quantity received, the quantity issued and the balance on hand.”

“Great, I understand the balance on hand, but which quantity received?”

“What do you mean ‘Which’ quantity received?”

“Are you telling me that the contractor has received this type of material ONLY ONCE?”

“Well, no. There were a lot of receipts of that property.”

“Well, again I have to ask ‘WHICH’ quantity received?”

Has the light bulb gone on? With on ongoing process there may be tens, hundreds, even thousands of receipts for that property over the life of a five year R&D contract. Therefore, which “receipt” of property do you pick? Generally, since you are testing the contractor’s **CURRENT** operations you will select the last receipt posted to the record. I can hear you all complaining now, “Well why didn’t they say that?” It was there all along – you just didn’t realize how your actions were driven by that requirement. The same holds true for “quantity issued.” There were probably numerous issuances of that property over the course of the year. Which one is to be selected? Again, generally, you will select the most current, the most RECENT transaction – the LATEST transaction.

But these three columns aren’t done just yet. How can I be sure that what is on the record card is accurate and correct? You are required to review the **SOURCE** document that triggered the posting of that transaction. “Wait a minute – where does it say that?” FAR 52.245-1 (f)(iv) entitled posting reference and date of transaction.

Many folks confuse the issue of reviewing the Function of **RECEIVING** with testing the receipt of property under the Function of **RECORDS**. Yes, I agree that you test the receipt of property under the Function of Receiving. But, do you trace it through all the way to the record card or record system where it enters the contractor's inventory system? Generally not. You are testing the PROCESS of RECEIVING Government property in one audit process – and testing the PROCESS of ESTABLISHING AND MAINTAINING RECORDS of Government property in this other process. Therefore, this check of the process is comparative in nature. You are doing a comparative analysis of three things:

1. What the contractor said he/she would do in the procedures,
2. What happened with this receipt (or issuance) as posted to the in your hand, or the computer screen and
3. The **STANDARD** set forth in the contractor's procedures.

So what really happens when we select that last receipt of property onto the record changes from one column to four columns. Rather than just:

Quantity Received

You will now have five columns with the columns entitled:

Receiving Report Number	Qty. On Receiving Report	Qty. Posted to Record	Date of Receiving Report	Date Posted on Record

This grouping of columns allows you to test through a comparative analysis the criteria required and set forth in FAR 52.245-1(f). This would include Quantity received, Posting Reference and Date of Transaction. This comparative analysis of data is to ensure that:

1. Quantities received are actually posted to the record, i.e., the counts on both documents/records match and
2. The transactions are accomplished in a timely manner. Timely being defined by the contractor's property control system and the written procedures.

This is a lot different than the first answer provided where there was only **ONE** column. And again, I would like to emphasize that these columns CANNOT be answered with a simple "yes" or "no." They must have data inserted into them so that an external auditor, e.g., GAO, DoDIG, etc., would be able to **REPLICATE** your findings.

The same type of columnar structure can be established for issuance.

Issue Slip Number	Qty. Issued	Qty. Posted	Date Issued	Date Posted

If we were to look at all of the data item elements that we have covered it would look something like this.

Sample Number	Item Desc.	NSN	Contract #	Unit Price	RR #	Qty. On RR	Qty. On Record	Date of RR	Date posted	Issue Slip #	Qty. Issued	Qty. Posted	Date Issued	Date Posted

Gets kinda' tight doesn't it?

Unfortunately, we are not yet done with this one functional segment, or even the first criteria. Wait, What Process were we doing?

Records

There is still another data item under FAR 52.245-1(f) that we have not addressed. This is the requirement for the posting of LOCATION.

Location is also a comparative item. Specifically, we would want to record the location from the record on our worksheet and then physically inspect that location to ensure that the item was where it was recorded to be. There are two caveats to this. The first is that if a contractor is using "summary" records as authorized for say equipment then specific locations are **NOT** required. In addition, there may be a voluntary consensus standard that allows the contractor – with the PA's APPROVAL – to relieve the contractor from the record keeping requirement. Yes, we would expect an initial location to be posted to the record but subsequent changes of location need not be posted. With this LOCATION item we now add two more columns entitled:

Location on record	Actual Location

If we were to establish a worksheet with ALL of these data item elements on them it might look like this.

SAMPLE WORKSHEET FOR THE FUNCTION OF RECORDS
[WARNING!!! THIS IS A SAMPLE ONLY. IT IS NOT FOR USE!]

Sample Number	Item Desc.	NSN	Contract #	Unit Price	RR #	Qty. On RR	Qty. On Record	Date of RR	Date posted	Issue Slip #	Qty. Issued	Qty. Posted	Date Issued	Date Posted	Record loc.	Actual loc.

In the “old days” when I was a working industrial property management specialist we had an experienced Property Administrator guiding us through the lengthy process of LEARNING HOW to do a PMSA or the old term, a property control system analysis or the older term, a system survey. I was lucky to have as my PA a gentleman by the name of Mr. Vinnie Carnevale -- back in the old days of the Defense Contract Administrative Services Management Area (DCASMA), New York. As a trainee Vinnie took me out to EVERY contractor’s plant, site or facility under his cognizance and literally WALKED me through the survey. He showed me numerous different techniques and methods. He provided me a firm foundation in the system survey process.

One of his areas of emphasis was that of the system analysis workpapers. Vinnie was a believer that the workpapers needed to provide CLEAR, FACTUAL EVIDENCE of the findings and this HAD TO BE WELL DOCUMENTED. Now, I don’t know if Vinnie ever had any classes in auditing. He wasn’t a Certified Public Accountant. But, in the thirty years I’ve been involved with Government Property I can count the number of times he was wrong on one hand. What does this have to do with our current property control system analysis? Well, an area of weakness in the PMSA process is that of WORKPAPERS!

A PMSA is NOT a haphazard process. To carry out this process the PA must have a systematic approach, establish a record of what was done, and to accumulate the data, the auditor must prepare WORKPAPERS. Bottom line – these workpapers are your AUDIT EVIDENCE.

Don’t take my word for it – look to the experts. Arens and Loebekke in *Auditing, an Integrated Approach* (1988, 4th Ed.) quote one of the Statements of Accounting Standards, more commonly referred to as a SAS. SAS 41 states *“Working papers are the records kept by the auditor of the procedures applied, the tests performed, the information obtained, and the pertinent conclusions reached in the engagement”* (page 174).

Over the past few years I have seen a wide variety of “workpapers” presented in the IND 103 On-line class. Some have been excellent – others, well, they needed some work. These workpapers are CRITICAL to the proper supporting of your findings in the system analysis. Now think about YOUR workpapers. If I were to come into your office, look at one of your last system analyses, could I then take YOUR workpapers and REPLICATE your findings. Let me say that in English. Could I go to the contractor’s plant and find the exact RECORD from which you obtained that data? What I am really driving at here is the use of survey questionnaires with yes or no answers. I have seen numerous workpapers that consisted of NOTHING MORE than yes and no answers.

My question to these individuals is “How do I know WHAT you audited?”

Their response “Well, I went to the contractor’s plant and did this and that and the other thing!”

My response “Gee, that’s great. Please show me that work.”

Their response “Well, here – these are my workpapers. See, I answered the questions yes or no and that means I reviewed their system.”

My response “Nope, those papers are MEANINGLESS as there is NO AUDIT EVIDENCE.”

Now, it’s rare that PAs get dragged into court. I haven’t heard of this happening for a long time. But that doesn’t mean it WON’T happen – and the courts are far less forgiving that your headquarters team that may perform a review of your work! Let me provide you another quote from Arens and Loebekke. They state that “Working papers are the primary means of documenting that an adequate audit was conducted in accordance with GAAS (Generally accepted auditing standards – which we have discussed a number of times). If the need arises, the auditor must be able to demonstrate to regulatory agencies and **COURTS** (Emphasis added) that the audit was well planned and adequately supervised (Supervisors take note – you’re not off the hook so easily here either), the evidence accumulated was competent, sufficient and timely, and the audit report was proper considering the results of the examination.”

I know, I know – you’re going to say, “We’re not financial auditors. We’re auditing Government Property records and property control systems!” I fully well understand that. I’ll agree – we’re doing operational audits. So let me cite the literature from that field. Reider in “The Complete Guide To Operational Auditing” (1994) states that “Workpapers are used:

1. As a repository of the information obtained.
2. To identify and support problems, events, or actions occurring during the engagement (Don’t you just love that word – our Property control system Analysis is an engagement!), findings, meetings and the like.
3. To give support to discussions with operating personnel.
4. To provide support for the report (Our system analysis summary).
5. As a line of defense when FACTS, CONCLUSIONS AND RECOMMENDATIONS ARE CHALLENGED…”

Plus other items too numerous to list in this short article.

Even in the world of Internal Auditing, another closely related field, working papers have been assigned a Professional Standard number with descriptive literature surrounding it (See Flesher, D.L., *Internal Auditing, Standards and Practices,* 1996).

The point of all this discussion is that each and every Property Administrator and his or her supervisor must ensure that audit workpapers thoroughly document the process and items reviewed during that PMSA. What then should be in the workpapers?

1. The process undergoing the review,

2. The population, CLEARLY DEFINED, SO IT CAN BE REPLICATED,
3. The sample size (If using statistical sampling),
4. The specific sample items selected. Yes, listing each and every sample item selected by some identification, e.g., Nomenclature, National Stock Number, Part Number, Purchase Order Number, Plant Clearance Case number (And yes, I know that some of these items may have multiple iterations – at which point your description must be even MORE specific such that I could find the EXACT item of documentation that you used for your SOURCE document.),
5. The Descriptive and Quantitative data that supports the contractual requirements of the Government Property Clause, FAR 52.245-1(f).
6. Reference numbers related to SOURCE DOCUMENTS, or copies of source documents (Though I hesitate to even mention this as we must remember that it is generally the CONTRACTOR that is tasked to maintain the Government's Official Property Records), and reference numbers relating to supporting documents.

I have no preference as to how this is done. You may use hand written sheets on log paper. You may use worksheets designed by your office as a "standard." You may use computer-generated worksheets. You may even use computer programs such as MS-Excel [Note – this does suggest that I am endorsing MS-Excel! Just addressing that it may be used.]. You may use ANY METHOD you want of creating, completing and maintaining those worksheets – SO LONG AS THEY PROVIDE REAL SUBSTANCE AS TO THE PERFORMANCE OF A SYSTEM ANALYSIS and WHERE AN OUTSIDE REVIEWER CAN REPLICATE THE INFORMATION YOU ORIGINALLY OBTAINED.

O.k., we covered the area of PMSA Workpapers. I stressed the CRITICAL nature of properly documented workpapers as a source of AUDIT EVIDENCE. In this course, IND 103, we have you define populations, select samples, and even prepare sample worksheets covering the Processes, Process Segments and Criteria required by the GP Clause of FAR 52.245-1. We stress how important it is to properly document the source data that support each sample and sample item and the associated criteria. And, most importantly, those simple yes or no answers to those criteria FAIL to meet the standard of audit evidence. In this past discussion I provided strong evidence as to the specific requirements for those worksheets – not by MY opinion (Because that really doesn't matter), rather, the opinion of renowned experts from the field of AUDITING!!!

Well, I received a number of E-mails and phone calls about audits and had lots of discussions with my property peers out there in the field. One area that kept surfacing, and was directly related to the issue of workpapers was the area of NARRATIVES – Narratives that accompany and report on the findings in those workpapers.

Now, I like writing. I may not write well all the time, but I try to put pen to paper and present technical issues with some degree of clarity (Yes, there are a few that have enjoyed the task of CORRECTING my writing. Those individuals have taken GREAT JOY at finding my errors. No, I won't name them here – THEY KNOW WHO THEY ARE!!!). Writing is another CRITICAL SKILL that property folks need to develop. The

writing of narratives in the context of a PMSA is one area where that skill comes to the forefront of application!

Let me try and place this into the proper perspective.
You scheduled the system analysis with your contractor.
Possibly done a risk assessment of the contractor's PMS.
Conducted your entrance conference with the contractor.
Performed the PMSA in accordance with the GAAS, GAO Yellow, and ILP protocols.
Collected all of your data and prepared the finest workpapers ever prepared!!!

Now comes the time that you need to tell the world the findings and the condition of that contractor's PMS.
What happens?
You freeze!
You say "I'm not a writer."

You know that you have all of the data in front of you. There are reams of paper, and notes, and documents – but you can't think of one word to put down on paper to describe all of the "stuff" (Both good and bad) that you found. Where do I start? HOW do I start?

POPULATION AND SAMPLE

Well, let's start with the simple stuff. TELL ME IN SIMPLE ENGLISH WHAT YOU DID IN CONDUCTING YOUR REVIEW OF THAT PROCESS!

What Process did you review?
What criterion or criteria did you review?
What documents, locations, types of property, etc., made up your population?
What was the size of your population?
What sampling technique did you use?
What was the size of your sample?
How did you select the sample numbers?
How did you align the sample numbers with the population items?

Let's change this to a narrative.

This narrative covers the Process of RECORDS and the requirements of FAR 52.245-1(f)1)(iii). It covers all criteria established and required by the aforementioned clause. The documents reviewed consisted of the inventory records of all Government Owned material accountable under active contracts as well as material accountable to contracts that had been closed since the last systems analysis. This population consisted of 1276 items (Record Cards). Statistical sampling was used. Following a 90% confidence rate, a sample size of 34 was used with the actual sample numbers being selected by using the program found at www.Randomizer.org (Printout attached). As the contractor provided a

sequentially numbered computer listing of the material the sample numbers were aligned with the printout numbers.

Notice that we have taken the original questions – which you need to answer to actually PERFORM your system analysis of the function, and converted them to simple phrases. By answering these questions you can easily craft the opening portion of your narrative for each and every function, functional segment, and criteria. All we did was take the information that you already had at hand, logically ordered it and provided the reader (Well, at least the reader reasonably knowledgeable in property) a clear description of what we did to start our analysis.

