

Draft Deliberative Document - For Discussion Purposes Only - Do Not Release Under FOIA

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## INTRODUCTION

### COBRA v.5.60 ALGORITHM MANUAL

This is the algorithm manual for COBRA (Cost Of Base Realignment Actions) version 5.60. This manual was prepared for the Total Army Basing Study (TABS) Office. The government project manager is MAJ David Smith, (703) 696-9778.

The first section contains a picture of each input screen with each input field and the applicable algorithms listed.

The second section contains an example of each output report (except for the Input Data Report) listing which algorithm or input screen field provides each data element. Note that some reports display figures totaled by base, by year, or by both base and year while other reports may total the same data differently (for example, the COBRA Realignment Detail Report breaks data down by year, but the One Time Cost Report provides totals for all six years of the scenario).

The third section contains an English description of all algorithms used by this program, with formulae where necessary.

Finally, there is a table of acronyms, containing definitions of acronyms used in this document.

If you have any questions or comments pertaining to this document, please call R&K Engineering at (703) 683-7100.

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**SECTION I.**

**COBRA DATA ENTRY SCREENS  
AND STANDARD FACTORS SCREENS**

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## SCREEN ONE - GENERAL SCENARIO

**Screen One - General Scenario**

Option Package Name: Demo for User Manual      Department: US Army

Standard Factors Filename: C:\temp\Demo.SFF      Year One = FY: 2006

Basecode:	Base Name:	State:	Close/Deact Yr.	Basecode:	Base Name:	State:	Close/Deact Yr.
04711	CAMP ROCKY	AR	0    Realn	22344	CAMP SWAMPY	LA	0    Realn
37488	FORT EMO	NC	0    Realn	02468	FORT DISTANT	AK	5    Deact
24426	GW III	MD	0    Realn	25025	LAB COMPLEX II	MA	5    Close
15253	CAMP KEEBA	HI	0    Realn	21120	FORT JELICO	KY	0    Realn
			0    Realn				0    Realn
			0    Realn				0    Realn
			0    Realn				0    Realn
			0    Realn				0    Realn
			0    Realn				0    Realn
			0    Realn				0    Realn

Time/Date of Data: 1/6/2004 9:29:08 AM      Set      Auto Time-Phase:

?      Databases      Footnotes      Next      OK

**Option Package Name :**

This appears on most output reports but has no effect on any algorithms.

**Department:**

This appears on most output reports but has no effect on any algorithms.

**Standard Factors Filename :**

This appears on most output reports.

**Year One = FY:**

The first fiscal year of the scenario, used for column headings on most screens and reports. COBRA will usually have a default year specified to populate this field.

**Basecode:**

This is used for identifying bases in the database and to ADDER, and also appears on many input screens with the Base Name.

**Base Name:**

This appears on most input screens and output reports.

**State:**

This appears on many input screens and output reports with the Base Name, and sometimes Base Code.

**Close/Deact Yr.**

This value is used for determining Scenario Final Year; and it or Scenario Final Year are used in the following algorithms: Military Construction Time-Phasing, Program Management Costs, Breakeven Year, Shut Down Time Phasing, Sustainment Costs, Savings, and Net Costs, and Recapitalization Savings.

**Close/Deact Button**

This value is used by the Scenario Error Report to check for data inconsistent with closures (personnel remaining, enclaves, etc.) but allowable for deactivations.

**Time/Date of Data:**

This appears on most output reports.

**Set Button**

This modifies the Time/Date of Data field.

**Auto Time-Phase:**

This determines the method used to calculate Military Construction Time-Phasing and Shut Down Time-Phasing. The following algorithms use some form of time phasing: Family Housing Construction Costs, Family Housing Operations Costs, Family Housing Operations Savings, Housing Allowance Costs, Savings, and Net Costs; Military Construction Costs, Mothball Costs, Sustainment Costs, Savings, Net Costs, Recapitalization Costs and Savings, and TRICARE Costs.

## SCREEN TWO - DISTANCE TABLE

Screen Two - Distance Table									
CAMP ROCKY									
1218	CAMP SWAMPY								
2084	1006	FORT EMO							
3246	3754	3884	FORT DISTANT						
2258	1246	354	3869	GW III					
2596	1639	754	0	406	LAB COMPLEX II				
3117	4254	5080	5324	5249	0	CAMP KEEBA			
1711	747	604	3494	658	974	4689	FORT JELICO		

Distance Between Bases (in Miles)    ?    Footnotes    Previous    Next    OK

### Distance Between Bases (in Miles)

Distance Between Bases is used in the following algorithms: Civilian Household Goods Cost, Civilian House Hunting Costs, Civilian House Purchasing Cost, Civilian Miscellaneous Moving Cost, Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian RITA Cost, Freight Shipping Costs, Impact Realignment Early Retire, Impact Realignment Regular Retire, Impact Realignment Turnover, Impact Realignment Not Move, Impact Elimination Moved Out, Military Household Goods Cost, Military Miscellaneous Moving Cost, Military Move Savings, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, and Vehicle Shipping Costs.

Note that if a distance is required for the above algorithms, but not provided on screen two, then COBRA will attempt to calculate the distance using the Latitudes and Longitudes on Data Entry Screen Four.

**SCREEN THREE - MOVEMENT TABLE**

	2006	2007	2008	2009	2010	2011
<b>CAMP KEEBA, HI (15253) to GW III, MD (24426)</b>						
Officer Positions:	0	0	0	57	0	0
Enlisted Positions:	0	0	0	32	0	0
Civilian Positions:	0	0	0	128	0	0
Student Positions:	0	0	0	27	0	0
Non-Vehic Mission Equip (Tons):	0	0	0	36	0	0
Support Equipment (Tons):	0	0	0	72	0	0
Military Light Vehicles:	0	0	0	6	0	0
Military Heavy/Special Vehicles:	0	0	0	12	0	0
<b>GW III, MD (24426) to CAMP KEEBA, HI (15253)</b>						
Officer Positions:	0	0	0	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	0	0	0	0	0	0
Student Positions:	0	0	0	0	0	0
Non-Vehic Mission Equip (Tons):	0	0	0	0	0	0
Support Equipment (Tons):	0	0	0	0	0	0
Military Light Vehicles:	0	0	0	0	0	0
Military Heavy/Special Vehicles:	0	0	0	0	0	0

**List Moves in Year ONLY!**    ?    Footnotes    < 2    Previous    Next    > 4    OK

**Officer Positions:**

These values reflect the officer positions that are realigned and are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Freight Shipping Costs, Housing Allowance Costs, Savings, and Net Costs; Homeowners Assistance Program/Relocation Service Entitlement Costs, IT Connection Costs, Military Household Goods Cost, Military Miscellaneous Moving Cost, Military Move Savings, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Packing/ Unpacking Costs, Ending Officers, Subtotal Personnel Realigned, Total Officer Position Realignments, Total Personnel Realigned, Total Personnel Realigned/Eliminated, TRICARE Costs, and Total Realigned Officer Positions.

**Enlisted Positions :**

These values reflect the enlisted positions that are realigned and are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Freight Shipping Costs, Housing Allowance Costs, Savings, and Net Costs; Homeowners Assistance Program/Relocation Service Entitlement Costs, IT Connection Costs, Military Household Goods Cost, Military Miscellaneous Moving Cost, Military Move Savings, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Packing/ Unpacking Costs, Ending Enlisted, Subtotal Personnel Realigned, Total Enlisted Position Realignments, Total Personnel Realigned, Total Personnel Realigned/Eliminated, TRICARE Costs, and Total Realigned Enlisted Positions.

**Civilian Positions :**

These values reflect the civilian positions that are realigned and are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Freight Shipping Costs, Homeowners Assistance Program/Relocation Service Entitlement, Impact Realignment Out, Impact Realignment Early Retire, Impact Realignment Regular Retire, Impact Realignment Turnover, Impact Realignment Not Move, Impact Realignment In, IT Connection Costs, Ending Civilians, Subtotal Personnel Realigned, Total Civilian Positions Realigned, Total Personnel Realigned, Total Personnel Realigned/Eliminated, and Total Realigned Civilian Positions.

**Student Positions :**

These values reflect the student positions that are realigned and are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Freight Shipping Costs, IT Connection Costs, Packing/Unpacking Costs, Ending Students, Subtotal Personnel Realigned, TRICARE Costs, Total Student Position Realignments, Total Personnel Realigned, Total Personnel Realigned/ Eliminated, and Total Realigned Student Positions.

**Non-Vehicle Mission Equipment (Tons):**

These values reflect the non-vehicle mission equipment moved in tons and are used in the following algorithms: Freight Shipping Costs and Scenario Final Year.

**Support Equipment (Tons):**

These values reflect the support equipment moved in tons and are used in the following algorithms: Freight Shipping Costs and Scenario Final Year.

**Military Light Vehicles (Tons):**

These values reflect the military light vehicles moved in tons and are used in the Vehicle Shipping Cost algorithms.

**Military Heavy/Special Vehicles (Tons):**

These values reflect the military heavy/special vehicles moved in tons and are used in the Vehicle Shipping Cost algorithm.

**SCREEN FOUR - BASE INFORMATION (STATIC)**

**Screen Four - Base Information (Static)**

**FORT EMO, NC (37488)**

(Enter Authorized Positions for Year 2005)

Total Officers:	6209	Base Service (for BOS/Sustainment):	Army
Total Enlisted Personnel:	36432	Total Sustainment Budget (\$K/Year):	37725.4
Total Students:	2620	Sustainment Payroll Budget (\$K/Year):	0
Total Civilians:	5375	BOS Non-Payroll Budget (\$K/Year):	100316.63
% Accompanied Mil Not Receive BAH:	20.800	BOS Payroll Budget (\$K/Year):	59953.71
		Family Housing Budget (\$K/Year):	30732.86
Officer Housing Units Vacant:	29	Installation PRV (\$K):	0
Enlisted Housing Units Vacant:	168	Service/Agency Recap Rate (Years):	0
Starting Facilities (non-FH, KSF):	20772	Latitude:	0.000000
		Longitude:	0.000000
Officer BAH (\$/Month):	716	<b>TRICARE</b>	
Enlisted BAH (\$/Month):	638	In-Patient Admissions:	0
Civilian Locality Factor:	1.000	Out-Patient Visits:	0
Area Cost Factor:	0.88	Prescriptions:	0
Per Diem Rate (\$/Day):	94.00	Cost Factor (\$):	0
Freight Cost (\$/Ton/Mile):	0.17	Active Duty MTF:	0
Vehicle Shipping Cost (\$/Lift/Mile):	0.00	Active Duty Purchases:	0
		Retiree Claims:	0
		65 and Older Retiree Claims:	0
		Homeowner Assistance Program:	<input type="checkbox"/>

?   Footnotes   < 3   Previous   Next   > 5   OK

**Total Officers :**

This value reflects the total officers on base and is used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs; Ending Officers, Starting Officers, TRICARE Costs, and Program Planning Costs.

**Total Enlisted Personnel:**

This value reflects the total enlisted personnel on base and is used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs; Ending Enlisted, Starting Enlisted, TRICARE Costs, and Program Planning Costs.

**Total Students:**

This value reflects the total students on base and is used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Ending Students, Starting Students, TRICARE Costs, and Program Planning Costs.

**Total Civilians:**

This value reflects the total civilians on base and is used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Ending Civilians, Starting Civilians, and Program Planning Costs.

**% Accompanied Mil Not Receive BAH:**

This value reflects the total percent of accompanied military not receiving BAH and is used in the following algorithms: Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs; and Homeowners Assistance Program/Relocation Service Entitlement Costs.

**Officer Housing Units Vacant:**

This value is used in the following algorithms: Family Housing Operations Costs and Housing Allowance Costs, Savings, and Net Costs.

**Enlisted Housing Units Vacant:**

This value is used in the following algorithms: Family Housing Operations Costs and Housing Allowance Costs, Savings, and Net Costs.

**Starting Facilities (non-FH, KSF):**

This value is used in the following algorithms: Delta Square Footage, and Sustainment Costs, Savings, and Net Costs.

**Officer BAH (\$/Month):**

This value is used in the Housing Allowance Costs, Savings, and Net Costs algorithm.

**Enlisted BAH (\$/Month):**

This value is used in the Housing Allowance Costs, Savings, and Net Costs algorithm.

**Civilian Locality Factor:**

This value is used for the following algorithms: Civilian Retirement Costs, Civilian RIF Costs, Civilian Salary Costs, and Civilian Salary Savings.

**Area Cost Factor:**

This value is used in the following algorithms: Family Housing Construction Costs, Homeowners Assistance Program/Relocation Service Entitlement Cost, Military Construction Costs, Project New Construction Cost, and Project Rehabilitation Cost.

**Per Diem Rate (\$/Day):**

This value is used in the Per Diem Cost algorithms.

**Freight Cost (\$/Ton/Mile):**

This value is used in the following algorithms: Civilian Household Goods Cost, Freight Shipping Costs, and Military Household Goods Cost.

**Vehicle Shipping Cost (\$/Lift/Mile):**

This value is used in the Vehicle Shipping Cost algorithm.

**Base Service (for BOS/Sustainment):**

This value is used Delta Sustainment, Delta Sustainment/Recap/BOS, and Sustainment Costs, Savings, and Net Costs BOS, Costs, Savings, and Net Costs, and Delta BOS.

**Total Sustainment Budget (\$K/Year):**

This value is used in the following algorithms: Delta Sustainment, Delta Sustainment/Recap/BOS, and Sustainment Costs, Savings, and Net Costs.

**Sustainment Payroll Budget (\$K/Year):**

This value is used in the following algorithms: Delta Sustainment, Delta Sustainment/Recap/BOS, and Sustainment Costs, Savings, and Net Costs.

**BOS Non-Payroll Budget (\$K/Year):**

This value is used in the following algorithms: BOS Costs, Savings, and Net Costs, Delta BOS, and Delta Sustainment/BOS.

**BOS Payroll Budget (\$K/Year):**

This value is used in the Program Management Cost algorithm.

**Family Housing Budget (\$K/Year):**

This value is used in the following algorithms: Family Housing Operations Costs and Family Housing Operations Savings.

**Installation PRV (\$K):**

This value is used in the Recapitalization Cost, Savings, and Net Costs

**Service/Agency Recap Rate (Years):**

This value is used in the Recapitalization Cost, Savings, and Net Costs

**Latitude:**

Geographic Coordinate used for determining distances between bases (if necessary) and distance not provided on Screen #2.

**Longitude:**

Geographic Coordinate used for determining distances between bases (if necessary) and distance not provided on Screen #2.

**TRICARE**

**In-Patient Admissions Cost Factor (\$):**

This installation value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Out-Patient Visits Cost Factor (\$):**

This installation value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Prescriptions Cost Factor (\$):**

This installation value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**In-Patient Admissions Active Duty MTF:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Out-Patient Visits Active Duty MTF:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Prescriptions Active Duty MTF:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**In-Patient Admissions Active Duty Purchases:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Out-Patient Visits Active Duty Purchases:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**In-Patient Admissions Retiree Claims :**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Out-Patient Visits Retiree Claims:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Prescriptions Retiree Claims :**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**In-Patient Admissions 65 and Older Retiree Claims :**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Out-Patient Visits 65 and Older Retiree Claims:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Prescriptions 65 and Older Retiree Claims:**

This value is used for the TRICARE Costs, Savings, and Net Costs algorithm.

**Homeowner Assistance Program:**

This field determines the method used for calculating Homeowners Assistance Program/Relocation

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Service Entitlement Cost.

**SCREEN FIVE - BASE INFORMATION (DYNAMIC)**

Screen Five - Base Information (Dynamic) ✖

**FORT JELICO, KY (21120)**

	2006	2007	2008	2009	2010	2011	
One-Time Unique Costs (\$K):	0	0	0	0	0	0	
One-Time Unique Savings (\$K):	0	0	0	0	0	0	
One-Time Moving Costs (\$K):	0	0	0	0	0	0	
One-Time Moving Savings (\$K):	0	0	0	0	0	0	
Env Non-MilCon Required (\$K):	0	0	0	0	0	0	
Activity Mission Costs (\$K):	0	0	0	0	0	0	*
Activity Mission Savings (\$K):	0	0	0	0	0	0	*
Mission Contract Start Costs(\$K):	0	0	0	0	0	0	
Mission Contract Term Costs(\$K):	0	0	0	0	0	0	
Support Contract Term Costs(\$K):	0	0	0	0	0	0	
Misc. Recurring Costs (\$K):	0	0	0	0	0	0	*
Misc. Recurring Savings (\$K):	0	0	0	0	0	0	*
One-Time IT Costs (\$K):	0	0	0	0	0	0	
Construction Schedule (%):	0.000	0.000	0.000	0.000	0.000	0.000	%
Shutdown Schedule (%):	0.000	0.000	0.000	0.000	0.000	0.000	%
Mission Milcon Avoidances (\$K):	0	0	0	0	0	0	
Procurement Avoidances (\$K):	0	0	0	0	0	0	*
MTF Action:	Facilities Shutdown (KSF): 0		% of Family Housing Shutdown: 0.000				
<input checked="" type="radio"/> As-Is (No Change) <input type="radio"/> Close In-Patient <input type="radio"/> Close Hospital	Costs and Savings are in thousands of 2005 dollars.					* Year 2011 Value used in Beyond years	

**One-Time Unique Costs (\$K):**

These values are used in the One-Time Other Costs algorithm.

