

# DAMIR Cost Variance

# Cost Variance Analysis

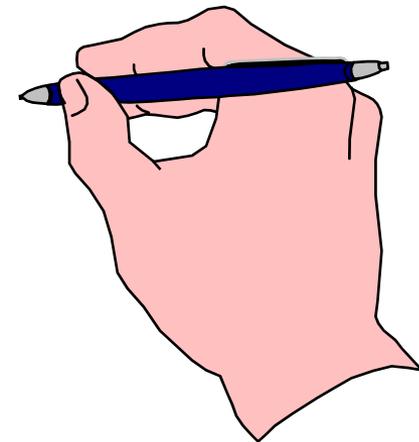
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- Identifies the total variance between the previous SAR and the current SAR (PCE versus CE)
- Breaks down the “total variance” into seven well defined variance categories:
  - Economic, Quantity, Schedule, Engineering, Estimating, Other, Support
- Provides explanations for each separate cost change
- Key section of the SAR

# 4 Steps Reporting Cost Variances

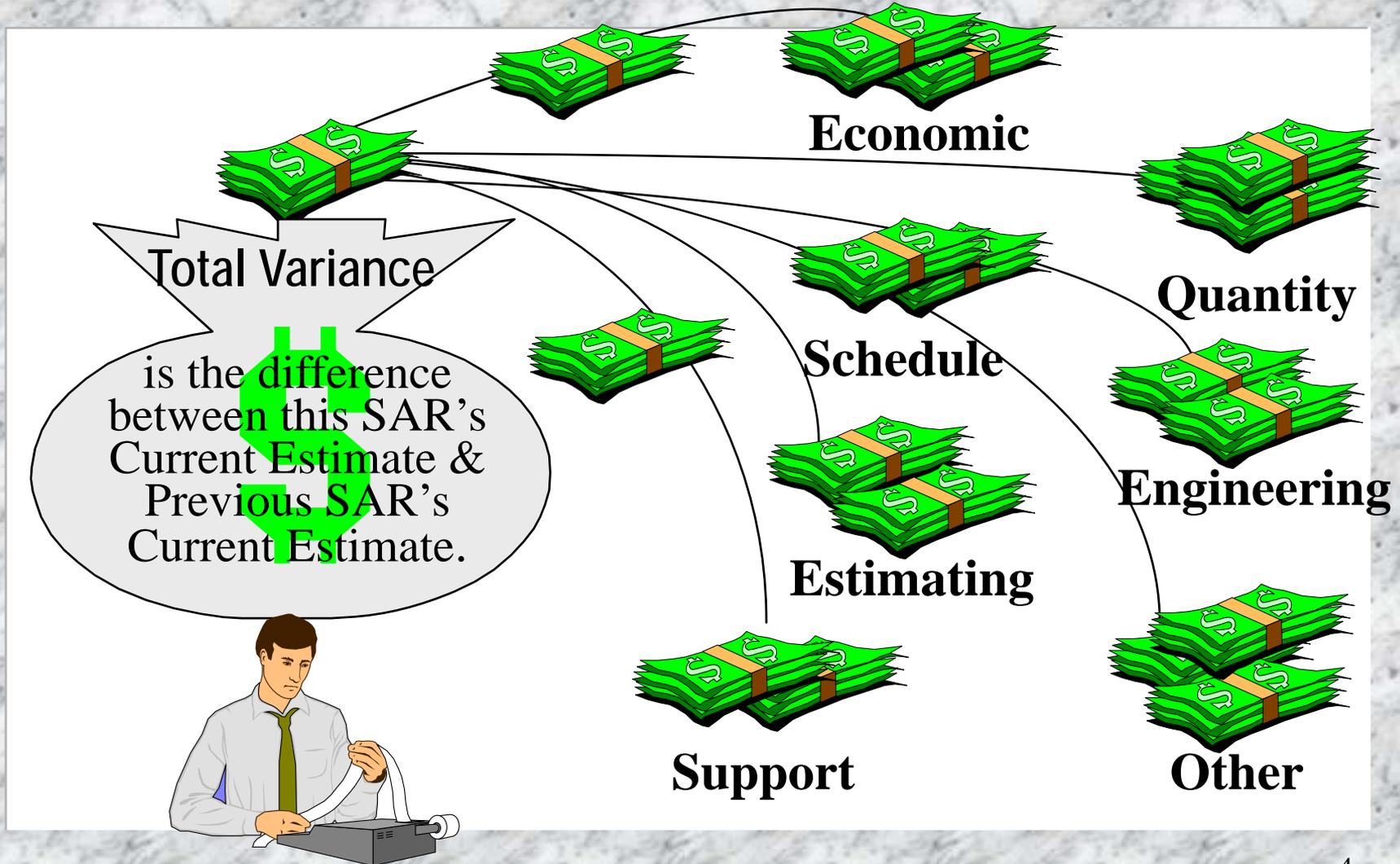
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1. Total Variance Calculations
2. Identification - Which variance category to use and when
3. Calculations - Determining amounts of each variance
4. Written Explanations



