Welcome

THE PRODUCT SUPPORT MANAGER AND OPERATING & SUPPORT COST

Learning Objectives

Upon completion of this lesson, you should be able to:

- Describe the role and importance of Operating and Support (O&S) cost estimating in life cycle product support planning
- Define key O&S cost terms and concepts
- Identify the roles and responsibilities of the various entities involved in O&S cost estimating and management

Closed Captioning

Upon completion of this lesson, you should be able to:

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- Define key O&S cost terms and concepts, and
- Identify the roles and responsibilities of the various entities involved in O&S cost estimating and management.

Why Is O&S Cost Important?

As a Product Support Manager (PSM), your role is essential in applying O&S cost information to the program decision-making, particularly as it relates to the development of a product support strategy.

At every stage of O&S cost estimating and management, the PSM must understand the models, assumptions, ground rules, and tools to ensure that O&S costs related to the product support are accurately reflected.

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Long Description

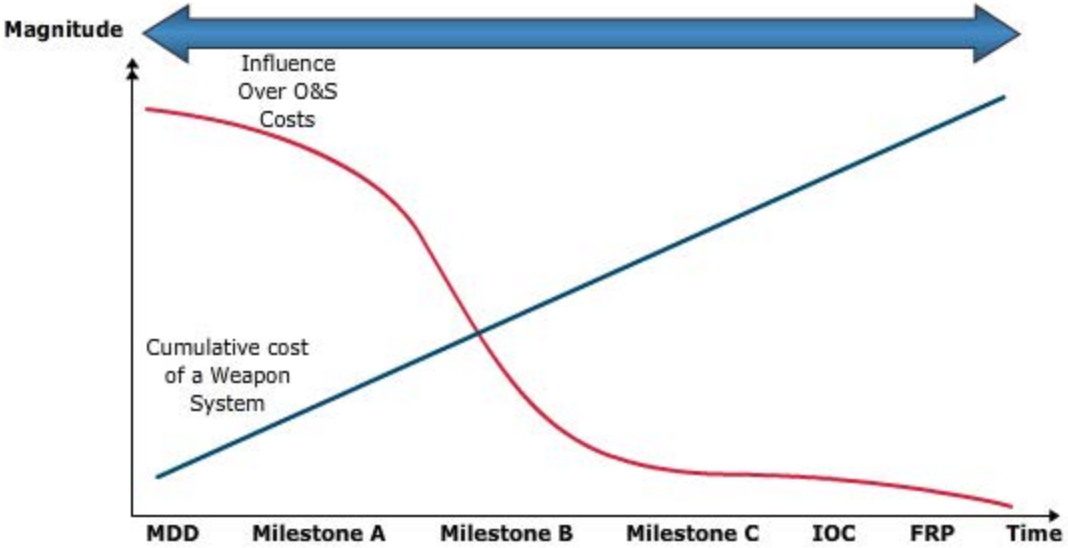
A person pondering the following questions:

- I'm not a finance person…why should I care about this?
- Don't the operating forces budget for and manage Operating and Support dollars?
- Don't the cost estimators and finance people take care of all the estimating?

Affordability and the PSM

While the PSM must ensure that O&S costs related to product support are accurately reflected at every stage of O&S cost estimating and management, the most significant impact on O&S costs occurs early in the program life cycle.

The ability of the Product Support Manager to influence the design and the resulting Life Cycle Cost is high early in the program and wanes as the system design solidifies. Once production begins, most of the PSM's influence on operating and support costs is limited to process improvements, generally focused on the supply chain.



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Long Description

Animated description ability of the Product Support Manager to influence the design and the resulting Life Cycle Cost is high early in the program and wanes as system design solidifies. Once production begins, most of the PSM's influence on operating and support costs is limited to process improvements, generally focused on the supply chain.

The PSM and O&S Cost: An Example

A good example of the PSMs involvement in O&S Cost may be viewed in the creation and the eventual retirement of the F-14 "Tomcat."

The F-14 was a supersonic, twin-engine, variable sweep wing, two-place strike fighter manufactured by Grumman Aircraft Corporation. The multiple tasks of navigation, target acquisition, electronic counter measures (ECM), and weapons employment were divided between the pilot and the radar intercept officer (RIO). Primary missions included precision strike against ground targets, air superiority, and fleet air defense.

It was born of late 1960's - early 1970's technology, combining the swing wing technology from the F-111 and the air to air ability of the venerable F-4 Phantom. At the time it was cutting edge, giving the Navy an air superiority fighter that was fast, had a highly capable radar targeting system and gave the fleet air defense coverage.

The PSM and O&S Cost: An Example, Cont.