FINDINGS

O.k. that tells me HOW I obtained my sample items. But how do I explain my FINDINGS?
Use the same technique.
Ask some simple questions!

What sample items were reviewed? (Quick Reiteration)
What Criteria were reviewed?
What Systemic Quantitative and Qualitative Information was obtained? (Remember, our focus needs to be on the SYSTEMIC defects – not nitpicks)
    What requirements/criteria was found Satisfactory?
    What requirements/criteria was found Unsatisfactory?
WHY?
How did you rate the Process?
WHY?

Change these answers to simple Phrases.

Thirty-four sample items consisting of inventory records for Government owned material were randomly selected and reviewed. The criteria tested were the data items required for this process.

Property control records conform to GP Clause requirements, or the VCS or ILP requirements when and if applied – etc.

Support documentation

Prompt posting of Transactions

Sensitive property [Note – I'm going to skip this one as it really isn't a contractual requirement at this time in the records portion.]

Inventory control records are properly closed.

[Note: Now I realized that I paraphrased these items. I did so for the sake of brevity.]

But let's take these and address them, as before, in some simple phrases.

The criteria tested included a review to insure that all Government owned material property control records conformed to FAR 52.245-1(f)(1)(iii) requirements including; name, description, identification number, quantity received or fabricated, and on hand, the unit price, contract number, location, disposition (If disposed of since last analysis), the posting references to support any actions and the closure of the accountable record where the material was dispositioned and the record closed for property management purposes.

Let's continue.

The criteria of name, description, balance on hand, the unit price, and contract number were found to be satisfactory. No discrepancies were found in any of the sample items for these criteria.

Five defects were found for the criterion of location. Contractor was not promptly posting location changes in accordance with its Property Control system (Reference Contractor X, Procedure 234-A, Chapter 5) which requires all location changes to be posted within five business days. This review found that these five items had not been posted for over 30 days. These items of material each had an acquisition cost of over $10,000. As the number of defects exceeded those allowed by the 90% confidence rate sampling table and the discrepancies were of a systemic nature this process is considered unsatisfactory.

Notice that we have provided answers to all of the questions posed above. We have provided the good, the bad and the ugly -- The items that were satisfactory, the items that were found unsatisfactory, both quantitatively and qualitatively. Specifically, how many were "defective" and WHY were they defective.

Now I know that this was a rather simplistic scenario, and you may say that your world is different. I agree with you – but most, not all, but MOST of the folks out there as Property Administrators have been doing this job for years, and as such there is a level of expectation. We are PROFESSIONALS and therefore, our reputation and the way we are viewed by others that do not know us personally is directly tied to our WRITING! If we present a poor image to the outside world through our writing, their perception of us will be all the less.

Defense Contract Property Control Systems Analysis Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 7

Analysis of Data

By the end of this module, you should be able to:

- Start categorizing and summarizing the collected data

By completing the lesson, you should be able to:

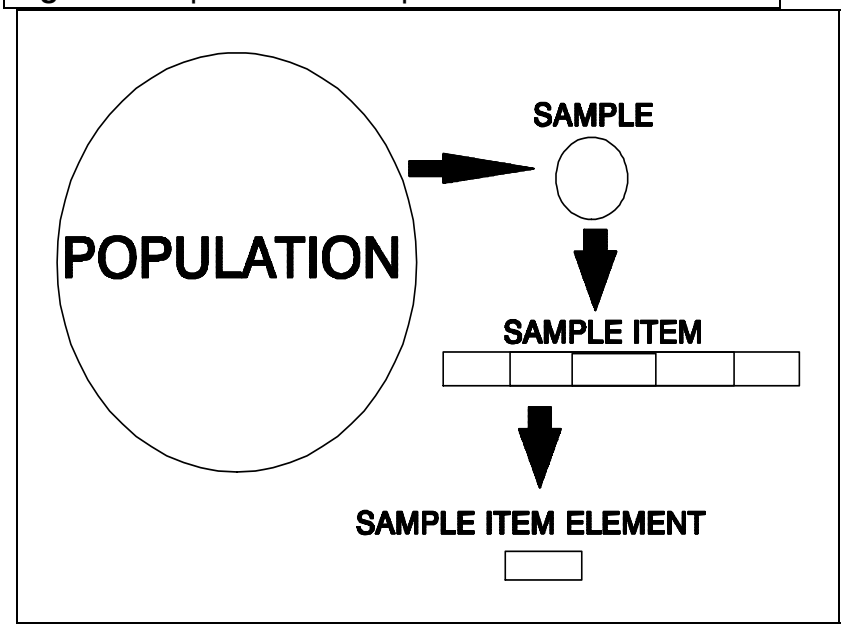
- Distinguish between defects and deficiencies
- Identify Sample item defects and sample item element defects
- Distinguish between system and non-systemic defects
- Understand and apply acceptance/rejection rates

ANALYSIS OF DATA

In this class we have gone through the processes/process segments/criteria and performing some sample tests and providing some analytical question to assist you in performing this effort. And quite an effort it is! The analysis of the data that you have collected from your sample can be the most vexatious part of the analysis process. Why? Because we have left a great deal of judgment in your hands!!! If your judgment is faulty, if you've had a fight at home and bring your problems into the office, if your boss tells you to do something that is improper all of these actions and inaction can temper the outcome of the system analysis - in spite of the application of statistical rules and regulations. Judgment, good, sound judgment plays and enormous role in determining whether or not a sample is satisfactory or unsatisfactory. How should data be analyzed? Let's look at some of the methods of data analysis. But before we do that, it would be prudent to clarify some of the words we are going to use in this section. (See Figure 1.)

- Our first grouping is our population.
- Our second grouping is our sample.
- The sample is broken down by sample items.
- The sample item is broken down into elements or sample item elements.

Figure 1- Population to sample item element



TYPES OF DEFECTS/DEFICIENCIES

For example, a population has 7421 records in it. The sample size is 34. The sample then consists of 34 records. Each record of those 34 records would be considered a sample item. Lastly, you have the individual elements contained within the sample item. Let's reverse this analysis for classifying defects and build from the smaller to the larger. The first type of defect would be a sample item **ELEMENT** defect. This is where one element within the sample item is defective or a deficiency exists. It is possible that the sample item may be found acceptable but the sample item element is unacceptable.

The second or next higher level is the SAMPLE ITEM DEFECT. A sample item defect is where an element or elements within a sample item are deficient and there is the determination that the entire sample item is affected. The sample item therefore is defective or deficient.

Sufficient sample item element defects and sample item defects may lead to a function or functional segment as being evaluated as "UNSATISFACTORY." In light of this statement it is necessary to understand that the PA must evaluate the sample a number of different ways:

1. Horizontally across the sample item.
2. Vertically down through the sample item elements.

You finally say "I've recorded all of the data on the worksheets. I've found defects. I've found both what I consider sample item defects and sample item element defects. I found

a total of six of them. And, if my population was 7421, the sample is to be rated unsatisfactory! It says so in the 90% Sampling confidence Table!"

It's not that easy. We need to look at two other factors before we can say a function or functional segment is unsatisfactory. These two other areas are:

1. The Acceptance and Rejection rates set forth in 90% Sampling confidence Table and
2. Whether the defects were **SYSTEMIC** or **NONSYSTEMIC**.

SYSTEMIC OR NONSYSTEMIC DEFECTS

Too many times there has been the anecdotal evidence of a PA doing an audit, finding defects and, regardless of their impact on the contractor's PMS, saying that the contractor's property control system was unsatisfactory. We hear this horror story over and over again. A PA finds, during the review of the function of physical inventory, in the functional segment of performance that the contractor had reported and recorded 972 bolts (Bulk purchased at $4.79 per 1000). When the PA counted the bolts, BY HAND NO LESS, the PA only found 970. "Ahhh, a defect" the PA says. Let's see how many more of these defects can I find?" And the PA sets about busily counting the bulk quantity, low dollar value items and finds those **SIX** defects in this process and rates the contractor as unsatisfactory in the function of Physical Inventory. That simple! All done. Now, contractor, start the corrective action plans so that this terrible deed does not happen again!

Tell me. What's wrong with this scenario?

Were the defects uncovered, the wrong count of the low dollar value, bulk quantity material items, a problem that systematically impacted the contractor's operation or efficiency? No! These items were low dollar value items with minimal impact on the contractor's system of property control. And yet many times there have been contractors found unsatisfactory due to these types of problems. Therefore, the PA must evaluate the **SIGNIFICANCE** of the defect. It is a systemic or non-systemic defect. In other words does the defect affect the contractor system so much so that it may harm the Government. This concept is nothing new. Sawyer (1981) emphasizes the concept of "Degrees of Significance." He makes the point that,

> *No two deficiency findings are exactly the same. They will represent various degrees of actual or potential loss or risk. Giving the same audit emphasis to several random clerical errors and to an overpayment of $100,000 is clearly illogical... An insignificant deviation -- the sort of clerical misstep which all organizations experience -- does not warrant formal action. Indeed, including it in a formal report would be counterproductive. First, it would tarnish the truly significant findings in the report, implying that the auditor could not discern the difference between a flyspeck and a spreading*

*blot. Second, it would perpetuate an undesirable stereotype: the auditor as a **NITPICKER**(Emphasis added).*

WE ARE LOOKING FOR **SYSTEMIC** DEFECTS THAT IMPACT THE CONTRACTOR'S SYSTEM OF PROPERTY MANAGEMENT. WE ARE NOT LOOKING FOR THOSE, in the words of Sawyer, NITPICKS.

In the accounting world we would address this as an issue of "materiality." In the property world we could say that a defect was major or minor, systemic or non-systemic. But, every property person must recognize that defects come in all shapes and sizes. Every single defect is not the same -- some are humongous, others are trifling. You cannot write up a monstrous defect in a trivial fashion and maintain your credibility. By the same token, you cannot write up a trivial defect in an "end-of-the-world" fashion and maintain your credibility. You must be able to defend the seriousness of the findings.

We provided guidance and direction in the “OLD” DoD Property Manual going one step further in carrying out this action. It states under Chapter 4 Section A. 11. a.,

> Identification of Deficiencies When element or item defects are identified during the system analysis, PAs shall take the following actions:
>
> (1) Determine whether the defects are isolated or are systemic in nature.
>
> (2) Assess the known or perceived impact of defects.
>
> (3) Determine the cause of the defects, where possible.
>
> (4) Notify the responsible contractor management personnel of the defects and request corrective action.

This last item, "Notify the responsible contractor management personnel of the defects and request corrective action" shall be discussed in greater detail later in this paper. It is important that the responsible contractor party/ies is/are made aware of these defects and deficiencies. There should be no “SURPRISES” sprung upon the contractor – rather, we are a team working to support the warfighter – and as such we need to maintain open lines of communication.

ACCEPTANCE/REJECTION RATES

To assist the PA in performing this task there have been established “Acceptance and Rejection Rates” in Appendix B of the “OLD” DoD Manual. But, and this is a big but, there is additional guidance found in the body of the manual that deals with the APPLICATION AND ANALYSIS OF DEFECTS!!! Guidance was provided in regard to the evaluation of a sample for SYSTEMIC defects,

b. Appendix B sets forth acceptance and rejection rates for the various population and sample sizes dependent upon the number of defects found within a given function, functional segment, or criterion. The PA shall use these rates for the acceptance or rejection of populations selected as functions, functional segments, or criteria. The following decisions shall be made by the PA:

(1) If no defects are found in the first sample, the functional segment or criterion shall be evaluated as satisfactory. (See Column 3, Appendix B.)

(2) If the number of item defects found in the first sample is equal to the number of defects found in column 4 of Appendix B, where the defects are not of a systemic nature the functional segment may be evaluated as satisfactory.

(3) If the number of item defects found in the first sample is equal to the number of defects found in column 4 of Appendix B, where the defects are of a systemic nature, the functional segment shall be evaluated as unsatisfactory.

(4) If the number of item defects found in the first sample is equal to the number of defects found in column 5 of Appendix B, the PA shall use the second sample selected in paragraph B.4.c., above. If the total number of defects found in both sample 1 and sample 2 equals or is less than the number specified in column 7 of Appendix B, the functional segment shall be evaluated as satisfactory.

(5) If the total number of defects found in both sample 1 and sample 2 equals or is more than the number specified in column 8 of Appendix B where the defects are not of a systemic nature, the functional segment may be evaluated as satisfactory.

(6) If the total number of defects found in both sample 1 and sample 2 equals or is more than the number specified in column 8 of Appendix B where the defects are of a systemic nature, the functional segment shall be evaluated as unsatisfactory.

Carmichael and Willingham (1989) support this process. They state,

> A qualitative evaluation of sample results is equally important as a quantitative evaluation whether the auditor is using a statistical or nonstatistical sampling approach... An important part of the auditor's qualitative evaluation is a consideration of whether the nature and cause of the errors indicates that they are either isolated or systemic.

We are asking you to do the same. Let me talk with you for a moment about "Research" and the evaluation of say, an analysis of a survey through statistical application. If we were doing a correlation analysis in a research program we would also have to test statistical significance. Yes, there may be a CORRELATION between two factors - but is that correlation STATISTICALLY SIGNIFICANT?

Here is an example of mistaking correlation for causality. More car accidents happen in the United States over the 4th of July holiday weekend than any other holiday weekend. More Ice Cream is sold over the 4th of July holiday weekend than any other holiday weekend. Therefore if we stop selling ICE CREAM on the 4th of July holiday weekend – car accidents will decrease. Right? Quite clearly, WRONG! Yes, there is a STRONG CORRELATION between the two variables – Accidents and Ice Cream. But that does not mean that there is any STATISTICAL SIGNIFICANCE between the two – and certainly the selling and eating of Ice Cream is not, in and of itself, the CAUSATION of the car accidents.