# Seven Variance Categories to Explain Total Variance

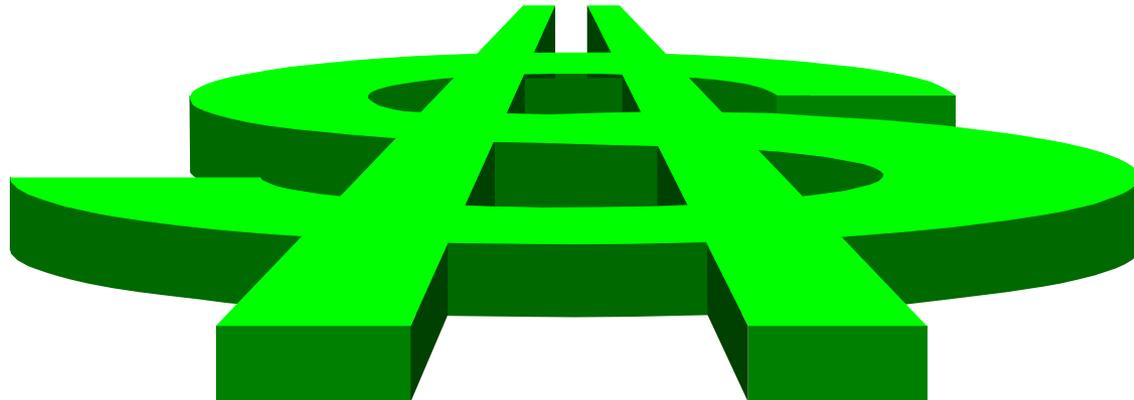
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# Variance Category Definitions

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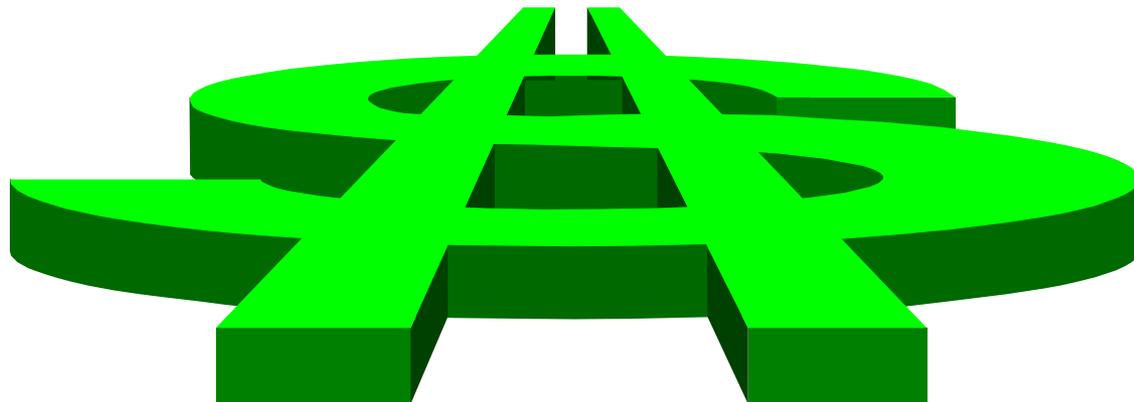
- Economic Variance is a change in the Current Estimate (CE) resulting from using a different set of inflation indices than were used in the Previous Current Estimate
- Economic Variance is a then-year dollar change only
- Only occurs in December SAR when the indices change



# Variance Analysis Economic

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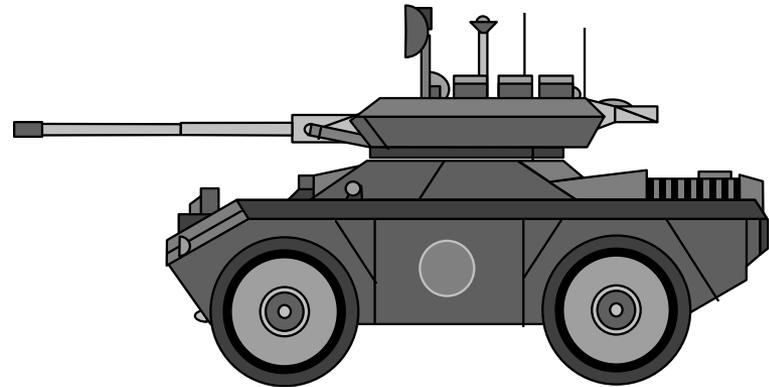
- Economic Variance is a change in the Current Estimate (CE) resulting from using a different set of inflation indices than were used in the Previous Current Estimate
- Economic Variance is a then-year dollar change only
- Only occurs in December SAR when the indices change



# Variance Analysis Quantity

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- Quantity Variance is the change to your Program Cost Estimate that results from an increase or decrease in the **total** number of fully configured quantity



# Variance Analysis-Quantity

Appropriation  
2031 | Procurement | Aircraft Procurement, Army

Annual Funding TY\$

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M
2005	--	--	--	2.0	2.0	--
2006	16	87.0	--	1.1	88.1	0.7
2007	26	153.8	--	3.1	156.9	8.4
2008	44	219.9	--	3.3	223.2	3.7
2009	42	214.3	--	3.0	217.3	9.0
2010	28	147.9	--	3.4	151.3	7.5
2011	23	124.8	--	3.7	128.5	6.1
2012	46	246.5	--	3.0	249.5	4.1
2013	43	240.1	--	--	240.1	9.8
2014	24	143.0	--	--	143.0	9.1
2015	24	142.9	--	--	142.9	6.4
2016	6	44.1	--	--	44.1	7.0
2017	--	--	--	--	--	9.2
<b>Subtotal</b>	<b>322</b>	<b>1764.3</b>	<b>--</b>	<b>22.6</b>	<b>1786.9</b>	<b>206.1</b>

2006

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 \$M	Non End Item Recurring Flyaway BY 2006 \$M	Non Recurring Flyaway BY 2006 \$M	Total Flyaway BY 2006 \$M	Total Support BY 2006 \$M
2005	--	--	--	2.0	2.0	--
2006	16	84.2	--	1.0	85.2	0.7
2007	26	145.7	--	2.9	148.6	8.0
2008	44	203.6	--	3.1	206.7	3.4
2009	42	194.2	--	2.7	196.9	8.2
2010	28	131.3	--	3.0	134.3	6.7
2011	23	108.6	--	3.2	111.8	5.3
2012	46	210.2	--	2.6	212.8	3.5
2013	43	200.8	--	--	200.8	202.8
2014	24	117.2	--	--	117.2	8.3
2015	24	114.8	--	--	114.8	7.5
2016	6	34.8	--	--	34.8	5.2
2017	--	--	--	--	--	5.6
<b>Subtotal</b>	<b>322</b>	<b>1545.4</b>	<b>--</b>	<b>20.5</b>	<b>1565.9</b>	<b>1816.6</b>