The F-14 lacked air-to-ground capability until the early 1990s, but still lagged behind the F-18 Hornet in technology, capability, and cost-effectiveness. The F-14 had a Mission Capable Rate that never got above 80%, and ratio of maintenance hours to flight hours was roughly 3.8 maintenance hours to every flight hour. The F-18's ratio was 1.8 maintenance hours to flight hours with a higher Mission Capable Rate. Ultimately, the decision was made to retire the F-14s because the F-18 proved to be a more cost-effective platform.

Ultimately it became a trade-off regarding newer technology, at less cost, and better mission capability. And through the upgrade of the Hornet to the Super Hornet, the Navy gained a true prize fighter with greater combat capability and increased air to air tracking and targeting.

Due to the age, outdated technology, and the rapidly increasing of maintenance/operating and support costs, the F-14 was retired September 22nd, 2006.

F-14 Tomcat

F-18 Hornet

A Short History Lesson

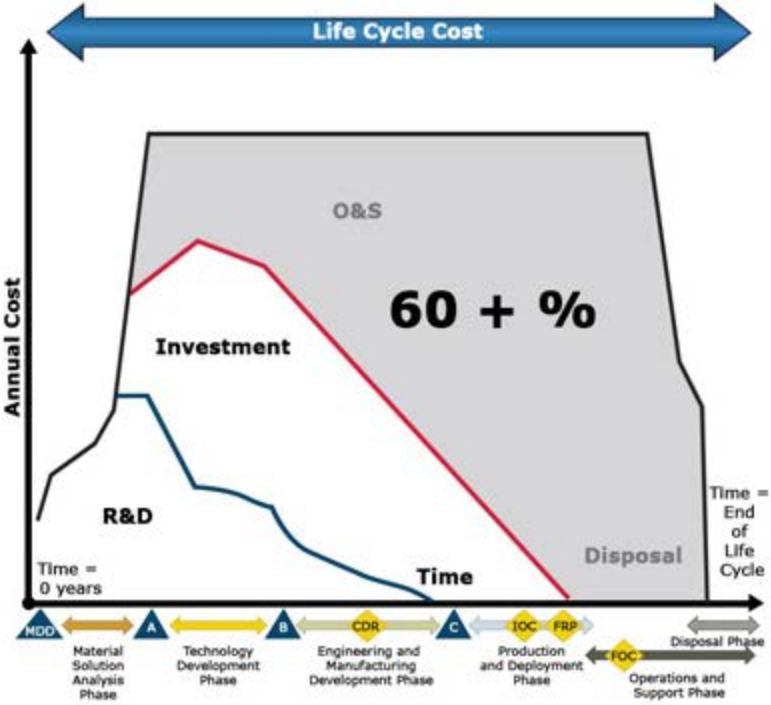
The old Cold War paradigm of performance regardless of cost has not been operating for some time.

But since 9/11, availability of supplemental dollars to fund weapon systems critical to our efforts in Iraq and Afghanistan have somewhat overshadowed the department's efforts to control Operating and Support Costs.

Sixty-plus percent of the total life cycle cost of a typical system is composed of O&S cost.

As combat operations decline, increased focus is needed to reduce and control this major component of life cycle cost.

Select the image to enlarge.



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Long Description

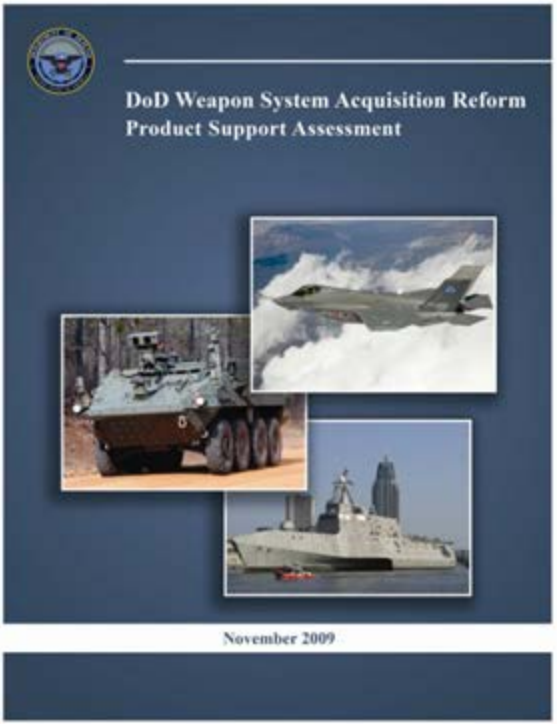
Image of a graph representing Life Cycle Costs during the phases of the Acquisition Life Cycle against the annual costs. This graphic is demonstrating that Sixty-plus percent of the total life cycle cost of a typical system is comprised of O&S cost. As combat operations decline, increased focus is needed to reduce and control this major component of life cycle cost.

