Lesson 9 Overview

Welcome to *Time Phasing.*

Upon successful completion of this lesson you should be able to discuss the guidance and terminology associated with time phasing an estimate.

Time Phasing consists of one lesson:

1. **Time Phasing**

Select a lesson from the Table of Contents to continue.

Learning Objectives

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

- Describe the process of developing a budget plan.
- Explain the general appropriation principles such as incremental funding, full funding, and annual funding.
- Discuss some of the special funding issues such as multi-year procurement, low rate initial production, and product improvement.

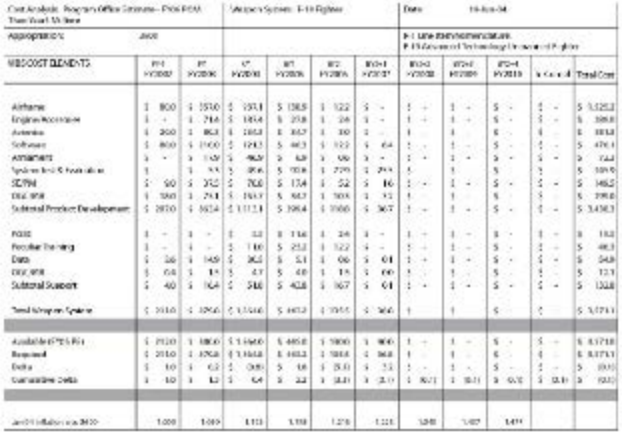
Welcome to Time Phasing

If you were developing a family budget, you would probably conclude that, while it is important to know the "what" and "how much" of an expense, it is also essential to know the "when." We are going to address the question of "when" in this lesson on time phasing the cost estimate.

Time Phasing: The Sparrowhawk

Documentation for an estimate like the Sparrowhawk will typically include summary and lower level presentations of the cost elements arranged by fiscal year and appropriation.

We will find that for DoD, the question of "when" is not just a matter of timing, but also a function of the appropriation being used and the nature of the cost element itself.



MQ-19 Sparrowhawk
Program Office Estimate
Unmanned Vehicles Directorate

PROGRAM ELEMENT: PEXXXXXX
FISCAL YEARS(s): 2003 through 2025
PREPARED BY: XYZ/ABC
DATE: 10 June 2006

APPROVED BY:

Jane Rowens Ms. Jane Rowens, Director of Finance	10 June 2006 Date
Don Smith Mr. Don Smith, Program Manager	10 June 2006 Date

Click here to flip pages

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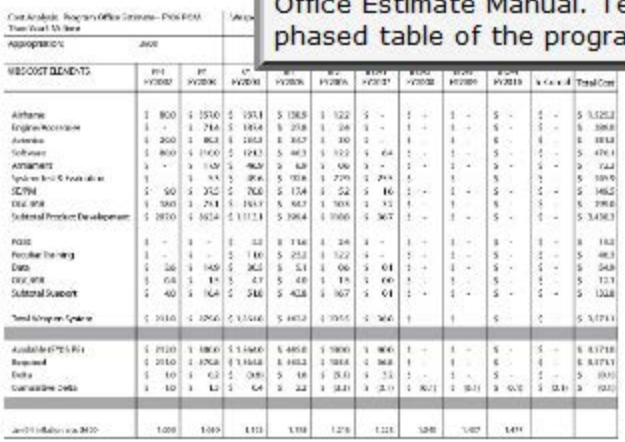

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Jane Rowens — 10 June 2006
Ms. Jane Rowens, Director of Finance — Date

Don Smith — 10 June 2006
Mr. Don Smith, Program Manager — Date

Click here to flip pages

Long Description

Animated depiction of the MQ-19 Sparrowhawk Program Office Estimate Manual. Text of manual includes a time-phased table of the program funding requirements.

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How do we actually "budget" for the estimate?

In previous chapters we discussed various techniques for developing estimates. It's time for us to consider how we will actually ask for the money.

We need to consider that the typical estimate is a collection of expense and investment items, funded from various appropriations, each with its own set of rules for use. While detailed discussions of the programming and budgeting process are tackled in other courses, it is incumbent upon us to recognize the need to present the estimate in a format consistent with relevant programming and budgeting guidance.

Expense and Investment Criteria

One thing that must be considered is the expense and investment criteria. The expense and investment criteria evolve around cost, purpose and whether the item is considered a centrally managed/controlled item.

Generally, items costing less than $250,000 and not designated for centralized management and asset control are considered ***expenses*** and are funded with O&M funds but, under some circumstances, they are funded with RDT&E funds. Normally, these items are consumed in routine operations but, more importantly, their cost is relatively low.

Investment items are those that cost more than $250,000 and/or are designated for centralized management and asset control. Generally, investment items are not consumed in routine operations. Investment items may be funded with Procurement, MILCON or RDT&E.

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Long Description
Expense is less than or equal to $250,000. Investment is greater than $250,000.

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Appropriations

To execute an acquisition program, budget authority provided by Congress is needed in order to incur obligations and make payments. Budget authority is most commonly provided by an appropriations act, in which Congress specifies the purpose(s) for which each particular appropriation may be used as well as the amount of budget authority provided under each appropriation.

DoD receives many appropriations, most of which can be grouped into five major categories:

1. Research, Development, Test and Evaluation (RDT&E)
2. Procurement
3. Operation and Maintenance (O&M)
4. Military Personnel (MILPERS)
5. Military Construction (MILCON)

APPN CAT	SCOPE OF WORK EFFORT	FUNDING POLICY
RDT&E	RDT&E Activities & Exp., AIS Equip & SW @ R&D Facilities, Minor Const.	**Incremental**
PROC	Production Labor/HW, Initial Spares, Useable end items >= $250K	**Full**
O&M	Replenishment Spares, Civilian Salaries, Travel, Fuel, Supplies, Minor Const. < $750K, Non-centrally managed end items < $250K	**Annual**
MILPERS	Military Pay & Allowances, PCS Moves, Retired Pay Accrual	**Annual**
MILCON	Major Construction Projects > $750K	**Full**

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Long Description

RDT&E: SCOPE OF WORK EFFORT - RDT&E Activities & Exp., AIS Equip & SW @ R&D Facilities, Minor Const.; FUNDING POLICY - Incremental

PROC (SCN): SCOPE OF WORK EFFORT - Production Labor/HW, Initial Spares, Useable end items >= $250K; FUNDING POLICY - Full

O&M: SCOPE OF WORK EFFORT - Replenishment Spares, Civilian Salaries, Travel, Fuel, Supplies, Minor Const. < $750K, Non-centrally managed end items < $250K; FUNDING POLICY - Annual