Appropriation  
2031 | Procurement | Aircraft Procurement, Army

Annual Funding TY\$

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2005	--	--	--	2.0	2.0	--	2.0
2006	16	79.8	7.1	1.1	88.0	0.7	88.7
2007	26	125.6	11.2	3.2	140.0	8.4	148.4
2008	43	216.0	5.9	3.3	225.2	3.7	228.9
2009	36	202.3	10.2	3.0	215.5	9.0	224.5
2010	25	137.6	11.3	3.4	152.3	7.5	159.8
2011	18	111.4	12.8	3.7	127.9	6.1	134.0
2012	41	233.3	11.8	3.0	248.1	4.1	252.2
2013	43	231.5	9.5	--	241.0	9.8	250.8
2014	30	160.4	7.3	--	167.7	9.1	176.8
2015	30	163.8	7.5	--	171.3	6.4	177.7
2016	37	211.6	7.7	--	219.3	7.0	226.3
2017	--	--	7.8	--	7.8	9.2	17.0
<b>Subtotal</b>	<b>345</b>	<b>1873.3</b>	<b>110.1</b>	<b>22.7</b>	<b>2006.1</b>	<b>206.1</b>	<b>2066.1</b>

2007

Annual Funding BY\$

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 \$M	Non End Item Recurring Flyaway BY 2006 \$M	Non Recurring Flyaway BY 2006 \$M	Total Flyaway BY 2006 \$M	Total Support BY 2006 \$M	Total Program BY 2006 \$M
2005	--	--	--	2.0	2.0	--	2.0
2006	16	77.3	6.8	1.1	85.3	0.7	85.9
2007	26	119.3	10.7	3.0	132.9	8.0	141.0
2008	43	201.2	5.5	3.1	209.8	3.4	213.2
2009	36	184.3	9.3	2.7	196.3	8.2	204.5
2010	25	122.9	10.1	3.0	136.0	6.7	142.7
2011	18	97.6	11.2	3.2	112.0	5.3	117.3
2012	41	200.3	10.1	2.6	213.0	3.5	216.5
2013	43	194.8	8.0	--	202.8	8.3	211.1
2014	30	132.4	6.0	--	138.4	7.5	145.9
2015	30	132.5	6.1	--	138.6	5.2	143.8
2016	37	167.8	6.1	--	173.9	5.6	179.5
2017	--	--	6.1	--	6.1	7.1	13.2
<b>Subtotal</b>	<b>345</b>	<b>1630.4</b>	<b>96.0</b>	<b>20.7</b>	<b>1747.1</b>	<b>69.5</b>	<b>1816.6</b>

# Variance Analysis Schedule

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- Schedule Variance is a change due primarily to
  - A shift in the procurement quantity buy profile (any year)
    - A change in any year compared to PCE (except last year(s))
  - A shift in a development, MILCON, or O&M effort not identifiable to buy year quantity changes

Note: Schedule changes in Support are considered “support” changes, not schedule changes.

# Variance Analysis

## Schedule – Buy Profile Related

Appropriation  
2031 | Procurement | Aircraft Procurement, Army

Annual Funding TY\$

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	\$
2005	--	--	--	2.0	2.0	
2006	16	87.0	--	1.1	88.1	
2007	26	153.8	--	3.1	156.9	
2008	44	219.9	--	3.3	223.2	
2009	42	214.3	--	3.0	217.3	
2010	28	147.9	--	3.4	151.3	
2011	23	124.8	--	3.7	128.5	
2012	46	246.5	--	3.0	249.5	
2013	43	240.1	--	--	240.1	
2014	24	143.0	--	--	143.0	
2015	24	142.9	--	--	142.9	
2016	6	44.1	--	--	44.1	
2017	--	--	--	--	--	
<b>Subtotal</b>	<b>322</b>	<b>1764.3</b>	<b>--</b>	<b>22.6</b>	<b>1786.9</b>	

Appropriation  
2031 | Procurement | Aircraft Procurement, Army

Annual Funding TY\$

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2005	--	--	--	2.0	2.0	--	2.0
2006	16	79.8	7.1	1.1	88.0	0.7	88.7
2007	26	125.6	11.2	3.2	140.0	8.4	148.4
2008	43	216.0	5.9	3.3	225.2	3.7	228.9
2009	36	202.3	10.2	3.0	215.5	9.0	224.5
2010	25	137.6	11.3	3.4	152.3	7.5	159.8
2011	18	111.4	12.8	3.7	127.9	6.1	134.0
2012	41	233.3	11.8	3.0	248.1	4.1	252.2
2013	43	231.5	9.5	--	241.0	9.8	250.8
2014	30	160.4	7.3	--	167.7	9.1	176.8
2015	30	163.8	7.5	--	171.3	6.4	177.7
2016	37	211.6	7.7	--	219.3	7.0	226.3
2017	--	--	7.8	--	7.8	9.2	17.0
<b>Subtotal</b>	<b>345</b>	<b>1873.3</b>	<b>110.1</b>	<b>22.7</b>	<b>2006.1</b>	<b>81.0</b>	<b>2087.1</b>