DoD Weapon System Acquisition Reform Product Support Assessment

The November 2009 DoD Weapon System Acquisition Reform Product Support Assessment (WSAR-PSA) report identified Operating and Support (O&S) Cost Management as a recommendation area that should be addressed to drive product support towards the report's vision of aligning the acquisition, sustainment, and operational communities in order to provide affordable and required Warfighter outcomes.

Specifically, the report stated the "lack of an affordability requirement and adequate visibility of operating and support costs has been a long-standing barrier to effectively assessing, managing, and validating the benefits or shortcomings of product support strategies."

(Source: 2009 WSAR-PSA Report)



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Long Description

The cover of the DoD Weapon System Acquisition Reform Product Support Assessment (November 2009).

Corrective Actions for O&S Cost Management

As a result, the WSAR-PSA report recommended three corrective actions for O&S cost management:

1. Establish an O&S affordability requirement, including linking O&S budgets to readiness
2. Develop and implement processes and procedures with key communities, engaging them in the affordability process
3. Increase visibility of O&S costs and their drivers across the supply chain

(Source: 2009 WSAR-PSA Report)

Knowledge Review

You as the PSM have expressed some concerns to the Program Manager about the long term O&S costs of your program. The Program Manager responds, "I'm spending billions in procurement. How much could the O&S costs be?"

- [ ] 40 percent of the total life cycle cost
- [ ] 15 percent of the total life cycle cost
- [ ] 50 percent of the total life cycle cost
- [x] 60 percent of the total life cycle cost

Check Answer

Approximately more than **sixty percent of life cycle cost** is comprised of Operating and Support costs for a typical weapon system.

Knowledge Review

As a PSM, describe how Operating and Support (O&S) cost estimating impacts life cycle product support planning.
(Select all that apply)

- [x] It establishes O&S affordability requirements, including linking O&S budgets to readiness.
- [x] It helps in the development and implementation of processes and procedures with key communities, engaging them in the affordability process.
- [ ] It increases the importance of a program, especially at the end of the life cycle.
- [x] It increases visibility of O&S costs and their drivers across the supply chain.

Check Answer

Operating and Support (O&S) cost estimating impacts life cycle product support planning in the following manner: **It establishes O&S affordability requirements, including linking O&S budgets to readiness. It helps in the development and implementation of processes and procedures with key communities, engaging them in the affordability process. It increases visibility of O&S costs and their drivers across the supply chain.**

Life Cycle Cost Categories

In order to more fully appreciate the importance of O&S cost, you first need to get a birds-eye view of the terms and concepts related to life cycle cost. Life cycle cost can be defined as the sum of four major cost categories, where each category is associated with sequential but overlapping phases of the system life cycle.

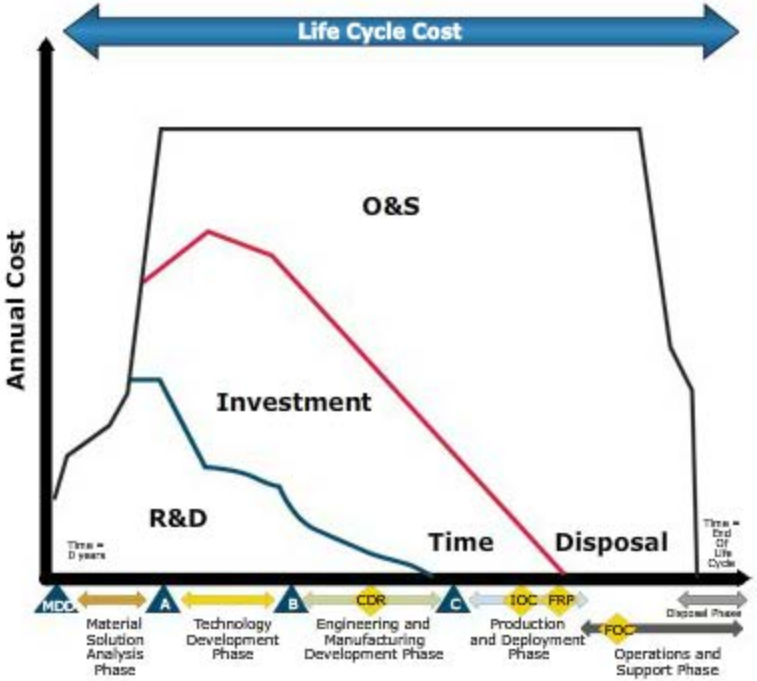
Life cycle cost consists of:

Research and Development costs

Investment costs

Operating and Support costs

Disposal costs



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Long Description

Image of a graph representing Life Cycle Costs during the phases of the Acquisition Life Cycle against the annual costs.

When the pop up for **Research and Development costs** is selected the R&D section of the chart is highlighted and the following text appears:
Research and Development costs consist of development costs incurred from the beginning of the conceptual phase through the end of the system development and demonstration phase, and into low-rate initial production.