THE GAO Yellow Book, GAO-07-731G Government Auditing standards addresses this issue of significance. It states in paragraph 7.04,

> *The concept of significance assists auditors throughout a performance audit, including when deciding the type and extent of audit work to perform, when evaluating results of audit work, and when developing the report and related findings and conclusions. Significance is defined as the relative importance of a matter within the context in which it is being considered, including quantitative and qualitative factors. Such factors include the magnitude of the matter in relation to the subject matter of the audit, the nature and effect of the matter, the relevance of the matter, the needs and interests of an objective third party with knowledge of the relevant information, and the impact of the matter to the audited program or activity. Professional judgment assists auditors when evaluating the significance of matters within the context of the audit objectives.*

Therefore, you will notice that each of these statements requires the PA to make a decision as to whether or not the defects found, whether sample item or sample item element defects, are systemic in nature or non-systemic, isolated, in nature. It also provides that PA the latitude, the JUDGMENT, repeat **JUDGMENT** to decide, based upon their experience whether or not a defect is systemic or non-systemic. No longer is the PA "locked" into blindly finding the contractor unsatisfactory due to the black and white, rigid requirement found in the old ASPR Sup. 3. I know, I know, some of you will say you have been doing this all along. Superb! While black and white may exist in a technical world, property management has shades of gray that must be treated with a great deal of professionalism. [And besides, what do you think we pay you those big bucks for!]

Now what do you do with this finding. Well, think for a minute as to the type of action required to correct this problem. Is it something that can be corrected? Is it something that, through the modification of the contractor's property control system, can be prevented

from happening again in the future? Always keep the question of "What can be done regarding these defects or deficiencies in the back of your mind. Why? Because they may help your formulate your recommendations to the contractor to assist with the corrective action plan or the corrective actions the contractor may take.

Defense Contract Property Management Systems Audit Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 8

PMSA Summary

By the end of this module, you should be able to:

- Describe how to prepare the PMSA Summary and distribution requirement

By completing the lesson, you should be able to:

- Explain the purpose of a PMSA Exit Conference/Interview
- Explain the purpose of a Corrective Action Plan
- Describe the two statuses of a PMSA
- Define the concept of resurvey
- List actions in the case of contractor non-responsiveness

PROCESS SEGMENT/PROCESS/PMSA STATUS

Bravo!
You have performed your analysis of a process segment or a process.
You've properly established your population(s), selected your sample numbers using a sound statistical methodology, established a correspondence between your sample numbers and the sample items, and collected the data from the sample items.
You've evaluated the data both for the sample items and sample item elements, and reached a conclusion as to the status of the process or process segment, that being either satisfactory or unsatisfactory.

Now it is time to rate the whole system. "Well" you say, "The contractor's property control system had one unsatisfactory process in the PMSA and therefore the contractor is rated unsatisfactory!"

The next PA says "Wait a minute! That was only one functional segment that was unsatisfactory! You can't call them unsat for that!" [This one is an excitable PA.] "The contractor had fourteen other functions that were great. You found just one functional segment unsat and now you want to rate the contractor unsat for the ENTIRE SYSTEM! What are you, crazy or something?"

Well, what is a PA to do? Folks, for this issue **YOU NEED TO LOOK AT YOUR OWN AGENCY'S POLICY AND GUIDANCE**. Why do I say this? Because there is **no Department of Defense Policy or Guidance regarding the RATING of a contractor's**

PMSA. Basically, the PMSA Rating shall be in accordance with agency regulations. Each of the agencies has a different policy. For example, the Air Force, under AFCMD, used AFCMD Reg, 78-7. There were color codings for the status of a contractor property control PMSA. Under DLA if even one function was unsat the entire PMSA is rated as unsatisfactory. Therefore our only advise on rating the PMSA –

FOLLOW YOUR AGENCY'S DIRECTION.

EXIT INTERVIEW/NOTIFICATION TO THE CONTRACTOR OF DEFICIENCIES

I've lumped these two items together as sometimes they may occur simultaneously while in other instances they may be spread out over a number of months.

RESIDENT PAs In instances where a PA is resident at a contractor's plant the PMSA may occur over a period of months. Therefore, it is prudent to provide the contractor the status at either the functional segment or function level at the time these items are completed. This is in place of waiting for the entire PMSA to be completed. This facilitates the contractor taking corrective action in a far more expedient fashion and also prevents the defect/deficiencies from compounding due to the contractor's lack of knowledge regarding the defect. Also, if the deficiencies are left the defect/deficiency originally found may become buried in the contractor's operation.

This notification to the contractor should occur at the earliest possible time after completion of the function/functional segment. Again, some individuals have stated that this action should occur on a daily basis. It is not practical nor pragmatic to have briefings on a daily basis at a large contractor's plant as PROCESSES/PROCESS SEGMENTS may take a week or longer to adequately cover. At the smaller contractor's plant it would be better to assess the impact to the entire system, of all defects, rather than report them individually by function. What does this say to the PA.

USE YOUR JUDGMENT AS TO THE MOST EFFICACIOUS TIME TO PERFORM THESE PERIODIC BRIEFINGS.

ITINERANT PAs If you handle multiple contractors, your exit interview with "contractor managerial personnel" and notification to the contractor may occur simultaneously, though this should be avoided. Why? Because you always want to provide the contractor time to take corrective action prior to the completion of the PMSA. Unfortunately, the small "mom and pop" shops are usually done in one day and this is impractical.

Let me address some aspects that have not been discussed and that require explanation. This again entails the notification to the contractor of deficiencies and also resolving of deficiencies.

Resolving Identified Defects The DoD Property Manual in Chapter 4 Section A. 11. b. states that, "Minor or isolated property defects that can be corrected during the performance of the analyses should be resolved at the lowest possible management level with verbal or limited written contact." Very simply, those **MINOR NONSYSTEMIC ERRORS NEED NOT BE FORMALLY DOCUMENTED** for Government purposes. They do need to be documented for contractor correction. Though your worksheets will show that defects were found, they should also reflect that the defects were corrected during the course of the PMSA and did not impact the contractor's property control system. These minor nonsystemic defects need not have formal corrective action plans created by the contractor. Again, the Government is looking for **SYSTEMIC DEFECTS**.

THE GAO Yellow Book REQUIRES that we document our findings. Paragraphs 7.77 through 7.79 state,

> ***7.77*** *… the audit evidence obtained and its source and the conclusions reached, including evidence that supports the auditors' significant judgments and conclusions. Auditors should prepare audit documentation that contains support for findings, conclusions, and recommendations before they issue their report.*
>
> ***7.78*** *Auditors should design the form and content of audit documentation to meet the circumstances of the particular audit. The audit documentation constitutes the principal record of the work that the auditors have performed in accordance with standards and the conclusions that the auditors have reached. The quantity, type, and content of audit documentation are a matter of the auditors' professional judgment.*
>
> ***7.79*** *Audit documentation is an essential element of audit quality. The process of preparing and reviewing audit documentation contributes to the quality of an audit. Audit documentation serves to (1) provide the principal support for the auditors' report, (2) aid auditors in conducting and supervising the audit, and (3) allow for the review of audit quality.*

This is where the PA shall/must (Command/imperative) contact the appropriate contractor personnel who have the ability to take corrective action. It is not sufficient to just correct the found defects. Since these were **SYSTEMIC** defects what actions are going to be taken to assure that this does not happen again. In other words a corrective action plan is created by the contractor. (More on the Corrective Action Plan later.)

You are required to DOCUMENT the findings and NOTIFY the contractor! Usually there has been verbal communication of the deficiencies found during the PMSA as discussed above. Now the PA must clearly and concisely put into writing what those deficiencies are so that the contractor can take corrective action. These should not come as any surprise - neither should they differ from those discussed during the exit interview.

We should reach agreement as to the course of action required to correct these deficiencies. If you have established the appropriate professional relationship and rapport with the contractor this should not be a problem. Unfortunately, we have all run up against the adversarial relationship - on both sides of the fence - Government and contractor! We're all human, and must deal with the real world. Sometimes things do not go smoothly and we are unable to reach agreement. There will be further discussion under the "Resolution of Differences" section.

As stated above, it is hoped that you and the contractor have reached agreement that Corrective Action or a Corrective Action Plan is needed. Under the “OLD” DoD Property manual we had guidance in regard to a timeframe for corrective actions. It stated, "The period of time for corrective action shall normally be established at 90 days. This time frame may vary, either increased or decreased, dependent upon the complexity and nature of the corrective action(s) required and the impact of the deficiencies involved." This one section has already caused quite a stir amongst and between the various defense agencies and the contractors. The major complaint has been the established time frame of 90 days! 90 DAYS IS NOT SET IN CONCRETE. Rather it was meant as a point of reference for many applications but not all. That is why there is the allowance for either lengthening the time allowed for corrective action as well as shortening the time frame. Every contractor is different and every corrective action required may need a different time frame. To establish one size fits all would be arbitrary and capricious. This is not meant to be either. It is only meant as a frame of reference, not a ball and chain to tie the contractor to.

Finally we get to the exit conference.

EXIT CONFERENCE

This again may be one of the most powerful motivators available to the PA. It is the time when the PA can exhibit his/her true professionalism and the ability to interact with the top levels of contractor management. We discussed in an earlier chapter of this text that the PA was to conduct an Entrance Conference – and we stipulated that this should be done with contractor’s **MANAGERIAL PERSONNEL**. Well, there is the same EXPECTATION for this to occur at the EXIT CONFERENCE!

I have heard countless times that the PA is not in a respected position. Here is your opportunity folks. Don't waste it! You have no excuse not to conduct an exit interview with **CONTRACTOR'S MANAGERIAL PERSONNEL** (Emphasis added)! Do not disregard the importance of this meeting. It is a wonderful opportunity to impress upon the contractor and the Government the importance of property management/property administration. You should avail yourself of this opportunity to the fullest extent possible.

O.K., some personal notes here. When it comes time for your performance evaluations you all want to hear everything that you've done wrong. The supervisor should only relate to you those areas where there are problems - right? No! You want to hear about those areas that are satisfactory, good, excellent, those areas where you ARE doing your job.

Yet when we hold an exit briefing the only areas that are discussed are the problematic ones. The PA needs to discuss the **"OVERALL RESULTS"** of the PMSA. This includes the good areas as well as the deficient ones. Please don't forget this. We spend enough time telling the contractor what he or she is doing wrong. Why not provide a thorough and complete OVERALL evaluation.

Yes, you need to discuss with the contractor those areas that are unsatisfactory. And the PA, yes that's you, shall advise the contractor where corrective action is required. BE SPECIFIC AS TO WHAT THE DEFICIENCIES WERE/ARE! It is not sufficient to say "Well, the area of Physical Inventories was unsatisfactory." End of conversation. The real meat of the matter is "What was unsatisfactory?" Was it because no physical inventory was taken? Was it because the physical inventory was performed by the same person responsible for the records? Was it because the physical inventories were not posted to the record in a timely fashion? What specifically was the problem? You must be specific.

During this exit conference Agreement should be reached during the exit conference as to the corrective measures necessary. Generally this will be a verbal agreement at this time. It may require a period of time for the contractor to develop a Corrective Action Plan, especially with the larger contractors with multiple interconnected complex systems. Notice that this relates back to your notification to the contractor of deficiencies. Generally, this previously discussed written notification takes place **AFTER** the exit interview. This may not be your PMSA Summary. That comes later!

CORRECTIVE ACTION PLANS –

Generally, contractors will be responsive to preparing and submitting Corrective Action Plans (CAP). Contractors realize that it is to their benefit to properly control, protect, preserve and maintain that Government property in their possession. I have yet to meet a contractor that deliberately set out to lose, damage or destroy Government property. Rather, most understand that the FAR and DFARS requirements imposed upon them by the contract are reasonable in nature (Well, at least most of them are). Therefore, when reasonable requests are made to correct deficiencies, contractors are amicable to this idea.

The FAR Government Property clause, 52.245-1(g) is quite specific in this regard. It states,

> "*3) Should it be determined by the Government that the Contractor's property management practices are inadequate or not acceptable for the effective management and/or control of Government property under this contract, and/or present an undue risk to the Government, the Contractor shall immediately take all necessary corrective actions as directed by the Property Administrator."*

What should a PA be looking for in a corrective action plan? Well, here are some basic thoughts to ponder:

1. The discrepancy(ies) that is/are going to be corrected.
2. A time line, using whatever methodology to display it, showing when the corrective action will begin and be completed.
3. Documentation - what action is planned.
4. Responsible individual(s) and organization(s) within the corporation and points of contact. Who is ultimately responsible and has the authority to "Make it so!"
5. Actions (Whom to contact, when, how) in case there is slippage of any of the due dates.
6. Notification requirement as to when the CAP is complete.

The PA should thoroughly document his/her files with the correspondence between the two parties. Why? Well folks, sometimes things do not work out. And, needless to say, we live in a litigious society. Both the Government and contractors have lawyers, and these lawyers deal with a woman on an everyday basis - and this woman's name? **SUE**! If you have to defend your findings and your actions the court looks for documentation!!! Documentation of all of the actions you took: Your original PMSA planning, the performance of the PMSA, and the validity of your findings, everything - !

They will want to see all of your data and correspondence. I would heartily recommend that you DOCUMENT your files extremely well! In your readings of the General Dynamics versus DCAA Case quite clearly the documentation was woefully inadequate!

PMSA SUMMARY

It's getting close to the end folks; we've scheduled, planned, conducted our PMSA. We found deficiencies. We held our exit interview and reached agreement regarding any deficiencies. We've notified the contractor, in writing, of the deficiencies and the contractor has corrected them. We're back in our office and now what? Well, we need a summary for our records and to notify the contractor that the analysis is complete.