2006

Annual Funding BY\$

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 \$M	Non End Item Recurring Flyaway BY 2006 \$M	Non Recurring Flyaway BY 2006 \$M	Total Flyaway BY 2006 \$M	\$
2005	--	--	--	2.0	2.0	
2006	16	84.2	--	1.0	85.2	
2007	26	145.7	--	2.9	148.6	
2008	44	203.6	--	3.1	206.7	
2009	42	194.2	--	2.7	196.9	
2010	28	131.3	--	3.0	134.3	
2011	23	108.6	--	3.2	111.8	
2012	46	210.2	--	2.6	212.8	
2013	43	200.8	--	--	200.8	
2014	24	117.2	--	--	117.2	
2015	24	114.8	--	--	114.8	
2016	6	34.8	--	--	34.8	
2017	--	--	--	--	--	
<b>Subtotal</b>	<b>322</b>	<b>1545.4</b>	<b>--</b>	<b>20.5</b>	<b>1565.9</b>	

2007

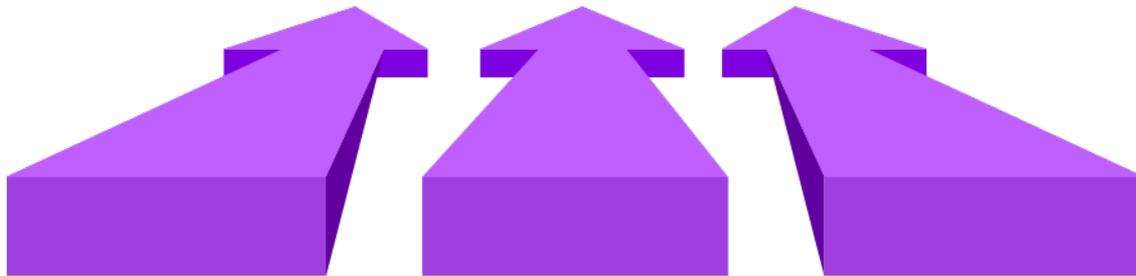
Annual Funding BY\$

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2006 \$M	Non End Item Recurring Flyaway BY 2006 \$M	Non Recurring Flyaway BY 2006 \$M	Total Flyaway BY 2006 \$M	Total Support BY 2006 \$M	Total Program BY 2006 \$M
2005	--	--	--	2.0	2.0	--	2.0
2006	16	77.3	6.8	1.1	85.3	0.7	85.9
2007	26	119.3	10.7	3.0	132.9	8.0	141.0
2008	43	201.2	5.5	3.1	209.8	3.4	213.2
2009	36	184.3	9.3	2.7	196.3	8.2	204.5
2010	25	122.9	10.1	3.0	136.0	6.7	142.7
2011	18	97.6	11.2	3.2	112.0	5.3	117.3
2012	41	200.3	10.1	2.6	213.0	3.5	216.5
2013	43	194.8	8.0	--	202.8	8.3	211.1
2014	30	132.4	6.0	--	138.4	7.5	145.9
2015	30	132.5	6.1	--	138.6	5.2	143.8
2016	37	167.8	6.1	--	173.9	5.6	179.5
2017	--	--	6.1	--	6.1	7.1	13.2
<b>Subtotal</b>	<b>345</b>	<b>1630.4</b>	<b>96.0</b>	<b>20.7</b>	<b>1747.1</b>	<b>69.5</b>	<b>1816.6</b>

# Variance Analysis Engineering

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- Engineering Variance is the cost change due to an alteration in the physical or functional characteristics of an end item or subsystem



# Variance Analysis

## Estimating

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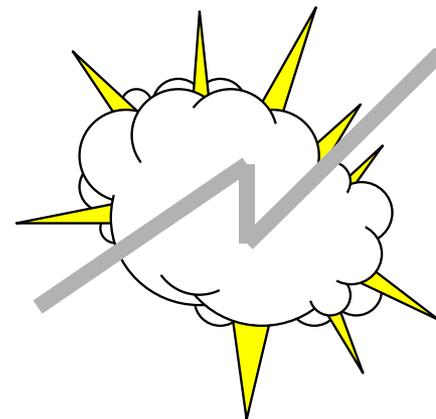
- Estimating Variance is a change in a program cost due to:
  - Refinement of a Prior Current Estimate
  - Change in program or cost estimating assumptions and techniques not covered by previous variance categories
  - Current and Prior inflation adjustment flyaway portion only (example is provided in later slide)
    - Related to Economic Change due to changes in inflation rates
    - Only occurs in December SAR

# Variance Analysis

## Other

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- Change due to:
  - Natural Disasters
  - Work Stoppage (e.g., strikes)
  - Similar Unforeseeable Events Not Covered in Other Variance Categories
- Rarely used
- Must be approved by OSD



# Variance Analysis Support

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- Support Variance is any change in cost, regardless of reason, that cannot be associated with flyaway costs.
- Examples include estimating and schedule changes in
  - Initial spares requirements,
  - Other Support (training, data, peculiar support, etc.)
- Computational (COMP) Model will also calculate a support adjustment for Current and Prior inflation

# Overview to Variance Calculations

# Total Variance

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- TY\$ Total Variance =  
CE in TY\$ Minus PCE TY\$
- BY\$ Total Variance =  
CE in BY\$ Minus PCE BY\$

# MILCON

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## Total Variance – Base-Year Dollars

	2003	2004	2005	Total
CE BY\$ Dec 01	0	+129.5	+224.7	+354.2
Minus	-	-	-	-
PCE BY\$ Dec 99	+120.0	+215.0	0	+335.0
Equals	=	=	=	=
Total Variance BY\$	-120.0	-85.5	+224.7	+19.2

## Total Variance – Then-Year Dollars

	2003	2004	2005	Total
CE TY\$ Dec 01	0	+204.2	+372.0	+576.2
Minus	-	-	-	-
PCE TY\$ Dec 99	+171.8	+327.2	0	+499.0
Equals	=	=	=	=
Total Variance TY\$	-171.8	-123.0	+372.0	+77.2