When the pop up for **Investment cost** is selected the Investment and Time section is highlighted and the following text appears:

Investment costs consist of production and deployment costs incurred from the beginning of low-rate initial production through completion of deployment.

When the pop up for **Operating and Support costs** is selected the O&S and Disposal section is highlighted and the following text appears:

Operating and Support costs consist of sustainment costs incurred from the initial system deployment through the end of system operations and include all costs of operating, maintaining, and supporting a fielded system. (The bulk of life cycle costs occur in this category.)

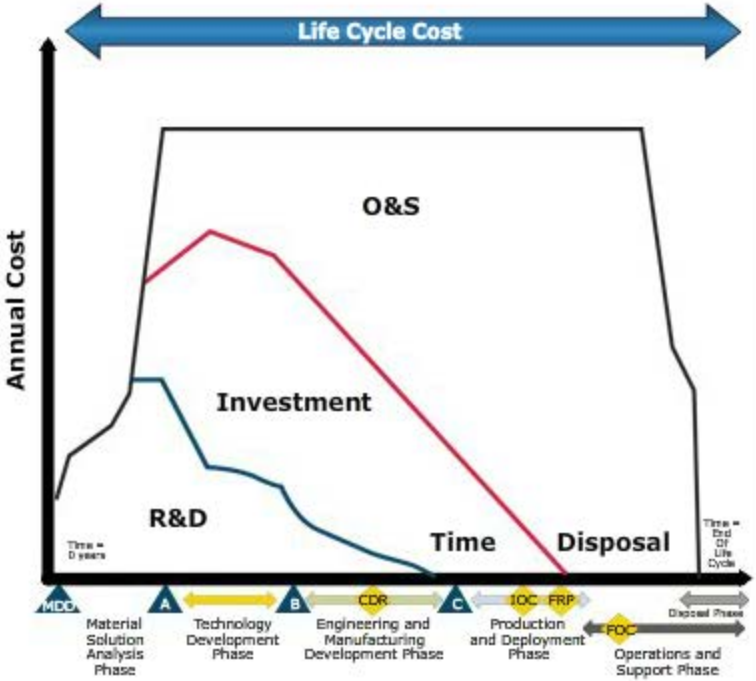
Finally, when the pop up for **Disposal costs** is selected the Time-End of Life Cycle section is highlighted and the following text appears:

Disposal costs consist of costs associated with demilitarization and disposal of a military system at the end of its useful life.

Similar Terms, Different Meanings

There is often some confusion about the following:

- "OperaTIONS and Support" life cycle phase
- "OperaTING and Support" cost category
- "Operations and Maintenance" appropriation



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Long Description

Image of a graph representing Life Cycle Costs during the phases of the Acquisition Life Cycle against the annual costs.

When the pop up for the "**OperaTIONS and Support" lifecycle phase** is selected the FDC and Operations and Support Phase is highlighted on the chart and the following text appears: "**OperaTIONS and Support" (O&S)** is a life cycle phase that follows the “Production and Deployment” phase.

When the pop up for "**OperaTING and Support" cost category** is selected the O&S/Disposal section is highlighted with a dark color and the following text appears: "**OperaTING and Support" (O&S)** is a type of cost category within life cycle cost. This cost category may sometimes also be referred to as “**OperaTIONS and Support Cost**.” This type of cost can encompass more than one type of appropriation or “color of money” and more of the life cycle phases than just "Operations and Support."

When the pop up for "**Operations and Maintenance" appropriation** is selected the O&S/Disposal section is highlighted in a lighter color to indicate the difference and also, within that area, displays the text, "Appropriations included in O&C Cost: **Operations & Maintenance**, Military Personnel, RDT&E, Procurement, and MILCON." The pop-up text appears as follows:

"Operations and Maintenance" (O&M) is a type of appropriation provided by Congress and is only one of the appropriations that is included in O&S costs.

Knowledge Review

What is an investment cost?

- [ ] It consists of development costs incurred from the beginning of the conceptual phase through the end of the system development and demonstration phase, and into low-rate initial production.
- [x] It consists of production and deployment costs incurred from the beginning of low-rate initial production through completion of deployment.
- [ ] It consists of sustainment costs incurred from the initial system deployment through the end of system operations and include all costs of operating, maintaining, and supporting a fielded system. (The bulk of life cycle costs occur in this category.)
- [ ] It consists of costs associated with demilitarization and disposal of a military system at the end of its useful life.

Check Answer

Investment cost **consists of production and deployment costs incurred from the beginning of low-rate initial production through completion of deployment.**

Knowledge Review

What is the difference between Operating and Support (O&S), Operations and Support, and Operations and Maintenance?