MILPERS: SCOPE OF WORK EFFORT - Military Pay & Allowances, PCS Moves, Retired Pay Accrual; FUNDING POLICY - Annual

MILCON: SCOPE OF WORK EFFORT - Major Construction Projects > $750K; FUNDING POLICY - Full

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MILPERS	Military Pay & Allowances, PCS Moves, Retired Pay Accrual	**Annual**
MILCON	Major Construction Projects > $750K	**Full**

Long Des

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Research, Development, Test and Evaluation (RDT&E)

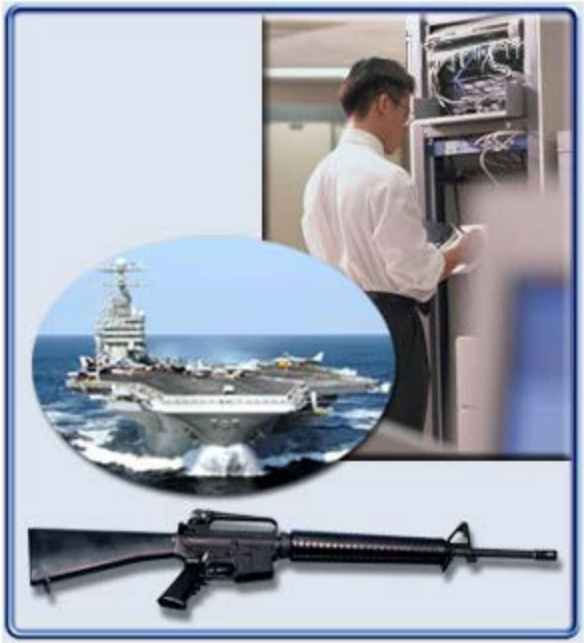
RDT&E appropriations finance research, development, test and evaluation efforts performed by contractors and government installations to develop equipment, material, or computer application software; its Development Test and Evaluation (DT&E); and its Initial Operational Test and Evaluation (IOT&E). These efforts may include purchases of end items, weapons, equipment, components, and materials as well as performance of services – whatever is necessary to develop and test the system. This applies to Automated Information Systems (AIS) as well as weapon systems. RDT&E funds are also used to pay the operating costs of dedicated activities engaged in the conduct of Research and Development programs.

RDT&E funds are used for both ***investment***-type costs (e.g., sophisticated laboratory test equipment) and ***expense***-type costs (e.g., salaries of employees at R&D-dedicated facilities).

There is an RDT&E appropriation for each service (Army, Navy, and Air Force) as well as one to cover other Defense agencies, operational test and developmental test.

Procurement

The ***Procurement*** appropriation category consists of a number of procurement titles such as Shipbuilding and Conversion Navy, Aircraft Procurement Air Force, Missile Procurement Army, Procurement Marine Corps, etc. Procurement appropriations are used to finance investment items, and should cover all costs integral and necessary to deliver a useful end item intended for operational use or inventory.



Items classified as **investments** and financed with procurement appropriations include:

- Those whose system unit cost exceeds $250K
- All centrally managed end items not purchased from Defense Working Capital Funds, regardless of unit cost (e.g., handguns)
- Purchases from the Defense Working Capital Fund furnished as part of a system acquisition, system modification, major service life extension program
- Initial spares
- The cost of fabricating and installing additions or modifications to existing end items, with certain limited exceptions

Operation and Maintenance (O&M)

The ***O&M*** category of appropriations is also composed of many appropriation titles, e.g., Operation and Maintenance Army, Operation and Maintenance Marine Corps Reserve, Operation and Maintenance Air National Guard, etc.

O&M appropriations traditionally finance those things whose benefits are derived for a limited period of time, i.e., **expenses**, rather than investments.

Examples of costs financed by O&M funds are:

- Headquarters operations
- Civilian salaries and awards
- Travel
- Fuel
- Minor construction projects of $750K or less
- Expenses of operational military forces
- Training and education
- Recruiting
- Depot maintenance
- Purchases from Defense Working Capital Funds (e.g., spare parts)
- Base operations support
- Assets with a system unit cost less than the current procurement threshold ($250K)

Military Personnel (MILPERS)

MILPERS appropriations are similar in nature to the O&M accounts in that both are considered **expense** accounts.

MILPERS appropriations are used to fund:

- The costs of salaries and compensation for active military and National Guard personnel
- Permanent change of duty station (PCS)
- Training in conjunction with PCS moves
- Subsistence
- Temporary lodging
- Bonuses
- Retired pay accrual

Military Construction (MILCON)

MILCON appropriations receive considerable attention from Congress, and are enacted separately from the Defense Appropriations Act. These appropriations fund the costs of major construction projects such as bases, facilities, military schools, etc. Project costs include architecture and engineering services; construction design; real property acquisition costs; and land acquisition costs necessary to complete the construction project.

MILCON is considered an **investment** account.

Examples of projects properly paid for from the MILCON appropriations are:

- Missile storage facilities
- Intermediate maintenance facilities
- Medical/dental clinics
- Technical libraries
- Physical fitness training centers

Commonly Used Appropriation Accounts

The table lists the four-digit codes for DoD's most commonly used appropriation accounts. Note: Some services commonly use appropriation numbers (e.g., AF "3600") while others use abbreviations (e.g., Navy "SCN" or "O&MN")

DoD Appropriation Account Codes

Appropriation Account	Army (21-)	Navy (17-)	USMC (17-)	Air Force (57-)	DoD Wide (97-)
RDT&E	2040	1319		3600	0400
Procurement					0300
Aircraft	2031	1506		3010	
Missiles	2032			3020	
Weapons		1507			
W&TCV	2033				
Ammunition	2034	1508		3011	
SCN		1611			
Other	2035	1810		3080	
USMC			1109		
MILPERS	2010	1453	1105	3500	
O&M	2020	1804	1106	3400	0100
MILCON	2050	1205		3300	0500

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Procurement					0300
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Weapons					
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Ammunition					
SCN					
Other					
USMC					
MILPERS					
O&M					
MILCON	2050	1205		3300	0500

Long Description

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Financial Rules and Practice

The DoD FMR articulates a number of ground rules derived from Congressional direction concerning the amount and timing of budget requests for different appropriations. These funding or budgeting policies basically serve to ration scarce budget authority among DoD's many activities and programs. These policies are discussed on the following slides.

Funding Policy	Appropriations
Annual	O&M MILPERS
Incremental	RDT&E
Full	Procurement MILCON

D

Financial Rules and Practice

The DoD FMR articulates a number of ground rules derived from Congressional direction concerning the amount and timing of budget requests for different appropriations. These funding or budgeting policies basically serve to ration scarce budget authority among DoD's many activities and programs. These policies are discussed on the following slides.