# Explaining Total Variance

## Then-Year Dollars

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	2003	2004	2005	Total
Total TY Variance	-171.8	-123.0	+372.0	+77.2
Minus Economic				
Minus Quantity				
Minus Schedule				
Minus Engineering				
Minus Other				
Minus Support				
Minus Estimating				
Unexplained	-171.8	-123.0	+372.0	+77.2

# Explaining Total Variance

## Then-Year Dollars

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	2003	2004	2005	Total
Total TY Variance	-171.8	-123.0	+372.0	+77.2
Minus Economic	+6.2	+11.8	0	+18.0
Minus Quantity				
Minus Schedule				
Minus Engineering				
Minus Other				
Minus Support				
Minus Estimating				
Unexplained	-178.0	-134.8	+372.0	+59.2

# Explaining Total Variance Then-Year Dollars

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	2003	2004	2005	Total
Total TY Variance	-171.8	-123.0	+372.0	+77.2
Minus Economic	+6.2	+11.8	0	+18.0
Minus Quantity	0	0	0	0
Minus Schedule	-178.0	-149.8	+355.9	+28.1
Minus Engineering				
Minus Other				
Minus Support				
Minus Estimating				
Unexplained	0	+15.0	+16.1	+31.1

# Explaining Total Variance

## Base-Year Dollars

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	2003	2004	2005	Total
Total BY Variance	-120.0	-85.5	+224.7	+19.2
Minus Economic	0	0	0	0
Minus Quantity				
Minus Schedule				
Minus Engineering				
Minus Other				
Minus Support				
Minus Estimating				
Unexplained	-120.0	-85.5	+224.7	+19.2

# Explaining Total Variance

## Base-Year Dollars

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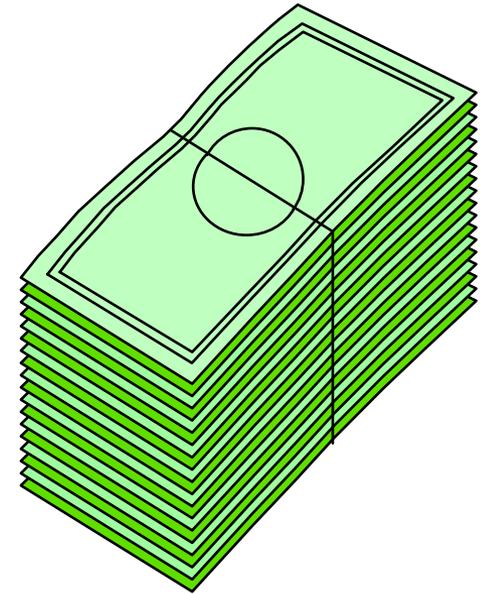
	2003	2004	2005	Total
Total BY Variance	-120.0	-85.5	+224.7	+19.2
Minus Economic	0	0	0	0
Minus Quantity	0	0	0	0
Minus Schedule	-120.0	-95.0	+215.0	0
Minus Engineering				
Minus Other				
Minus Support				
Minus Estimating				
Unexplained	0	+9.5	+9.7	+19.2

## Economic Variance Calculation

# Economic Variance

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- Use the Previous Current Estimate (PCE) in BY\$
- Calculated in BY\$ to avoid double counting inflation
- Economic Variance Has **No** Base Year Dollar Component
- Computed first of all categories



# Economic Variance

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➤ Previous Current Estimate (PCE) BY\$  
x New Indices

*minus*

➤ Previous Current Estimate (PCE) BY\$  
x Old Indices

*equals*

**Economic Variance (TY\$)**

# Example

## Economic Variance - MILCON

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	2003	2004	2005	Total
<b>DEC 02 BY\$</b>	<b>120.0</b>	<b>215.0</b>		<b>335.0</b>
DEC 03 New Indices	1.4832	1.5766	1.6553	
DEC 02 TY\$ (new)	178.0	339.0		517.0
<b>DEC 02 BY\$</b>	<b>120.0</b>	<b>215.0</b>		<b>335.0</b>
DEC 02 Old Indices	1.4317	1.5219		
DEC 02 TY\$	171.8	327.2		499.0
Economic Variance TY\$	+6.2	+11.8		+18.0

## Quantity Variance Calculation

# Quantity Variance

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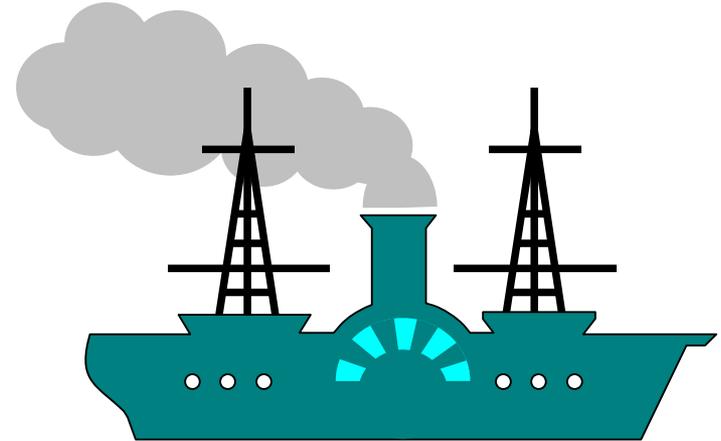
- The change to your program's cost estimate that results from an increase or decrease in the reportable quantity for which cost reporting is required and for which cost-quantity (C-Q) curves are prepared.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
CE Units	0	12	24	0	0	12	12	12	12	12	12	12	24	26	26	30	226
PCE Units	0	12	24	0	0	12	12	12	12	12	12	12	24	24	24	26	218

# Quantity Variance Calculations

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- Computed after economic variance
- Computed in BY\$
- Computed using Recurring Flyaway costs (i.e., End Item Related Recurring Flyaway aligned with Quantity)
- Is a two-step process