**One-Time Unique Savings (\$K):**

These values are used in the One-Time Other Savings algorithm.

**One-Time Moving Costs (\$K):**

These values are used in the One-Time Moving Costs algorithm.

**One-Time Moving Savings (\$K):**

These values are used in the One-Time Moving Costs algorithm.

**Env Non-MilCon Required (\$K):**

These values are used in the following algorithms: Environmental Costs and Environmental Savings.

**Activity Mission Costs (\$K):**

These values are used in the Mission Costs, Savings, and Net Costs algorithm.

**Activity Mission Savings (\$K):**

These values are used in the Mission Costs, Savings, and Net Costs algorithm.

**Mission Contract Start Costs (\$K):**

These values are used in the Mission Contract Start Costs algorithm.

**Mission Contract Term Costs (\$K):**

These values are used in the Mission Contract Termination Costs algorithm.

**Support Contract Term Costs (\$K):**

These values are used in the Support Contract Termination Costs algorithm.

**Misc. Recurring Costs (\$K):**

These values are used in the Miscellaneous Recurring Costs algorithm.

**Misc. Recurring Savings (\$K):**

These values are used in the Miscellaneous Recurring Savings algorithm.

**One-Time IT Costs (\$K):**

This value is used in the One-Time IT Costs algorithm

**Construction Schedule (%):**

These values are used in Military Construction Time-Phasing if Auto Time-Phase on Screen One is disabled. Algorithms that use Military Construction Time-Phasing are: Family Housing Construction Costs, Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs; Military Construction Costs, Recapitalization Costs, Savings, and Net Costs, and Sustainment Costs, Savings, and Net Costs.

**Shutdown Schedule (%):**

These values are used in Shut Down Time-Phasing if Auto Time-Phase on Screen One is disabled. Algorithms that use Shut Down Time-Phasing are: Family Housing Operations Savings, Mothball Costs, TRICARE costs, and Sustainment and Recapitalization Costs, Savings, and Net Costs.

**Mission Milcon Avoidances (\$K):**

These values are used in the Military Construction Savings algorithm.

**Procurement Avoidances (\$K):**

These values are used in the Procurement Avoidance Savings algorithm.

**Facilities Shutdown (KSF):**

This value is used in the following algorithms: Delta Square Footage, Mothball Costs, and Sustainment and Recapitalization Costs, Savings, and Net Costs.

**% of Family Housing Shutdown:**

This value is used in the Family Housing Operations Savings algorithm.

**MTF Action:**

This option button impacts the TRICARE Costs algorithm.

**SCREEN SIX - BASE INFORMATION (PERSONNEL)**

Screen Six - Base Information (Personnel) X

**CAMP ROCKY, AR (04711)**

	2006	2007	2008	2009	2010	2011
<b>Scenario Changes by Year (+Additions / -Eliminations)</b>						
Officer Positions:	0	0	0	0	0	0
Enlisted Positions:	0	0	0	0	0	0
Civilian Positions:	0	0	0	0	0	0
<b>Programmed Installation Population Changes (non-BRAC) by Year (+Increases / -Decreases)</b>						
Officer Positions:	-54	58	4	-9	0	0
Enlisted Positions:	-26	-467	2	-69	0	0
Civilian Positions:	10	-19	-68	-48	-37	0
Student Positions:	31	-363	52	-78	0	0
<b>Programmed Family Housing Privatization (non-BRAC) by Year</b>						
Percent Privatized:	0 %	0 %	0 %	0 %	0 %	0 %

List Changes in Year ONLY! ? Footnotes < 5 Previous Next > 7 OK

**Scenario Changes by Year (+Additions / -Eliminations)**

**Officer Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Housing Allowance Costs, Savings, and Net Costs; Homeowners Assistance Program/Relocation Service Entitlement Cost, Military Construction Time-Phasing, Military Eliminated PCS Cost, Officer Salary Costs, Officer Salary Savings, Percentage of Personnel Moved Out/Eliminated, Ending Officers, Program Planning Costs, Scenario Final Year, Shut Down Time-Phasing, Total Eliminated Officer Positions, Total Personnel Realigned/Eliminated, and Total Scenario Position Changes.

**Enlisted Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta Personnel, Enlisted Salary Costs, Enlisted Salary Savings, Housing Allowance Costs, Savings, and Net Costs; Homeowners Assistance Program/Relocation Service Entitlement Cost, Military Construction Time-Phasing, Military Eliminated PCS Cost, Percentage of Personnel Moved Out/Eliminated, Ending Enlisted, Program Planning Costs, Scenario Final Year, Shut Down Time-Phasing, Total Eliminated Enlisted Positions, Total Personnel Realigned/Eliminated, and Total Scenario Position Changes.

**Civilian Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Civilian Salary Costs, Civilian Salary Savings, Delta Personnel, Homeowners Assistance Program/Relocation Service Entitlement Cost, Impact Elimination Out, Military Construction Time-Phasing, Percentage of Personnel Moved Out/ Eliminated, Ending Enlisted, Program Planning Costs, Scenario Final Year, Shut Down Time-Phasing, Total Eliminated Enlisted Positions, Total Personnel Realigned/Eliminated, and Total Scenario Position Changes.

**Programmed Installation Population Changes (non-BRAC) by Year (+Increases / -Decreases)**

**Officer Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Housing Allowance Costs, Savings, and Net Costs; Ending Officers, Starting Officers, and Total Programmed Installation Population Changes.

**Enlisted Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Housing Allowance Costs, Savings, and Net Costs; Ending Enlisted, Starting Enlisted, and Total Programmed Installation Population Changes.

**Civilian Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Ending Civilians, Starting Civilians, and Total Programmed Installation Population Changes.

**Student Positions:**

These values are used in the following algorithms: BOS Costs, Savings, and Net Costs; Delta BOS, Delta Personnel, Delta Sustainment/BOS, Ending Students, Starting Students, and Total Programmed Installation Population Changes.

**Programmed Family Housing Privatization (non-BRAC) by Year**

**Percent Privatized:**

These values are used in the following algorithms: Housing Allowance Costs, Savings, and Net Costs, and Family Housing Operations Savings.



**New MilCon (UM):**

These fields are used in the following algorithms: Delta Square Footage, Military Construction Costs, Project New Construction Cost, and Sustainment Costs, Savings, and Net Costs.

**Rehabilitation (UM/Type):**

These fields are used in the following algorithms: Family Housing Construction Costs, Military Construction Costs, Sustainment Costs, Savings, and Net Costs, Recapitalization Costs and Savings, and Project Rehabilitation Cost.

**Rehabilitation Code Button (Red, Amber, Default)**

These fields are used in the following algorithm: Military Construction Costs, and Project Rehabilitation Cost.

**Total Cost (\$K):**

These fields are used in the following algorithms: Military Construction Costs, and Recapitalization Costs and Savings.



**STANDARD FACTORS – PERSONNEL TAB**

Standard Factors - Demo			
Personnel		Facilities	Transportation
Percent of Officers Accompanied:	72.000	%	Priority Placement Program Rate:
Percent of Enlisted Accompanied:	60.000	%	PPP Placements Involving PCS:
Average Officer Salary (\$/Year):	78123		Average Civilian PCS Cost (\$):
Average Enlisted Salary (\$/Year):	34291		Home Sale Reimbursement Rate:
Median GS Civilian Salary (\$/Year):	37686		Maximum Home Sale Reimbursement (\$):
Avg. Unemployment Cost (\$/Week):	211.86		Home Purchase Reimbursement Rate:
Unemployment Eligibility (Weeks):	26		Maximum Home Purchase Reimbursement (\$):
Civilians Not Willing To Move:	0.000	%	Home Ownership Rate:
Civilian Turnover Rate:	15.000	%	HAP Home Value Rate:
Civilian Early Retirement Rate:	10.000	%	HAP Receiving Rate:
Civilian Regular Retirement Rate:	3.000	%	RSE Home Value Rate:
Civilian RIF Pay Factor:	11.000	%	RSE Receiving Rate:
Civilian Retired Pay Factor:	9.000	%	

Standard Factors File Description:  ?

**Percent of Officers Accompanied:**

This value is used in the following algorithms: Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs, Homeowners Assistance Program/ Relocation Service Entitlement Costs, and Military Household Goods Cost.

**Percent of Enlisted Accompanied:**

This value is used in the following algorithms: Family Housing Operations Costs, Housing Allowance Costs, Savings, and Net Costs, Homeowners Assistance Program/ Relocation Service Entitlement Costs, and Military Household Goods Cost.

**Average Officer Salary (\$/Year):**

This value is used in the following algorithms: Officer Salary Costs and Officer Salary Savings.

**Average Enlisted Salary (\$/Year):**

This value is used in the following algorithms: Enlisted Salary Costs, and Enlisted Salary Savings.

**Median GS Civilian Salary (\$/Year):**

This value is used in the following algorithms: Civilian Retirement Costs, Civilian RIF Costs, Civilian Salary Costs, and Civilian Salary Savings.

**Avg Unemployment Cost (\$/Week):**

This value is used in the Civilian Unemployment Costs algorithm.

**Unemployment Eligibility (Weeks):**

This value is used in the Civilian Unemployment Costs algorithm.

**Civilians Not Willing To Move:**

This value is used in the following algorithms: Impact Realignment Not Move and Impact Elimination Not Move.

**Civilian Turnover Rate:**

This value is used in the following algorithms: Impact Realignment Turnover and Impact Elimination Turnover.

**Civilian Early Retirement Rate:**

This value is used in the following algorithms: Impact Realignment Early Retire and Impact Elimination Early Retire.

**Civilian Regular Retirement Rate:**

This value is used in the following algorithms: Impact Realignment Regular Retire and Impact Elimination Regular Retire.

**Civilian RIF Pay Factor:**

This value is used in the Civilian RIF Costs algorithm.

**Civilian Retired Pay Factor:**

This value is used in the Civilian Retirement Costs algorithm.

**Priority Placement Program Rate:**

This value is used in the following algorithms: Civilian Priority Placement Program Cost and Impact Elimination PPP.

**PPP Placements Involving PCS:**

This value is used in the Civilian Priority Placement Program Cost algorithm.

**Average Civilian PCS Cost (\$):**

This value is used in the Civilian Priority Placement Program Cost algorithm.

**Home Sale Reimbursement Rate:**

This value is used in the Civilian House Purchasing Cost algorithm.

**Maximum Home Sale Reimbursement (\$):**

This value is used in the Civilian House Purchasing Cost algorithm.

**Home Purchase Reimbursement Rate:**

This value is used in the Civilian House Purchasing Cost algorithm.

**Maximum Home Purchase Reimbursement (\$):**

This value is used in the Civilian House Purchasing Cost algorithm.

**Home Ownership Rate:**

This value is used in the following algorithms: Civilian House Purchasing Cost and Homeowners Assistance Program/Relocation Service Entitlement Cost.

**HAP Home Value Rate:**

This value is used in the Homeowners Assistance Program/Relocation Service Entitlement Cost algorithm.

**HAP Receiving Rate:**

This value is used in the following algorithms: Civilian House Purchasing Cost and Homeowners Assistance Program/Relocation Service Entitlement Cost.

**RSE Home Value Rate**

This value is used in the Homeowners Assistance Program/Relocation Service Entitlement Cost algorithm.

**RSE Receiving Rate:**

This value is used in the following algorithms: Civilian House Purchasing Cost and Homeowners Assistance Program/Relocation Service Entitlement Cost.

**Standard Factors File Description:**

This appears on most output reports but has no effect on any algorithms.

**STANDARD FACTORS – FACILITIES TAB**

The screenshot shows a software window titled "Standard Factors - Demo" with a blue header and a close button (X) in the top right corner. Below the header are three tabs: "Personnel", "Facilities", and "Transportation", with "Facilities" selected. The window is divided into two main sections: "OVERHEAD MODIFIERS" on the left and "MILCON MODIFIERS" on the right. At the bottom, there is a "NET PRESENT VALUE REPORT" section and a file description field.

OVERHEAD MODIFIERS					
	Army	Navy	Air Force	Marines	
SSR	100.000	100.000	100.000	100.000	%
UCA	1.000	1.000	1.000	1.000	
Unit Cost Adjustment used for Base Operations Support					
Program Management Factor:	10.000				%
Mothball (Closure) Cost (\$/SF):	0.17				
Mothball (Deact/Realn) Cost (\$/SF):	0.43				

  

MILCON MODIFIERS		
Site Preparation (\$/SF):	0.71	
Rehab vs. New Milcon (Default):	0.470	%
Rehab vs. New Milcon (Red):	0.640	%
Rehab vs. New Milcon (Amber):	0.290	%
Contingency Rate:	5.000	%
Design Rate (Medical):	13.000	%
Design Rate (Other):	9.000	%
Supervision, Inspection, Overhead (SIOH) Rate:	6.000	%

  

**NET PRESENT VALUE REPORT**

NPV Report Discount Rate: 2.850 %

Standard Factors File Description: Demo factors ? [X] Cancel [OK]

**OVERHEAD MODIFIERS**

**SSR (Service Sustainment Rate) (Army, Navy, Air Force, and Marines):**

This value is used in the Sustainment Cost, Savings, and Net Costs algorithm

**UCA (Army, Navy, Air Force, and Marines):**

This value is used in the BOS Costs, Savings, and Net Costs algorithm.

**Program Management Factor:**

This value is used in the Program Management Costs algorithm.

**Mothball (Closure) Cost (\$/SF):**

This value is used in the Mothball Costs algorithm.

**Mothball (Deact/Realn) Cost (S/SF):**

This value is used in the Mothball Costs algorithm

## NET PRESENT VALUE REPORT

### **NPV Report Discount Rate:**

This value is used in the NPV Adjusted Cost algorithm.

## MILCON MODIFIERS

### **Site Preparation (\$/SF):**

This value is used in the following algorithms: Military Construction Costs, Project New Construction Cost.

### **Rehab vs. New Milcon (Default):**

This value is used in the following algorithms: Military Construction Costs, and Project Rehabilitation Cost.

### **Rehab vs. New Milcon (Red):**

This value is used in the following algorithms: Military Construction Costs, and Project Rehabilitation Cost.

### **Rehab vs. New Milcon (Amber):**

This value is used in the following algorithms: Military Construction Costs, and Project Rehabilitation Cost.

### **Contingency Rate:**

These values are all used in the following algorithms: Family Housing Construction Costs, Military Construction Costs, Project New Construction Cost, and Project Rehabilitation Cost.

### **Design Rate (Medical):**

These values are all used in the following algorithms: Family Housing Construction Costs, Military Construction Costs, Project New Construction Cost, and Project Rehabilitation Cost.

### **Design Rate (Other):**

These values are all used in the following algorithms: Family Housing Construction Costs, Military Construction Costs, Project New Construction Cost, and Project Rehabilitation Cost.

### **Supervision, Inspection, Overhead (SIOH) Rate:**

These values are all used in the following algorithms: Family Housing Construction Costs, Military Construction Costs, Project New Construction Cost, and Project Rehabilitation Cost.

## STANDARD FACTORS – TRANSPORTATION TAB

Field	Value
Material / Assigned Person (Lb):	710
Equipment Packing & Crating (\$/Ton):	0.00
Average Storage-In-Transit Cost (\$/Person):	0.00
POV Reimbursement (\$/Mile):	0.18
Air Transport (\$/Passenger Mile):	0.18
IT Connect Factor (\$/Person):	0.00
Miscellaneous (\$/Direct Employee):	742
Average Military Tour Length (Months):	26.400
One-Time Officer PCS Cost (\$):	9176.22
One-Time Enlisted PCS Cost (\$):	4079.05
<b>HOUSEHOLD GOODS</b>	
Officer HHG (Lb/Accompanied):	6492
Enlisted HHG (Lb/Accompanied):	4454
Officer HHG (Lb/Unaccompanied):	2383
Enlisted HHG (Lb/Unaccompanied):	2383
Civilian HHG (Lb/Person):	7167
Total HHG Costs (\$/100 Lb):	33.00

Standard Factors File Description: Demo factors

? Cancel OK

### **Material / Assigned Person (Lb):**

This value is used in the Freight Shipping Costs and Packing/Unpacking Costs algorithms.

### **HOUSEHOLD GOODS**

#### **Officer HHG (Lb/Accompanied):**

This value is used in the Military Household Goods Cost algorithm.

#### **Enlisted HHG (Lb/Accompanied):**

This value is used in the Military Household Goods Cost algorithm.

#### **Officer HHG (Lb/Unaccompanied):**

This value is used in the Military Household Goods Cost algorithm.

#### **Enlisted HHG (Lb/Unaccompanied):**

This value is used in the Military Household Goods Cost algorithm.

#### **Civilian HHG (Lb/Person):**

This value is used in the Civilian Household Goods Cost algorithm.