The GAO Yellow Book details the requirements for reporting the results of the PMSA. A whole chapter is dedicated to this requirement. Paragraph 8.03 is simple, clear and concise. It states,

Auditors must issue audit reports communicating the results of each completed performance audit.

This written summary is a discussion of the various parts of our analysis. For those of you that have done research, such as a master's thesis, it is really Chapter 5. The document should be able to stand on its own. That is, someone that has no idea about the contractor should be able to understand what you did, when you did it, how it was accomplished and any problems you encountered, deficiencies corrected, etc.

The GAO Yellow Book also addresses the form and content of the report. Let me extract some CRITICAL items regarding the PMSA Summary. The following paragraphs are critical to the PA [NOTE – these are only EXTRACTS from the Yellow Book. I have not included the full text]:

> **8.08** Auditors should prepare audit reports that contain (1) the objectives, scope, and methodology of the audit;
> (2) the audit results, including findings, conclusions, and recommendations, as appropriate; ….
> **8.09** Auditors should include in the report a description of the audit objectives and the scope and methodology used for addressing the audit objectives. Report users need this information to understand the purpose of the audit, the nature and extent of the audit work performed, the context and perspective regarding what is reported, and any significant limitations in audit objectives, scope, or methodology.
> **8.10** Audit objectives for performance audits may vary widely. Auditors should communicate audit objectives in the audit report in a clear, specific, neutral, and unbiased manner that includes relevant assumptions, including why the audit organization undertook the assignment and the underlying purpose of the audit and resulting report.
> **8.11** Auditors should describe the scope of the work performed and any limitations, including issues that would be relevant to likely users, so that they could reasonably interpret the findings, conclusions, and recommendations in the report without being misled. Auditors should also report any significant constraints imposed on the audit approach by

information limitations or scope impairments, including denials of access to certain records or individuals.

8.12 In describing the work conducted to address the audit objectives and support the reported findings and conclusions, auditors should, as applicable, explain the relationship between the population and the items tested; identify organizations, geographic locations, and the period covered; report the kinds and sources of evidence

8.13 In reporting audit methodology, auditors should explain how the completed audit work supports the audit objectives, including the evidence gathering and analysis techniques, in sufficient detail to allow knowledgeable users of their reports to understand how the auditors addressed the audit objectives….

8.14 In the audit report, auditors should present sufficient, appropriate evidence to support the findings and conclusions in relation to the audit objectives. Clearly developed findings, as discussed in paragraphs 7.72 through 7.76, assist management or oversight officials of the audited entity in understanding the need for taking corrective action.

WOW!!! Please do not be overwhelmed by this information – if you are a PA that has done a System Analysis Summary over the past decade, you have already been writing these types of reports!

Well, why do you have to do all of this?

First off, other Government representatives might review this document. There might be a Board of Review, in which case the Chief of Contracts, Chief of Quality Assurance, Chief of Production, etc., will all get a chance to second guess what you did. If there is any inconsistency they will find it! Remember this is an executive level document. Make sure it reads like one. In fact, why not let the other PAs in your office proof it for you with a critical eye for errors.

Secondly, the contractor will be receiving a copy of this summary. "Wait a minute" you say. "I send them a letter saying they are satisfactory. What's this about sending them a summary?"

Pragmatically, you are closing the loop for your engagement. You provided the contractor a notification of your “engagement”, i.e., coming to do an audit. You are now telling the contractor that the engagement is complete – other than for any required corrective actions.

Your PMSA Summary and its cover letter are notifying the contractor of the PMSA status of either satisfactory or unsatisfactory. This does not IMMEDIATELY affect the status of the contractor's PMS unless deficiencies are not corrected and the ACO's assistance is requested and ... well, that's a whole 'nother subject that we covered in basic Property Administration. You must understand that there is a distinction between the PMSA STATUS and the PMS STATUS.

PMSA STATUS		PROPERTY CONTROL SYSTEM STATUS
Satisfactory		Adequate/Compliant
	or	
Unsatisfactory		Inadequate/Non-Compliant Potentially Leading to the Withdrawal of the Government's Assumption of Risk

Thirdly, to continue the thought of who may see this document, outside reviewing agencies, e.g. DoDIG, GAO, your district/command staffers may also be looking at these reports. Bottom line: You want them to be documents that will proudly follow you the rest of your life. [I know from personal experience. There are still files written by a guy named Goetz that surface at contractor plants and in Government offices.]

Fourth, a copy of the property PMSA summary shall be retained in Contract Property Control Data File,

Fifth, whenever unresolved defects have been disclosed, a copy of the summary shall be provided to the CO. When the nature of the defects has significant impact on individual contracts or programs, the Procuring Contracting Officer shall also be advised in writing.

And lastly, a copy of the PMSA Summary shall be forwarded to all delegating offices; e.g., Support Property Administration Delegations, NASA (see NASA Delegation Instructions), etc.

"Finally! I'm Done!"

"Uhhh, well, not quite. You see, there is the small matter of a resurvey."

RESURVEY or REAUDIT

There were some deficiencies found in the contractor's property control system through the PMSA. The contractor submitted a corrective action plan and adhered to it and has contacted you to say that everything is corrected and that you need not bother with them until the next fiscal year. Go home, get a good night's sleep everything is O.K.! Unfortunately, you, the PA, cannot just assume everything is O.K. Rather it is your responsibility to reaudit those processes/process segments that were deficient. The minor ones resolved on an informal basis need not be resurveyed. Rather the resurveys are for those processes or process segments where systemic defects/deficiencies were found and corrective action plans designed.

WARNING:

YOU ARE **NOT** TO DO A FULL PMSA OF THE ENTIRE PMS. RATHER, THIS IS A REVIEW OF THOSE PROCESSES OR PROCESS SEGMENTS THAT WERE EVALUATED AS BEING UNSATISFACTORY AND HAD A CORRECTIVE ACTION PLAN DESIGNED AND IMPLEMENTED BY THE CONTRACTOR!!!

Should you use statistical sampling to test the correction of the deficient function/functional segment? If it was a systemic defect - **YES**!

Why not just check those sample items that were deficient and see if they were fixed? Because you would then only know that those items already identified as being defective were fixed -- that is a Band-Aid approach. Rather, you want to make sure the **SYSTEM** is fixed and the only way that you can rest assured that the system is fixed is to test statistically.

Do I have to pull the same number of samples? Yes!

Why? Well, unless you know more than all of the statisticians throughout the past few centuries (And then what are you doing in property?) you have to apply the same statistical approach you did for your original analysis. Sorry, you may not like it, but it would be very difficult to provide a defensible position otherwise.

Do I have to use the same acceptance and rejection rates? Yes!

"Oh, man, this is getting tougher by the minute. Why hasn't anybody said this stuff before?"

"Because now people are finally paying attention to us!"

Bear with me just a little bit longer. One more question - What happens if the contractor doesn't want to take any corrective action, or delays the corrective action beyond a reasonable timeframe? Yes, I know that this should not happen - but what if it does?

NON-RESPONSIVENESS ON THE PART OF THE CONTRACTOR TO CORRECT DEFICIENCIES

If the contractor is non-responsive to the requests by the PA for corrective action it is time then to ask for assistance from the contracting officer.

We see this requirement in FAR 45.105 entitled Contractors' Property Management System Compliance. Two paragraphs are critical to the PA and the CO – paragraphs (b) and (c).

> *(b) The property administrator shall notify the contractor in writing when the contractor's property management system does not comply with contractual requirements, and shall request prompt correction of deficiencies and shall provide a schedule for their completion. If the contractor does not correct the deficiencies in accordance with the schedule, the contracting officer shall notify the contractor, in writing, that failure to take the required corrective action(s) may result in—*
> *(1) Revocation of the Government's assumption of risk for loss, damage, destruction, or theft; and/or*
> *(2) The exercise of other rights or remedies available to the contracting officer.*
> *(c) If the contractor fails to take the required corrective action(s) in response to the notification provided by the contracting officer in accordance with paragraph (b) of this section, the contracting officer shall notify the contractor in writing of any Government decision to apply the remedies described in paragraphs (b)(1) and (b)(2) of this section.*

Notice that this is POLICY directed to the GOVERNMENT – it is NOT contractually binding upon the contractor. Rather this is guidance provided to the PA and the CO such that THEY know what to do in this situation.

So, I, as the PA, just send a letter to the CO – right?

Should this be sprung upon him/her? Absolutely not! The ACO should have been a player all along in this process, or at least at that time when deficiencies were uncovered. Or, if you thought that everything was going along O.K., at least at the time when the contractor started to slip on the timeline for the corrective action plan. If you failed to give to ACO a head's up before things got really bad don't expect the ACO to greet you with the warmest of welcomes. Remember, you are part of a team and as such the team needs to be aware of things that may impact the team. Again, the professionalism of the PA may be called into question if you were lax in this regard.

Well, you've gone through a lot of material. But, it ain't over yet. The next Chapter will cover some of the more unique and misunderstood areas of PMSA.

Defense Contract Property Control Systems Analysis Primer
By Professor Douglas N. Goetz, Ph.D., CPPM, CF

MODULE 9

Other Audit Techniques and Methods

By the end of this module, you should be able to:

- Describe a Property-to-records review

By completing the lesson, you should be able to:

- Describe random sampling
- Explain the use of one population for multiple functions
  - Describe inappropriate usage
  - Describe appropriate usage
  - Explain Audit Trail Methodology
- Explain Purposive sampling and Purposeful sampling and distinguish between the two
  - Describe when to use Purposive Sampling
- Describe Judgment Sampling
- Describe the concept of Audit Independence
- Explain the ethics of System Analysis

OTHER AUDIT TECHNIQUES/METHODS

So far we have primarily addressed the actions of performing a system analysis from a "record to property" perspective. In other words, we select our population from the records maintained by the contractor and then review the property associated with these records. At least in a number of functions/functional segments we review the property. There is an inherent weakness to this methodology. That weakness is that a record may not exist for the Government property in the contractor's possession or there may not be a record of the action/transaction that the contractor is accomplishing. How can the Government then have assurances that the contractor is maintaining the required records of all Government property for all transactions that are necessary? Through the use of another technique! Through the use of a "Property to Records" analysis.

Property to Records How does one do a "Property to Records" review? Well, it's simple. You just select a judgment sample from the floor of the Government property and then trace it back to the existing (hopefully) record that the contractor has established.

NO!

Just because you have reversed the order of audit does not mean that you can throw out the laws of statistics. If one is statistically naive this might seem appropriate, but to select a judgment sample is incorrect and subject to disagreement and disputation by the contractor. In addition, the contractor could probably prove, statistically, that your results were not generalizable to the larger population. Your sample selection was biased therefore, your results were biased. There are statistical methods that would remove this bias AND SHOULD BE USED! There was some debate and disputation regarding this methodology. As such the Defense Logistics Agency asked its operations research people to take a look at this topic. When reviewing property to records what type of sample should be drawn. Two items were validated through this project. The first was that the sample size must be the same as the records to property reviews found in the "Old" DoD 4161.2-M using Appendix B of the manual. Second, that this review must use a random sample to ensure statistical validity.

What we are saying is that when doing a property to records review you MUST use a statistical sample size set forth in your sampling table based upon the confidence level that you are using that is commensurate with the population size from the function/functional segment that you are auditing.

Well, how do you apply statistical sampling - **RANDOM** sampling to a property to records review? Establish a methodology!

The first step is already stated. You must use the same sample size as you used for that function or functional segment. You are **NOT** allowed to reduce this sample to 1/2 of our records to property review. Though this has been suggested in the past IT IS INCORRECT (DLAers pay particular attention). If you choose only 1/2 of your sample size for the property to records review what do you choose for your acceptance or rejection rates? 1/2 of those numbers? No, this would really be messing with statistics. The formulas for computing sample sizes are not based upon simple averages. Trust me on this one or refer to any statistics book for computing sample sizes.

So, you have the sample size. How do you select a **RANDOM SAMPLE** for the property to records portion? Well, I just walk around the floor and select 34 items as my sample that look good. NO! Again, establish a methodology that you can consistently follow and would eliminate any BIAS. One of the easiest methods to apply would be the selection of the property to records sample at the same time as the records to property sample. This could be down through the following pattern.

1. You know the number of sample and the sample items that you selected under records.

2. When doing a location check establish which item you are going to select for a property to records audit.
3. This may be done by determining that you will select the item either:
    a. directly above,
    b. directly below
    c. immediately next to (left or right) the item selected for the records to property review.

Why is this an adequate methodology? Because, as previously discussed, the sample for records to property was already established as being random. Therefore, you preclude against bias. The contractor could not claim that your sample from the floor was biased and therefore was not generalizable to the larger population.

If you do not protect against bias you will have a very difficult time defending your sample as to its generalizability. Your sample would only be related to the sample items and not to the larger population. You could tell the contractor to correct those problems that were found but you would not be able to tell the contractor to fix the system **BASED UPON THAT BIASED SAMPLE THAT WAS SELECTED**!

Again, we must be very careful when using statistical sampling to preclude bias from creeping into our analysis. This would definitely happen if you were to use a judgment sample.

USE OF ONE POPULATION FOR MULTIPLE FUNCTIONS

There are a number of instances where a population that has been defined and the sample randomly selected from that population for one process may be used as the sample to analyze another process or process segment. That is certainly a mouthful but there is some real applicability of the premise in the system analysis process. Let's look at this premise first where it would not be applicable and second where it shows great promise.

Inappropriate Usage

Assume for a moment that under the function of Acquisition you select as your population all purchase orders for the past year or from the last system analysis whichever is less. (NOTE: Selecting only purchase orders would be inadequate to review this function as there are other ways of acquiring property. P.O.s are being used only as an example.) There were 264 P.O.s during that timeframe. Our sample size would be 32. The function of acquisition is rated satisfactory as no defects were found.