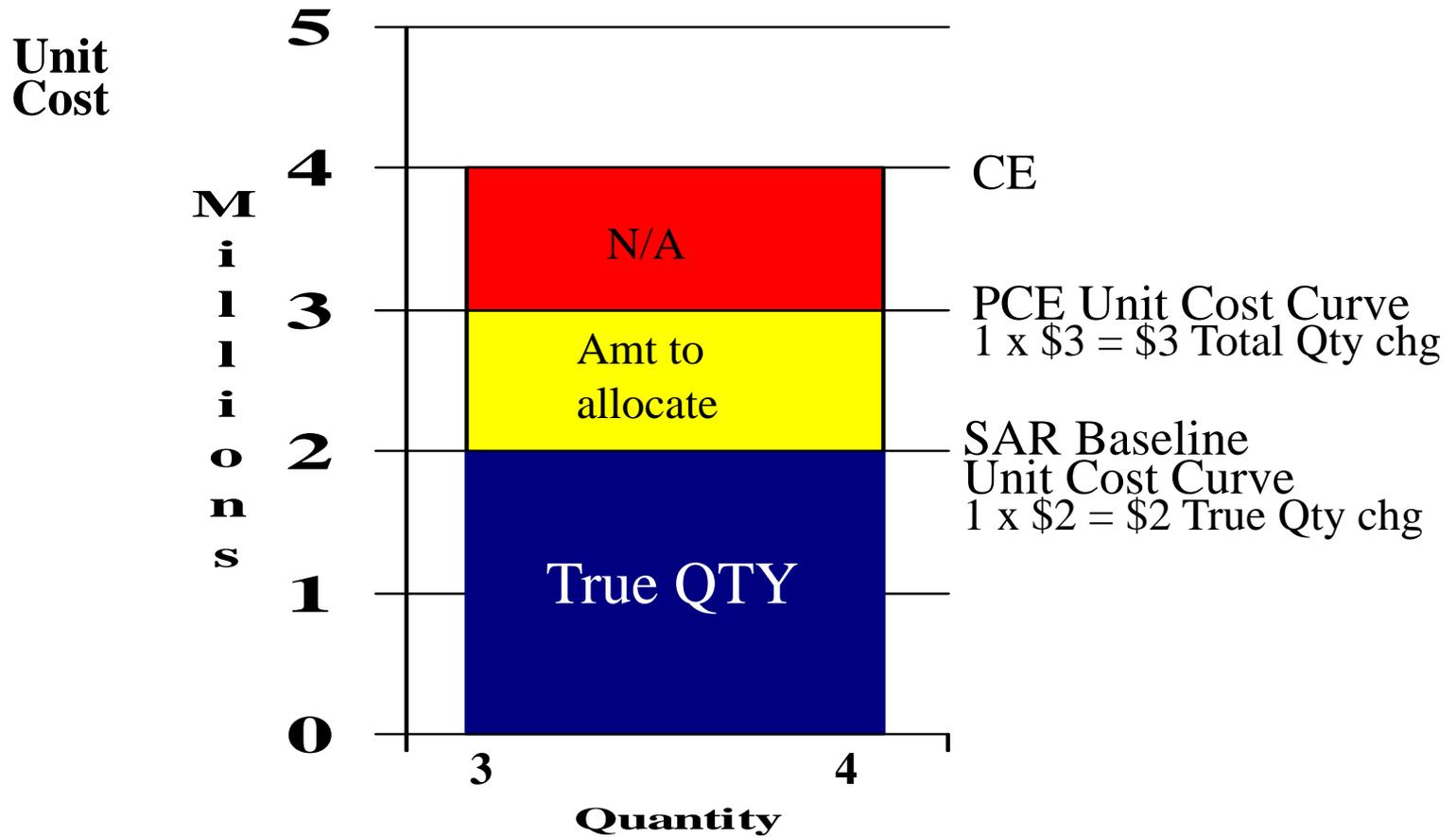
# Quantity Variance

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- 1. Total (PCE) Quantity Variance is computed by comparing the CE buy profile based on the Recurring Flyaway unit costs reported in the PCE to the PCE buy profile
- 2. True (SAR Baseline) Quantity Variance is computed by comparing the CE buy profile based on Recurring Flyaway unit costs reported in the SAR Baseline to the PCE profile based on the SAR Baseline

# Quantity Variance

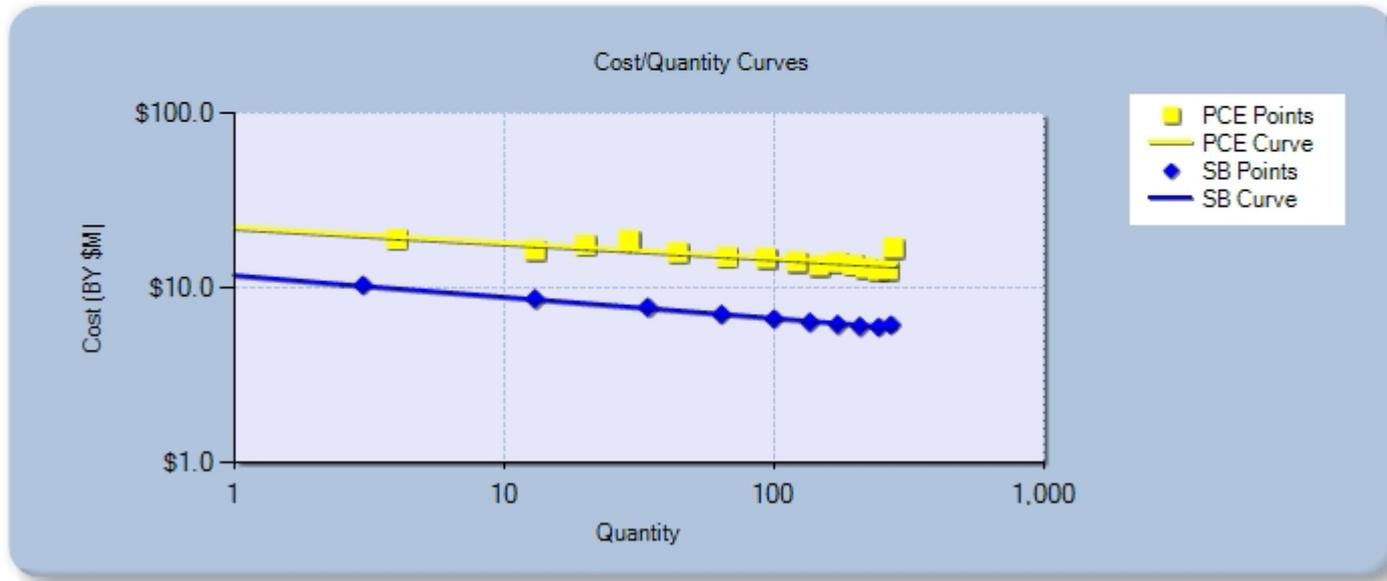
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# Quantity Variance