**Total HHG Costs (\$/100 Lb):**

This value is used in the following algorithms: Civilian Household Goods Cost, Military Household Goods Cost, and Packing/Unpacking Costs.

**Equipment Packing & Crating (\$/Ton):**

This value is used in the Freight Shipping Costs algorithm.

**Average Storage-In-Transit Cost (\$/Person):**

This value is used for the Freight Shipping Costs algorithm.

**POV Reimbursement (\$/Mile):**

This value is used in the Personally Owned Vehicle Mileage Cost algorithm.

**Air Transport (\$\$/Passenger Mile):**

This value is used in the Civilian House Hunting Cost algorithm.

**IT Connect Factor (\$/Person):**

This value is used in the IT Connection Cost algorithm.

**Miscellaneous (\$/Direct Employee)**

This value is used in the Miscellaneous Moving Cost algorithm

**Average Military Tour Length (Months):**

These values are used in the Military Move Savings algorithm.

**One-Time Officer PCS Cost (\$):**

This value is used in the Military Eliminated PCS Costs algorithm.

**One-Time Enlisted PCS Cost (\$):**

This value is used in the Military Eliminated PCS Costs algorithm.

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**SECTION II.**

**COBRA DATA STANDARD OUTPUT REPORTS**

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COBRA REALIGNMENT SUMMARY (COBRA v5.60) - Page 1/2  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Starting Year : Year One Fiscal Year - Screen One  
 Final Year : Scenario Final Year  
 Payback Year : Breakeven Year

NPV in 2011(\$K): Net Present Value [in Year 20]  
 1-Time Cost(\$K): Total Appropriations One-Time Cost

Net Costs (\$K)	Constant Dollars						Total
	2006	2007	2008	2009	2010	2011	
Beyond	----	----	----	----	----	----	-----
MilCon	Total Military Construction Net Costs						
Person	Total Personnel Net Costs						
Overhd	Total Overhead Net Costs						
Moving	Total Moving Net Costs						
Missio	Total Mission Net Costs						
Other	Total Other Net Costs						
TOTAL	Total Realignment Net Costs						
	2006	2007	2008	2009	2010	2011	Total
Beyond	----	----	----	----	----	----	-----

POSITIONS ELIMINATED

Off Total Eliminated Officer Positions  
 Enl Total Eliminated Enlisted Positions  
 Civ Total Eliminated Civilian Positions  
 TOT Total Eliminated Positions

POSITIONS REALIGNED

Off Total Realigned Officer Positions  
 Enl Total Realigned Enlisted Positions  
 Stu Total Realigned Student Positions  
 Civ Total Realigned Civilian Positions  
 TOT Total Realigned Positions

Summary:

-----  
 [Contains the contents, if any, of the Footnotes entered for Screen One]

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COBRA REALIGNMENT SUMMARY (COBRA v5.60) - Page 2/2\*  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Costs (\$K)	Constant Dollars						Total
Beyond	2006	2007	2008	2009	2010	2011	
-----	----	----	----	----	----	----	-----
MilCon	<b>Total Military Construction Costs</b>						
Person	<b>Total Personnel Costs</b>						
Overhd	<b>Total Overhead Costs</b>						
Moving	<b>Total Moving Costs</b>						
Missio	<b>Total Mission Costs</b>						
Other	<b>Total Other Costs</b>						
<b>TOTAL</b>	<b>Total Realignment Costs</b>						

Savings (\$K)	Constant Dollars						Total
Beyond	2006	2007	2008	2009	2010	2011	
-----	----	----	----	----	----	----	-----
MilCon	<b>Total Military Construction Savings</b>						
Person	<b>Total Personnel Savings</b>						
Overhd	<b>Total Overhead Savings</b>						
Moving	<b>Total Moving Savings</b>						
Missio	<b>Total Mission Savings</b>						
Other	<b>Total Other Savings</b>						
<b>TOTAL</b>	<b>Total Realignment Savings</b>						

\* SUMMARY.RPT will only have a second page if **Summary Report Second Page** is enabled on Report Options screen.

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NET PRESENT VALUES REPORT (COBRA v5.60)  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Year	Cost(\$)			Adjusted Cost(\$)			NPV(\$)		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
2006	Total	Realignment	Net Cost-Year 1	NPV	Adjusted	Cost	Net	Present	Value
2007	Total	Realignment	Net Cost-Year 2	NPV	Adjusted	Cost	Net	Present	Value
2008	Total	Realignment	Net Cost-Year 3	NPV	Adjusted	Cost	Net	Present	Value
2009	Total	Realignment	Net Cost-Year 4	NPV	Adjusted	Cost	Net	Present	Value
2010	Total	Realignment	Net Cost-Year 5	NPV	Adjusted	Cost	Net	Present	Value
2011	Total	Realignment	Net Cost-Year 6	NPV	Adjusted	Cost	Net	Present	Value
2012	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2013	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2014	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2015	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2016	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2017	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2018	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2019	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2020	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2011	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2012	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2013	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2014	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value
2015	Total	Realignment	Net Cost-Beyond	NPV	Adjusted	Cost	Net	Present	Value-Year 20

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TOTAL COBRA REALIGNMENT DETAIL REPORT (COBRA v5.60) - Page 1/3  
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Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

ONE-TIME COSTS	2006	2007	2008	2009	2010	2011	Total
----- (\$K) -----	----	----	----	----	----	----	-----
CONSTRUCTION							
MILCON	<b>Military Construction Costs</b>						
O&M							
CIV SALARY							
Civ RIF	<b>Civilian RIF Costs</b>						
Civ Retire	<b>Civilian Retirement Costs</b>						
CIV MOVING							
Per Diem	<b>Civilian Per Diem Cost</b>						
POV Miles	<b>Civilian Personally Owned Vehicle Mileage Cost</b>						
Home Purch	<b>Civilian House Purchasing Cost</b>						
HHG	<b>Civilian Household Goods Cost</b>						
Misc	<b>Civilian Miscellaneous Moving Cost</b>						
House Hunt	<b>Civilian House Hunting Cost</b>						
PPP	<b>Civilian Priority Placement Service Cost</b>						
RITA	<b>Civilian RITA Cost</b>						
FREIGHT							
Packing	<b>Packing/Unpacking Costs</b>						
Freight	<b>Freight Shipping Costs</b>						
Vehicles	<b>Vehicle Shipping Costs</b>						
Unemployment	<b>Civilian Unemployment Costs</b>						
OTHER							
Prog Manage	<b>Program Management Cost</b>						
Supt Contra	<b>Support Contract Costs</b>						
Mothball	<b>Mothball Costs</b>						
1-Time Move	<b>One-Time Moving Costs</b>						
MIL PERSONNEL							
MIL MOVING							
Per Diem	<b>Military Per Diem Cost</b>						
POV Miles	<b>Military Personally Owned Vehicle Mileage Cost</b>						
HHG	<b>Military Household Goods Cost</b>						
Misc	<b>Military Miscellaneous Moving Cost</b>						
OTHER							
Elim PCS	<b>Military Eliminated PCS Costs</b>						
OTHER							
HAP / RSE	<b>Homeowners Assistance Program/Relocation Service Entitlement Cost</b>						
Environmental	<b>Environmental Non-Milcon Costs</b>						
Info Tech	<b>Information Technology Costs</b>						
Misn Contract	<b>Mission Activities Contract Costs</b>						
1-Time Other	<b>One-Time Other Costs</b>						
TOTAL ONE-TIME	<b>Total Realignment One-Time Costs</b>						

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TOTAL REALIGNMENT DETAIL REPORT (COBRA v5.60) - Page 2/3  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

RECURRINGCOSTS Beyond -----(\$K)----- -----	2006	2007	2008	2009	2010	2011	Total
FAM HOUSE OPS	<b>Family Housing Ops Costs</b>						
O&M	<b>Sustainment Costs, Savings, and Net Costs</b>						
Sustainment	<b>Recapitalization Costs and Savings</b>						
Recap	<b>BOS Costs, Savings, and Net Costs</b>						
BOS	<b>Civilian Salary Costs</b>						
Civ Salary	<b>TRICARE Costs</b>						
TRICARE	<b>Officer Salary Costs</b>						
MIL Personnel	<b>Enlisted Salary Costs</b>						
Off Salary	<b>Housing Allowance Costs, Savings, and Net</b>						
Enl Salary	<b>Mission Costs, Savings, and Net Costs</b>						
House Allow	<b>Miscellaneous Recurring Costs</b>						
OTHER	<b>Total Realignment Recurring Costs</b>						
Mission Activ							
Misc Recur							
TOTAL RECUR							

TOTAL COST	2006	2007	2008	2009	2010	2011	Total
ONE-TIME SAVES	<b>Total Realignment Costs</b>						
-----(\$K)----- -----							
CONSTRUCTION	<b>Military Construction Savings</b>						
MILCON	<b>One-Time Moving Savings</b>						
O&M	<b>Military Move Savings</b>						
1-Time Move	<b>Environmental Savings</b>						
MIL PERSONNEL	<b>One-Time Other Savings</b>						
Mil Moving	<b>Total One-Time Savings</b>						
OTHER							
Environmental							
1-Time Other							
TOTAL ONE-TIME							

RECURRINGSAVES Beyond -----(\$K)----- -----	2006	2007	2008	2009	2010	2011	Total
FAM HOUSE OPS	<b>Family Housing Operations Savings</b>						
O&M	<b>Sustainment Costs, Savings and Net Costs</b>						
Sustainment	<b>Recapitalization Costs and Savings</b>						
Recap	<b>BOS Costs, Savings, and Net Costs</b>						
BOS	<b>Civilian Salary Savings</b>						
Civ Salary	<b>Officer Salary Savings</b>						
MIL PERSONNEL	<b>Enlisted Salary Savings</b>						
Off Salary	<b>Housing Allowance Costs, Savings, and Net Costs</b>						
Enl Salary	<b>Procurement Avoidance Savings</b>						
House Allow	<b>Mission Costs, Savings, and Net Costs</b>						
OTHER	<b>Miscellaneous Recurring Savings</b>						
Procurement	<b>Total Appropriations Recurring Savings</b>						
Mission Activ							
Misc Recur							
TOTAL RECUR							
TOTAL SAVINGS	<b>Total Appropriations One-Time Savings</b>						

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TOTAL REALIGNMENT DETAIL REPORT (COBRA v5.60) - Page 3/3  
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Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

ONE-TIME NET	2006	2007	2008	2009	2010	2011	Total
----- (\$K)-----	----	----	----	----	----	----	-----
CONSTRUCTION							
MILCON	<b>Military Construction Net Costs</b>						
O&M							
Civ Retir/RIF	<b>Civilian Retirement/RIF Net Costs</b>						
Civ Moving	<b>Civilian Net Moving Cost</b>						
Other	<b>Other Operations And Maintenance Net Costs</b>						
MIL PERSONNEL							
Mil Moving	<b>Military Move Net Costs</b>						
OTHER							
HAP / RSE	<b>Homeowners Assistance Program/Relocation</b>						
Environmental	<b>Environmental Net Costs</b>						
Info Tech	<b>Information Technology Costs</b>						
Mism Contract	<b>Mission Activity Contract Costs</b>						
1-Time Other	<b>One-Time Other Net Costs</b>						
TOTAL ONE-TIME	<b>Total Realignment One-Time Net Costs</b>						
RECURRING NET	2006	2007	2008	2009	2010	2011	Total
Beyond	----	----	----	----	----	----	-----
----- (\$K)-----	----	----	----	----	----	----	-----
FAM HOUSE OPS							
O&M							
Sustainment	<b>Sustainment Costs, Savings, and Net Costs</b>						
Recap	<b>Recapitalixation Costs and Savings</b>						
BOS	<b>BOS Costs, Savings, and Net Costs</b>						
Civ Salary	<b>Civilian Salary Net Costs</b>						
TRICARE	<b>TRICARE Costs, Savings, and Net Costs</b>						
MIL PERSONNEL							
Mil Salary	<b>Military Salary Net Costs</b>						
House Allow	<b>Housing Allowance Costs, Savings, and Net Costs</b>						
OTHER							
Procurement	<b>Procurement Avoidance Savings</b>						
Mission Activ	<b>Mission Costs, Savings, and Net Costs</b>						
Misc Recur	<b>Miscellaneous Recurring Net Costs</b>						
TOTAL RECUR	<b>Total Realignment Recurring Net Costs</b>						
TOTAL NET COST	<b>Total Realignment Net Costs</b>						

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TOTAL ONE-TIME COST REPORT (COBRA v5.60)  
Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

(All values in Dollars)

Category	Cost	Sub-Total
-----	----	-----
Construction		
Military Construction		Military Construction Costs
Total - Construction		Total Military Construction
Personnel		
Civilian RIF		Civilian RIF Costs
Civilian Early Retirement		Civilian Retirement Costs
Eliminated Military PCS		Military Eliminated PCS
Unemployment		Civilian Unemployment Costs
Total - Personnel		Total Personnel One-Time Costs
Overhead		
Program Management Cost		Program Planning Cost
Support Contract Termination		Support Contract Termination Costs
Mothball / Shutdown		Mothball Costs
Total - Overhead		Total Overhead One-Time Costs
Moving		
Civilian Moving		Total Civilian Moving One-Time
Civilian PPP		Civilian Priority Placement
Military Moving		Total Military Moving One-Time
Freight		Total Freight One-Time Costs
Information Technologies		Information Technology One-Time Costs
One-Time Moving Costs		One-Time Moving Costs
Total - Moving		Total Moving Costs
Other		
HAP / RSE		Homeowners Assistance
Environmental Mitigation Costs		Environmental Costs
Mission Contract Startup and Termination		Mission Activities Contract Costs
One-Time Unique Costs		One-Time Other Costs
Total - Other		Total Other One-Time Costs
-----		
Total One-Time Costs		Total Realignment One-Time Costs
-----		
One-Time Savings		
Military Construction Cost Avoidances		Military Construction
Military Moving		Military Move Savings
One-Time Moving Savings		One-Time Moving Savings
Environmental Mitigation Savings		Environmental Savings
One-Time Unique Savings		One-Time Other Savings
-----		
Total One-Time Savings		Total Realignment One-Time Savings
-----		
Total Net One-Time Costs		Total Realignment One-Time Net Costs

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SUSTAINMENT/RECAP/BOS/HOUSING CHANGE REPORT (COBRA v5.60)  
Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : **Department - Screen One**  
Scenario File : **Scenario File Name**  
Option Package : **Option Package Name - Screen One**  
Std Fctrs File : **Standard Factors Filename**  
Std Fctrs Desc : **Standard Factors File Description**

Net Change(\$K)	2006	2007	2008	2009	2010	2011	Total	Beyond
Sustain Change	<b>Sustainment Costs, Savings, and Net Costs</b>							
Recap Change	<b>Recapitalization Costs and Savings</b>							
BOS Change	<b>BOS Costs, Savings, and Net Costs</b>							
Housing Change	<b>Family Housing Operations Net Costs</b>							
TOTAL CHANGES	<b>Total Sustainment/BOS Net Costs</b>							

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PERSONNEL/SF/SUSTAINMENT/RECAP/BOS DELTAS REPORT (COBRA v5.60)  
 Data As Of 2/13/2003 2:06:22 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Base	Start	Finish	Personnel	
-----	-----	-----	Change	%Change
Base Name -	Starting	Ending	Delta	Percent
Screen One*	Personnel	Personnel	Personnel	Personnel

Base	Start	Finish	Square Footage		Chg/Per
-----	-----	-----	Change	%Change	-----
Base Name -	Starting	Ending	Delta	Percent	Delta
Screen One*	SF	SF	SF	Delta	SF
				SF	Per/Person

Base	Start	Finish	Base Operations Support		Chg/Per
-----	-----	-----	Change	%Change	-----
Base Name -	Starting	Ending	Delta	Percent	Delta
Screen One*	BOS	BOS	BOS	Delta	BOS
				BOS	Per/Person

Base	Start	Finish	Sustainment		Chg/Per
-----	-----	-----	Change	%Change	-----
Base Name -	Starting	Ending	Delta	Percent	Delta
Screen One*	Sustainment	Sustainment	Sustainment	Delta	Sustainment
				Sustainment	Per/Person

Base	Start	Finish	Recapitalization		Chg/Per
-----	-----	-----	Change	%Change	-----
Base Name -	Starting	Ending	Delta	Percent	Delta
Screen One*	Recap	Recap	Recap	Delta	Recap
				Recap	Per/Person

Base	Start	Finish	Sustain + Recap + BOS		Chg/Per
-----	-----	-----	Change	%Change	-----
Base Name -	Starting	Ending	Delta	Percent	Delta
Screen One*	Sust+Recap+BOS	Sust+Recap+BOS	Sust+Recap+BOS	Delta	Sust+Recap+BOS
				Sust+Recap+BOS	Per/Person

\* There is a separate line for each base in the scenario

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TOTAL MILITARY CONSTRUCTION ASSETS (COBRA v5.60)  
Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
Scenario File : Scenario File Name  
Option Package : Option Package Name - Screen One  
Std Fctrs File : Standard Factors Filename  
Std Fctrs Desc : Standard Factors File Description

All Costs in \$K

Base Name	Total MilCon*	Milcon Cost Avoidance	Total Net Costs
Base Name - Screen One*	(1)	(2)	(3)
Totals:	(1)	(2)	(3)

- (1) Total Military Construction Project Costs
- (2) Total Military Construction Savings
- (5) Total Military Construction Net Costs

\* There is a separate line for each base in scenario.