You think for a moment and say "Gee, why not use this same population and sample for the function of receiving? It certainly would save me a lot of work."

There are multiple reasons as to why this methodology would be and is wrong. Let's examine some of these ideas. The P.O.s selected were for the last year or from the last

PMSA until the time of the current PMSA -- today. Yes, it is possible that many of the items would have been received. But, and this is a problem, it is probable that many of the items would **NOT** have yet been received. This is especially true when some of the sample P.O.s selected were of a recent vintage. If you used this methodology your population would not have been selected for the purposes of testing "Receiving." Rather you would be using a perverted or unpure population; Your population would not be representative of the function you were testing.

You could carry this logic through from the beginning of your analysis to the completion of all functions and you would notice that your sample would stay the same but the number of applicable items would decrease with each continuing function that you reviewed. For example, if you used this acquisition population and sample and followed it through the entire system analysis --

Acquisition □ Receiving □ Identification □ Records □ Consumption □ Utilization □ etc.

Each function would have less and less sample items applicable to it from your original sample. Yes, it is possible that the material the contractor acquired from the original purchase order had been received, and had been identified and had been recorded but, it may not have been consumed. Therefore, how can you complete your audit criteria? Clearly, this is an erroneous methodology and it is not recommended for use.

Appropriate usage

"Well, O.K., when can I use one function's population and sample for reviewing another function?"

The answer. "When the populations are essentially the same!"

Look at the process of records. Here it is incumbent upon the PA to very carefully define the appropriate populations for review. These populations are driven by the record keeping requirements set forth in FAR 52.245-1(f). Let's assume that we have established one population consisting of all material records active today as well as those closed since the last system analysis. The record keeping requirements for material are set forth in FAR 52.245-1(f).

"Great! Our review of the records function is satisfactory. Can we use this same population **AND SAMPLE** for any other functions in the PMSA?"

"No! You told us we shouldn't do that."

"That's right but there are times when you can **and should** use this technique as it will save you time and effort and will yield the same results!"

Consider for a minute the question of "How would you define your population for the process of consumption?"

"Well" you respond, "I would want to look at all consumable property."

"Good, for what timeframe?"

"All property consumed since the last PMSA."

"Better, but is there anything else?"

"Well, the records that have been closed since the last PMSA."

"Better still, we have defined our population as records of all consumable property that are active today as well as records of consumable property closed since the last PMSA."

In this fashion we have a very "robust" population that gives us a lot of coverage. But, you'll notice that this population is exactly the same population as you selected for reviewing the records of material. So, it appears that we could use the same sample from the process of records (material) for reviewing the function of consumption.

The same could be done with non-consumable property. For example, you could use the population and sample selected for reviewing records of equipment to perform the analysis of the utilization function, and possibly the maintenance function -- IF YOU CAREFULLY DEFINE YOUR POPULATION(S) SO AS TO HAVE COMMON CHARACTERISTICS.

Uses of Audit Trail Methodology

Remember I said before that you should not use the technique of testing
Acquisition □ Receiving □ Identification □ Records □ Consumption □ Utilization □ etc., using the starting population and sample of acquisition? Well, now I'm going to tell you that you can use that approach - under very specific circumstances. This approach is useful for testing the audit trail of an item through its life cycle. You could select a population and trace its documentation from start to finish, or select a population halfway through its lifecycle and go back to its acquisition and forward to its use and possible disposition, or you could select something awaiting disposition and trace it from its original acquisition. This does **NOT** test the process, process segment or criteria under any one function. Rather, its purpose is to follow the audit trail and assure the auditability of a contractor's PCS.

PURPOSIVE/PURPOSEFUL SAMPLING

Are there times when judgment comes into play in the selection of a sample? ABSOLUTELY! There are techniques, legitimate techniques established in the field of auditing. Purposive sampling was originally derived from the work of anthropologists, Margaret Mead for example, studying cultures. They didn't want to study just the average

but many times wanted to study the extraordinary. Therefore, they would purposefully select an individual or occurrence to study. Lincoln and Guba were the parents of the use of purposive sampling in the qualitative field of educational research. Vance and Neter (1956) were one of the earliest to cite the use of purposive sampling in the field of auditing. They state,

> A judgment or purposive sample is one where the selection of the specific sample items depends to a large extent upon individual judgment, or where judgment decisions are made about portions of the population for which the sample did not obtain the necessary information... Judgment samples may at times be quite useful, but their results cannot be evaluated on the basis of the sample by statistical methods. They are no better than the judgment of the individual who made the decisions, and that judgment is difficult, indeed, to evaluate (p. 17).

We allow the use of Purposeful sampling, a CLASS III type sample. But, if you peruse the "Old" DoD Property Manual you will not find any function, functional segment, or criterion that allows the use of Purposeful sampling, a CLASS III type sample.

The GAO Yellow book recognizes that there may be and are situations where a purposive sample may be used. Paragraph 7.63 states,

> *When sampling is used, the method of selection that is appropriate will depend on the audit objectives. When a representative sample is needed, the use of statistical sampling approaches generally results in stronger evidence than that obtained from nonstatistical techniques.* ***When a representative sample is not needed, a targeted selection may be effective if the auditors have isolated certain risk factors or other criteria to target the selection (Emphasis added).***

In addition, The "Old" DoD Manual states that,

(1) Purposeful sampling is the process by which known, suspected, or reported conditions of a critical or substantial nature are used to select areas, items, or actions for review to determine the possible adverse systemic impact. It is especially critical, when using purposeful sampling, that items being researched have the potential for significant systemic impact. When the PA determines the potential exists for systemic impact, conditions or items shall be reviewed to determine whether or not a systemic deficiency exists. Conditions or items which have defects but do not impact the system should be reviewed using other methodologies; e.g., Statistical or judgment sampling.

(2) Purposeful sampling is closely related to judgment sampling in that a purely random sample is not drawn. This process is particularly useful for resident PAs who have established a first-hand perspective of the contractor's operations. The use of purposeful sampling presupposes that the PA is aware of a substantial adverse condition

within the contractor's property control system that has been disclosed through some other review, occurrence, discussion with or notification by other functional Government area, e.g., Quality Assurance, Production, etc., or contractor operation. Using the information the PA shall purposefully seek out other similar conditions. As this sampling is purposeful, the random number tables in Appendix C would not be used.

WHEN TO USE PURPOSIVE SAMPLING

This is an area where abuse may run rampant. The PA must maintain the highest ethical standard when using purposive sampling. Otherwise, it may turn into a witch hunt, a fishing expedition to see what he/she may find, regardless of the effectiveness and efficiency of the contractor's property control system. Notice that purposive sampling is for use with "**KNOWN, SUSPECTED, OR REPORTED CONDITIONS OF A CRITICAL OR SUBSTANTIAL NATURE**." Atkisson, et al, (1986) use the term "discovery sampling" and specify its use as "In certain situations the concern of the auditor may be as to whether a particular type of deficiency exists. The deficiency involved is normally a serious one and would be expected to have a very low occurrence rate." This is not for use with your everyday system analysis but rather for those critical occurrences. There are some suppositions made regarding when to use this technique. "The use of purposeful sampling **PRESUPPOSES** (Emphasis added) that the PA is aware of a **SUBSTANTIAL ADVERSE CONDITION** within the contractor's property control system that has been disclosed through some other review, occurrence, discussion with or notification by other functional Government area."

This technique is only to be used when those occurrences of a **CRITICAL OR SUBSTANTIALLY ADVERSE CONDITION** exists!!! These defects may not be systemic, they may be nonsystemic or isolated in nature. But, they may adversely impact the Government property in the contractor's possession so much so that additional review is warranted.

The use of purposive sampling does not give you the authority to run rampant through the contractor's plant looking for defects any time you think there is a problem. It is for use in extreme instances and had best have a large amount of substantiation **BEFORE** one engages in its use.

PERAMBULATION/DCAAM

The PA is not the only one to use purposive sampling. In point of fact the Defense Contract Audit Agency in its manual, DCAAM 7640.1, has a discussion using their term. Section 5-108 Part C of the DCAAM discusses "Perambulation." Don't you just love fancy words. What the heck is perambulation? Ahhhh, do any of you remember

perambulators? A fancier term for a baby buggy! Well, the DCAAM is not suggesting that the DCAA auditor take a baby buggy through the contractor's plant. Rather it is directing the auditor to become familiar with the contractor's operation(s) by walking through the plant, perambulating through the plant. I only mentioned this in passing because it is something that we, in property, do on a daily basis and yet DCAA has to be instructed to do it. Interesting, the different perspective!

JUDGMENT SAMPLING

We discussed "Judgment sampling" briefly in Chapter One under the "Classes of Criteria." Judgment sampling is allowable for those criterion listed as Class II criterion. The PA is **NOT** authorized to use judgment sampling for those criteria listed as Class I.

"O.K.," you say, "NOW I can use those areas or items where I KNOW there are problems. Right?"

"Well, not exactly. Remember, it is not our purpose in life to "Get" the contractor. Remember! We are there to protect the Government's interests. This isn't a witch hunt, neither are you out there just to "get the contractor."

O.K., I'm not out to "get" the contractor as you say. When can I use judgment sampling and how do I use it?"

In a classic text by Vance and Neter (1956) they state

> The method of choosing a sample has a crucial relationship to the interpretation of the sample results... A *judgment* sample is one where the selection of the specific sample items depends to a large extent upon individual judgment, of where judgment decisions are made about portions of the population for which the sample did not obtain the necessary information.

Atkisson, et al, (1986) also provide some guidance on this matter. They provide the following defense for judgment sampling,

> Although the merits of statistical sampling are generally accepted, auditors frequently use judgment, or non-statistical, sampling to perform tests... Auditors generally justify the use of judgment sampling by the following:
>
> > Auditing is a matter of judgment rather than mathematical analyses.
> >
> > Judgment sampling is easier to apply.
> >
> > The auditor's general reviews and analyses identify the sensitive items that need to be examined.
> >
> > Management is interested in information as to specific deficiencies found, not projections based on statistical sampling.

Some of these beliefs may appear to be valid while others have inherent weaknesses to them. The PA must be extremely careful when using judgment sampling. It should not be used indiscriminately but, rather, should be used when the criterion being reviewed allows its use and the use of statistical methods is unwarranted. For example, let's assume that you are reviewing function number 7, Storage, at a small contractor's plant. There are a half dozen storage locations in the plant.

The first question that you should ask is "Can I use judgment sampling for this function and the criteria under the functional segment?"

"Yes, you can! For criteria under the two functional segments under the function of storage are all Class II criterion."

The second question that you should ask is "Should I use judgment sampling for these criteria?

"Yes, you have the authority to use judgment sampling but look at the population that you are going to review. Would it be that much work to review all six storage areas? How much property is involved at those storage areas? How large are those storage areas? Have there been problems with any of these storage areas in the past survey/analyses?"

There are many factors that contribute to your decision. Choose carefully when you apply judgment sampling! Assume now that you are at a contractor's plant that has 24 storage areas. Ask the same questions that we did before:

"Can I use judgment sampling for this function and the criteria under the functional segment?"

"YES."

"Should I use judgment sampling for these criteria?

"Why not?"

Notice that there are a lot more storage areas. If you choose a statistical sample you would have to randomly select 18 locations. Here, it would be a judgment sample, predicated upon **YOUR** experience and expertise. It is important that you use that knowledge and experience wisely. The evaluation of a judgment sample is another aspect that if improperly applied could have devastating results. I will repeat the Vance and Neter (1956) quote, they caveat their discussion of judgment sampling with the following warning.

> Judgment samples may at times be quite useful, but their results cannot be evaluated on the basis of the sample by statistical methods. They are no better than the judgment of the individual who made the decisions, and that judgment is difficult, indeed, to evaluate. (p. 17).

AUDIT INDEPENDENCE

There are some that say that there should never be a "unwitnessed" finding. This is not supported in any of the audit texts. The independence of the audit/auditor may be called into question if there is someone looking over his/her shoulder at every step of the way. In addition, the PA may be tying up a contractor representative for days on end, costing the contractor and the Government lots of money, as the contractor representative follows the PA around the plant. Rather the audit texts (Arens and Loebbecke (1988), Carmichael and Willingham (1989), Chamber, Selim, and Vinten (1987)) DO require that all data be in a form that provides sufficient evidence of audit.

Courtemanche (1986) provides a wonderful discussion of audit independence identifying five characteristics of audit independence. These consist of access, objectivity, freedom, diligence, responsiveness.

Access, or the lack thereof, is one of those items that the Government PA may face from time to time. The Government property clause, FAR 52.245-1, provides access to the contractor's premises, by the Government PA, for the purposes of inspecting the Government property. But there is more to Courtemanche's definition of access. He states, "Every auditor knows what access is. Access has to do with the availability of the information needed by the auditor to perform his audit. Access is broken down into three generic sources of information: facilities, records, and people."

Facilities are the actual physical items. Yes, the records may show ten thousand troy ounces of Government furnished silver but I can never be sure unless I **SEE** the items. [Note: Don't laugh - this is a true story. The contractor had superb records showing all of the silver was on hand until we asked to see the silver and the contractor confessed that he had sold it - to another government contractor - unbeknownst to the government.]

Records - the life's blood of the Government PA! "Records are a representation of reality rather than the reality itself. In many cases the auditor does not have the means or the time to ascertain or evaluate the 'hard' reality which is the ultimate object of the audit. Instead, he tests the accuracy of records reflecting the reality and, if the records are adequate, he bases his evaluation on the records themselves. In order to do this, he must have access to the records.