1. A type of appropriation provided by Congress and is only one of the appropriations that is included in O&S costs. — **C.** Operations and Maintenance

2. A type of cost category within life cycle cost. — **A.** Operating and Support (O&S)

3. A life cycle phase that follows the "Production and Deployment" phase. — **B.** Operations and Support

Check Answer

1. A type of appropriation provided by Congress and is only one of the appropriations that is included in O&S costs - **C. Operations and Maintenance.**
2. A type of cost category within life cycle cost - **A. Operating and Support.**
3. A life cycle phase that follows the "Production and Deployment" phase - **B. Operations and Support.**

What Constitutes O&S Costs

Operating and Support (O&S) Costs are funded primarily with the O&M and Military Personnel appropriations. However, Research Development Test and Evaluation (RDT&E), Procurement, and/or Military Construction (MILCON) appropriations may also be used, as appropriate, based on the nature of the effort, after the weapon system has been deployed.

What Constitutes O&S Costs, Cont.

This category includes all costs for personnel, equipment, and supplies associated with operating, modifying, maintaining and supporting a weapon system in the DoD inventory. This includes all direct and indirect costs. These costs do not include any of the development costs, procurement costs or any other part of the program acquisition costs for the weapon system, nor do they include any disposal costs for the weapon system.

O&S Costs and Appropriations

		Major Appropriation Categories				
		MilPers $	**O&M $**	**Procurement $**	**RDT&E $**	**MilCon $**
O&S Cost Categories	**Unit Personnel**	Military Personnel in Operating Units	Civilians and Contractors Working in Units			
	Unit Operations		Fuel, Purchased Services, TDY/TAD	Training, Ammo, Rockets, Bombs, Missiles		
	Maintenance	Military Personnel in Intermediate or Depot Maintenance	Consumable Supplies, Depot Level Repairables, Civilians, Contractors, Contractor Services, Transportation			
	Sustaining Support	Replacement Training	Replacement Training	Replacement Support Equipment		
	Continuing Support	Simulator Operations	Simulator Operations	Modification Kit Production	Software Updates, New Subsystem	
	Indirect Support	Base Ops	Base Ops	Base Ops		Base Ops

Closed Captioning

Depending on the circumstances, several different appropriations can be included in the O&S Cost computation. O&S costs is sometimes misconstrued as the Operations and Maintenance appropriation plus the cost of Military. This is definitely NOT the case, as the chart clearly illustrates. The six headings in the left column are the six categories of O&S cost identified by the Cost Analysis and Program Evaluation—or "CAPE"—office, formerly the Cost Analysis Improvement Group.

Types of Costs: Fixed Cost vs. Variable Costs

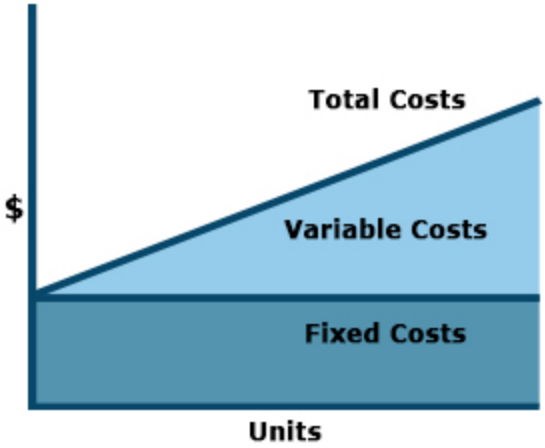
Intuitively, it would seem that most of the costs associated with operating and supporting a system would be variable, especially in light of operational tempo or OPTEMPO changes.

But consider a Performance Based Life Cycle Product Support (PBL) contract that is Fixed Price.

Depending on how the contract is written, this contract may be a fixed cost to the program regardless of the changes in OPTEMPO, population, or other factors.

A **Fixed Cost** is a cost that remains constant, regardless of any change in an organization's activity-or-costs that do not vary with the volume of business, such as property taxes, insurance, depreciation, security, and minimum water and utility fees.

A **Variable Cost** is a cost that changes with the production quantity or the performance of services. This contrasts with fixed costs that do not change with production quantity or services performed.



Popup Text

Operational Tempo

The frequency a unit deploys or goes to the field and/or a measure of the pace of an operation or operations in terms of equipment usage. For example, the number of hours an aircraft flies, or the miles a tank travels.

Types of Costs: Direct vs. Indirect Costs

A **Direct Cost** is an expense that can be traced directly to, or identified with, a specific cost center or cost object such as a department, process, or product. Examples of direct costs include, but are not limited to fuel, spare parts, dedicated maintenance personnel, operators, etc.

An **Indirect Cost** is an expense incurred in joint usage and, therefore, difficult to assign to, or identify with, a specific cost object or cost center such as a department, function, or program. Examples of indirect costs include, but are not limited to, advertising, computing, maintenance, security, supervision, utilities, and daily used supplies.

NOTE: A general "rule of thumb" question to be asked in determining direct vs. indirect costs might be, 'Will the cost be eliminated if the program is eliminated?' If the answer is "yes," it's most likely a direct cost.