MILITARY CONSTRUCTION ASSETS (COBRA v5.60) - Page 3/6  
Data As Of 11:58 02/22/1992, Report Created 16:35 03/02/1995

Department : Department - Screen One  
Option Package : Option Package Name - Screen One  
Scenario File : Scenario File Name  
Std Fctrs File : Standard Factors Filename

MilCon for Base: Base Name - Screen One

All Costs in \$K

FAC Title	UM	New MilCon	New Cost*	Using Rehab	Rehab Cost*
FAC Description**	UM**	New Constr**	(1)	Rehab**	(2)

<b>Costs</b>	Total Construction Cost:	<b>Total Military Construction Project</b>
<b>Savings</b>	- Construction Cost Avoid:	<b>Total Military Construction</b>
<b>Costs</b>	<b>TOTAL:</b>	<b>Total Military Construction Net</b>

- (1) 'N/A' if Total Cost\*\* > 0, otherwise Project New Construction Cost
- (2) 'N/A' if Total Cost\*\* > 0, otherwise Project Rehabilitation Cost
- (3) Total Cost\*\* if Total Cost\*\* > 0, otherwise Project Total Cost

\* All MilCon Costs include Design, Site Preparation, Contingency Planning, and SIOH Costs where applicable.  
\*\* From Screen Seven. There is a separate line for each MilCon project.

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TOTAL PERSONNEL IMPACT REPORT (COBRA v5.60) - Page 2/6  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Base: Base Name - Screen One	Rate	2006	2007	2008	2009	2010	2011	Total
	----	----	----	----	----	----	----	----
CIVILIAN POSITIONS REALIGNING OUT		Impact	Realignment	Out				
Early Retirement*	Early Retire Rate**	Impact	Realignment	Early Retire				
Regular Retirement*	Regular Retire Rate**	Impact	Realignment	Regular Retire				
Civilian Turnover*	Civilian Turnover Rate**	Impact	Realignment	Turnover				
Civs Not Moving (RIFs)*	Civs Not Will Move**	Impact	Realignment	Not Move				
Civilians Moving (the remainder)		Impact	Realignment	Moved Out				
Civilian Positions Available		Impact	Realignment	Available				
CIVILIAN POSITIONS ELIMINATED		Impact	Elimination	Out				
Early Retirement	Early Retire Rate**	Impact	Elimination	Early Retire				
Regular Retirement	Regular Retire Rate**	Impact	Elimination	Regular Retire				
Civilian Turnover	Civilian Turnover Rate**	Impact	Elimination	Turnover				
Civs Not Moving (RIFs)*	Civs Not Will Move**	Impact	Elimination	Not Move				
Priority Placement#	Priority Placement Rate**	Impact	Elimination	PPP				
Civilians Available to Move		Impact	Elimination	Available				
Civilians Moving		Impact	Elimination	Moved Out				
Civilian RIFs (the remainder)		Impact	Elimination	RIF				
CIVILIAN POSITIONS REALIGNING IN		Impact	Realignment	In				
Civilians Moving		Impact	Realignment	Moved In				
New Civilians Hired		Impact	Realignment	Hire				
Other Civilian Additions		Impact	Realignment	Additions				
TOTAL CIVILIAN EARLY RETIREMENTS		Total	Civilian	Early Retirements				
TOTAL CIVILIAN RIFs		Total	Civilian	RIFs				
TOTAL CIVILIAN PRIORITY PLACEMENTS#		Total	Civilian	Priority Placements				
TOTAL CIVILIAN NEW HIRES		Total	Civilian	New Hires				

\*Early Retirements, Regular Retirements, Civilian Turnover, and Civilians Not Willing to Move are not applicable for moves under fifty miles

# Not all Priority Placements involve a Permanent Change of Station. The rate of PPP placements involving a PCS is 41.00%

\*\* Standard Factors Screen One

Note that Impact algorithms are listed in order of appearance on report, not alphabetic order, in manual for ease in following and understanding.

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PERSONNEL SUMMARY REPORT (COBRA v5.60)  
Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
Scenario File : Scenario File Name  
Option Package : Option Package Name - Screen One  
Std Fctrs File : Standard Factors Filename  
Std Fctrs Desc : Standard Factors File Description

PERSONNEL SUMMARY FOR: Base Name - Screen One

BASE POPULATION (FY 2006):

Officers	Enlisted	Students	Civilians
-----	-----	-----	-----
<b>Total Officers</b>	<b>Total Enlisted</b>	<b>Total Students</b>	<b>Total Civilians (all on Screen Four)</b>

Programmed Installation (NON-BRAC) CHANGES:

	2006	2007	2008	2009	2010	2011	Total
	----	----	----	----	----	----	----
Officers	<b>Officer Programmed Changes - Screen Six</b>						
Enlisted	<b>Enlisted Programmed Changes - Screen Six</b>						
Students	<b>Student Programmed Changes - Screen Six</b>						
Civilians	<b>Civilian Programmed Changes - Screen Six</b>						
TOTAL	<b>Total Programmed Changes</b>						

BASE POPULATION (Prior to BRAC Action):

Officers	Enlisted	Students	Civilians
-----	-----	-----	-----
<b>Starting Officers</b>	<b>Starting Enlisted</b>	<b>Starting Students</b>	<b>Starting Civilians</b>

PERSONNEL REALIGNMENTS:

To Base: **Base Name - Screen One**

	2006	2007	2008	2009	2010	2011	Total
	----	----	----	----	----	----	----
Officers	<b>Officer Position Realignments - Screen Three</b>						
Enlisted	<b>Enlisted Position Realignments - Screen Three</b>						
Students	<b>Student Position Realignments - Screen Three</b>						
Civilians	<b>Civilian Position Realignments - Screen Three</b>						
TOTAL	<b>Subtotal Personnel Realigned</b>						

From Base: **Base Name - Screen One**

	2006	2007	2008	2009	2010	2011	Total
	----	----	----	----	----	----	----
Officers	<b>Officer Position Realignments - Screen Three</b>						
Enlisted	<b>Enlisted Position Realignments - Screen Three</b>						
Students	<b>Student Position Realignments - Screen Three</b>						
Civilians	<b>Civilian Position Realignments - Screen Three</b>						
TOTAL	<b>Subtotal Personnel Realigned</b>						

TOTAL PERSONNEL REALIGNMENTS (Out of **Base Name - Screen One**):

	1996	1997	1998	1999	2000	2001	Total
	----	----	----	----	----	----	----
Officers	<b>Total Officer Position Realignments</b>						
Enlisted	<b>Total Enlisted Position Realignments</b>						
Students	<b>Total Student Position Realignments</b>						
Civilians	<b>Total Civilian Position Realignments</b>						
TOTAL	<b>Total Personnel Realigned</b>						

TOTAL PERSONNEL REALIGNMENTS (Into **Base Name - Screen One**):

	2006	2007	2008	2009	2010	2011	Total
	----	----	----	----	----	----	----
Officers	<b>Total Officer Position Realignments</b>						
Enlisted	<b>Total Enlisted Position Realignments</b>						
Students	<b>Total Student Position Realignments</b>						
Civilians	<b>Total Civilian Position Realignments</b>						
TOTAL	<b>Total Personnel Realigned</b>						

BASE POPULATION (After Brac Action):

Officers	Enlisted	Students	Civilians
-----	-----	-----	-----
<b>Ending Officers</b>	<b>Ending Enlisted</b>	<b>Ending Students</b>	<b>Ending Civilians</b>

\* COBRA will not display data for those areas (Realignments, Eliminations, etc.)

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where no activity occurs (i.e. where all values are zero).

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PERSONNEL YEARLY PERCENTAGES (COBRA v5.60)\*  
 Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : Department - Screen One  
 Scenario File : Scenario File Name  
 Option Package : Option Package Name - Screen One  
 Std Fctrs File : Standard Factors Filename  
 Std Fctrs Desc : Standard Factors File Description

Base: Base Name - Screen One

Year	Pers Moved In		MilCon TimePhase	Pers Moved Out/Eliminated		ShutDn TimePhase
	Total	Percent		Total	Percent	
1996	(1)	(3)%	(4)%	(5)	(7)%	(8)%
1997	(1)	(3)%	(4)%	(5)	(7)%	(8)%
1998	(1)	(3)%	(4)%	(5)	(7)%	(8)%
1999	(1)	(3)%	(4)%	(5)	(7)%	(8)%
2000	(1)	(3)%	(4)%	(5)	(7)%	(8)%
2001	(1)	(3)%	(4)%	(5)	(7)%	(8)%
<b>TOTALS</b>	<b>(2)</b>	<b>100.00%+</b>	<b>100.00%**</b>	<b>(6)</b>	<b>100.00%+</b>	<b>100.00%**</b>

- (1) Total Personnel Realigned (Into Base, by Year)
- (2) Total Personnel Realigned (Into Base)
- (3) Percentage of Personnel Moved In
- (4) Military Construction Time-Phasing
- (5) Total Personnel Realigned/Eliminated (by Year)
- (6) Total Personnel Realigned/Eliminated
- (7) Percentage of Personnel Moved Out/Eliminated
- (8) Shut Down Time-Phasing

\* This report is only produced if **Auto Time-Phase** is enabled on Screen One.

+ These columns will have a total of either **0.00%** or **100.00%**, depending upon whether or not personnel realignments/elimination occurred.

\*\* These columns will always have a total of **100.00%**.

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SCENARIO ERROR REPORT (COBRA v5.60)  
Data As Of 1/6/2004 2:28:10 PM, Report Created 1/9/2004 10:13:54 AM

Department : **Department - Screen One**  
Scenario File : **Scenario File Name**  
Option Package : **Option Package Name - Screen One**  
Std Fctrs File : **Standard Factors Filename**  
Std Fctrs Desc : **Standard Factors File Description**

This Report is created only if COBRA finds inconsistencies in scenario data. Since all Reports are generated at once, the other Reports will have been made using potentially incorrect data. When a Scenario Error Report is present, therefore, it should be checked immediately to determine if data corrections should be made. Once corrections are made to scenario data the Reports must be executed again before they are used for analysis purposes. The specific data inconsistencies that COBRA checks for are:

**Option Package Name, Department** (Screen One)

If the Department is not recognized by COBRA, the Report will say so. COBRA will also remind the user if no Option Package Name has been entered.

**Base Code** (Screen One)

COBRA will list all bases with no Base Code defined.

**Base Name** (Screen One)

COBRA will alert the user if there are two bases with the same Name, or if a base has no name.

**Distance** (Screen Two), **Latitude** and **Longitude** (Screen Four)

COBRA will alert the user if a pair of bases has no distance specified, nor can a distance be calculated, and there is movement of personnel, equipment, and/or vehicles between the two bases.

**Starting Facilities** (Screen Four), **Facilities Shut Down** (Screen Five)

COBRA will alert the user if a base has more square feet shutdown than it had, or if a base still holds facilities after it closes.

**Starting Facilities** (Screen Four), **Total Sustainment Budget** (Screen Five)

COBRA will alert the user if an installation has a positive **Total Sustainment Budget** (Screen Five) without any **Starting Facilities** (Screen Four), or if the installation has **Starting Facilities** (Screen Four) without any **Total Sustainment Budget** (Screen Five).

**Total Sustainment Budget** (Screen Five), **Sustainment Payroll Budget** (Screen Five)

COBRA will notify the user if the Total Sustainment Budget is less than the Payroll portion of it.

**Construction Schedule, Shutdown Schedule** (Screen Five)

If the user is entering these schedules (rather than letting COBRA do them automatically) COBRA will alert if the yearly percentages do not total to 100%.

**Programmed Family Housing Privatization** (Screen Six)

COBRA will alert the user if the yearly percentages exceed 100%.

**Position Realignment, Programmed Position Changes, Scenario Position Changes** (Screens Three and Six)

COBRA will check that no base loses more personnel than it has, and that none remain or move, after it closes.

**Military Construction FAC** (Screen Seven)

COBRA will alert the user if a construction project does not have a recognized FAC code.

**Enclave FAC** (Screen Eight), **Realn Button** (Screen One)

COBRA will alert the user if an recognized FAC code is used in defining an enclave, or if an enclave is defined for a base with is not deactivating.

**Civilians Not Willing To Move, Civilian Retirement Rate, Civilian Early Retirement Rate, Civilian Turnover Rate** (Standard Factors Screen One)

COBRA checks that civilians retiring, civilian turnover, civilians quitting, and civilians not willing to move do not exceed 100%.

**SECTION III.**

**COBRA v5.60 ALGORITHMS**

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## **BOS Costs, Savings, and Net Costs [Overhead]**

The Actual BOS Cost is the Cost of BOS to the installation without any BRAC actions. For a given year, this is equal to the base's BOS Non-Payroll Budget (Screen Four – Base Information (Static)), plus the change in BOS resulting from programmed installation population changes. This change in BOS is equal to the starting BOS (BOS Non-Payroll Budget) multiplied by the Total Programmed Installation Population Changes divided by product of the Total Starting Population (Screen Four – Base Information (Static)) and the Unit Cost Adjustment Factor (UCA) (Standard Factors – Facilities Tab). The Base Service on Screen Four – Base Information (Static) specifies which UCA is used.

The Revised BOS Cost is the Cost of BOS to the installation due to the BRAC actions. For a given year, this is equal to the base's BOS Non-Payroll Budget (Screen Four – Base Information (Static)), plus the change in BOS resulting all population changes. This change in BOS is equal to the starting BOS (BOS Non-Payroll Budget) multiplied by total change in population (Total Programmed Installation Population Changes plus Positions Realigned [Screen Three – Movement Table, both in and out of the base] and Scenario Position Changes [Screen Six – Base Information (Personnel)]) divided by product of the Total Starting Population (Screen Four – Base Information (Static)) and the Unit Cost Adjustment Factor (UCA) (Standard Factors – Facilities Tab). The Base Service on Screen Four – Base Information (Static) specifies which UCA is used.

BOS Changes are considered savings if the installation is a net losing installation (Net BOS Cost in the Beyond Years is less than zero); otherwise, they are considered costs.

The Net BOS Costs for an installation is the difference between the installations Revised BOS Cost and Actual BOS Cost.

EQUATIONS:

Starting BOS = BOS Non-Payroll Budget (Screen Four – Base Information (Static))

Starting Population = Total Officers + Total Enlisted Personnel + Total Students + Total Civilians  
(Screen Four – Base Information (Static))

Total Programmed Installation Population (PIP) Changes = Officer Positions + Enlisted Positions +  
Civilian Positions + Student Positions (Screen Six – Base Information (Personnel))

BRAC Personnel Changes = Officer Positions Realigned<sub>in</sub> - Officer Positions Realigned<sub>out</sub> + Enlisted  
Positions Realigned<sub>in</sub> - Enlisted Positions Realigned<sub>out</sub> + Student Positions Realigned<sub>in</sub>  
– Student Positions Realigned<sub>out</sub> + Civilian Positions Realigned<sub>in</sub> – Civilian Positions  
Realigned<sub>out</sub> (all in Screen – 3 Movement Table) + Scenario Changes in Office  
Positions + Scenario Changes in Enlisted Positions + Scenario Changes in Civilian  
Positions (Screen Six – Base Information (Personnel))

Actual BOS = Starting BOS + (Starting BOS/(Start Pop + UCA)) x Total PIP Changes

When a base is closed (ending population = 0):

Revised BOS = 0,

Otherwise:

Revised BOS = (Starting BOS + (Starting BOS/(Start Pop + UCA)) x (BRAC Personnel Changes +  
Total PIP Change)

Net BOS = Revised BOS – Actual BOS

NOTE: Personnel Changes, whether programmed or BRAC, are cumulative through the year for which  
the calculation is being made.

### **Civilian Household Goods Cost [Moving]**

The Civilian Household Goods Cost for an installation is the sum of the Civilian HHG Cost times the HHG Cost Per Pound.

Civilian HHG Cost is Total Civilian Personnel Moved at least 50 Miles (Distances between bases is entered on Screen Two – Distance Table) times the HHG Weight Per Civilian (from Standard Factors – Transportation Tab).

HHG Cost Per Pound is the HHG Cost from Standard Factors – Transportation Tab plus the product of the Receiving Base's Freight Cost (in Screen Four – Base Information (Static)) divided by 2000 times the Distance Between Bases.

#### **EQUATIONS:**

Civilian Household Goods Cost = Civilian HHG \* HHG Cost Per Pound

Civilian HHG = (Civilians Moving at least 50 Miles)  
\* HHG Per Civilian

HHG Cost Per Pound = HHG Cost + (Freight Cost / 2000 \* Distance)

### **Civilian House Hunting Cost [Moving]**

The Civilian House Hunting Cost for an installation is the Total Civilian Personnel Moved at Least 50 Miles (Distances between bases is entered in Screen Two – Distance Table) times the sum of the House Hunting Travel Cost and the House Hunting Per Diem Cost.