Cost-Quantity Curve Detail for H-1 UPGRADES (4BW/4BN) (PNO: 101) - DEC 2007 SAR

Cost-Quantity Curves Best Fit Information			
PCE Best Fit Data		SAR BL Best Fit Data	
First UC:	22.273	First UC:	11.868
Slope:	94.176%	Slope:	91.954%
B:	-0.087	B:	-0.121
R <sup>2</sup> :	0.639	R <sup>2</sup> :	0.995



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# Amount to Allocate

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		BY\$	TY\$
Total (PCE) Quantity Variance	=	114.0	136.6
True (SAR B/L) Quantity Variance	=	<u>53.8</u>	<u>64.1</u>
Amount to Allocate	=	60.2	72.5

The “amount to allocate” in this example will be put in the Engineering and Estimating variance categories because both had previous changes.

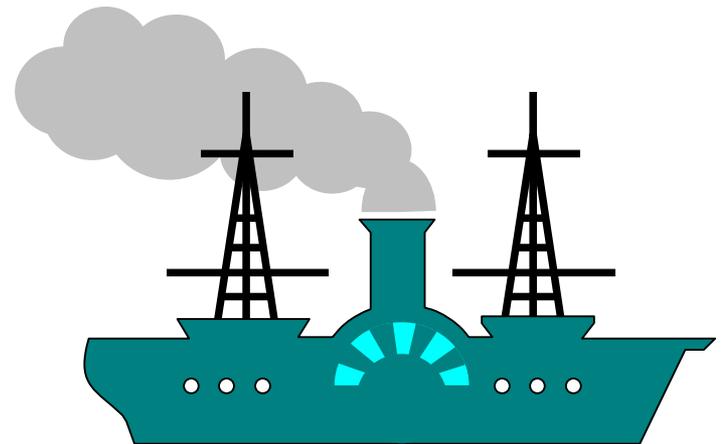
Logic: The new aircraft needs the same Engineering and Estimating variance changes the original aircraft received.

## Schedule Variance Calculation

# Schedule Variance Calculations

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- Computed in BY\$
- Computed using Recurring Flyaway costs
- Use Previous Current Estimate (PCE) cost quantity curve



# Schedule Variance Quantity Profile Change

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- Schedule Variance is a change due to a shift in the Procurement Buy Profile (below), or a shift in the milestones of the Development, MILCON, or O&M Program that is not quantity related

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
CE Units	0	12	24	0	0	12	12	12	12	12	12	12	24	26	26	30	226
PCE Units	0	12	24	0	0	12	12	12	12	12	12	12	24	24	24	26	218

## Adjustment for Current and Prior Escalation Calculation

# Adjustment for Current and Prior Escalation

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- Results from changes in inflation rates for current and prior years
- Related to Economic change
  - Derived from current and prior escalation rates
- Calculated separately for Flyaway and Support
- Only occurs in December SAR

# Adjustment for Current and Prior Escalation

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- Situation: When current and prior year escalation rates change, but then-year dollars are already appropriated and are fixed
- Solution: Estimating adjustment due to changes in assumptions about escalation rates – use the mathematical negative of Economic change for current and prior years
- Calculated in COMP Module – cannot be combined with other estimating changes

# Current & Prior Solution

- D A M I R

CALCULATE THE VARIANCE FOR THIS DECEMBER 2007 SAR.

Step 1 Calculate Economic Variance

Step 2 Calculate Current and Prior Adjustment

Economic Variance Calculation		2006	2007	2008	2009	2010	TOTAL
	MILCON						
A	PCE BY\$	25.0	60.0	120.0	92.6	87.0	384.6
B	(X) New Indices	1.25	1.35	1.45	1.55	1.65	
C	= PCE TY\$ New Indices (A X B)	31.3	81.0	174.0	143.5	143.6	573.4
D	PCE BY\$	25.0	60.0	120.0	92.6	87.0	384.6
E	(X) Old Indices	1.15	1.25	1.35	1.45	1.55	
F	= PCE TY\$ Old Indices (D X E)	28.8	75.0	162.0	134.3	134.9	535.0
G	Economic Variance (C - F)	2.5	6.0	12.0	9.3	8.7	38.5
H	TY\$ Cur & Prior Adjustment (negative G)	-2.5	-6.0	-12.0			-19.5
I	Divided by New Indices	1.25	1.35	1.45			
	BY\$ Cur & Prior Adjustment	-2.0	-4.4	-8.3			-14.7