Long Description

Table of funding policy and appropriations. Annual matches to O&M and MILPERS. Incremental matches to RDT&E. Full matches to Procurement and MILCON.

D

Annual Funding

The rule governing the O&M and MILPERS appropriations is the ***annual funding policy***. Simply stated, the policy requires that you request only the dollars that you need to operate, maintain, or pay the forces in a given fiscal year.

The major exception to this policy is the statutory provision (Title 10, U.S. Code, Section 2410a) governing DoD financing of service contracts whose period of performance crosses fiscal years. Provisions of that statute allow (but does not direct) DoD to submit a budget request in one fiscal year for a period of performance up to a maximum of twelve months for such service contracts that start in that first fiscal year and go into the next year. During the year of execution, the Defense Component can then obligate first year funding for the entire period of performance. Thus, a service contract covering the period April 2016 to March 2017 (12 months, starting in FY16 and ending in FY17) may be budgeted for and funded entirely with FY16 funds. This provision has provided increased flexibility of the Department and has eased some of the contractual workload associated with awarding contracts early in the fiscal year.

O&M Funding Policy Exceptions
- Contracts Crossing Fiscal Years

Non- Severable Services	≤ 12 Mos
Severable Services	≤ 12 Mos

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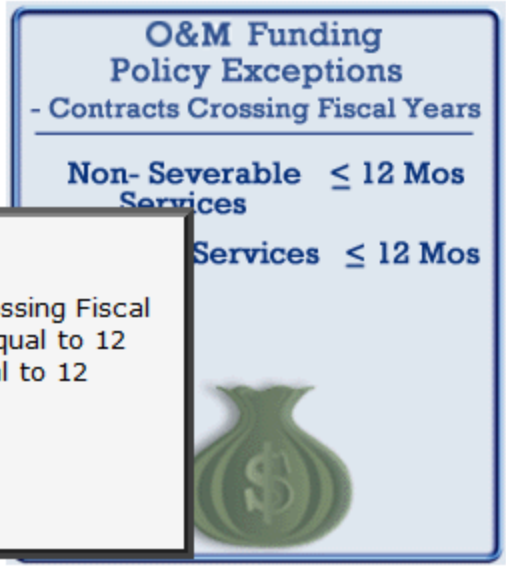

Long Description

O&M funind policy exceptions - contracts crossing Fiscal Years. Non-severable services less than or equal to 12 months. Severable services less than or equal to 12 months.

D

Annual Funding: Budget Authority

The annual funding policy says to request funds each fiscal year for the costs needed to operate, maintain, or pay the forces in that specific fiscal year. The example below includes tasks plotted in terms of cost incurred each fiscal year. We can simply add the costs in each column to determine the proposed O&M/MILPERS financial requirement for that year.

Task 3 falls under the exception of a service effort less than or equal to 12 months which can be funded entirely in one fiscal year.

Annual Funding Policy

	FY 1	FY 2	FY 3	FY 4
Task 1 $20M	$5M	$5M	$5M	$5M
Task 2 $350M	$50M	$100M	$100M	$100M
Task 3 $15M		12 Month Effort $10M	$5M	
O&M / MILPERS Budget Authority	$55M	$120M	$105M	$105M

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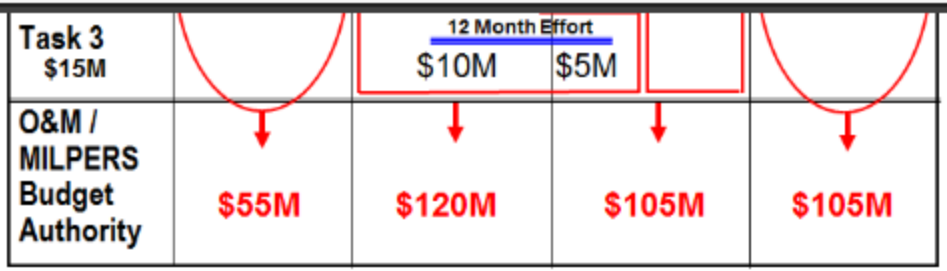
Long Description

Depiction of Annual Funiding policy. For the program represented, there are 3 tasks that span across 4 Fiscal Years.

Task 1: $5M in FY1, $5M in FY2, $5M in FY3, and $5M in FY4
Task 2: $50M in FY1, $100M in FY2, $100M in FY3, and $100M in FY4
Task 3: $10M in FY2, and $5M in FY3 This task is a 12 month effort and falls under the exception of a service effort less than or equal to 12 months which can be funded entirely in one fiscal year.

The budget request would be $55M for FY 1, $120M for FY 2, $105M for FY 3, and $105M for FY 4.



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Incremental Funding

The rule governing budgeting of RDT&E funds is the ***incremental funding policy***. As stated in the FMR, the incremental funding rule is:

> "...only those funds required for work in a given fiscal year shall be included in the RDT&E budget request for that fiscal year for most classes of effort."

The "funds required for work in a given fiscal year" portion of the quotation is further translated to mean "costs expected to be incurred during that fiscal year". So, for purposes of developing a budget for RDT&E funding, it's necessary to estimate when we expect costs to be incurred. This can be tricky, particularly when looking forward to a competitive development without knowing who the contractor will be, much less how or when the costs will be incurred. Conceptually the task is much easier.

Incremental Funding, Cont.

Generally, research and development efforts are accomplished under contracts that span more than one fiscal year. The FMR provides the following specific guidance for estimating the budget requirement for the various fiscal years of that potential research and development contract spanning more than one year:

- In the initial, first year of a contract for a new start program, assume funding for a 9 month or lesser period because of the nature and timing of the congressional budget approval process.
- For the second and all later full fiscal years of the contract, assume funding requirements on the basis of costs expected to be incurred for a 12 month period. In some cases, the assumption might be made that the contractor can finish the contracted work effort within the first 3 months of the following fiscal year; in such case, the Service or Defense Agency Comptroller may approve including that additional funding requirement for up to 3 months and include it in the last full fiscal year budget request. However, this should be monitored and, if it becomes apparent that the work effort will take longer than 3 months into a following fiscal year, the programming and budgeting documents should be modified to reflect that change (i.e., put the funding requirement into the next year).
- When it is known that more than 3 months of work effort will be required in the last fiscal year of the contract, assume funding requirements for that expected number of months required for the contractor to complete the contract.