The House Hunting Travel Cost is the Distance Between Bases times the Air Transportation Per Passenger Mile (Standard Factors – Transportation Tab) times four (algorithm assumes two people taking two trips).

The House Hunting Per Diem Cost is the Gaining Base's Civilian Per Diem Rate (Screen Four – Base Information (Static)) times 1.75 times 10 (algorithm assumes ten days spent looking).

#### **EQUATIONS:**

House Hunt = (Civ Moved >= 50 Miles) \* (Travel + Per Diem)

Travel = Distance \* (Air Transport) \* 4

Per Diem = (Gainer's Civilian Per Diem Rate) \* 17.5

### **Civilian House Purchasing Cost [Moving]**

The Civilian House Purchasing Cost for an installation is the Total Civilian Personnel Moved at Least 50 Miles (Distances between bases is entered in Screen Two – Distance Table) times the Civilian Home Ownership Rate (from Standard Factors – Personnel Tab) times the sum of House Purchase Factor One and House Purchase Factor Two.

House Purchase Factor One is either the product of the Losing Base's Median Home Price times the Home Sale Reimbursement Rate (Standard Factors – Personnel Tab), or the Home Sale Maximum Reimbursement (Standard Factors – Personnel Tab), whichever is lesser. This number is then multiplied by either one minus the HAP Receiver Rate (if HAP is specified for the losing base) or one minus the RSE Receiver Rate (if HAP not specified). HAP is specified for a base in Screen Four – Base Information (Static); HAP and RSE Receiver Rates are entered on Standard Factors – Personnel Tab.

House Purchase Factor Two is either the product of the Gaining Base's Median Home Price times the Home Purchase Reimbursement Rate (Standard Factors – Personnel Tab), or the Home Purchase Maximum Reimbursement (Standard Factors – Personnel Tab), whichever is lesser.

#### **EQUATIONS:**

Civilian House Purchasing Cost = (Civs Moving  $\geq$  50 miles)  
\* Civ Homeowner Rate \* (Factor1 + Factor2)

Factor1 = (Loser's Median Home Price) \* (Home Sale Reimburse Rate)

**OR** (Maximum Home Sale Reimburse) [**whichever is lesser**]

Factor1 = Factor1 \* (1 - HAP Receiver Rate) [**if loser has HAP enabled**] **OR**

Factor1 = Factor1 \* (1 - RSE Receiver Rate) [**if loser's HAP not specified**]

Factor2 = (Gainer's Median Home Price) \* (Home Purchase Reimburse Rate)

**OR** (Maximum Home Purchase Reimburse) [**whichever is lesser**]

### **Civilian Miscellaneous Moving Cost [Moving]**

The Civilian Miscellaneous Moving Cost for an installation is the Total Civilian Personnel Moved at least 50 miles (Distances Between Bases in Screen Two- Distance Table) times the Miscellaneous Expenditure Per Civilian Employee Rate in Standard Factors – Transportation Tab.

**Civilian Net Moving Cost [Moving]**

The Civilian Net Moving Cost for an installation is the sum of Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Household Goods Cost, Civilian Miscellaneous Moving Cost, Civilian House Hunting Cost, Civilian Priority Placement Program Cost, Civilian RITA Cost, Packing/Unpacking Costs, Freight Shipping Costs, and Vehicle Shipping Costs (all described elsewhere).

**Civilian Per Diem Cost [Moving]**

The Civilian Per Diem Cost for an installation is the Total Civilian Personnel Moved at least 50 miles (Distances between bases is entered in Screen Two – Distance Table) times the receiving base's Civilian Per Diem Rate (Screen Four – Base Information (Static)) times the Distance traveled divided by 350 plus 30. Since distances and receiving base Civilian Per Diem Rates vary, Civilian Per Diem Cost is calculated separately for each receiving base, and then added together.

**Civilian Personally Owned Vehicle Mileage Cost [Moving]**

The Civilian Personally Owned Vehicle Mileage Cost for an installation is the Total Civilian Personnel Moved at least 50 miles (Distances between bases is entered in Screen Two – Distance Table) times the POV Reimbursement Rate on Standard Factors – Transportation Tab 3 times the Distance traveled. Since distances vary, Civilian Personally Owned Vehicle Mileage Cost is calculated separately for each receiving base, then added together.

**Civilian Priority Placement Program Cost [Moving]**

The Civilian Priority Placement Program Cost for an installation is the Total Civilian Priority Placements in a year times the PPP Involving PCS Rate (Standard Factors – Personnel Tab), rounded off, times the Civilian PCS Cost (Standard Factors – Personnel Tab).

**EQUATIONS:**

$$\text{Civ PPP Cost} = \text{Round} (\text{Civ PPP} * \text{PPP Involve PCS}) * \text{Civ PCS Cost}$$

### **Civilian Retirement Costs [Personnel]**

The Civilian Retirement Costs for an installation is the Total Civilian Early Retirements in a year times the Locality Pay Factor (Screen Four – Base Information (Static)) times Median GS Civilian Salary (Standard Factors – Personnel Tab) times the Civilian Retirement Pay Factor (Standard Factors – Personnel Tab).

### **Civilian Retirement/RIF Net Costs [Personnel]**

The Civilian Retirement/RIF Net Costs for an installation is the sum of the Civilian Retirement Costs and the Civilian RIF Costs (described elsewhere).

### **Civilian RIF Costs [Personnel]**

The Civilian RIF Costs for an installation is the Total Civilian RIFs in a year times the Locality Pay Factor (Screen Four – Base Information (Static)) times Median GS Civilian Salary (Standard Factors – Personnel Tab) times the Civilian RIF Pay Factor (Standard Factors – Personnel Tab).

### **Civilian RITA Cost [Moving]**

The Civilian RITA Cost for an installation is twenty-eight percent of the sum of the installation's Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Miscellaneous Moving Cost, and Civilian House Hunting Cost (all are described elsewhere; except that an increased value of Civilian Per Diem Cost is used for Civilian RITA Cost as described below).

Civilian Per Diem Cost (for RITA) is the Total Civilian Personnel Moved at least 50 miles (Distances between bases is entered on Screen 2) times the receiving base's Civilian Per Diem Rate (Screen Four – Base Information (Static)) times the sum of the Distance traveled divided by 350 and thirty.

### **EQUATIONS:**

$RITA = 0.28 * (Per\ Diem + POV + House\ Purch + Misc + House\ Hunt)$   
[all as described elsewhere, except Per Diem]

$Per\ Diem = (Civs\ Moved \geq 50\ mi) * (Gainer's\ Civilian\ Per\ Diem)$   
 $* ((Distance / 350) + 30)$

### **Civilian Salary Costs [Personnel]**

The Civilian Salary Costs for an installation in a year is one-half of the Civilian Sal Costs for that year, plus the full Civilian Sal Costs of all previous years.

Civ Salary Costs in a year are the number of Civilians Positions Added in that year (Civilian Scenario Position Changes from Screen Six – Base Information (Personnel), when Civilian Scenario Position Changes is greater than zero) times the product of the Civilian Locality Factor (Screen Four – Base Information (Static)) and the Median GS Civilian Salary (Standard Factors – Personnel Tab).

When Civilians are Realigned in such a way that the gaining base's Locality Pay Factor is greater than the losing base's Civilian Locality Factor, then an additional cost is incurred. This is equal to the number of Civilians Positions Realigned in that year (Civilian Positions Realigned from Screen Three – Movement Table, where the gaining base's Civilian Locality Factor is greater than the losing base's Civilian Locality Factor) times the product of the change in Civilian Locality Factor (the gaining base's CLF minus the losing base's CLF) and the Median GS Civilian Salary (Standard Factors – Personnel Tab).

Beyond-Year Civilian Salary Costs is the sum of all full Civilian Sal Costs for all six years.

#### **EQUATIONS:**

Civilians Added = Civilian Scenario Position Changes  
(When Civilian Scenario Position Changes > 0)

Civilians Realigned = Civilians Realigned (Screen Three – Movement Table, but only in those cases where the gaining base's Civilian Locality Factor is greater than the losing base's Civilian Locality Factor)

Civilian Sal Costs = Civilians Added \* Civilian Locality Factor \* Median GS Civilian Salary  
+ Civilians Realigned \* (gaining CLF – losing CLF) \* Median GS Civilian Salary

Civilian Salary Costs = ½ (Current Year Civilian Sal Costs) + S (Previous Years' Civilian Sal Costs)

### **Civilian Salary Net Costs [Personnel]**

The Civilian Salary Net Cost is equivalent to the Civilian Salary Cost minus the Civilian Salary Savings (described elsewhere).

### **Civilian Salary Savings [Personnel]**

The Civilian Salary Savings for an installation in a year is one-half of the Civilian Sal Savings for that year, plus the full Civilian Sal Savings of all previous years.

Civ Sal Savings in a year are the number of Civilians Eliminated in that year (the absolute value of Civilian Scenario Position Changes from Screen Six – Base Information (Personnel), when Civilian Scenario Position Changes is less than zero) times the product of the Civilian Locality Factor (Screen Four – Base Information (Static)) and the Median GS Civilian Salary (Standard Factors – Personnel Tab).

When Civilians are Realigned in such a way that the gaining base's Civilian Locality Factor is less than the losing base's Civilian Locality Factor, than savings are incurred. These are equal to the number of Civilians Positions Realigned in that year (Civilian Positions Realigned from Screen Three – Movement Table, where the gaining base's Civilian Locality Factor is less than the losing base's Civilian Locality Factor) times the product of the change in Civilian Locality Factor (the losing base's CLF minus the gaining base's CLF) and the Median GS Civilian Salary (Standard Factors – Personnel Tab).

Beyond-Year Civilian Salary Savings is the sum of all full Civilian Sal Savings for all six years.

#### **EQUATIONS:**

Civilians Eliminated = [Civilian Scenario Position Changes]  
(When Civilian Scenario Position Changes < 0)

Civilians Realigned = Civilians Realigned (Screen Three – Movement Table, but only in those cases where the gaining base's Civilian Locality Factor is less than the losing base's Civilian Locality Factor)

Civilian Sal Savings = (Civilians Eliminated \* Civilian Locality Factor \* Median GS Civilian Salary)  
+ Civilians Realigned \* (losing LPF – gaining LPF) \* Median GS Civilian Salary

Civilian Salary Savings =  
 $\frac{1}{2}$  (Current Year Civilian Sal Savings) + S (Previous Years' Civilian Sal Savings)

### **Civilian Unemployment Costs [Personnel]**

The Civilian Unemployment Costs for an installation is the Total Civilian RIEs in a year times the Average Unemployment Costs times the Unemployment Eligibility Period (both values from Standard Factors – Personnel Tab).

## Delta BOS

The Delta BOS for each base is displayed as five values: Delta BOS Start, Delta BOS Finish, Delta BOS Change, Delta BOS %Change, and Delta BOS Change per Person. (Changes due to Force Structure calculations are included in the Delta BOS Start and Delta BOS Finish figures; so that only changes attributable to the BRAC actions are reflected in the "Change" columns of the report – See BOS Costs, Savings, and Net Costs for details.)

Delta BOS Start = Actual BOS Cost Year=Beyond

Delta BOS Finish = Revised BOS Cost Year=Beyond

Delta BOS Change = Net BOS Cost Year=Beyond

Delta BOS %Change = Delta BOS Change / Delta BOS Start

Delta BOS Change per Person = Delta BOS Change / Delta Personnel Change

## Delta Personnel

The Delta Personnel for each base is displayed as four values: Delta Personnel Start, Delta Personnel Finish, Delta Personnel Change, and Delta Personnel %Change. (Changes due to Force Structure calculations are included in the Delta BOS Start and Delta BOS Finish figures; so that only changes attributable to the BRAC actions are reflected in the "Change" columns of the report – See BOS Costs, Savings, and Net Costs for details.)

Delta Personnel Start = Starting Population + S Programmed Installation Population Changes

Delta Personnel Change = S Scenario Changes + S Realign In – S Realign Out

Delta Personnel Finish = Delta Personnel Start + Delta Personnel Change

Delta Personnel %Change = Delta Personnel Change / Delta Personnel Start

## Delta Square Footage

The Delta Square Footage for each base is displayed as five values: Starting Facilities (Screen Four – Base Information (Static)), Finish = Starting Facilities + Delta Square Footage, Delta Square Footage Change, Delta Square Footage %Change, and Delta Square Footage Change per Person.

Delta Square Footage Change is the sum of all New Construction fields in Screen Seven – Base Information (Military Construction) (UM=SF) plus the sum of all Quantity fields in Screen Eight – Base Information (Enclave) (UM=SF) minus the Facilities Shut Down on Screen Five – Base Information (Dynamic).

Delta Square Footage %Change is equal to the Delta Square Footage Change divided by the Starting Facilities on Screen Four – Base Information (Static).

Delta Square Footage Change per Person is equal to the Delta Square Footage Change divided by the Delta Personnel Change.

## Delta Recapitalization

The Delta Recap for each base is displayed as five values: Delta Recap Start, Delta Recap Finish, Delta Recap Change, Delta Recap %Change, and Delta Recap Change per Person.

Delta Recap Start = Installation PRV / Service Recap Rate (Screen 4)

Delta Recap Change = Recap Net Cost <sub>Year=Beyond</sub>

Delta Recap Finish = Delta Recap Start + Delta Recap Change

Delta Recap %Change = Delta Recap Change / Delta Recap Start

Delta Recap Change per Person = Delta Recap Change / Delta Personnel Change

## **Delta Sustainment**

The Delta Sustainment for each base is displayed as five values: Delta Sustainment Start, Delta Sustainment Finish, Delta Sustainment Change, Delta Sustainment %Change, and Delta Sustainment Change per Person.

Delta Sustainment Start = Total Sustainment Budget – Sustainment Payroll Budget (Screen Four – Base Information (Static))

Delta Sustainment Change = Sustainment Net Cost Year=Beyond

Delta Sustainment Finish = Delta Sustainment Start + Delta Sustainment Change

Delta Sustainment %Change = Delta Sustainment Change / Delta Sustainment Start

Delta Sustainment Change per Person = Delta Sustainment Change / Delta Personnel Change

## **Delta Sustainment/Recap/BOS**

The Delta SustRecapBOS for each base is displayed as five values: Delta SustRecapBOS Start, Delta SustRecapBOS Finish, Delta SustRecapBOS Change, Delta SustRecapBOS %Change, and Delta SustRecapBOS Change per Person.

Delta SustRecapBOS Start = Delta Sustainment Start + Delta Recap Start + Delta BOS Start

Delta SustRecapBOS Finish = Delta Sustainment Finish + Delta Recap Finish + Delta BOS Finish

Delta SustRecapBOS Change = Delta SustRecapBOS Finish - Delta SustRecapBOS Start

Delta SustRecapBOS %Change = Delta SustRecapBOS Change / Delta SustRecapBOS Start

Delta SustRecapBOS Change per Person = Delta SustRecapBOS Change / Delta Personnel Change

## **Ending Civilians**

Ending Civilians is the Total Civilians on Base from Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Civilian Changes and Civilian Scenario Position Changes from Screen Six – Base Information (Personnel); with all Civilian Position Realignment In added and all Civilian Position Realignment Out subtracted (Realignment on Screen Three – Movement Table).

### **EQUATIONS:**

Ending Civilians = Total Civilians on Base + S Programmed Civilian Changes + S Civilian Scenario Position Changes + S Civilian Position Realignment In – S Civilian Position Realignment Out

## **Ending Enlisted**

Ending Enlisted is the Total Enlisted Personnel on Base from Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Enlisted Changes, and Enlisted Scenario Position Changes, from Screen Six – Base Information (Personnel); with all Enlisted Position Realignment In added and all Enlisted Position Realignment Out subtracted (Realignment on Screen Three – Movement Table).

### **EQUATIONS:**

Ending Enlisted = Total Enlisted Personnel on Base + S Programmed Enlisted Changes + S Enlisted Scenario Position Changes + S Enlisted Position Realignment In – S Enlisted Position Realignment Out

## **Ending Officers**

Ending Officers is the Total Officers on Base from Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Officer Changes, and Officer Scenario Position Changes from Screen Six – Base Information (Personnel); with all Officer Position Realignment In added and all Officer Position Realignment Out subtracted (Realignment in Screen Three – Movement Table).

### **EQUATIONS:**

Ending Officers = Total Officers on Base + S Programmed Officer Changes + S Officer Scenario Position Changes + S Officer Position Realignment In – S Officer Position Realignment Out

## **Ending Students**

Ending Students is the Total Military Students on Base from Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Student Changes from Screen Six – Base Information (Personnel); with all Student Position Realignments In added and all Student Position Realignments Out subtracted (Realignment in Screen Three – Movement Table).

**EQUATIONS:**

Ending Students = Total Students on Base + S Programmed Student Changes + S Student Position Realignment In – S Student Position Realignment Out

**Enlisted Move Savings [Moving]**

Enlisted Moving Savings for an installation is the number of Enlisted Realigning More Than 50 Miles (Realignment in Screen Three – Movement Table, Distances in Screen Two – Distance Table) times the One Time Enlisted PCS Costs divided by the Average Tour Length (both in Standard Factors – Transportation Tab).