Lastly, Courtemanche lists people. "It often happens that the auditor knows of no record which might provide the information he requires. This is why he needs access to people. People can provide records which the auditor was not aware even existed or which are not generally available because they are closely controlled by the people in question." The Government PA must be extremely sensitive to the actions taken or those actions that may be taken against contractor employees that divulge information during an analysis. One hopes and assumes that no contractor would dismiss an employee because he/she provided the information required to be disclosed to a Government employee. This

certainly would not adhere to the Deming principle of TQM to "drive out fear." I do not believe that he had the idea of firing people as the method of driving out fear.

The second characteristic of audit independence that Courtemanche lists is that of "objectivity." He lists four attributes under this characteristic: Intelligence, formal knowledge/education, experiential knowledge and absence of emotional bias. Boy, if this doesn't apply to the world of Government property audits I don't know what does. Does a Government PA require native intelligence? Yes! Must the PA have formal knowledge/education? Absolutely! Must the PA have experiential knowledge? Definitely! Should the PA be absent of emotional bias? Yup! The first three are relatively simple to evaluate as they deal with the cognitive domain. The last more difficult as it deals with the affective domain. I can measure intelligence, and knowledge and education. How do I measure emotional bias? Well, that is a little more difficult - please see the last chapter with its discussion of ethics in property administration.

Let's go back to Industry Leading Practice for a minute – the GAO Yellow Book. Though the GAO Yellow book is NOT a Voluntary Consensus Standard (VCS) is comes extremely close to the hallmarks of a VCS due to its origins and maintenance. The Advisory council for this document is a who's who of the auditing elite – clearly representative of the most knowledgeable people in regard to auditing. To discount its applicability would require one to provide concrete irrefutable evidence that the guidance and direction provided in the Yellow Book is specious. With that said paragraph 3.01 states,

> *"These general standards, along with the overarching ethical principles presented in chapter 2, establish a foundation for credibility of auditors' work. These general standards emphasize the independence of the audit organization and its individual auditors…."*

It continues in paragraphs 3.02 and 3.03,

> ***3.02*** *In all matters relating to the audit work, the audit organization and the individual auditor, whether government or public, must be free from personal, external, and organizational impairments to independence, and must avoid the appearance of such impairments of independence.*
> ***3.03*** *Auditors and audit organizations must maintain independence so that their opinions, findings, conclusions, judgments, and recommendations will be impartial and viewed as impartial by objective third parties with knowledge of the relevant information.*

These are just a few of the key references that document our need for audit independence. Sometimes you, as an auditor, will be given free run of the contractor's plant or facility. Other times you will be escorted. Regardless of which occurrence is your situation you should strive to maintain that aforementioned audit independence.

AUDITING ELECTRONIC DATA PROCESSING SYSTEMS - Reserved.

THE ETHICS OF SYSTEM ANALYSIS

There is one last area that must be discussed. That area is the concern with ethics. I am of the belief that every Government Property Administrator is above reproach and maintains the highest ethical standards. We, as Government employees are subject to Government ethics laws and regulations. We certainly ascribe to that notion through the constant signing of documents attesting that we know the ethics regulations and the laws that surround our behavior. We attend the mandatory briefings. But, do ethics apply when we are doing an analysis?

They most certainly do!

Some examples of unethical practice in a system analysis:

- The deliberate altering of data.
- The deliberate selection of sample item/numbers to "salt" the sample with known defects.
- The deliberate avoidance of areas where known defects exist.
- The deliberate use of an inappropriate analysis methodology.
- The deliberate destruction of documents to prevent replication. (Don't laugh, this has already lead to the firing of a number of Government PAs.)
- The tempering of a function's deficiencies because you may like the contractor's property manager and don't want him or her to look bad.
- The worsening of a function's deficiencies because your boss told you to "Get them because they've gotten off easy the past few years."
- The worsening of a contractor's system analysis summary because you want to keep your job and you figure if the contractor is unsatisfactory the Government will keep you.
- The "pencil-whipping" of an analysis because you are short of personnel and management doesn't want any backlogs. In this instance Management may be even more guilty of fraud in this day and age of down-sizing. Specifically, if there is too much work piled onto an individual to do and the work doesn't get done, whom do you think will get the "Blame" (Note: in the real world)? The PA! But, who, in point of fact is the real guilty party? Management, by not recognizing that they were putting the PA in an untenable position. Management for putting an employee into a position where there was the impossibility of performance. If this were a contractor with a contract they would have recourse through the courts. PAs are in a far worse predicament.

Do any of these sound familiar? Are any of them applicable in your environment? If so, and you were the one committing any of these acts, do you think that the Government should retain you as an employee? All of the above actions regarding the system analysis are unethical and maybe even criminal violations. The point is that there are many instances and occurrences where the PA may be tempted to take shortcuts and that may border on unethical practice. The PA needs to be ever vigilant to assure that he/she does not engage or fall prey to any of these occurrences. We live in a world of second

guessers. There is always someone out there ready to look over your shoulder and tell you what you've done wrong. Maintain the highest ethical standards and you should sleep well at night.

And if you can't, sleep well at night that is, try reading this document again!

CONCLUSION

Folks, we have tried to walk you through one of the most complex areas in the world of Government property administration. As PAs much of our time is spent doing system analysis and yet it is the one area where there is a real lack of technical information. This document and its Appendix is meant as a start to remedy that situation. My encouragement -

1. Read all that you can on the audit process.
2. Learn all that you can about statistics.
3. Learn all that you can to improve your worth to the Government, and to yourself.

Good luck and God bless,

Doug Goetz

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		POTENTIAL AUDIT CRITERIA **As a replacement for APPENDIX A of the DoD Property MANUAL** **NOTE – THIS IS NOT OFFICIAL DOD GUIDANCE**	
Process #		**Processes, Process Segments, and Criteria**	**References**
1	1	**1. PROPERTY MANAGEMENT: THE PROCESS OF:** **(1) MANAGING GOVERNMENT PROPERTY (GP) IN THE CONTRACTOR'S POSSESSION;** **(2) ENSURING AN ADEQUATE PROPERTY MANAGEMENT SYSTEM(s) FOR GP THE IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS;** **(3) DETERMINING THE PROPERTY MANAGEMENT SYSTEM(S) IS CONSISTENT WITH VOLUNTARY CONSENSUS STANDARDS (VCS) AND INDUSTRY-LEADING PRACTICES AND STANDARDS (ILP&S) FOR GP PROPERTY MANAGEMENT EXCEPT WHERE INCONSISTENT WITH LAW OR REGULATION; AND** **(4) EVALUATING CONTRACTOR ASSESSMENTS, INTERNAL AUDITS AND CORRECTIVE ACTION(S) WHEN REQUIRED.**	FAR 52.245-1, Alt I, and Alt II (June 2007)
		INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Management of Government Property	
1	1	The contractor's property management system(s) adequately manages (control, use, preserve, protect, repair and maintain) GP in its possession.	FAR 52.245-1 (b) (1)
1	2	Contractor initiates and maintains the processes, systems, procedures, records, and methodologies, necessary for effective control of GP consistent with VCS and/or (ILP&S) for GP management.	FAR 52.245-1 (b) (1)
1	3	Property management plans, systems, and procedures at the contract, program, site or entity level are established and implemented to enable outcomes for all process requirements.	FAR 52.245-1 including processes specified in Para.

			(f), embedded processes and segregated processes
1	4	The contractor’s property management system(s) is adequate to satisfy the requirements of FAR 52.245-1 clauses.	FAR 52.245-1 (b) (1)
1	5	Contractor establishes and maintains written procedures to assess the effectiveness of their property management system(s).	FAR 52.245-1 (f) (1) (x) (3)
1	6	Significant changes to the contractor’s property management system are disclosed to the Government Property Administrator (GPA) prior to implementation.	FAR 52.245-1 (b) (1)
1	7	Contractor applies responsibility requirements to all GP under the contractor's accountability, stewardship, possession or control, including its vendors or subcontractors.	FAR 52.245-1 (b) (2) and 52.245-1 (f) (1) (v)
1	8	The Government is allowed access to the contractor's premises and all GP, at reasonable times, for the purposes of reviewing, inspecting and evaluating the contractor's property management plan, systems, procedures, records, and supporting documentation that pertains to GP.	FAR 52.245-1 (g) (1)
1	9	When determined by the Government that the contractor's property management practices are inadequate or not acceptable for the effective management and/or control of GP under contract, and/or present an undue risk to the Government, the contractor immediately takes all necessary corrective actions directed by the GPA.	FAR 52.245-1 (g) (3)

		Process Segment: Contractor Self Assessments and /Audits Of Property Management System	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
1	11	Contractor's procedures specify the types and/or methods to be employed to perform assessments and/or audits is sufficient detail to enable the PA to adequately evaluate compliance	
1	12	Contractor performs periodic assessments, internal reviews and/or audits.	FAR 52.245-1 (f) (1) (x) (3)
1	13	Contractor makes significant findings and/or results of internal reviews and audits pertaining to GP available to the GPA.	FAR 52.245-1 (f) (1) (x) (3)

		2. <u>ACQUISITION</u>: THE PROCESS OF THE CONTRACTOR ACQUIRING OR FABRICATING GP FOR THE PERFORMANCE OF A SPECIFIED CONTRACT. THIS PROCESS ADDRESSES THE ACQUISITION OF GP AND ITS REIMBURSABLE COSTS TO THE CONTRACT, AND THE ACQUISITION OF GP THROUGH REQUISITION FROM GOVERNMENT SOURCES OR THROUGH CONTRACT TRANSFER.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Acquisition Authority	
		All Government Property includeing GFP and all property acquired by the contractor (CAP), title to which vests in the Government under paragraph FAR 52.245-1, is subject to the provisions of this clause.	FAR 52.245-1 (d) (2) (i)
2	1	Contractor ensures, for fixed price contracts, when specified as a LINE ITEM IN THE CONTRACT that title to each item of equipment (EQP), special test equipment (STE) and special tooling (ST) acquired by the contractor for the Government under contracts shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.	FAR 52.245-1 (d) (2) (ii)
2	2	Contractor ensures, for fixed price contracts when the contract contains a provision, i.e., a LINE ITEM directing the contractor to purchase material for which the Government will reimburse the contractor as a direct item of cost under this contract, title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material.	FAR 52.245-1 (d) (2) (iii) (A)
2	3	Contractor ensures title, for GP under cost-reimbursement or time-and-material contracts or cost-reimbursable contract line items under fixed-price contracts, to all property purchased by the contractor for which the contractor is entitled to be reimbursed as a direct item of cost under the contract, passes to and vests in the Government upon the vendor's delivery of such property.	FAR 52.245-1 (e) (3) (i)

2	3	Contractor ensures title, to GP to all other property under cost reimbursement or time-and-material contracts or cost-reimbursable contract line items under fixed-price contracts, the cost of which is reimbursable to the contractor, shall pass to and vest in the Government upon issuance of the property for use in contract performance; commencement of processing of the property for use in contract performance; or reimbursement of the cost of the property by the Government, whichever occurs first.	FAR 52.245-1 (e) (3) (ii) (A), (B), and (C)
2	4	Contractor ensures that all property acquired meets the requirements of being necessary for contract performance including FAR Part 31 requirements of being reasonable, Allocable and Allowable and is acquired only in the amounts needed to perform the contract	
		Process Segment: Classification of Government Property	
2	5	Contractor ensures that property is properly classified prior to acquisition to ensure compliance with contractor's accounting practices and Cost Accounting Disclosure statement, where applicable.	
		Process Segment: Requirements Computation	
2	6	Contractor documents that all property acquired is consistent with its engineering, production planning, and material control operations.	FAR 52.245-1 (f) (1) (i)
2	7	Contractor's property management system ensures as an outcome all property acquired is consistent with its engineering, production planning, and material control operations.	FAR 52.245-1 (f) (1) (i)
		Non-Profit Issues	
2	8	When FAR 52.245-1 Alt II is incorporated into the contract, contractor has obtained the CO's approval before each acquisition purchased with funds available for research and having an acquisition cost of less than $5,000.	FAR 52.245-1 Alt II (e) (3)
2	9	When FAR 52.245-1 Alt II is set forth in contract(s) and title to property purchased with funds available for research and has an acquisition cost of $5,000 or more, contractor ensures title shall vest as set forth in the contract.	FAR 52.245-1 Alt II (e) (3)
2	10	When FAR 52.245-1 Alt II is set forth in the contract(s) and if title to property vests in the contractor, the contractor agrees that no costs shall be allowed for any depreciation, amortization, or use under any existing or future Government contract or subcontract.	FAR 52.245-1 Alt II (e) (3)
2	11	When FAR 52.245-1 Alt II is set forth in the contract(s), the contractor furnishes the CO a list of all property to which title is vested in the contractor under FAR 52.245-1 Alt II (e) (3) within 10 days following the end of the calendar quarter during which it was received.	FAR 52.245-1 Alt II (e) (3)
2	12	Contractor ensures title to GP is not affected by its incorporation into or attachment to any property not owned by the Government, nor shall GP become a fixture or lose its identity as personal property by being attached to any real property.	FAR 52.245-1 (e) (1)

		Process Segment: MILSTRIP Acquisitions	
2	13	Contractor shall ensure that all requisition documents are properly prepared including the use of routing identifiers, fund codes, etc.:	FAR 52.251-1 and DFARS 252.251-7001
2	14	Contractor shall ensure that the contractually specified Priority code and Force Activity Designator is used on all requisitions	FAR 52.251-1 and DFARS 252.251-7001
2	15	Contractor shall ensure requisitions are submitted in a timely fashion to minimize and avoid the use of emergency priorities unless authorized by the contract.	FAR 52.251-1 and DFARS 252.251-7001