Incremental Funding: Exception

In some cases, there may be a research and development requirement in which there is no logical way to divide the work; it is clearly unfeasible to limit the contract to a shorter period; or the planned technical effort is such that no contractor is willing to accept a contract for a less-than-completion increment. For these type efforts that take longer than 12 months but less than 18 months, the Service or Defense Agency Comptroller may approve financing of the total requirement in one fiscal year.

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Incremental Funding: Exception

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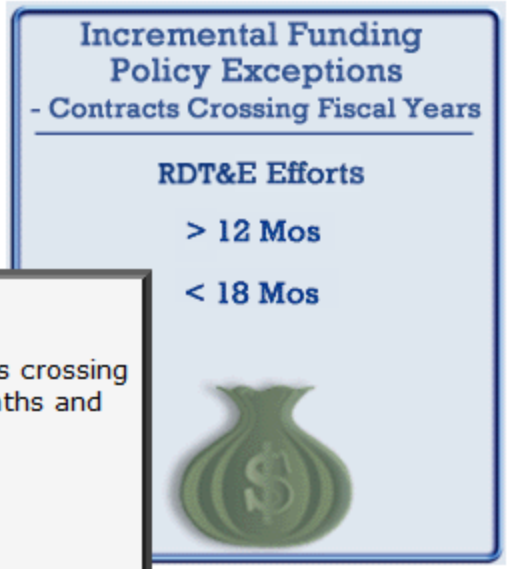

Long Description

Incremental Funding policy exceptions, contracts crossing fiscal years. RDT&E efforts greater than 12 months and less than 18 months.

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Incremental Funding: Budget Authority

The incremental funding policy says to request funds each fiscal year for the costs expected to be incurred that year. The example below includes tasks plotted in terms of cost incurred each fiscal year. We can simply add the costs in each column to determine the proposed RDT&E financial requirement for that year.

Task 3 falls under the exception of an effort longer than 12 months but shorter than or equal to 18 months which can be funded entirely in one fiscal year.

Incremental Funding Policy

	FY 1	FY 2	FY 3	FY 4
• TASK 1 $20M	$5M	$5M	$5M	$5M
• TASK 2 $400M	$50M	$100M	$100M	$150M
• TASK 3 $15M	18 Month Exception $10M	$5M		
RDT&E Budget Authority	$70M	$105M	$105M	$155M

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Incremental Funding: Budget Authority

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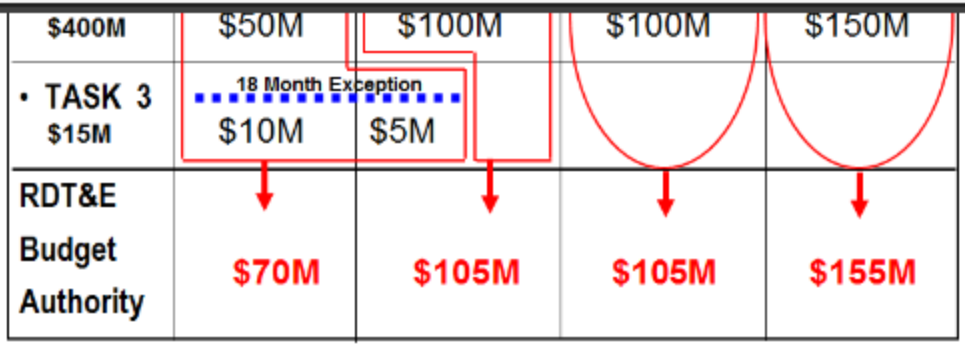
Task 3 falls und ... l to 18 months which c

Long Description

Depiction of Incremental Funding policy. For the program represented, there are 3 tasks that span across 4 Fiscal Years.

Task 1: $5M in FY1, $5M in FY2, $5M in FY3, and $5M in FY4
Task 2: $50M in FY1, $100M in FY2, $100M in FY3, and $150M in FY4
Task 3: $10M in FY1, and $5M in FY2 This task is a 18 month effort and falls under the exception of longer than 12 months but shorter than or equal to 18 months which can be funded entirely in one fiscal year.

The budget request would be $70M for FY 1, $105M for FY 2, $105M for FY 3, and $155M for FY 4.



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Full Funding

The rule governing the computation of estimates for procurement and military construction (MILCON) appropriations is called the ***full funding policy***. The FMR states there are two basic policies concerning full funding:

- The first is to provide funds at the outset for the total estimated cost of a given program so that the Congress and the public can be fully aware of the dimensions and cost when the program is first presented in the budget.
- The second is to provide funding each fiscal year to procure a complete, usable end item. In other words, an end item budgeted in a fiscal year can not depend upon a future year's funding to complete the procurement action for that item.

The first policy pertains to the total program throughout the fiscal years envisioned to have production contractual actions, also known as a fully funded program. The second pertains to each individual fiscal year with a planned production contractual action (i.e., a contract award or the exercise of a contract option).

Full Funding, Cont.

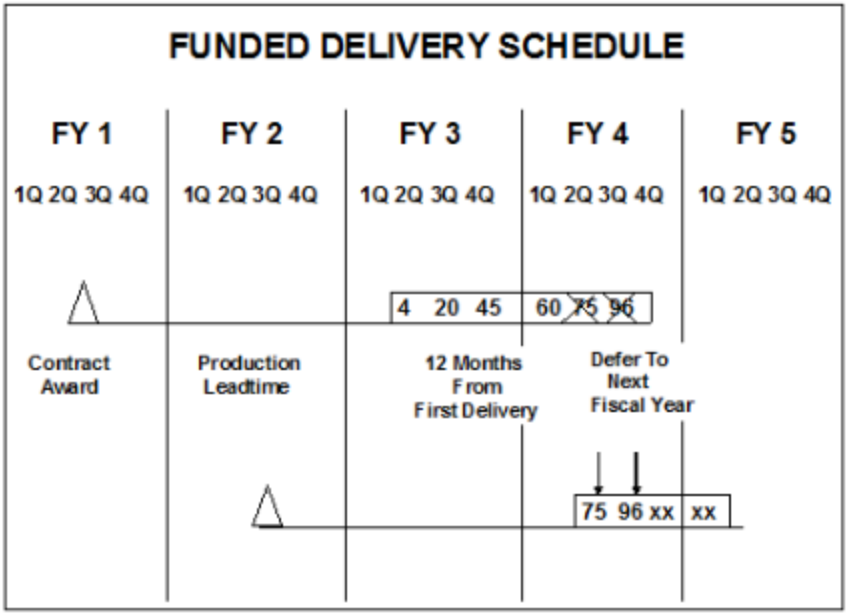
The full funding concept can be confusing. It is best illustrated by stating what one may not do.