**Enlisted Salary Costs [Personnel]**

The Enlisted Salary Costs for an installation in a year is one-half of the Enlisted Sal Costs for that year, plus the full Enlisted Sal Costs of all previous years.

Enlisted Sal Costs in a year are the number of Enlisted Added in that year (Enlisted Scenario Position Changes from Screen Six – Base Information (Personnel), when Enlisted Scenario Position Changes is greater than zero) times the Average Enlisted Salary from Standard Factors – Personnel Tab).

Beyond-Year Enlisted Salary Costs is the sum of all full Enlisted Sal Costs for all six years.

**EQUATIONS:**

Enlisted Added = Enlisted Scenario Position Changes  
(When Enlisted Scenario Position Changes > 0)

Enlisted Sal Costs = Enlisted Added \* Average Enlisted Salary

Enlisted Salary Costs =  
½ (Current Year Enlisted Sal Costs)  
+ S (Previous Years' Enlisted Sal Costs)

**Enlisted Salary Savings [Personnel]**

The Enlisted Salary Savings for an installation in a year is one-half of the Enlisted Sal Savings for that year, plus the full Enlisted Sal Savings of all previous years.

Enlisted Sal Savings in a year are the number of Enlisted Eliminated in that year (the absolute value of Enlisted Scenario Position Changes from Screen Six – Base Information (Personnel), when Enlisted Scenario Position Changes is less than zero) times the Average Enlisted Salary from Standard Factors – Personnel Tab).

Beyond-Year Enlisted Salary Savings is the sum of all full Enlisted Sal Savings for all six years.

**EQUATIONS:**

Enlisted Eliminated = [Enlisted Scenario Position Changes]  
(When Enlisted Scenario Position Changes < 0)

Enlisted Sal Savings = Enlisted Eliminated \* Average Enlisted Salary

Enlisted Salary Savings =  
½ (Current Year Enlisted Sal Savings)  
+ S (Previous Years' Enlisted Sal Savings)

**Environmental Costs [Other]**

Environmental Costs are the Environmental Non-Milcon Required values from Screen Five – Base Information (Dynamic), when Environmental Non-Milcon Required is greater than zero.

**Environmental Net Costs [Other]**

Environmental Net Costs are the Environmental Costs minus the Environmental Savings.

**Environmental Savings [Other]**

Environmental Savings are the absolute value of Environmental Non-Milcon Required values from Screen Five – Base Information (Dynamic), when Environmental Non-Milcon Required is less than zero.

## **Family Housing Operations Savings [Overhead]**

The Family Housing Operations Savings for an installation in any given year is the difference between the Revised Family Housing Budget and the Actual Family Housing Budget. The Actual Family Housing Budget is equivalent to the Family Housing Budget (in Screen Four – Base Information (Static)) times the Cumulative Family Housing Privatization Percentage. (The sum of the Programmed Family Housing Privatization Percentage in Screen Six – Base Information (Personnel) for year 1 through the current year). The Revised Family Housing Budget is equivalent to the Actual Family Housing Budget times the Percentage of Family Housing Shut Down (in Screen Five – Base Information (Dynamic)) times the Shutdown Half Year Time-Phasing for that base in that year.

The only difference for the Beyond years is that the Revised Family Housing Budget is equivalent to the Actual Family Housing Budget times the Percentage of Family Housing Shut Down, without any time-phasing applied.

### **Freight Shipping Costs [Moving]**

The Freight Shipping Cost for a non-Unique installation is the sum of the Material Cost, Equipment Cost, Crating Cost, and Storage Cost for the installation.

The Material Cost is the total number of Officers, Enlisted Personnel, Military Students, and Civilians Realigning (Realignments are in Screen Three – Movement Table; for Civilians use Total Civilian Personnel Moved) times the Material Per Person (in Standard Factors – Transportation Tab) divided by 2000 times the Receiving base's Freight Cost (Screen Four – Base Information (Static)) times the Distance between Bases (Screen Two- Distance Table).

Equipment cost is the Total Equipment Moved (the sum of Non-vehicle Mission Equipment and Support Equipment in Screen Three – Movement Table) times the Receiving Base's Freight Cost times the Distance Between Bases.

Crating Cost is the Total Equipment Moved times the Packing and Crating Cost from Standard Factors – Transportation Tab.

Storage Cost is the total number of Officers, Enlisted Personnel, and Civilians Realigning (Realignments are on Screen Three; for Civilians use Total Civilian Personnel Moved) times the Average Storage-In-Transit Cost from Standard Factors Screen Three.

Since distances and receiving base Freight Costs vary, Freight Shipping Cost is calculated separately for each receiving base, then added together.

#### **EQUATIONS:**

Freight Ship Cost = Material + Equipment + Crating

Material = (Off + Enl + Stu + Civ Realign) \* (Material Per Person / 2000)  
\* Freight Cost \* Distance

Equipment = (Support + Non-Vehicle Mission Equip) \* Freight Cost \* Distance

Crating = (Support + Non-Vehicle Mission Equip) \* Packing and Crating

## **Housing Allowance Costs, Savings, and Net Costs [Personnel]**

To calculate the Housing Allowance Costs at a base, this program first calculates the Officer Families Receiving BAH, the Enlisted Families Receiving BAH, the Officer Family Quarters Available, and the Enlisted Family Quarters Available.

Officer Families Receiving BAH is equal to the Total Officers (Screen Four – Base Information (Static)) times the Percentage of Accompanied Officers (Standard Factors Screen 1) times one minus the Percentage Accompanied Military Not Receiving BAH.

Enlisted Families Receiving BAH is equal to the Total Enlisted Personnel (Screen Four – Base Information (Static)) times the Percentage of Accompanied Enlisted Personnel (Standard Factors – Personnel Tab) times one minus the Percentage Accompanied Military Not Receiving BAH.

Officer Family Quarters Available and Enlisted Family Quarters Available are set to the Officer Quarters Vacant and Enlisted Quarters Vacant (respectively) from Screen Four – Base Information (Static).

Next are the adjustments for Programmed Installation Population Changes (entered in Screen Six – Base Information (Personnel)). If there is an Officer Reduction (Programmed Installation Population Officer Change less than zero), then Officer Families Receiving BAH is reduced by the Absolute Value of Programmed Installation Population Officer Change times the Percentage of Accompanied Officers times the Percentage Accompanied Military Not Receiving BAH (note that Percentage Accompanied Military Not Receiving BAH never drops below zero). If Programmed Installation Population Officer Change is greater than zero, then Officer Family Quarters Available is reduced by the Absolute Value of Programmed Installation Population Officer Change times the Percentage of Accompanied Officers (note that Officer Families Quarters Available never drops below zero). These calculations are then repeated for Programmed Installation Population Enlisted Changes. There are no costs or savings associated with these operations.

Next are the adjustments for Scenario Position Changes (entered in Screen Six – Base Information (Personnel)). If there is a net elimination of officers (Officer Scenario Position Changes less than zero) then Officer Families Receiving BAH is reduced by the Absolute Value of Officer Scenario Position Changes; note that this figure cannot be less than zero. There is a Housing Allowance Savings of Officer BAH (Screen Four – Base Information (Static)) times twelve times amount that the Officer Families Receiving BAH was reduced (note that once Accompanied Officers Receiving BAH reaches zero, no further Officer BAH savings can be realized). If Officer Scenario Position Changes is greater than zero, then Officer Family Quarters Available is reduced by the sum of Officer Scenario Position Changes times the Percentage of Accompanied Officers (note that Officer Families Quarters Available never drops below zero). There is a Housing Allowance Cost if more Officers are added than will fit in the available housing equivalent to the number of officers added above those that went into available housing times Officer BAH times twelve. These calculations are then repeated for Enlisted Force Structure Changes.

Next are the adjustments for Realignments (entered in Screen Three – Movement Table). Note that any moves of less than or equal to fifty miles or moves between bases with equivalent BAH (Screen Four – Base Information (Static) or Percentage Accompanied Military Not Receiving BAH are ignored for Housing Allowance calculations. If there is a net realignment out of officers (Total realignments in minus total realignments out, subject to above conditions, less than zero) then Officer Families Receiving BAH is reduced by the Absolute Value of Net Officer Realignments; note that this figure cannot be less than zero. There is a Housing Allowance Savings of Officer BAH (Screen Four – Base Information

(Static)) times twelve times amount that the Officer Families Receiving BAH was reduced (note that once Officer Families Receiving BAH reaches zero, no further Officer BAH savings can be realized). If Net Officers Realigning is greater than zero, then Officer Family Quarters Available is reduced by the amount of the net Officers Realigned (note that Officer Families Quarters Available never drops below zero). There is a Housing Allowance Cost if more Officers are added than will fit in the available housing equivalent to the number of officers added above those that went into available housing times Officer BAH times twelve. These calculations are then repeated for Enlisted Personnel Realignments.

Last, Housing Allowance Net Costs for that base in that year is equal to the sum of all Housing Allowance Costs realized minus all Housing Allowance Savings realized, plus the Housing Allowance Net Costs of the previous year (if the year is greater than one). If the total is greater than zero, then the Housing Allowance Cost is equal to the Housing Allowance Net Cost, and the housing Allowance Savings is zero; otherwise, the Housing Allowance Savings is equal to the Housing Allowance Net Cost times negative one, and the Housing Allowance Cost is zero.

Beyond year values of Housing Allowance Costs, Savings, and Net Costs are equal to the values in year six.

#### EQUATIONS:

##### Initial Values

Off Fam Qtrs Avail = Officer Housing Vacant

Enl Fam Qtrs Avail = Enlisted Housing Vacant

Off Fam Off Base = (Total Off) \* (% Off Accomp) \* (1 - % Accompanied Mil Not Receive BAH)

Enl Fam Off Base = (Total Enl) \* (% Enl Accomp) \* (1 - % Accompanied Mil Not Receive BAH)

Tot Off Fam Qtrs = (Total Off \* % Off Accomp \* % Fam Not BAH) + (Off Hsg Vac)

Tot Enl Fam Qtrs = (Total Enl \* % Enl Accomp \* % Fam Not BAH) + (Enl Hsg Vac)

##### Each Year

Net Off PIP = Officer Programmed Installation Population Change

Net Enl PIP = Enlisted Programmed Installation Population Change

Off Fam Qtrs Avail = Off Fam Qtrs Avail - (Tot Off Fam Qtrs \* Perc FH Priv)

Enl Fam Qtrs Avail = Enl Fam Qtrs Avail - (Tot Enl Fam Qtrs \* Perc FH Priv)

Net Off Elim = Officer Scenario Position Changes

Net Enl Elim = Enlisted Scenario Position Changes

Net Off Realign\* = (All Off Realign In) - (All Off Realign Out)

Net Enl Realign\* = (All Enl Realign In) - (All Enl Realign Out)

\*[Only consider moves greater than 50 miles, or where BAH or %Families Live Off Base different for gainer and loser]

If Net Off FSC < 0

Off Fam Off Base = Off Fam Off Base

- (-Net Off FSC) \* (% Off Accomp) \* (1-% Accomp no BAH)

If Net Off FSC > 0

Off Fam Qtrs Avail = Off Fam Qtrs Avail

- (Net Off FSC) \* (% Off Accomp)

If Net Enl FSC < 0

Enl Fam Off Base = Enl Fam Off Base  
- (-Net Enl FSC) \* (% Enl Accompl) \* (1-% Accompl no BAH)  
If Net Enl FSC > 0  
Enl Fam Qtrs Avail = Enl Fam Qtrs Avail  
- (Net Enl FSC) \* (% Enl Accompl)  
[No Costs/Savings associated with Force Structure Changes]

If Net Off Elim < 0  
Off Fam Off Base = Off Fam Off Base  
- (-Net Off Elim)  
**Savings:** (Off Fam Off Base Reduction) \* (Off BAH \* 12)

If Net Off Elim > 0  
Off Fam Qtrs Avail  
= Off Fam Qtrs Avail  
- (Net Off Elim) \* (% Off Accompl)  
**Cost:** (Off Fam Qtrs Avail Overflow) \* (Off BAH \* 12)

If Net Enl Elim < 0  
Enl Fam Off Base = Enl Fam Off Base - (-Net Enl Elim)  
**Savings:** (Enl Fam Off Base Reduction) \* (Enl BAH \* 12)

If Net Enl Elim > 0  
Enl Fam Qtrs Avail = Enl Fam Qtrs Avail  
- (Net Enl Elim) \* (% Enl Accompl)  
**Cost:** (Enl Fam Qtrs Avail Overflow) \* (Enl BAH \* 12)

If Net Off Realign < 0  
Off Fam Off Base = Off Fam Off Base  
- (-Net Off Realign)  
**Savings:** (Off Fam Off Base Reduction)  
\* (Off BAH \* 12)

If Net Off Realign > 0  
Off Fam Qtrs Avail = Off Fam Qtrs Avail  
- (Net Off Realign) \* (% Off Accompl)  
**Cost:** (Off Fam Qtrs Avail Overflow)  
\* (Off BAH \* 12)

If Net Enl Realign < 0  
Enl Fam Off Base = Enl Fam Off Base  
- (-Net Enl Realign)  
**Savings:** (Enl Fam Off Base Reduction)  
\* (Enl BAH \* 12)

If Net Enl Realign > 0  
Enl Fam Qtrs Avail = Enl Fam Qtrs Avail  
- (Net Enl Realign) \* (% Enl Accompl)  
**Cost:** (Enl Fam Qtrs Avail Overflow)  
\* (Enl BAH \* 12)

Housing Allowance Net Cost = (Previous Year Hous Allow Net)  
+ S (Above Costs) - S (Above Savings)

If Housing Allowance Net Cost > 0

Housing Allowance Cost = Housing Allowance Net Cost

Housing Allowance Savings = 0

If Housing Allowance Net Cost < 0

Housing Allowance Cost = 0

Housing Allowance Savings = - Housing Allowance Net Cost

### **Homeowners Assistance Program/Relocation Service Entitlement Costs [Other]**

An installation will either get a HAP Cost or an RSE Cost, depending upon whether the Homeowners Assistance Program is enabled on Screen Four – Base Information (Static) (if HAP is disabled, then the installation gets RSE).

HAP Cost for an installation is the sum of Officer HAP, Enlisted HAP, and Civilian HAP.

Officer HAP is the product of the total number of officers eliminated or realigned more than 50 miles from the base times the Percentage of Accompanied Officers times one minus the Percentage of Accompanied Military Not Receiving BAH times the Civilian Home Ownership Rate times the HAP Home Value Rate times the HAP Receiving Rate times the installation's Median Home Price.

Enlisted HAP is the product of the total number of enlisted eliminated or realigned more than 50 miles from the base times the Percentage of Accompanied Enlisted times one minus the Percentage of Accompanied Military Not Receiving BAH times the Civilian Home Ownership Rate times the HAP Home Value Rate times the HAP Receiving Rate times the installation's Median Home Price.

Civilian HAP is the product of the total number of civilians eliminated or realigned more than 50 miles from the base times the Civilian Home Ownership Rate times the HAP Home Value Rate times the HAP Receiving Rate times the installation's Median Home Price.

RSE Cost for an installation is the product of the total number of civilians eliminated or realigned more than 50 miles from the base times the Civilian Home Ownership Rate times the RSE Home Value Rate times the RSE Receiving Rate times the installation's Median Home Price.

## EQUATIONS:

HAP/RSE Cost = HAP Cost or RSE Cost

(Depending upon Homeowners Assistance Program box on Screen Four – Base Information (Static))

HAP Cost = Officer HAP + Enlisted HAP + Civilian HAP

Officer HAP = (Officers Eliminated + Officers Moved  $\geq$  50 mi)

- \* Percentage of Accomplished Officers
- \* (1 - Percentage of Mil Not Receive BAH)
- \* Civilian Home Ownership Rate
- \* HAP Home Value Rate
- \* HAP Receiving Rate
- \* Median Home Price

Enlisted HAP = (Enlisted Eliminated + Enlisted Moved  $\geq$  50 mi)

- \* Percentage of Accomplished Enlisted
- \* (1 - Percentage of Mil Not Receive BAH)
- \* Civilian Home Ownership Rate
- \* HAP Home Value Rate
- \* HAP Receiving Rate
- \* Median Home Price

Civilian HAP = (Civilians Eliminated + Civilians Moved  $\geq$  50 mi)

- \* Civilian Home Ownership Rate
- \* HAP Home Value Rate
- \* HAP Receiving Rate
- \* Median Home Price

RSE Cost = (Civilians Eliminated + Civilians Moved  $\geq$  50 mi)

- \* Civilian Home Ownership Rate
- \* RSE Home Value Rate
- \* RSE Receiving Rate
- \* Median Home Price

## Impact Realignment Out

Impact Realignment Out is the total number of Civilian Positions Realigned Out of the base (Realignments in Screen Three – Movement Table).