		3: <u>RECEIVING</u>: THE PROCESS OF GP INITIALLY ENTERING INTO A CONTRACTOR'S STEWARDSHIP.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Receiving Process	
3	1	GP received is documented and information meets record requirements of FAR 52.245-1 (f)(1)(iii)(A)(1) through (5).	FAR 52.245-1 (f) (1) (ii) and FAR 52.245-1 (f)(1)(iii)(A)(1) through (5)
3	2	Contractor documents receipt of GP, records the information necessary to meet the record requirements of FAR 52.245-1 (f)(1)(iii)(A)(1) through (5).	FAR 52.245-1 (f) (1) (ii)
3	3	A timely written request is submitted to the CO when GFP is received by the contractor or for GFP after receipt and installation, in a condition not suitable for its intended use.	FAR 52.245-1 (d) (2) (ii)
3	4	A timely written request is submitted to the CO when GFP is not delivered to the contractor by the date(s) stated in the contract.	FAR 52.245-1 (d) (2) (i)
		Process Segment: Discrepancies Incident To Shipment	
3	5	Contractor manages any discrepancies incident to shipment.	FAR 52.245-1 (f) (1) (ii)
3	6	A written statement is furnished to the GPA if overages, shortages, or damages and/or other discrepancies are discovered upon receipt of GFP, and it contains all relevant facts, such as cause or condition and a recommended course(s) of action,.	FAR 52.245-1 (f) (1) (ii) (A)
3	7	The contractor takes all actions necessary to adjust for overages, shortages, damage and/or other discrepancies discovered upon receipt, in shipment of CAP from a vendor or supplier, to ensure the proper allocability and allowability of associated costs.	FAR 52.245-1 (f) (1) (ii) (B) and FAR 31.201-4

		4. <u>IDENTIFICATION</u>: THE PROCESS OF PROPERLY IDENTIFYING GP IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS AND ILP&Ss.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Identification Process	
4	1	GP is identified as Government owned in a manner appropriate to the type of property.	FAR 52.245-1 (f) (1) (ii)

		5. <u>RECORDS</u>: PROCESS OF ESTABLISHING AND MAINTAINING STEWARDSHIP RECORDS TO MANAGE AND CONTROL ALL GP PROVIDED TO THE CONTRACTOR.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: All Records Of GP	
5	1	Records are created and maintained of all GP accountable to contracts.	FAR 52.245-1 (f) (1) (iii)
5	2	Property records enable a complete, current, auditable record of all transactions.	FAR 52.245-1 (f) (1) (iii) (A) and (1) through (10)
5	3	Property records contain minimum information required, unless otherwise approved by the GPA.	FAR 52.245-1 (f) (1) (iii) (A) and (1) through (10)
5	5	Government accounting source data is established and maintained, and as may be required by contract(s).	FAR 52.245-1 (f) (1) (x) (2)
5	6	Records of GP are readily available to authorized Government personnel.	FAR 52.245-1 (g) (2)
5	7	Records of GP are safeguarded from tampering or destruction.	FAR 52.245-1 (g) (2)
<u>5</u>	31	When DFARS 252.245-7000, Government-Furnished Mapping, Charting, and Geodesy Property, is set forth in the contract(s), the contractor does not duplicate, copy, or otherwise reproduce the property for purposes other than those necessary for performance of the contract.	DFARS 252.245-7000 (b)
		Process Segment: Receipt and Issue System Records	
5	8	When approved by the GPA, the contractor maintains, in lieu of formal property records, a file of appropriately cross-referenced documents evidencing receipt, issue, and use of material that is issued for immediate consumption.	FAR 52.245-1 (f) (1) (iii) (B)

		Process Segment: Material Management and Accounting System. [NOTE - These criteria are to be used when requested by the contracting officer to perform an MMAS review. PAs are to be part of the team performing an MMAS review.]	
5	9	When DFARS 252.242-7004, Material Management and Accounting System, is set forth in the contract(s), the contractor maintains an MMAS that reasonably forecasts material requirements.	DFARS 252.242-7004 (b) (1) (i)
5	10	When DFARS 252.242-7004 is set forth in the contract(s), the contractor ensures that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements.	DFARS 252.242-7004 (b) (1) (ii)
5	11	When DFARS 252.242-7004 is set forth in the contract(s), the contractor maintains a consistent, equitable, and unbiased logic for costing of material transactions.	DFARS 252.242-7004 (b) (1) (iii)
5	12	When DFARS 252.242-7004 is set forth in the contract(s), the contractor assess its MMAS and take reasonable action to comply with the MMAS standards in DFARS 252.242-7004 (e).	DFARS 252.242-7004 (b) (2)
5	13	When DFARS 252.242-7004 is set forth in the contract(s), the contractor has policies, procedures, and operating instructions that adequately describe its MMAS.	DFARS 252.242-7004 (c) (1)
5	14	When DFARS 252.242-7004 is set forth in the contract(s), the contractor provides to the ACO, upon request, the results of internal reviews that it has conducted to ensure compliance with established MMAS policies, procedures, and operating instructions.	DFARS 252.242-7004 (c) (2)
5	15	When DFARS 252.242-7004 is set forth in the contract(s), the contractor discloses significant changes in its MMAS to the ACO at least 30 days prior to implementation.	DFARS 252.242-7004 (c) (3)
5	16	When DFARS 252.242-7004 is set forth in the contract(s), and the contractor receives a report from the ACO that identifies any deficiencies in the MMAS, the contractor responds in accordance with DFARS 252.242-7004 requirements.	DFARS 252.242-7004 (d) (1) (i) (A) and (B) and (ii)
5	17	When DFARS 252.242-7004 is set forth in the contract(s), the contractor has adequate internal controls to ensure system and data integrity.	DFARS 252.242-7004 (e)
5	18	When DFARS 252.242-7004 is set forth in the contract(s), the contractor has an adequate system description including policies, procedures, and operating instructions that comply with the FAR and DFARS.	DFARS 252.242-7004 (e) (1)
5	19	When DFARS 252.242-7004 is set forth in the contract(s), the contractor ensures that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions.	DFARS 252.242-7004 (e) (2)
5	20	When DFARS 252.242-7004 is set forth in the contract(s), the contractor sets a 98 percent bill of material accuracy and a 95 percent master production schedule accuracy as a desirable goal in order to ensure that requirements are both valid and	DFARS 252.242-7004 (e) (2) (i)

		appropriately time-phased.	
5	21	When DFARS 252.242-7004 is set forth in the contract(s), (ii) If systems have accuracy levels below DFARS 252.242-7004 (e) (2) (i) requirements, the contractor s provides adequate evidence of no material harm to the Government due to lower accuracy levels; and the cost to meet the accuracy goals is excessive in relation to the impact on the Government.	DFARS 252.242-7004 (e) (2) (i), and (ii) (A) and (B)
5	22	When DFARS 252.242-7004 is set forth in the contract(s), the contractor provides a mechanism to identify, report, and resolve system control weaknesses and manual override and other operational exceptions, such as excess/residual inventory as soon as known	DFARS 252.242-7004 (e) (3)
5	23	When DFARS 252.242-7004 is set forth in the contract(s), the contractor provides audit trails and maintains records (manual and those in machine-readable form) necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired.	DFARS 252.242-7004 (e) (4)
5	24	When DFARS 252.242-7004 is set forth in the contract(s), the contractor establishes and maintains adequate levels of record accuracy, and includes reconciliation of recorded inventory quantities to physical inventory by part number on a periodic basis.	DFARS 252.242-7004 (e) (5)
5	25	When DFARS 252.242-7004 is set forth in the contract(s), and inventory accuracy level for the system(s) is below 95 percent, the contractor provides adequate evidence that of no material harm to the Government due to lower accuracy levels; and the cost to meet the accuracy goals is excessive in relation to the impact on the Government.	DFARS 252.242-7004 (e) (5) (1) and (2)
5	26	When DFARS 252.242-7004 is set forth in the contract(s), the contractor provides detailed descriptions of circumstances that will result in manual or system generated transfers of parts.	DFARS 252.242-7004 (e) (6)
5	27	When DFARS 252.242-7004 is set forth in the contract(s), the contractor maintain a consistent, equitable, and unbiased logic for costing of material transactions in accordance with DFARS 252.242-7004 (e) (7) requirements.	DFARS 252.242-7004 (e) (7)
5	28	When DFARS 252.242-7004 is set forth in the contract(s) and where allocations from common inventory accounts are used, the contractor has controls (in addition to those in paragraphs (e)(2) and (7) of this clause) and ensures compliance with DFARS 252.242-7004 (e) (8) requirements.	DFARS 252.242-7004 (e) (8)
5	29	When DFARS 252.242-7004 is set forth in the contract(s) and regardless of the provisions of FAR 45.505-3(f)(1)(ii), the contractor has adequate controls to ensure that physically commingled inventories that may include material for which costs are charged or allocated to fixed-price, cost-reimbursement, and commercial contracts do not compromise requirements of any of the standards in paragraphs (e)(1) through (8) of this clause and GFM is not physically commingled with other material or used on commercial work.	DFARS 252.242-7004 (e) (9) (i) and (ii)
5	30	When DFARS 252.242-7004 is set forth in the contract(s), the	DFARS 252.242-

		contractor conducts periodic internal reviews to ensure compliance with established policies and procedures.	7004 (e) (10)

		6. <u>PHYSICAL INVENTORY</u>: THE PROCESS OF PERIODICALLY PERFORMING, RECORDING, AND REPORTING PHYSICAL INVENTORIES.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Performance	
68	1	A physical inventory is periodically performed, recorded, and the results are disclosed.	FAR 52.245-1 (f) (1) (iv)
68	2	A final physical inventory is performed upon contract completion or termination, unless waived by the GPA.	FAR 52.245-1 (f) (1) (iv) and (x)
6	3	Contractor performs a final physical inventory upon contract completion or termination	FAR 52.245-1 (f) (1) (iv) and (x)
		Process Segment: Recording	
6	4	Physical inventories are recorded.	FAR 52.245-1 (f) (1) (iv)
		Process Segment: Reporting Inventory Findings	FAR 52.245-1 (f) (1) (iv)
6	5	Physical inventory results are disclosed.	FAR 52.245-1 (f) (1) (iv) and (x)
		Process Segment: Material Records Adjustments	FAR 52.245-1 (f) (1) (iv)
6	6	When applicable, the contractor has GPA determination of relief from stewardship responsibility for reported LTD&D of Government owned material for reasonable inventory adjustments.	FAR 52.245-1 (f) (1) (vii) (A)

		7. <u>SUBCONTRACTOR CONTROL</u>: THE PROCESS OF THE PRIME CONTRACTOR'S MANAGEMENT OF ITS SUBCONTRACTORS POSSESSING GP.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Prime Contractor Responsibilities	
7	1	Contractor shall ensure that subcontracts and purchase orders include the requirements of FAR 52.245-1 under which GP is to be acquired or furnished for subcontract performance.	FAR 52.245-1 (b) (3) and FAR 52.245-1 (b) (2) and FAR 52.245-1 (f) (1) (v) (A)
7	2	Contractor's subcontracts clearly identify GP to be provided and ensure appropriate flow down of contract terms and conditions, e.g., extent of liability for LTD&D of GP.	FAR 52.245-1 (f) (1) (v) (A) and FAR 52.245-1 (b) (3) and FAR 52.245-1 (b) (2)
7	3	Contractor assures its subcontracts are properly administered.	FAR 52.245-1 (f) (1) (v) (B)
7	4	Contractor periodically performs reviews as described in their PMS Procedures to determine the adequacy of their subcontractor's property management system(s).	FAR 52.245-1 (f) (1) (v) (B)
7	5	Contractor ensures continued responsibility when GP is shipped to a subcontractor or other location of the contractor.	FAR 52.245-1 (f) (1) (vii) (B)
7	6	Contractor complies with the requirements of FAR 52.244-2 prior to awarding any subcontracts when approval is required of the Contracting officer.	FAR 52.244-2

		8. <u>REPORTS</u>: THE PROCESS OF REPORT PREPARATION AND SUBMISSION, AS REQUIRED BY CONTRACT OR REGULATION.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Report Submission	
8	1	Contractor has a process to create and provide all contractually required reports, e.g., report of discrepancies; LTD&D; physical inventory results; audits and self-assessments; corrective actions; and other property related reports as directed by the CO.	FAR 52.245-1 (f) (1) (vi) and (x)
		Process Segment: Accuracy And Completeness	
8	2	Source data to ensure accuracy and completeness of reports is available and is accurate and complete.	