For example, if the Army plans to purchase 1000 tanks at the rate of 100 per year for ten years, the Army may not contract for 1000 turrets in the first year, 1000 tracks in the second year, 1000 engines in the third year, and continue with piecemeal procurement until all components are acquired and all the pieces are assembled into the 1000 complete tanks. Instead, the Army must contract each year for the 100 completely finished and ready-to-fight tanks; then, as the contractor completes the tanks and they are accepted by the government, the tanks are deployed to the user community. By the end of the 10 year period, the Army has contracted for – and received delivery of – the entire planned acquisition of 1000 tanks.

Full Funding: Funded Delivery Period

To prevent programs from tying up excessive amounts of budget authority in a single year, DoD generally limits procurement budget requests to just the number of end items that can be delivered within a 12-month ***funded delivery period***. The funded delivery period begins when the contractor delivers the first item of a fiscal year procurement (or **lot**) and ends when the last item in that lot is delivered.

For example, assume the planned lot buy for FY 1 is 300 units. The first scheduled delivery is planned in the second quarter of FY 3 per the delievery schedule shown in the diagram. The funded delivery period covers the 12 months from that first delivery, which is through the end of the first quarter of FY 4. In this case, only 129 items can be delivered by the end of the first quarter of FY 4. Therefore, the budget request for FY1 should only include funds for 129 units instead of the 300 originally planned. The remaining 171 units should be funded in the following fiscal year (FY02).



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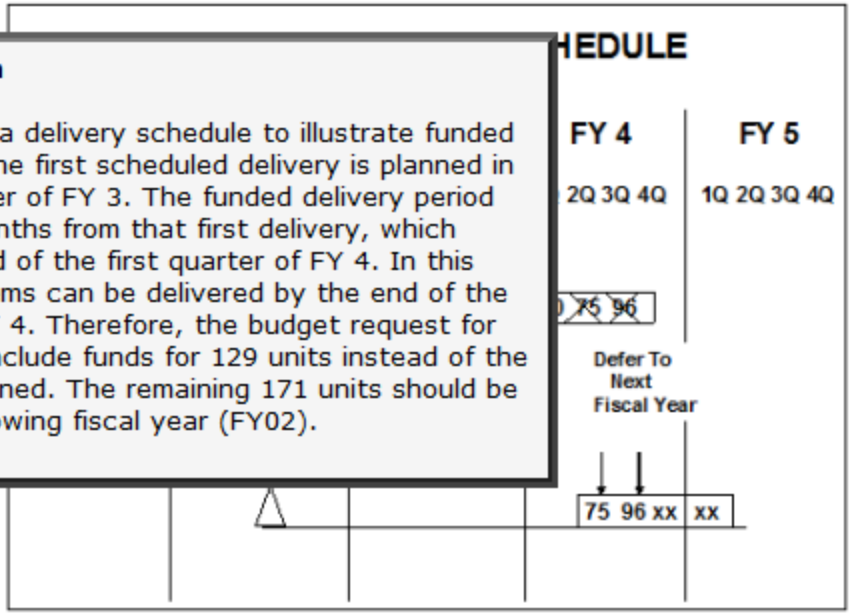


Long Description

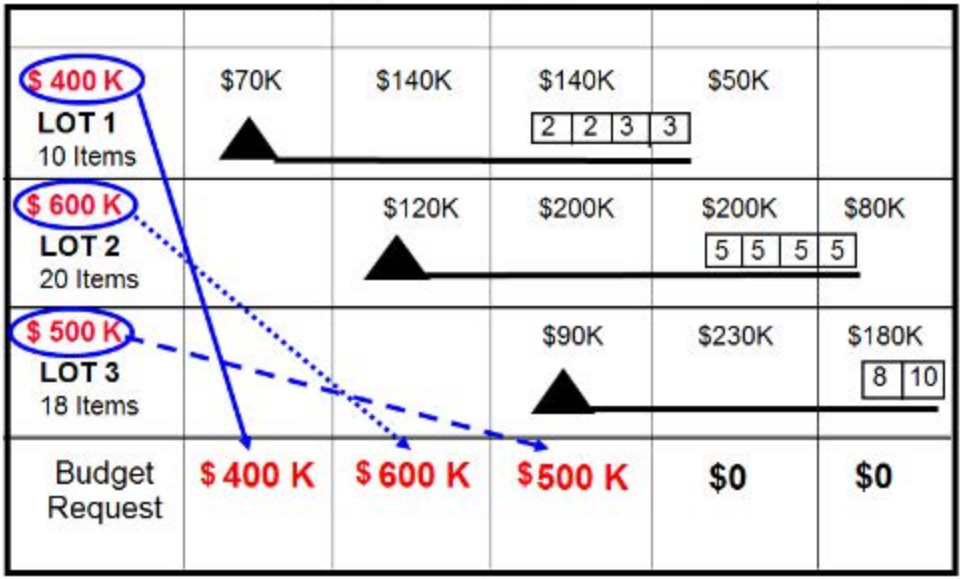
The figure shows a delivery schedule to illustrate funded delivery period. The first scheduled delivery is planned in the second quarter of FY 3. The funded delivery period covers the 12 months from that first delivery, which is through the end of the first quarter of FY 4. In this case, only 129 items can be delivered by the end of the first quarter of FY 4. Therefore, the budget request for FY1 should only include funds for 129 units instead of the 300 originally planned. The remaining 171 units should be funded in the following fiscal year (FY02).

D

Full Funding: Budget Authority

The full funding policy says to request funds each fiscal year for the number of complete, usable end items that can be delivered within a 12-month delivery period. The example below includes lots plotted in terms of cost incurred each fiscal year and the associated delivery schedule. We can simply add the total cost for each lot to determine the proposed procurement financial requirement. The budget request for each lot will be in the first year that costs will be incurred.

Full Funding Policy (Multiple Lots)



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Full Funding Policy (Multiple Lots)

Long Description

Depiction of the Full funding policy. For the program represented, there are 3 lot buys that span across 5 Fiscal Years.

Lot 1 (10 items): $70K in FY1, $140K in FY2, $140K in FY3, and $50K in FY4
Lot 2 (20 items): $120K in FY2, $200K in FY3, $200K in FY3, and $80K in FY5
Lot 3 (18 items): $90K in FY3, and $230K in FY4, $180K in FY5

The budget request would be $400K for FY 1 covering the total cost for Lot 1, $600K for FY 2 covering the total cost for Lot 2, and $500K for FY 3 covering the total cost for Lot 3.