## Impact Realignment Early Retire

Impact Realignment Early Retire is the sum of Civilian Positions Realigned Out (Screen Three – Movement Table) times Early Retirement Rate (Standard Factors – Personnel Tab), rounded off, for every base pair fifty of more miles apart (Base Distances in Screen Two – Distance Table).

**EQUATIONS:**

Impact Early Retire = S Round(Civ Realign \* Early Retire Rate)  
[for all moves >= 50 miles]

**Impact Realignment Regular Retire**

Impact Realignment Regular Retire is the sum of Civilian Positions Realigned Out (Screen Three – Movement Table) times Regular Retirement Rate (Standard Factors – Personnel Tab), rounded off, for every base pair fifty of more miles apart (Base Distances in Screen Two – Distance Table).

**EQUATIONS:**

Impact Reg Retire = S Round(Civ Realign \* Reg Retire Rate)  
[for all moves >= 50 miles]

**Impact Realignment Turnover**

Impact Realignment Turnover is the sum of Civilian Positions Realigned Out (Screen Three – Movement Table) times Civilian turnover Rate (Standard Factors – Personnel Tab), rounded off, for every base pair fifty of more miles apart (Base Distances in Screen Two – Distance Table).

**EQUATIONS:**

Impact Turnover = S Round(Civ Realign \* Turnover Rate)  
[for all moves >= 50 miles]

**Impact Realignment Not Move**

Impact Realignment Not Move is the sum of Civilian Positions Realigned Out (Screen Three – Movement Table) times Civilians Not Willing To Move (Standard Factors – Personnel Tab), rounded off, for every base pair fifty of more miles apart (Base Distances in Screen Two – Distance Table2).

**EQUATIONS:**

Impact Not Move = S Round(Civ Realign \* Not Will to Move Rate)  
[for all moves >= 50 miles]

### **Impact Realignment Moved Out**

Impact Realignment Moved Out is the sum for all base pairs of Impact Realignment Out minus the sum of Impact Realignment Early Retire, Impact Realignment Regular Retire, Impact Realignment Turnover, and Impact Realignment Not Move.

### **Impact Realignment Available**

Impact Realignment Available is equal to Impact Realignment Out minus Impact Realignment Moved Out.

### **Impact Elimination Out**

Impact Elimination Out is the absolute value of Civilian Scenario Position Changes (if Civilian Scenario Position Changes is less than zero), Screen Six – Base Information (Personnel).

### **Impact Elimination Early Retire**

Impact Elimination Early Retire is the Impact Elimination Out times Early Retirement Rate (Standard Factors – Personnel Tab), rounded off.

### **Impact Elimination Regular Retire**

Impact Elimination Regular Retire is the Impact Elimination Out times Regular Retirement Rate (Standard Factors – Personnel Tab), rounded off.

### **Impact Elimination Turnover**

Impact Elimination Turnover is the Impact Elimination Out times Civilian Turnover Rate (Standard Factors – Personnel Tab), rounded off.

### **Impact Elimination Not Move**

Impact Elimination Not Move is the Impact Elimination Out times Civilians Not Willing To Move (Standard Factors – Personnel Tab), rounded off.

### **Impact Elimination PPP**

Impact Elimination PPP is Impact Elimination Out minus the sum of Impact Elimination Early Retire, Impact Elimination Regular Retire, Impact Elimination Turnover, and Impact Elimination Not Move; or Impact Elimination Out times Priority Placement Rate (Standard Factors – Personnel Tab), rounded off; whichever is lesser.

### **Impact Elimination Available**

Impact Elimination Available is Impact Elimination Out minus the sum of Impact Elimination Early Retire, Impact Elimination Regular Retire, Impact Elimination Turnover, Impact Elimination Not Move, and Impact Elimination PPS.

### **Impact Elimination Moved Out**

If Impact Elimination Available is greater than zero, and Impact Realignment Available is greater than zero, then Civilians in Impact Elimination Available are used to fill Impact Realignment Available slots; to the closest base first, then the next closest, etc. (Distance Between Bases in Screen Two – Distance Table).

### **Impact Elimination RIF**

If any Civilians are left over from Impact Elimination Available after all Impact Realignment Available slots are full, then they are placed in the Impact Elimination RIF line.

### **Impact Realignment In**

Impact Realignment In is the total number of Civilian Positions Realigned In to the base (Realignments in Screen Three – Movement Table).

### **Impact Realignment Moved In**

Impact Realignment Moved In is the number of actual Civilians moved in; this value is taken from the Impact Realignment Moved Out line (except summed for the gainer instead of the loser).

### **Impact Realignment Hire**

Impact Realignment Hire is Impact Realignment In minus Impact Realignment Moved In.

### **Impact Realignment Additions**

Impact Realignment Additions is the Civilian Scenario Position Changes from Screen Six – Base Information (Personnel) if Civilian Scenario Position Changes is greater than zero.

### **Information Technology Costs [Moving]**

The Information Technology Costs are equal to the IT Connection Costs plus the One-Time IT Costs (Screen Five- Base Information (Dynamic)).

The IT Connection Costs are equal to the IT Connect Factor (Standard Factors – Transportation Tab) times the Total Personnel Realigned (Screen Three – Movement Table).

### **EQUATIONS:**

$IT\ Connection\ Costs = IT\ Connect\ Factor \times Total\ Personnel\ Realign$

$Total\ Personnel\ Realign = Off + Enl + Stu + Civ$

### **Median Home Price**

The Median Home Price for a base is used for the following algorithms: Civilian House Purchasing Cost and Homeowners Assistance Program/Relocation Service Entitlement. It is calculated by multiplying the base's Officer BAH (in Screen Four – Base Information (Static)) by 198, and then subtracting 83,887.

## **Military Construction Costs [MilCon]**

The Military Construction Costs for an installation are the sum of the MilCon Project Costs for each project entered in Screen Seven – Base Information (Military Construction).

MilCon Project Costs are calculated in two ways, depending upon whether or not the user entered a value in the Total Cost field on Screen Seven – Base Information (Military Construction).

If the user entered the Total Cost, then the MilCon Project Cost in a year is equal to the Total Cost divided by the MilCon Design Mark-Up times the Military Construction Time-Phasing for that year. An additional Milcon Design Cost is added in year one, consisting of the Total Cost times the Design Rate (in Standard Factors – Facilities Tab) divided by the MilCon Design Mark-Up.

If the user did not enter a Total Cost, then the MilCon Project Cost is equal to the sum of the New MilCon Cost and the Rehab MilCon Cost times the Military Construction Time-Phasing for that year times the MilCon Mark-Up. An additional Milcon Design Cost is added in year one, consisting of the sum of the New MilCon Cost and the Rehab MilCon Cost times the Design Rate (in Standard Factors – Facilities Tab) times the MilCon Mark-Up.

New MilCon Cost is equal to the New MilCon entered in Screen Seven – Base Information (Military Construction) times the Cost Per Unit Measure for that Project's FAC (Cost Per Unit Measure from FPG) times the Area Cost Factor on Screen Four – Base Information (Static). Rehab MilCon Cost is equal to the Rehab MilCon entered on Screen Seven – Base Information (Military Construction) times the Cost Per Unit Measure for that Project's FAC times the Area Cost Factor on Screen Four – Base Information (Static) times the Rehab vs. New Construction Rate (Standard Factors – Facilities Tab) appropriate for the Rehab Type selected with the toggle button on Screen Seven – Base Information (Military Construction). New Milcon Cost, for those projects with a UM (Screen Seven – Base Information (Military Construction)) of “SF” (square feet) have an additional cost added on equal to the New MilCon (Screen Seven – Base Information (Military Construction)) times the Site Preparation Cost (Standard Factors – Facilities Tab).

Milcon Mark-Up is equal to one plus the Supervision, Inspection, and Overhead Rate times one plus the Contingency Planning Rate. MilCon Design Mark-Up is equal to one plus the appropriate Design Rate, determined by the FAC code (FACs beginning with “5” are considered to be Medical construction projects, all other FACs use the “Design Rate (Other)” value. All of these values are Standard Factors – Facilities Tab.

EQUATIONS:

Military Construction Cost = S MilCon Project Costs

When Total Cost > 0

MilCon Project Cost = Total Cost \* Time-Phase / Design Mark-Up

Design [Year 1 only] = Total Milcon Project Cost \* Design Rate

Design Markup = 1 + Design Rate

When Total Cost=0

MilCon Project Cost = (New MilCon Cost + Rehab MilCon Cost) \* Time Phase

Design [Year 1 only] = (New MilCon Cost + Rehab MilCon Cost) \* Design Rate

New MilCon Cost = (New MilCon \* Cost Per UM \* Area Cost Factor \* Markup)  
+ (New Milcon \* Site Prep) ["SF" construction only]

Rehab MilCon Cost = Rehab MilCon \* Cost Per UM \* Area Cost Factor \* Markup  
\* (Rehab vs. New MilCon Rate)

Mark-Up = (1+SIOH Rate) \* (1+Contingency Rate)

Note that "Design Rate" refers to Design Rate (Medical) or Design Rate (Other), depending on the project's EAC.

**Military Construction Cumulative Time-Phasing**

Military Construction Cumulative Time-Phasing for a year is equal to the sum of the Military Construction Time-Phasing for that year and all previous years (for example: Year 1 Military Construction Cumulative Time-Phasing is equal to the Year 1 Military Construction Time-Phasing; but Year 3 Military Construction Cumulative Time-Phasing is equal to the sum of Military Construction Time-Phasing for years 1 through 3).

### **Military Construction Half-Year Time-Phasing**

Military Construction Half-Year Time-Phasing for a year is equal to half of that year's Military Construction Time-Phasing plus the sum of the Military Construction Time-Phasing for all previous years (for example: Year 1 Military Construction Half Year Time-Phasing is equal to half of the Year 1 Military Construction Time-Phasing; but Year 3 Military Construction Half Year Time-Phasing is equal to half of the Year 3 Military Construction Time-Phasing plus the sum of Military Construction Time-Phasing for years 1 through 2).

### **Military Construction Net Costs [MilCon]**

The Military Construction Net Costs for an installation are the Military Construction Costs minus the Military Construction Savings (described elsewhere).

### **Military Construction Savings [MilCon]**

The Military Construction Savings for an installation are the new mission Military Construction Avoidances entered on Screen Five – Base Information (Dynamic).

### **Military Construction Time-Phasing**

If Auto-Time Phase in Screen One – General Scenario is disabled, then Military Construction Time-Phasing for a Base is equal to the values entered for Construction Schedule in Screen Five – Base Information (Dynamic); otherwise, it is calculated as follows:

If Total Personnel Realignments into the base is zero, then Military Construction Time-Phasing for year 1 is two divided by the Scenario Last Year for the base; and each other year previous to the Scenario Last Year for the base is one divided by the Scenario Last Year of the base (for example: if the Scenario Last Year for the base is year 5, then year 1 Military Construction Time-Phasing is 2/5, or 40.00%, and years 2 through 4 are 1/5, or 20.00%). If the base has no Scenario Last Year (no realignments or eliminations; neither closing nor deactivating), then Military Construction Time-Phasing for all six years is 1/6, or 16.67%.

If Total Personnel Realignments into the base is greater than zero, then Military Construction Time-Phasing for year 1 is equal to the sum of Percentage of Personnel Moved In for years 1 and 2; and each subsequent year's Military Construction Time Phasing is set to the following year's Percentage of Personnel Moved In (Year 2's Military Construction Time Phasing is set to year 3's Percentage of Personnel Moved In, etc.) Military Construction Time Phasing for Year 6 will be 0.00%.

### **Military Eliminated PCS Costs [Personnel]**

The Military Eliminated PCS Costs for an installation is the sum of the Eliminated Officer PCS Costs and the Eliminated Enlisted PCS Costs.

The Eliminated Officer PCS Costs is the total number of Officers Eliminated times the One Time Officer PCS Costs (in Standard Factors – Transportation Tab).

The Eliminated Enlisted PCS Costs is the total number of Enlisted Eliminated times the One Time Enlisted PCS Costs (in Standard Factors – Transportation Tab).

Total Officers Eliminated is the absolute value of Officer Scenario Position Changes (from Screen Six – Base Information (Personnel)), when Officer Scenario Positions Changes is a negative number.

Total Enlisted Eliminated is the absolute value of Enlisted Scenario Position Changes (from Screen Six – Base Information (Personnel)), when Enlisted Scenario Positions Changes is a negative number.

#### **EQUATIONS:**

Total Officers Eliminated = [Officer Scenario Position Changes]  
(When Officer Scenario Position Changes <= 0)

Total Enlisted Eliminated = [Enlisted Scenario Position Changes]  
(When Enlisted Scenario Position Changes <= 0)

Officer Eliminated PCS Costs = Total Officers Eliminated  
\* One Time Officer PCS Costs

Enlisted Eliminated PCS Costs = Total Enlisted Eliminated  
\* One Time Enlisted PCS Costs

Military Eliminated PCS Costs = Officer Eliminated PCS Costs  
+ Enlisted Eliminated PCS Costs

## **Military Household Goods Cost [Moving]**

The Military Household Goods Cost for an installation is the sum of the Accompanied Officer HHG Cost, the Accompanied Enlisted HHG Cost, the Unaccompanied Officer Military HHG Cost, and the Unaccompanied Enlisted HHG Cost times the HHG Cost Per Pound.

Accompanied Officer HHG Cost is the number of Officers Realigning at least 50 Miles (Realignments are in Screen Three – Movement Table, Distances in Screen Two – Distance Table) times the Percentage of Accompanied Officers (in Standard Factors – Personnel Tab) times the HHG Weight Per Accompanied Officer (in Standard Factors – Transportation Tab).

Accompanied Enlisted HHG Cost is the number of Enlisted Personnel Realigning at least 50 Miles times the Percentage of Accompanied Enlisted Personnel (in Standard Factors – Personnel Tab) times the HHG Weight Per Accompanied Enlisted (in Standard Factors – Transportation Tab).

Unaccompanied Officer HHG Cost is the number of Officers Realigning at least 50 Miles (Realignments are in Screen Three – Movement Table, Distances in Screen Two – Distance Table) times one minus the Percentage of Accompanied Officers (in Standard Factors – Personnel Tab) times the HHG Weight Per Unaccompanied Officer (in Standard Factors – Transportation Tab).

Unaccompanied Enlisted HHG Cost is the number of Enlisted Personnel Realigning at least 50 Miles times one minus the Percentage of Accompanied Enlisted Personnel (in Standard Factors – Personnel Tab) times the HHG Weight Per Unaccompanied Enlisted (in Standard Factors – Transportation Tab).

HHG Cost Per Pound is the HHG Cost in Standard Factors – Transportation Tab plus the product of the Receiving Base's Freight Cost (in Screen Four – Base Information (Static)) divided by 2000 times the Distance between bases.

### **EQUATIONS:**

Military HHG Cost = (Accomp Officer HHG + Accomp Enlisted HHG  
+ Unaccomp Officer HHG + Unaccomp Enlisted HHG ) \* HHG Cost Per Pound

Accomp Officer HHG = (Officers Realigned at least 50 Miles)  
\* Percentage of Accomp Officers \* HHG Per Accomp Officer

Accomp Enlisted HHG = (Enlisted Realigned at least 50 Miles)  
\* Percentage of Accomp Enlisted \* HHG Per Accomp Enlisted

Unaccomp Officer HHG = (Officers Realigned at least 50 Miles)  
\* (1-Percentage of Accomp Officers) \* HHG Per Unaccomp Officer

Unaccomp Enlisted HHG = (Enlisted Realigned at least 50 Miles)  
\* (1-Percentage of Accomp Enlisted \* HHG Per Unaccomp Enlisted

HHG Cost Per Pound = HHG Cost /100 + (Freight Cost / 2000 \* Distance)

### **Military Miscellaneous Moving Cost [Moving]**

The Military Miscellaneous Moving Cost for an installation is the number of Officers and Enlisted Personnel Realigning to a destination at least 50 miles away (Personnel Realigning are entered in Screen Three – Movement Table, Distances between bases in Screen Two – Distance Table) times the Miscellaneous Expenditure Per direct Employee Rate in Standard Factors – Transportation Tab.

### **Military Move Net Costs [Moving/Personnel]**

The Military Move Net Costs for an installation is the sum of the Information Technology Costs, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Military Household Goods Cost, Military Miscellaneous Moving Cost, and Military Eliminated PCS Costs; minus Military Move Savings [all described elsewhere].

### **Military Per Diem Cost [Moving]**

The Military Per Diem Cost for an installation is the number of Officers and Enlisted Personnel Realigning to a destination at least 50 miles away (Personnel Realigning are entered on Screen 3, Distances between bases in Screen Two – Distance Table) times the receiving base's Per Diem Rate (Screen Four – Base Information (Static)) times the Distance traveled divided by 350. Since distances and receiving base Military Per Diem Rates vary, Military Per Diem Cost is calculated separately for each receiving base, then added together.