# DAMIR Automated Calculations

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DAMIR Computation Module automates the calculations for the following variances

- Total variance
- Variance categories
  - Economic, Quantity, Schedule, and Support
  - Estimating - Adjustment for Current and Prior Inflation (Flyaway and Support
- User needs to provide input for
  - Additional quantity or schedule changes or override of DAMIR quantity or schedule changes
  - Engineering, Estimating, and Other changes

# Additional User Input Screens

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- Within the Quantity & Schedule Cost Variance screens, there are additional and manual quantity and schedule override screens
- These screens should be used when the COMP Model Learning Curve calculated Quantity Variance answer does not provide an acceptable answer
- It is assumed that if Quantity Variance is overridden, Schedule Variance will also be overridden.
- Input Screens:
  - Additional Quantity Variance
  - Additional Schedule Variance
  - Manual Quantity/Schedule Overrides

# Warning Additional User Input Screens

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- Warning
  - Use of additional or override quantity and schedule calculations will be scrutinized by OSD
  - Must be justified

# DAMIR Computational Screens

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Demo

# Cost Variance Rules

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- Enter a change explanation for each significant change
- Do not lump together changes due to different change categories
- Explain large estimating changes separately
- Summarize small estimating changes in one explanation
- Do not combine different positive and negative changes
- Can no longer combine DAMIR created changes for quantity, schedule, economic, adjustment for current & prior, and support with user created changes

# Cost Variances Calculations

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- Do not use DAMIR default explanations (e.g., New Estimating Change) for Estimating, Engineering, Other – provide adequate explanation
- Use DAMIR words as is for Economic, Adjustment for Current and Prior, Quantity Allocations
- Modify Total Quantity and True Quantity to identify type of unit (e.g., vehicle)
- Modify schedule explanation to provide detail as possible

# Critique of Dec 07 SARs

## Common Errors/Warnings

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- Ambiguous estimating changes
  - Schedule versus estimating or engineering versus estimating
  - Missing Service identification
- Use of DAMIR default explanation for schedule without additional detail or revision of default without sufficient information
- Base-year dollar component in schedule variance
- Uncommon acronyms not spelled out
- Other Support not well defined
- Use of “Other”

# Critique of Dec 07 SARs

## Extract of Selected Explanations

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1. Change due to revised escalation rates (Economic)
2. Change due to the impacts of updating from the OSD prior 2007 to the current 2008 inflation indices (Estimating)
3. Revision of estimate to reflect the application of new out-year escalation rates (Estimating) (okay)
4. Additional funding for Advanced Gun System Pallets and Sea Strike (Estimating)
5. Revised estimate due to transfer of four units of Module one (Estimating)
6. Impact to EA-18G resulting from moving two F/A-18E/F aircraft from FY2010 and 2 from FY 2011(Estimating)
7. Estimate and budget have been updated to reflect cost of Long Lead material... Procurement was postponed to FY12 when OT did not produce desired results (Estimating)

# Critique of Dec 07 SARs

## Extract of Selected Explanations

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8. Canceled Account Liabilities (Estimating)
9. Purchase Inflation Adjustment (Estimating)
10. Four-Year Split Funding (Estimating)
11. Contractor Efficiencies (Section 8097) (Estimating)
12. Revised Economic Assumptions (Section 8104) (Estimating)
13. Revised estimate for operations costs through IOC (Estimating)
14. Revised estimate (Estimating) and Revised estimate (Estimating)
15. Updated Software Lines of Code (Estimating)
16. Updated Test Cost (Estimating)
17. Revised Engine Cost (Estimating)

# Critique of Dec 07 SARs

## Extract of Selected Explanations

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18. Procurement profile moved forward (Schedule)
19. Acceleration (or Stretch-out) of procurement buy profile (Schedule)
20. Increase due to Pension Protection Act (Other)
21. Decrease in Other Support (Support)
22. Increase in Other Support due to escalation changes and Increase in Initial Spares due to escalation changes (Support)

Note: Except for #3, Navy out-year inflation statement, all of the preceding explanations should be revised.

# Extract of Selected Explanations

## Good Examples

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Quantity:

- Total Quantity variance resulting from an increase of 1 unit from 510 to 511
  - Quantity variance resulting from an increase of 1 MH-47 Special Operations Helicopter for a total program increase from 510 to 511
  - Allocation to Estimating resulting from Quantity change
  - Allocation to Schedule resulting from Quantity change
- Exceptions: When the SAR Baseline and the Previous Current Estimate (PCE) curve are the same (or almost the same)

# Extract of Selected Explanations

## Good Examples

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### Schedule:

- Acceleration of procurement buy profile by moving three units from 2012 and 2013 to 2010 and 2011\*
- Acceleration of procurement buy profile due to movement of 2 Brigade Combat Teams from FY 2008 to FY 2007\*
- Stretch-out of the procurement buy profile from FY2015 to FY 2018
- Acceleration of procurement buy profile due to supplemental funding in FY 2007 and FY 2008
- Stretch-out of the procurement buy profile of 13 missiles from FY 2008 to beyond FYDP (Air Force)\*\*
- Stretch-out of the procurement buy profile of 13 missiles from FY 2008 to beyond FYDP (Navy)

\*Best – shows quantities and years involved.

\*\*Warning: These schedule changes have base-year components. DAMIR calculations were overridden. Explanation should be provided.

# Extract of Selected Explanations

## Good Examples

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### Support:

- Increased cost for initial spares associated with the increase in quantity (Support)
- Lower unit costs for initial spares due to higher yearly quantities (Support)
- Initial spares increase due to component MTFB degradation and component cost increases (Support)
- Decrease in Other Support to fund Advance Electronic Attack...technical maturation
- Decrease in Other Support due to DoD-internal adjustment and revised estimates (Support)