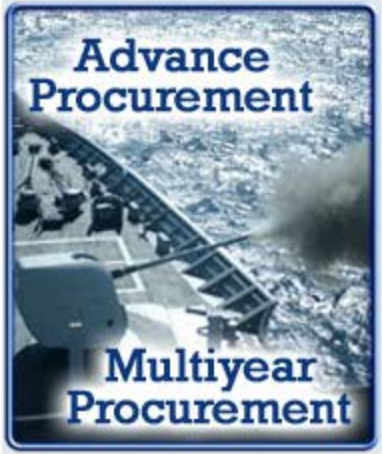
Request					

D

Full Funding: Exceptions

As with most policy statements, there can be exceptions. In the case of the full funding policy, there are two exceptions provided for in the FMR:

- Advance procurement (long lead-time items)
- Economic order quantity (EOQ) procurement (usually associated with multiyear procurement), which is how we will identify this exception



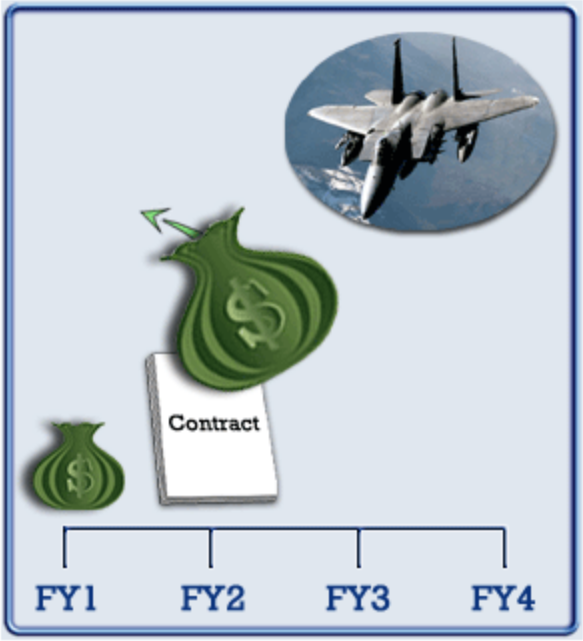
Full Funding: Exceptions - Advance Procurement

As previously stated, one exception to the full funding policy is the use of ***advance procurement*** for long lead-time items.

Advance procurement can be described as funds "fenced" to procure certain components, material, or effort in advance of the end item buy, to preclude serious and costly fluctuation in program continuity. Advance procurement may be used:

1. To maintain critical skills that would otherwise be lost between Engineering and Manufacturing Development (EMD) and Full Rate Production; and/or
2. To accelerate the schedule by providing necessary components at the right time for incorporation into the production of the weapon system, i.e., to prevent a slowdown or break in production.

Advance procurement funds for a system are budgeted as a separate procurement line item from the related end item. However, the relationship of the advance procurement funds to the end item budget is identified in both accounts so as to prevent double counting. Generally, advance procurement funds are budgeted one fiscal year in advance of the funds for the related end item.



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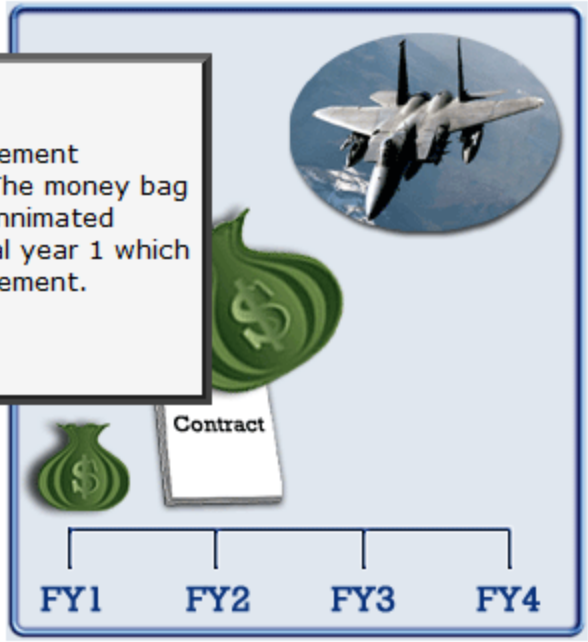
Long Description

Image of airplane and associted procurement funding represented as a money bag. The money bag is in fiscal year 2. The money bag is annimated dropping a smaller money bag into fiscal year 1 which is a representation of advanced procurement.



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Full Funding: Exceptions - Multiyear Procurement (MYP)

As previously indicated, the second exception to the full funding policy is that of ***multiyear procurement*** (MYP) actions (usually associated with economic order quantities). MYP is considered an exception to the full funding policy in that whole end items are not being financed.

MYP is a vehicle for acquiring multiple years of requirements for systems or subsystems with a single contract, usually up to a maximum of five years. The purpose of MYP is to reduce program cost growth and introduce stability into the acquisition process. In theory it does so by making a commitment to the contractor to procure a specific quantity of a weapon system over several years to be funded on a year-by-year basis. The contractor is thus incentivized to realize savings, particularly through economic order quantity (EOQ) purchases (i.e., bulk purchases), and investment in productivity enhancements.

Congress and DoD have several concerns regarding multiyear procurement including the lagre amount of budget authority necessary to initiate a multiyear program and the resulting loss of budget flexibility. Congress dislikes making commitments in the current year which have out-year consequences. DoD also likes to retain as much flexibility as possible to respond to changing requirements.

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Long Description

Multi-year procurement contract shown over 5 years represented with a picture of a plane.

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D

Full Funding: Exceptions - Multiyear Procurement (MYP), Cont.

Although MYP can benefit the government, it can also entail certain risks. Accordingly, in Public Law 97-86, the Congress established criteria that multiyear candidates must meet to limit those risks. The criteria have been further refined by the GAO, OSD, and the Congressional Committees:

- **Substantial savings** - The MYP should achieve significant savings compared to annual procurement of the same quantities to compensate for the reduction of future budget flexibility and added program risk. There is no officially defined significant percentage or dollar value of savings for a MYP. In the past, minimum savings of 10% or more were expected, although very costly programs were able to obtain approval for MYP with less than this due to the high dollar value of the savings.
- **Realistic cost estimates** - Estimates should be based on historical cost data for the same or similar item. Savings are calculated as the difference between cost estimates, proposals, or negotiated prices for the multiyear contract and the cost of procuring the same quantities in the same time frame with successive annual contracts.
- **Continuing/stable requirement** - A stable requirement means that the minimum need for the item will not vary significantly (particularly downward) over the term of the multiyear contract. Decreases in procurement quantities or procurement rate can cause increases in unit cost and subsequently reduce savings.

Full Funding: Exceptions - Multiyear Procurement (MYP), Cont.