Costs that can be readily related to the production of a specific product or service

Costs that cannot be directly related to the production of a specific product or service

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Long Description

Two construction workers in the field working on laptop, two canisters, one holding pens and the other, pencils.

Challenges with Indirect Support

Services rarely use Program Office Estimate (POE) to build their own budgets. The challenge is that it is very hard to prorate some aspects of personnel and facilitates in determining a program's indirect operating and support costs. As a PSM, you probably will not be directly involved in developing these estimates, but you should have a voice in determining whether or not the assumptions and ground rules made in the estimating process are valid and logical.

Two areas of concern, as an example, are:

1. **Personnel Cost**
   A. Most personnel support costs are directly related to end strength. Final end strength of the Services are only loosely tied to the POE staffing estimate.
      i. It is challenging to prorate political force size decisions
2. **Facilities**
   A. Projects for support buildings are rarely solely for the benefit of a single project
      i. Support buildings are built more often based on large location determination decisions [i.e., Base Closure and Realignment Commission (BRAC)]
      ii. They are almost always funded through building programs with their own justification (i.e., Base Hospitals)
      iii. Benefit timelines are usually longer (50+ years) than the project supporting them (5-30 years)

Knowledge Review

You are a PSM with an aircraft program. Your aircraft will be deployed to an Air Force base with several other types of aircraft. The cost estimator says that the base supply officer's salary is a direct charge to your program. Is he right or wrong?

- [ ] He is right
- [x] He is wrong

Check Answer

He is wrong. It is false to assume that the salary of a Base Supply Officer of a shared base facility would be **directly** charged to your program. Depending on how much supply support the base renders, a percentage of his time might be an **indirect** cost to your program.

Types of Costs: Labor Costs

You may have surmised that estimating labor costs is a challenge. The key question to consider when estimating labor costs is "Which labor costs are fixed and which are variable?" The main thing to keep in mind is that some costs are "real" in the sense that the money is budgeted in the current year and a real outlay is made against it. Accruals go to an account, so money trades hands. Not fully funded estimates are acknowledgments that there will be a cost in the future, but no actual money is established to work it.

Additionally, the PSM will consider the following factors when estimating labor costs:

- **Costs that are Variable in the Short Run**
  - Basic Pay, Allowances, Health Care Benefits
- **Costs that are Fixed in the Short Run**
  - Appropriated funds for commissaries, day care
- **Pay-as-you-go Costs that are Deferred**
  - Fully Funded [i.e., Retirement Pay (payments are made into an accrual fund)]
  - Not Fully Funded [i.e., Non-Medicare-eligible retiree health benefits (DoD incurs a liability in the future.)]

Non-Labor Costs

Non-labor costs can also occasionally be challenging. Direct non-labor costs are the costs of goods (e.g., materials, supplies, equipment, facilities, and other items), services, and benefits that are used exclusively by an organization.

Items that are rented and services that are contracted for by an organization fall into this cost category.

For example, if an organization rents office space for its exclusive use, its monthly rental payments are a direct cost to that organization. If an office has its own copier, the costs of operating and maintaining the copier, including supply purchases and repair calls, are a direct cost to that office.

Non-Labor Costs, Cont.

As another example, if we use an entire hangar on an airbase, the base commander can usually estimate what the operating cost of that hangar is, and will pass that cost on to your program in the form of a Host-Tenant agreement.

Shared facilities can be a bit more complicated. One common method has been to prorate based on personnel usage. If this method is used, make sure the computation doesn't double count personnel.

Again, as a PSM, you may not be directly involved in making these determinations. But the logistics footprint on a base or facility shared with other activities, which is almost always the case, is largely determined by the program's logisticians so care must be taken to ensure that the proration makes sense.

Who's Who? Key Players in O&S Cost

Program Manager (PM)	Product Support Manager (PSM)	Program and Component Cost Analysts	Product Support Integrators (PSIs)	Product Support Providers (PSPs)

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Long Description

A horizontal bar across the top of the page displaying Titles of the "**Key Players in O&S Cost**."

When the **Program Manager (PM)** is selected the following text appears:

The **PM** is the single point of accountability for accomplishing program objectives for total life cycle systems management, including sustainment. The PM is responsible for managing supportability, life cycle costs, performance, and schedule and making the best decision for the Warfighter and taxpayer. Planning for Operating and Supporting the system and the estimation of life cycle costs shall begin as early as possible. Therefore, the PM will provide oversight of and validate O&S cost information application throughout the life cycle.

When the **Product Support Manager (PSM)** is selected the following text appears:

The **PSM** reports to the PM and is responsible for applying appropriate O&S cost information for decisions made during the development and implementation of the product support strategy. The PSM is also responsible for using O&S cost information during the adjudication of performance requirements and resource allocations across Product Support Integrators (PSIs) and Product Support Providers (PSPs).