		9. <u>LIABILITY</u>: THE PROCESS OF MANAGING ALL INSTANCES OF LOSS, THEFT, DAMAGE OR DESTRUCTION OF GOVERNMENT PROPERTY IN THE POSSESSION OF THE CONTRACTOR, OR ITS SUBCONTRACTORS **[NOTE – THIS WAS REFERRED TO AS RELIEF OF STEWARDSHIP UNDER THE CLAUSE – BUT THROUGH CAREFUL ANALYSIS IT WAS DETERMINED THAT RELIEF OF STEWARDSHIP WAS NOT A PROCESS, WHILE LIABILITY WAS/IS**	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Reporting Of Loss, Theft, Damage, And Destruction (LTDD)	
9	1	Unless otherwise directed by the GPA, the contractor investigates and promptly furnishes a written narrative of all incidents of LTDD to the GPA as soon as the facts become known or when requested by the Government.	FAR 52.245-1 (f) (1) (vi) (A)
9	2	LTDD reports contain the minimum information required by FAR 52.245-1 (f) (1) (vi) (B) (i) through (13).	FAR 52.245-1 (f) (1) (vi) (B) (1) through (13)
9	3	When applicable, the contractor has GPA granted relief of responsibility for LTDD of GP.	FAR 52.245-1 (f) (1) (vii) (A)
9	4	All reasonable actions are taken to protect GP from further LTDD.	FAR 52.245-1 (h) (iii) (2)
9	5	After LTDD of GP, the contractor separates the damaged and undamaged GP, places all the affected GP in the best possible order, and takes other action(s) directed by the GPA.	FAR 52.245-1 (h) (iii) (2)
9	6	Contractor does not prejudice the Government's rights to recover against third parties for any LTDD of GP. [Generally through the application of terms and conditions in the subcontracts and Purchase orders.]	FAR 52.245-1 (h) (iii) (3), DFARS 252.228-7001
9	7	Contractor furnishes the Government all reasonable assistance and cooperation, including the prosecution of suit and the execution of instruments of assignment in favor of the Government in obtaining recovery.	FAR 52.245-1(h) (4)
9	8	All communications under FAR 52.245-1 are in writing.	FAR 52.245-1 (l)
9	9	When DFARS 252.228-7001, Ground and Flight Risk, is set forth	DFARS 252.228-

		in the contract(s), the contractor complies with clause requirements.	7001
9	10	When DFARS 252.228-7002, Aircraft Flight Risk, is set forth in the contract(s), the contractor complies with clause requirements.	DFARS 252.228-7002

		10. <u>UTILIZATION</u>: THE PROCESS OF USING NON-CONSUMABLE GP (EQUIPMENT, STE, ST AND REAL PROPERTY)	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Authorized Use	
10	1	Contractor utilizes GP only as authorized in contract(s).	FAR 52.245-1 (c) and FAR 52.245-1 (f) (1) (viii) (A)
10	2	GP is utilized only on the contract for which it was acquired or furnished unless otherwise provided for in the contract or approved by the CO.	FAR 52.245-1 (c) and FAR 52.245-1 (f) (1) (viii) (A)
10	3	Contractor modifies, cannibalizes, or makes alterations to the GP when the contract specifically identifies the work to be performed.	FAR 52.245-1 (c)
		Process Segment: Identification Of Excess	
10	4	Contract has a process to ensure that GP excess to contract performance is promptly disclosed and reported.	FAR 52.245-1 (f) (1) (viii) (A)
10	5	When FAR 52.251-2, Interagency Fleet Management System Vehicles and Related Services, is set forth in the contract(s), the use and service of interagency fleet management system vehicles and the use of related services by the contractor is in accordance with 41 CFR 101-39 and 41 CFR 101-38.301-1.	FAR 52.251-2, 41 CFR 101-39 and 41 CFR 101-38.301-1
10	6	When DFARS 252.251-7001 Use of Interagency Fleet Management System (IFMS) Vehicles and Related Services, the contractor complies with clause requirements, such as authorized use, establishment of penalties for unauthorized use by employees, and prime contractor's request for use to CO, and prime contractor's approval of subcontractor use, when appropriate.	DFARS 252.251-7001

		11. <u>CONSUMPTION</u>: THE PROCESS OF INCORPORATING GP, e.g., MATERIAL, INTO AN END ITEM OR A HIGHER ASSEMBLY, OR OTHERWISE CONSUMED OR EXPENDED IN THE PERFORMANCE OF A CONTRACT.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Reasonableness Of Consumption	
11	1	GP is consumed only as authorized in contract(s).	FAR 52.245-1 (f) (1) (viii) (A) and FAR 52.245-1 (f) (1) (vii) (A)
11	2	GP is reasonably and properly consumed, expended, or otherwise accounted for in the performance of the contract.	FAR 52.245-1 (f) (1) (vii) (A) and FAR 52.245-1 (f) (1) (viii) (A)
		Process Segment: Identification Of Excess	
11	3	Contract has a process to ensure that GP excess to contract performance is promptly disclosed and reported.	FAR 52.245-1 (f) (1) (viii) (A)

		12. <u>MOVEMENT</u>: THE PROCESS OF MOVING ALL TYPES OF GP UNDER THE CONTRACTOR'S STEWARDSHIP. THIS PROCESS ALSO ADDRESSES AUTHORIZATION FOR AND PROTECTION DURING MOVEMENT.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Movement	
12	1	Contractor moves GP in an appropriate fashion to ensure safe internal or external transit and as authorized in contract(s).	FAR 52.245-1 (f) (1) (viii) (A)
	2	Contractor provides adequate protection during movement	
	3	All movement of GP is documented	

		13. <u>STORAGE</u>: THE PROCESS OF STORING ALL TYPES OF GP	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Storage Areas	
13	1	Contractor stores GP in an appropriate fashion for its classification to ensure it is adequately protected and preserved.	FAR 52.245-1 (f) (1) (viii) (A)
13	2	Storage facility for GP waiting plant clearance processing is appropriate for assuring the property's physical safety and suitability for use.	FAR 52.245-1 (j) (7) (ii)
13	3	GP is not commingled with property not owned by the Government unless otherwise authorized in the contract or by the GPA.	FAR 52.245-1 (f) (1) (viii) (B)
		Process Segment: Special Storage Areas	
<u>13</u>	<u>4</u>	When DFARS Clause of 252.223-7007 is incorporated in the contract ensure that requirements of DoD 5100.76-M, "Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives", are applied.	DFARS 252.223-7007

		14. <u>MAINTENANCE</u>: THE PROCESS OF PROPERLY MAINTAINING GP	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Normal Preventive Maintenance	
14	1	GP is properly maintained.	FAR 52.245-1 (f) (1) (ix)
14	2	Contractor's maintenance program enables the identification, disclosure, and performance of normal and routine preventative maintenance and repair.	FAR 52.245-1 (f) (1) (ix)
		Process Segment: Capital-Type Rehabilitation (Including Real Property)	
14	3	Contractor discloses the need for replacement and/or capital rehabilitation of GP	FAR 52.245-1 (f) (1) (ix)
14	4	Contractor reports to the GPA the need for replacement and/or capital rehabilitation of GP	FAR 52.245-1 (f) (1) (ix)
14	5	When FAR 52.251-2 is set forth in the contract(s), the contractor's maintenance of interagency fleet management system vehicles is in accordance with 41 CFR 101-39 and 41 CFR 101-38.301-1.	FAR 52.251-2, 41 CFR 101-39 and 41 CFR 101-38.301-1

		15. <u>DISPOSITION</u>: THE PROCESS OF DISPOSITIONING GP NO LONGER REQUIRED FOR CONTRACT PERFORMANCE. THIS INCLUDES DISCLOSING EXCESS, REQUESTING DISPOSITION INSTRUCTIONS, AND EFFECTING DISPOSAL OF GP.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Disclosure Of Excess	
15	1	When CAP is no longer needed for contract performance, contractor executes predisposal requirements in order of priority set forth in FAR 52.245-1 (j) (2) (A) through (C).	FAR 52.245-1 (j) (2) (i) (A) through (C)
15	2	Contractor lists on Standard Form 1428, ALL Excess Government property (Both CAP and GFP) remaining after executing predisposal requirements set forth FAR 52.245-1 (j)(2)(i)(A) through (C).	FAR 52.245-1 (j) (2) (ii) and FAR 52.245-1 (j) (2) (i)(A) through (C)
15	3	Contractor submits inventory disposal schedules for scrap aircraft or aircraft parts and scrap that requires demilitarization, is a classified item, is generated from classified items, contains hazardous materials or wastes, precious metals, or is dangerous to the public health, safety, or welfare.	FAR 52.245-1 (j) (1) (i) and (B) (1) through (6)
15	3	Contractor shall require its subcontractors to submit inventory disposal schedules to the contractor in accordance with the requirements of FA 52.245-1 (j)(4).	FAR 52.245-1 (j) (10)
15	4	Contractor annotates on inventory disposal schedules property the contractor wishes to purchase from the Government.	FAR 52.245-1 (j) (3) (C) (ii)
15	5	Unless the PLCO has agreed otherwise, or the contract requires electronic submission of inventory disposal schedules, the Contractor prepares separate inventory disposal schedules for classifications of GP in accordance with FAR 52.245-1 (j) (3) (C) (iii) (A) through (G).	FAR 52.245-1 (j) (3) (C) (iii) (A) through (G).
15	6	Contractor describes the property in sufficient detail to permit an understanding of its intended use.	FAR 52.245-1 (j) (3) (C) (iv)
15	7	Contractor submits inventory disposal schedules to the PLCO in accordance with the TIMEFRAMES of FAR 25.245-1 (j) (4) (i) through (iii).	FAR 52.245-1 (j) (4) (i) through (iii)
15	8	When required, contractor corrects inventory disposal schedules as directed by PLCO.	FAR 52.245-1 (j) (5) (ii)

15	9	Contractor notifies the PLCO at least 10 working days in advance of its intent to remove item(s) from an approved inventory disposal schedule.	FAR 52.245-1 (j) (6)
15	10	Contractor amends an approved inventory schedule to show removal of item(s) after approval of the PLCO or upon expiration of the notice period.	FAR 52.245-1 (j) (6)
15	11	Contractor stores property identified on an inventory disposal schedule pending receipt of disposal instructions.	FAR 52.245-1 (j) (7) (i)
15	12	Contractor obtains PLCO's approval to remove GP from the premises where the property is located prior to receipt of final disposition instructions.	FAR 52.245-1 (j) (7) (ii)
15	13	When DFARS 252.245-7000 is set forth in the contract(s), at the completion of performance of the contract, the Contractor, as directed by the Contracting Officer, shall either destroy or return to the Government all Government-furnished MC&G property not consumed in the performance of this contract.	When DFARS 252.245-7000 (c)
		Process Segment: Disposal	
15	14	Contractor ensures continued responsibility for GP until disposed of in accordance with paragraphs FAR 52.245-1 (f) (1) (vii) (C) or FAR 52.245-1 (j) and (k).	FAR 52.245-1 (f) (1) (vii) (C) and (j) and (k)
15	15	Contractor disposes of contractor inventory as authorized by the Plant Clearance Officer (PLCO), except as otherwise provided for in a contract.	FAR 52.245-1 (j)
15	16	Contractor prepares for shipment, deliver f.o.b. origin or destination and disposes of contractor inventory as directed by the PLCO.	FAR 52.245-1 (j) (8) (ii)
15	17	Contractor removes and destroys any markings identifying the property as Government-owned property prior to its disposal if property is not returned to the Government.	FAR 52.245-1 (j) (8) (ii)
15	18	Contractor demilitarizes GP prior to shipment or disposal per CO direction.	FAR 52.245-1 (j) (8) (iii)
15	19	Contractor credits the net proceeds from the disposal of contractor inventory to the contract, or to the Treasury of the United States as miscellaneous receipts when directed by the CO.	FAR 52.245-1 (j) (9)
15	20	Contractor gives written consent prior to the Government's abandonment of sensitive GP or termination inventory.	FAR 52.245-1 (k) (1))
15	21	Contractor has Government notice of abandonment of any non-sensitive GP.	FAR 52.245-1 (k) (2)
15	22	Contractor delivers or ships from the contractor's plant under Government instructions.	FAR 52.245-1 (f) (1) (vii) (B)

		Process Segment: Approved Scrap Procedure	
15	23	Contractor disposes of the property on an accepted scrap list in accordance with the contractor's approved scrap procedures if the Government does not furnish disposition instructions to the contractor within 45 days following acceptance of a scrap list.	FAR 52.245-1 (j) (8) (i)
15	24	When scrap to which the Government has obtained title under FAR 52.245-1 (e) and the contractor has an approved scrap procedure and scrap resulting from production or testing requires demilitarization or is sensitive property, contractor submits this scrap on an inventory disposal schedule and only disposes of this scrap with Government approval.	FAR 52.245-1 (j) (1) (i) and (A)
15	25	Contractor credits the net proceeds from the approved scrap procedures sale to an appropriate overhead account.	DFARS 245.610
		Process Segment: No Approved Scrap Procedure	
15	26	When the contractor does not have an approved scrap procedure, contractor submits an inventory disposal schedule for all scrap.	FAR 52.245-1 (j) (1) (ii)
15	27	When the contractor does not have an approved scrap procedure, Contractor obtains Government approval before disposing of scrap resulting from production or testing.	FAR 52.245-1 (j) (1) (ii)
		Process Segment: Disposal At Installations	
15	28	When FAR 52.245-2 is incorporated into the contract, the contractor replaces LTD&D GP at the contractor’s expense (and then has title to all replacement property) and continues to be responsible for contract performance.	FAR 52.245-2 (b)
15	29	When FAR 52.245-2 is incorporated into the contract, contractor notifies the CO of unserviceable and scrap property resulting from contract performance.	FAR 52.245-2 (c)
15	30	When FAR 52.245-2 is incorporated into the contract, and the CO does not determines otherwise, the Government abandons all rights and title to unserviceable and scrap property resulting from contract performance and the contractor removes such property from the Government premises and dispose of it at contractor’s expense.	FAR 52.245-2 (c)

		15. <u>CLOSEOUT OF PROPERTY:</u> THE PROCESS OF PROPERLY CLOSING OUT THE PROPERTY REQUIREMENTS OF A CONTRACT.	
		<u>INDEPENDENT VARIABLES THAT MAY DIFFER FOR EVERY CONTRACTOR</u> **APPLICABLE VOLUNTARY CONSENSUS STANDARD(S) OR INDUSTRY LEADING PRACTICES**	
		LIST ANY PROCESS, SUBPROCESS or CRITERIA contained within the Contractor's PMS DRIVEN by a VCS and/or ILP. [Use however many rows are needed to address any evaluative criteria set forth in the VCS or ILP for this process.]	
		1.	
		2.	
		3.	
		Process Segment: Final Contract Review	
16	1	Contractor promptly performs contract property closeout, to include reporting, investigating and securing closure of all LTD&D cases; physically inventorying all property upon termination or completion of this contract; and disposing of items at the time they are determined to be excess to contractual needs.	FAR 52.245-1 (f) (1) (x)
16	2	Contractor promptly reports to the GPA contract property closeout, to include reporting, investigating and securing closure of all LTDD cases; physically inventorying all property upon termination or completion of this contract; and disposing of items at the time they are determined to be excess to contractual needs.	FAR 52.245-1 (f) (1) (x)