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- **Funding availability and stability** - There should be a reasonable expectation that program funding at the required level for the procurement will be available throughout the multiyear contract period. Both DoD and the Congress must be committed to ensuring that sufficient funds are provided to complete the multiyear contract at planned production rates.
- **Design stability** - System or subsystem design should be stable before initiating a MYP request. Test and evaluation should be completed and demonstrate that the system or subsystem is operationally effective. A program should be judged mature and stable only after research and development and one or two production runs have been successful.
- **National security enhancement** - The use of a multiyear contract should promote national security.
- **Impact on industrial base** - Programs seeking approval for MYP must describe the impact on the industrial base, including improved competition, enhanced facilities investment, improvement in vendor skills, increased production capacity, etc.

Low Rate Initial Production (LRIP)

There are special funding instances that will be discussed on the next few slides. One of these spcial instances is ***Low Rate Initial Production*** (LRIP).

There are three primary purposes for an acquisition program to obtain LRIP assets:

1. To permit an orderly increase in production rate for the system.
2. To establish an initial production base for the system.
3. To provide production configured or representative articles for operational test.

Generally, RDT&E is the default appropriation for LRIP assets that will be used for operational test purposes and Procurement is the default appropriation for LRIP assets used to establish an initial production base or an orderly increase in the production rate.

While LRIP assets intended for operational testing purposes are normally funded with a RDT&E appropriation, there may be circumstances when the program office believes procurement funding is more appropriate. For example, if the acquisition strategy states the LRIP assets will be used for operational test purposes and then placed into the operational inventory, procurement funding could be requested.

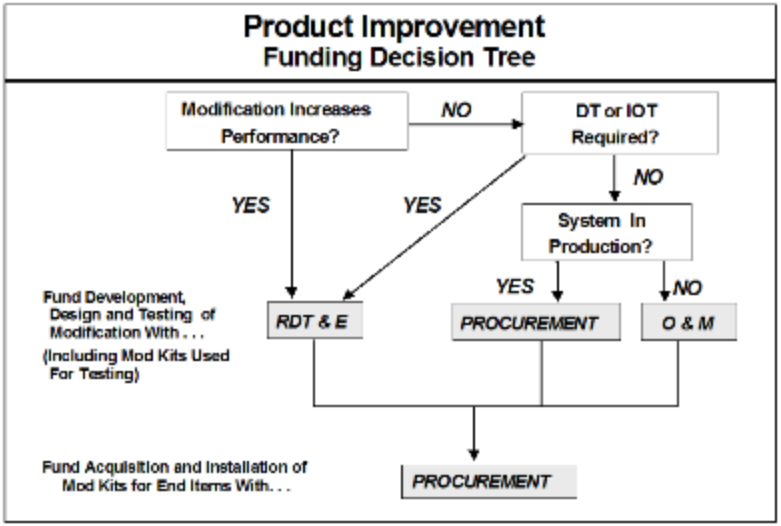
Product Improvement

Another special funding instance is determining the correct appropriation with which to fund product improvements or modifications of existing major weapon systems. Product improvement involves a change to existing systems or components which usually either extends the system's useful military life or expands the system's performance capability.

Because product improvement involves existing systems rather than new systems in development, various appropriations can be used to finance the development and testing of the product improvement.

The funding of this change should be viewed in two phases:

1. The development and testing of the modification, and
2. The fabrication and installation of mod kits.



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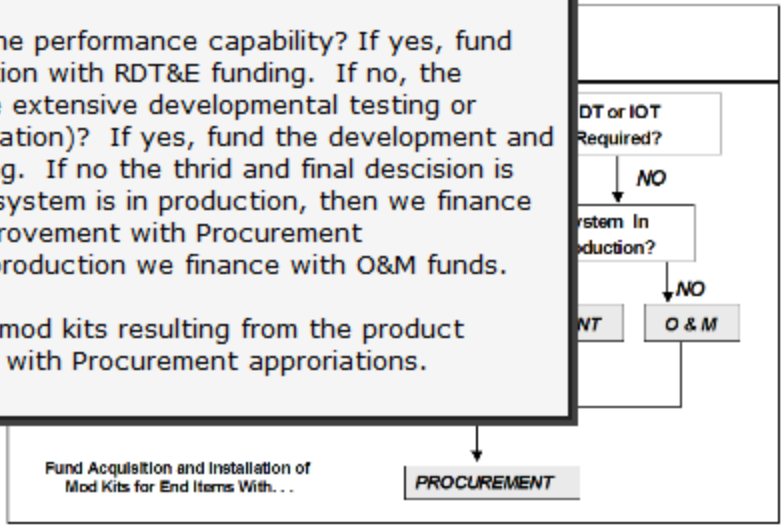
Long Description

The figure depicts the Product Improvement Funding Decision Tree.

First desision is does this redesign increase the performance capability? If yes, fund the development and testing of the modification with RDT&E funding. If no, the second descision is does this redesign require extensive developmental testing or operational testing (e.g., is it a major modification)? If yes, fund the development and testing of the modification with RDT&E funding. If no the thrid and final descision is where is this system in the life cycle? If the system is in production, then we finance the development and T&E of the product improvement with Procurement appropriations. If the system is no longer in production we finance with O&M funds.

Finally, the acquisition and instalation of the mod kits resulting from the product improvement development are always funded with Procurement approriations.



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Product Improvement, Cont.

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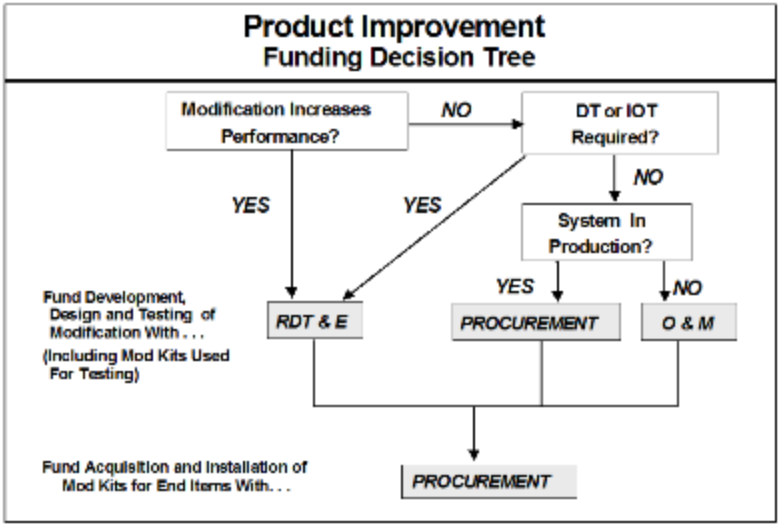