When the **Program and Component Cost Analysts** is selected the following text appears:

Cost analysts build the cost estimate by using and collecting the Cost Analysis Requirements Description (CARD), programmatic information, analogous systems information, economic data, financial information, and other information as appropriate that is then mathematically arranged, analyzed, and reported in the form of a cost estimate. Besides the varying sources of data, cost analysts must also be versed in a number of estimating techniques to best determine and build the strongest possible cost model. These cost analysts then continue to refine and update the cost models throughout the life cycle as new information arises.

When the **Product Support Integrators (PSIs)** is selected the following text appears:

PSIs are responsible for integrating all support sources, organic, OEM or third party, and have the latitude to determine how this is most effectively accomplished. The PSIs will need to understand how PSMs and PMs use O&S cost information so that they can align their efforts in order to provide affordable and required Warfighter outcomes.

When the Product Support Providers (PSPs) is selected the following text appears:

An entity that provides product support functions. The term includes an entity within the Department of Defense, an entity within the private sector, or a partnership between such entities. It is important for them to understand how those allotting funds for O&S costs make these decisions.

Who's Who? Key Stakeholders in O&S Cost

Industry Partners	Resource Sponsors	Operational Communities/ Warfighters	Comptroller (DoD)	Cost Analysis and Program Evaluation (CAPE)

D

Long Description

A horizontal bar across the top of the page displaying Titles of the "**Who's Who? Key Stakeholders in O&S Cost."**

When the **Industry Partners** is selected the following text appears:

Industry partners will use the information provided in official guidance to determine how best to provide to the Department of Defense (DoD). At times, Industry partners also act as PSIs. Therefore, it is important for them to understand how O&S cost information is generated and used.

When the **Resource Sponsors** is selected the following text appears:

Resource sponsors are those individuals who allocate funding. These individuals need to be aware of costs associated with operating and supporting a weapon system so that they allocate the correct amount of funds to ensure Warfighter operational capability.

When the **Operational Communities/Warfighters** is selected the following text appears:

Operational communities and Warfighters are primary generators of O&S costs. They need to understand how their actions and behaviors affect overall readiness and costs.

When the **Comptroller (DoD)** is selected the following text appears:

Comptroller is responsible for formulating and executing the DoD budget. Understanding the requests for funding, including funds to pay for O&S costs, by program offices is imperative.

When the **Cost Analysis and Program Evaluation (CAPE)** is selected the following text appears:

The **CAPE** Office oversees the initial Service O&S cost estimates. Understanding how the estimates are used will enable them to see areas of improvement in their estimates and areas to focus on.

The PSM and O&S Cost Data Locations

As a PSM, it is your responsibility to know where to locate O&S cost data, understand the appropriate basic O&S questions to ask about programs, and what key resources and tools to use when determining O&S costs.

In 1974, the Office of the Secretary of Defense (OSD) asked Services to develop an information system to report actual O&S costs called Visibility And Management Of Operating and Support Costs (VAMOSC). Select each link for more information for each of the O&S reporting systems per Service:

Navy and Marines: Visibility And Management Of Operating and Support Costs (VAMOSC)

Army: Operating and Support Management Information System (OSMIS)

Air Force: Air Force Total Ownership Cost (AFTOC)

The PSM and O&S Cost: What To Listen For

It is critical to be aware of and ask the following questions when working with cost estimators:

1. What data is to be included in cost estimating?
   A. Both types of cost data and other data
      i. Inventory
      ii. Operational Tempo (OPTEMPO) will have a big impact on what costs are going to be.
      iii. Repair and Maintenance (R&M) and how this will impact cost.
2. What data is not included?
   A. Principle cost drivers (i.e., maintenance, facilities, inventory, location of spare parts)
      i. To prevent underestimation of costs, please include all of the appropriate cost drivers.
3. What does the data really represent?
   A. Lexicon issues may occur so be sure to ask questions if something is unclear.
      i. Labels can be misleading if you don't know what they mean.
4. Where do I find data element definitions and explanations?
   A. Are there known "cautions" in using the data?
      i. Analogies help you to understand that wording may not be an exact match and more data may be needed to understand what you don't know.
      ii. Legacy data is always questionable.

The PSM and O&S Cost: Additional Tools

PSMs will have many resources and tools to aid in Operating and Support (O&S) cost estimating.

Select each Guidebook/Manual to review each tool.

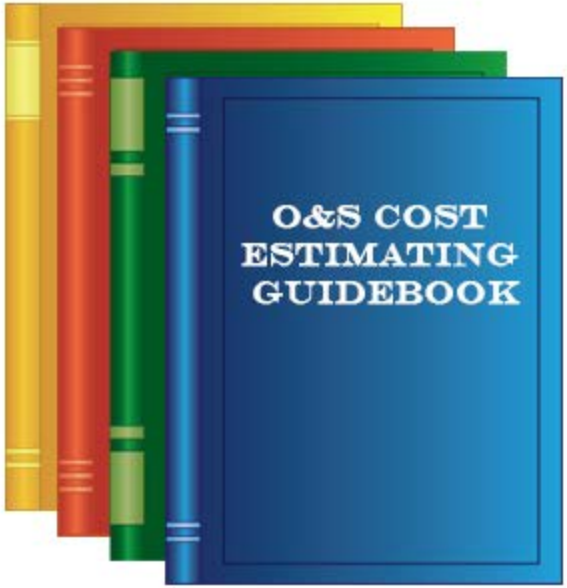
O&S Cost Estimating Guidebook

Product Support Manager Guidebook

IPS Element Guidebook

RAM-C Manual

Business Case Analysis Guidebook



Knowledge Review

Match each responsibility description to the correct Player or Stakeholder.

Responsibility Description	Players & Stakeholders
1. Susan needs to be aware of costs associated with operating and supporting a weapon system so that she can allocate the correct amount of funds to ensure Warfighter operational capability	**G.** Resource Sponsor
2. Bill is a primary generator of O&S costs and needs to understand how his actions and behaviors affect overall readiness and costs	**H.** Operational Communities/Warfighters
3. Fawzia is responsible for applying appropriate O&S cost information for decisions made during the development and implementation of the product support strategy	**B.** PSM
4. As a member of this organization, Pamela oversees the initial Service O&S cost estimates	**J.** CAPE

Check Answer

1. Susan - **G. Resource Sponsor.**
2. Bill - **H. Operational Communities/Warfighters.**
3. Fawzia - **B. PSM.**
4. Pamela - **J. CAPE.**

Knowledge Review

As a Product Support Manager (PSM), you will be responsible for:
(Select all that apply)

- [x] applying appropriate O&S cost information for decisions made during the development and implementation of the product support strategy
- [ ] being versed in a number of estimating techniques to best determine and build the strongest possible cost model [cost analyst]
- [ ] integrating all support sources, organic, OEM or third party, and have the latitude to determine how this is most effectively accomplished
- [x] using O&S cost information during the adjudication of performance requirements and resource allocations

Check Answer

As a Product Support Manager, you will be responsible for **applying appropriate O&S cost information for decisions made during the development and implementation of the product support strategy**. The PSM is also responsible for **using O&S cost information during the adjudication of performance requirements and resource allocations** across Product Support Integrators (PSIs) and Product Support Providers (PSPs).

Lesson Summary

In this lesson you reviewed the following about the PSM and O&S Cost:

As a Product Support Manager (PSM), your role is essential in applying O&S cost information to the program decision-making process, particularly as it relates to the development of a product support strategy.

While the PSM must ensure O&S costs related to product support are accurately reflected at every stage of O&S, the most significant impact occurs early in the program life cycle.

The November 2009 DoD Weapon System Acquisition Reform Product Support Assessment (WSAR-PSA) report identified Operating and Support (O&S) Cost Management as a recommendation area that should be addressed to drive product support towards the report's vision of aligning the acquisition, sustainment, and operational communities in order to provide affordable and required Warfighter outcomes.

There are four life cycle cost categories:

1. Research and Development
2. Investment Cost
3. Operating and Support Costs
4. Disposal Costs

Operating and Support (O&S) Costs are funded primarily with the O&M and Military Personnel appropriations. However, Research Development Test and Evaluation (RDT&E), Procurement, and/or Military Construction (MILCON) appropriations may also be used, as appropriate, based on the nature of the effort, after the weapon system has been deployed.

Lesson Summary, Cont.

Types of O&S costs include:

- Fixed and Variable
- Direct and Indirect
- Labor and Non-Labor

The key **Players** in O&S cost include:

- Program Manager (PM)
- Product Support Manager (PSM)
- Program and Component Cost Analyst
- Product Support Integrators (PSIs)
- Product Support Providers (PSPs)

The key **Stakeholders** in O&S cost include:

- Industry Partners
- Resource Sponsors
- Operational Communities/ Warfighters
- Comptroller (DoD)
- Cost Analysis and Program Evaluation (CAPE)

As a PSM, it is your responsibility to know where to locate O&S cost data, understand the appropriate basic O&S questions to ask about programs, and what key resources and tools to use when determining O&S costs.

Lesson Summary, Cont.

Congratulations! Now that you have completed The PSM and O&S Cost lesson, you should be able to:

1. Describe the role and importance of Operating and Support (O&S) cost estimating in life cycle product support planning.
2. Define key O&S cost terms and concepts.
3. Identify the roles and responsibilities of the various entities involved in O&S cost estimating and management.

Lesson Completion

You have completed the content for this lesson.

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