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Fi[illegible] m[illegible] im[illegible] w[illegible]

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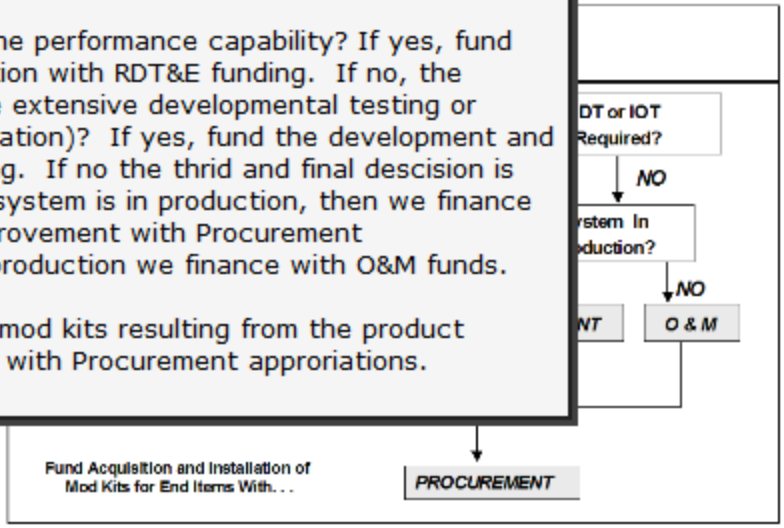

D

The Application of Inflation to the Financial Forecast

When a program puts together a cost estimate, it is usually in constant dollars. Constant dollars are going to be tied to a specific year, with no inflation across the life of a program. This is very useful for cost estimating, since it is easy to make changes across the years without having to consider the impact on the cost of money over time. It is also beneficial if you want to analyze a program to see things like cost growth and the impact of learning curves.

However, budget requests are projections into the future, and therefore budget requests are submitted in then-year dollars. To properly factor in inflation and outlays, we need to account for the effects of rising prices as well as account for the timing of when bills will actually be paid.

D

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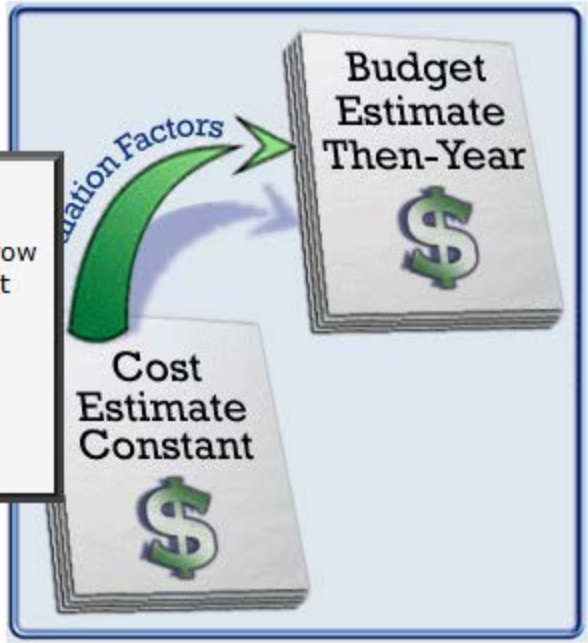
However, budget[illegible] and therefore bu[illegible] dollars. To prope[illegible] to account for th[illegible] account for the [illegible]



Long Description

Cost estimate in Constant dollars with an arrow labeled escalation factors leading into budget estimate in Then-Year dollars.

D

Knowledge Review

The Sparrowhawk aircraft that are being bought for operational use will be funded from which appropriation?

- [ ] Research, Development, Test & Evaluation
- [x] Procurement
- [ ] Operations and Maintenance
- [ ] Military Construction

Check Answer

The Sparrowhawk aircraft that are being bought for operational use will be funded from **procurement** appropriation.

Knowledge Review

The number of Sparrowhawk aircraft that can be requested in a given procurement year is generally limited by the number of aircraft that can be delivered:

- [ ] Within a 6 month period.
- [ ] Within a 18 month period.
- [x] Within a 12 month period.
- [ ] There are no general limits.

Check Answer

DoD generally limits procurement budget requests to just the number of end items that can be delivered **within a 12-month period**.

Knowledge Review

One of your co-workers asks how the avionics development would be funded if the development effort spanned three years. You answer:

- [x] The effort would be incrementally funded over the three years.
- [ ] This would be covered under the annual funding policy
- [ ] The budget for the entire effort would be fully-funded in the first year.

Check Answer

The effort would be incrementally funded over the three years.

Knowledge Review

If we were building an avionics support facility, and that effort spanned two fiscal years, how would we fund the effort?

- [ ] We would use military construction funds to incrementally fund the effort.
- [ ] We would request military construction funds in each of the two years.
- [x] We would request military construction funds in the first year for the entire effort.

Check Answer

We would request military construction funds in the first year for the entire effort.

Knowledge Review

The acquisition plan states that three Sparrowhawks will be required for operational test and evaluation. Following test, these aircraft will be reconstituted and deployed for operational use. These three LRIP assets:

- [ ] Must be funded from the RDT&E appropriation.
- [x] May be funded from the procurement appropriation.
- [ ] May be funded from the O&M appropriation.

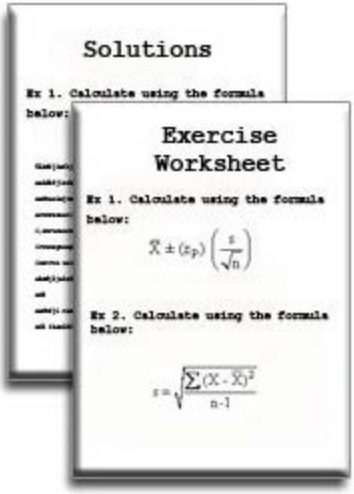
Check Answer

These three LRIP assets **may be funded from the procurement appropriation**.

Knowlege Review Worksheet

If you would like to print a copy of the exercises presented throughout this lesson, you may print them from the link below.

Exercises with Solutions



Summary

Congratulations! You have just completed the lesson on time phasing. You should now be able to:

- Describe the process of developing a budget plan.
- Explain the general appropriation principles, such as incremental funding, full funding, and annual funding.
- Discuss some of the special funding issues, such as multi-year procurement, low rate initial production, and product improvement.

Lesson Completion

You have completed the content for this lesson.

Please select the lesson exam from the table of contents to complete this lesson.

After you have passed the exam, you may choose the next lesson from the table of contents to continue with the course.

If you have closed or hidden the Table of Contents, click the Show TOC button at the top in the Atlas navigation bar.