### **Military Personally Owned Vehicle Mileage Cost [Moving]**

The Military Personally Owned Vehicle Mileage Cost for an installation is the number of Officers and Enlisted Personnel Realigning to a destination at least 50 miles away (Personnel Realigning are entered in Screen Three – Movement Table, Distances between bases in Screen Two – Distance Table) times the POV Reimbursement Rate in Standard Factors – Transportation Tab times the Distance traveled. Since distances vary, Military Personally Owned Vehicle Mileage Cost is calculated separately for each receiving base, then added together.

### **Military Salary Net Costs [Personnel]**

The Military Salary Net Costs for an installation is equivalent to the sum of Officer Salary Costs and Enlisted Salary Costs minus the sum of Officer Salary Savings and Enlisted Salary Savings (all described elsewhere in this manual).

### **Miscellaneous Recurring Costs [Overhead]**

An installation's Miscellaneous Recurring Costs is the Misc Recur Cost in Screen Five – Base Information (Dynamic).

### **Miscellaneous Recurring Net Costs [Overhead]**

The Miscellaneous Recurring Net Costs for an installation is the Miscellaneous Recurring Costs minus the Miscellaneous Recurring Savings.

### **Miscellaneous Recurring Savings [Overhead]**

An installation's Miscellaneous Recurring Savings is the Misc Recur Save in Screen Five – Base Information (Dynamic).

### **Mission Contract Start Cost**

An installation's Mission Contract Start Cost is the Mission Contract Start Cost in Screen Five – Base Information (Dynamic).

### **Mission Contract Termination Costs**

An installation's Mission Contract Termination Cost is the Mission Contract Termination Cost in Screen Five – Base Information (Dynamic).

### **Mission Costs, Savings and Net Costs**

The Mission Costs for an installation are the Activity Mission Costs plus the Mission Contract Start Cost plus the Mission Contract Termination Cost (all in Screen Five – Base Information (Dynamic)). The Mission Savings are the Activity Mission Savings in Screen Five – Base Information (Dynamic). The Net Mission Costs are the Mission Costs minus the Mission Savings. Note that year 6 values for Activity Mission Costs/Savings recur into the Beyond years, but Contract Start/Termination Costs do not.

### **Mothball Costs [Overhead]**

The Mothball Costs for a non-Unique installation in a year is the Total Mothball Cost times that year's Shut Down Time-Phasing.

Total Mothball Cost is either Mothball (Closure) Cost or Mothball (Deactivation/ Realignment) Cost (from Standard Factors – Facilities Tab) times the Facilities Shut Down (in Screen Five – Base Information (Dynamic)). Whether a base is closing, realigning, or deactivating is specified in Screen One – General Scenario)

### **Net Present Value**

The Net Present Value in a year is equal to the NPV Adjusted Cost of that year plus the Net Present Value of the previous year. The Summary Report displays the Net Present Value for Year 20, and the Net Present Value Report will calculate Net Present Value for at least twenty years (if Payback Year is greater than Year 20 but not 'NEVER', then the Net Present Value Report will display Net Present Value up to Payback Year or Year 100, whichever comes first).

### **Officer Move Savings [Moving]**

Officer Moving Savings for an installation is the number of Officers Realigning More Than 50 Miles (Realignments are in Screen Three – Movement Table, Distances in Screen Two – Distance Table) times the One Time Officer PCS Costs divided by the Average Tour Length (both in Standard Factors – Transportation Tab).

### **Officer Salary Costs [Personnel]**

The Officer Salary Costs for an installation in a year is one-half of the Officer Sal Costs for that year, plus the full Officers Sal Costs of all previous years.

Officer Sal Costs in a year are the number of Officers Added in that year (Officer Scenario Position Changes in Screen Six – Base Information (Personnel), when Officer Scenario Position Changes is greater than zero) times the Average Officer Salary in Standard Factors – Personnel Tab).

Beyond-Year Officer Salary Costs is the sum of all full Officer Sal Costs for all six years.

**EQUATIONS:**

Officers Added = Officer Scenario Position Changes, when Officer Scenario Position Changes > 0

Officer Sal Cost = Officers Added \* Average Officer Salary

Officer Salary Costs =  
1/2 (Current Year Officer Sal Costs)  
+ S (Previous Years' Officer Sal Costs)

**Officer Salary Savings [Personnel]**

The Officer Salary Savings for an installation in a year is one-half of the Officer Sal Savings for that year, plus the full Officers Sal Savings of all previous years.

Officer Sal Savings in a year are the number of Officers Eliminated in that year (the absolute value of Officer Scenario Position Changes in Screen Six – Base Information (Personnel), when Officer Scenario Position Changes is less than zero) times the Average Officer Salary from Standard Factors – Personnel Tab).

Beyond-Year Officer Salary Savings is the sum of all full Officer Sal Savings for all six years.

**EQUATIONS:**

Officers Eliminated = [Officer Scenario Position Changes], when Officer Scenario Position Changes < 0

Officer Sal Savings = Officers Eliminated \* Average Officer Salary

Officer Salary Savings = 1/2 (Current Year Officer Sal Savings)  
+ S (Previous Years' Officer Sal Savings)

**One-Time Moving Costs [Moving]**

An installation's One-Time Moving Costs is the One-Time Move Cost in Screen Five – Base Information (Dynamic).

**One-Time Moving Savings [Moving]**

An installation's One-Time Move Savings is the One-Time Move Save from Screen Five – Base Information (Dynamic)..

**One-Time Other Costs [Other]**

An installation's One-Time Other Costs is the One-Time Unique Cost in Screen Five – Base

Information (Dynamic).

### **One-Time Other Net Costs [Other]**

The One-Time Other Net Costs for an installation is the One-Time Other Costs minus the One-Time Other Savings.

### **One-Time Other Savings [Other]**

The One-Time Other Savings for an installation is the One-Time Unique Save entered in Screen Five – Base Information (Dynamic).

### **Other Operations And Maintenance Net Costs [Moving/Overhead/Personnel]**

Other Operations And Maintenance Costs are Civilian Unemployment Cost plus Program Planning Cost plus Mothball Costs plus One-Time Moving Costs minus One-Time Moving Savings.

### **Packing/Unpacking Costs [Moving]**

The Packing/Unpacking Costs for an installation is Military Packing/Unpacking Costs plus Civilian Packing/Unpacking Costs. The Military Packing/Unpacking Costs are the total number of Officers, Enlisted Personnel, and Military Students Realigning (Realignments are in Screen Three – Movement Table) times the Material Per Assigned Person times the HHG Cost (both on Standard Factors – Transportation Tab). The Civilian Packing/Unpacking Costs are the Total Civilian Personnel Moved times the Material Per Assigned Person times the HHG Cost.

## **Payback Year**

The Payback Year is the year where Net Present Value is less than zero, and the previous year's Net Present Value was greater than or equal to zero (for Year 1, the previous year is assumed to be zero). If this occurs more than once, then the last time that it occurs is the Payback Year. The Payback Year indicates the end of the Payback Period, the amount of time (starting with the implementation of the scenario) that it takes the scenario to “pay back” the one-time costs required to implement it.

If a Payback Year has not occurred yet after one hundred years, there are two possibilities. If Beyond-Year Total Realignment Net Cost is greater than or equal to zero, then Payback Year/Period is 'NEVER', otherwise it's '100+ Years'. If the Payback Year occurs before Scenario Final Year, then the Payback Year/Period is 'IMMEDIATE'.

The Payback Year is displayed both as a Fiscal Year and as the number of years after Scenario Final Year that it occurs, unless the Payback Year/Period is 'IMMEDIATE' or 'NEVER'.

## **Percentage of Personnel Moved In**

The Percentage of Personnel Moved In for an installation is the Total Personnel Realigned into that base in a year divided by the Total Personnel Realigned into the base in all years.

## **Percentage of Personnel Moved Out/Eliminated**

The Percentage of Personnel Moved Out/Eliminated for an installation is the Total Personnel Realigned/Eliminated from a base in a year divided by the Total Personnel Realigned/ Eliminated from the base in all years.

## **Procurement Avoidance Savings [Other]**

The Procurement Avoidance Savings for an installation are the Procurement Avoidances entered in Screen Five – Base Information (Dynamic). Note that the year 6 value recurs into the Beyond years.

**Program Management Costs [Overhead]**

For each installation, the Year 1 Program Management Cost is equal to the sum of the BOS Payroll and BOS Non-Payroll (both in Screen Four – Base Information (Static)), times the Program Management Factor (in Standard Factors – Facilities Tab) times the Percentage of Base Population Moved Out/Eliminated. The Program Management Cost for each subsequent year is 75% of the previous year, calculated through base's Scenario Last Year. Note that if no personnel are realigned out or eliminated from an installation, then Program Management Costs will be zero.

The Percentage of Base Population Moved Out/Eliminated is the sum of all realignments out and eliminations, divided by the sum of the total officers, enlisted, civilians, and students in Screen Four – Base Information (Static).

**EQUATIONS:**

$$\text{Program Management (Year 1)} = (\text{BOS Pay} + \text{BOS Non-Pay}) \\ * (\text{Program Management Factor}) * (\% \text{ Population Moved/Elim})$$

$$\% \text{ Population Moved/Elim} = \frac{(\text{All Realignments Out} + \text{Eliminations})}{\text{Starting Population}}$$

$$\text{Starting Population} = \text{Total Off} + \text{Enl} + \text{Civ} + \text{Stu}$$

## Recapitalization Cost and Savings[Overhead]

Recapitalization Savings will be realized at each installation which is closing, deactivating, or downsizing.

At a closing or deactivating base, Recapitalization Savings for all years is equal to the base's Installation PRV divided by the Service Recapitalization Rate (Screen Four – Base Information (Static)).

At a downsizing base (defined as one with a positive value for Facilities Shutdown in Screen Five – Base Information (Dynamic)), Recapitalization Savings in a given year is equal to the quotient of the base's Installation PRV divided by the Service Recapitalization Rate (Screen Four – Base Information (Static)), times the quotient of the Facilities Shutdown (Screen Five – Base Information (Dynamic)) divided by the Starting Facilities (Screen Four – Base Information (Static)), times the Shutdown Cumulative Time Phasing. The year 6 value recurs throughout the Beyond years.

Recapitalization Costs will be realized at each base with new construction, and also at deactivating bases where an Enclave is defined.

Recapitalization Cost in a given year for new construction is equal to sum, for all projects, of the New Milcon Cost for each project (where Total Cost in Screen Seven – Base Information (Military Construction) is zero; see Military Construction Costs) or the Total Cost for each project (Screen Seven – Base Information (Military Construction), where Total Cost is greater than zero) divided by the Service Recapitalization Rate (Screen Four – Base Information (Static)) times the Milcon Cumulative Time Phasing. The year six value recurs throughout the Beyond Years.

At a deactivating base with an Enclave defined (Screen Eight – Base Information (Enclave)), Recapitalization Cost is equal to the sum, for all projects, of Quantity times Area Cost Factor (Screen Four – Base Information (Static)) \* (1 + SIOH Rate) \* (1 + Contingency Rate) \* (1 + Design Rate) \* the FAC's Construction Cost Factor plus the product of the Quantity times the Site Prep Cost (for "SF" projects only); all divided by the Service Recap Rate (Screen Four – Base Information (Static)). All MilCon Rates are in Standard Factors – Facilities Tab. Note that if the FAC begins with "5", the Design Rate (Medical) is used, otherwise the Design Rate (Other) is used. Note that the Recapitalization Cost for an Enclave is only incurred in the Beyond years.

## Scenario Final Year

The Scenario Final Year is the last year that personnel or equipment are moved, or the highest Close/Deactivate Year, whichever comes last (Personnel and Equipment movement is in Screen Three – Movement Table, Eliminations in Screen Six – Base Information (Personnel), and Close/Deactivate Year in Screen One – General Scenario). The Scenario Final Year for an individual base is the last year that personnel or equipment are moved into or out of the base, or the Close/Deactivate Year (if non-zero), whichever comes last. If a base's Close/Deactivate Year is equal to zero and no personnel or equipment move into or out of the base, then the base's Scenario Final Year is equal to 1.

## Shutdown Cumulative Time-Phasing

Shutdown Cumulative Time Phasing for a year is equal to the sum of the Shutdown Time-

Phasing for that year and all previous years (for example: Year 1 Shutdown Cumulative Time-Phasing is equal to the Year 1 Shutdown Time-Phasing; but Year 3 Shutdown Cumulative Time-Phasing is equal to the sum of Shutdown Time-Phasing for years 1 through 3).

### **Shut Down Half-Year Time-Phasing**

Shut Down Half-Year Time Phasing for a year is equal to half of that year's Shut Down Time-Phasing plus the sum of the Shut Down Time-Phasing for all previous years (for example: Year 1 Shut Down Half Year Time-Phasing is equal to half of the Year 1 Shut Down Time-Phasing; but Year 3 Shut Down Half Year Time-Phasing is equal to half of the Year 3 Shut Down Time-Phasing plus the sum of Shut Down Time-Phasing for years 1 through 2).

### **Shut Down Time-Phasing**

If Auto-Time Phase in Screen One – General Scenario is disabled, then Shut Down Time-Phasing for a Base is equal to the values entered for Shutdown Schedule in Screen Five – Base Information (Dynamic); otherwise, it is calculated as follows:

If Total Personnel Realignments/Eliminations for the base is zero, then Shut Down Time-Phasing for each year up to the base's Scenario Last Year is one divided by the Scenario Last Year of the base (for example: if the Scenario Last Year for the base is year 5, then Shut Down Time-Phasing for years 1 through 5 is 1/5, or 20.00%). If the base has no Scenario Last Year (no realignments or eliminations; neither closing nor deactivating), then Shut Down Time-Phasing for all six years is 1/6, or 16.67%.

If Total Personnel Realignments/Eliminations for the base is greater than zero, then Shut Down Time-Phasing for each year is equal to the Percentage of Personnel Moved Out/Eliminated for that years.

### **Starting Civilians**

Starting Civilians is the Total Civilians on Base in Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Civilian Changes in Screen Six – Base Information (Personnel).

### **Starting Enlisted**

Starting Enlisted is the Total Enlisted Personnel on Base in Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Enlisted Changes in Screen Six – Base Information (Personnel).

### **Starting Officers**

Starting Officers is the Total Officers on Base in Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Officer Changes in Screen Six – Base Information (Personnel).

### **Starting Students**

Starting Students is the Total Military Students on Base in Screen Four – Base Information (Static) plus the sum of all Programmed Installation Population Student Changes in Screen Six – Base Information (Personnel).

### **Subtotal Personnel Realigned**

Subtotal Personnel Realigned is the total of Officer Position Realignments, Enlisted Position Realignments, Civilian Position Realignments, and Student Position Realignments from one base to another (Screen Three – Movement Table).

### **Support Contract Costs**

An installation's Support Contract Costs are the Support Contract Termination Costs in Screen Five – Base Information (Dynamic).

## **Sustainment Costs, Savings, and Net Costs [Overhead]**

The Sustainment Non-Payroll Budget for a base is defined as the Total Sustainment Budget minus the Sustainment Payroll Budget (both in Screen Four – Base Information (Static)), and the Non-Payroll Factor is defined as the Sustainment Non-Payroll Budget divided by the Total Sustainment Budget.

Sustainment Savings will be realized at each installation which is closing, deactivating, or downsizing.

At a closing or deactivating base, Sustainment Savings from the base's Close Year (Screen One – General Scenario) through 2011 are equal to the 85% of the base's Sustainment Non-Payroll Budget. After 2011, recurring through the Beyond years, the Sustainment Savings are equal to the base's entire Sustainment Non-Payroll Budget.

At a downsizing base (defined as one with a positive value for Facilities Shutdown in Screen Five – Base Information (Dynamic)), Sustainment Savings in a given year are equal to the quotient of the Facilities Shutdown (Screen Five – Base Information (Dynamic)) divided by the Starting Facilities (Screen Four – Base Information (Static)), times the Sustainment Non-Payroll Budget times the Shutdown Cumulative Time Phasing. The year 6 value recurs throughout the Beyond years. Note that a downsizing base can never save more than 85% of its Sustainment Non-Payroll Budget.

Sustainment Costs will be realized at each base with new construction, and also at deactivating bases where an Enclave is defined.

Sustainment Cost in a given year for new construction is equal to sum, for all projects, of New MilCon (Screen Seven – Base Information (Military Construction)) times the Area Cost Factor (Screen Four – Base Information (Static)) times the Cumulative Milcon Percentage times the SSR (Standard Factors – Facilities Tab; the Base Service in Screen Four – Base Information (Static) determines which SSR value to use) times the FAC's Sustainment Cost Factor times the Non-Payroll Factor. The year 6 value recurs into the Beyond years.

At a deactivating base with an Enclave defined (Screen Eight – Base Information (Enclave)), Recapitalization Cost is equal to the sum, for all projects, of Quantity (Screen Eight – Base Information (Enclave)) times the Area Cost Factor (Screen Four – Base Information (Static)) times the SSR (Standard Factors – Facilities Tab; the Base Service in Screen Four – Base Information (Static) determines which SSR value to use) times the FAC's Sustainment Cost Factor times the Non-Payroll Factor. Note that the Sustainment Cost for an Enclave is only incurred in the Beyond years.

## **Total Costs**

The Total Costs for an installation are the sum of the Total One-Time Costs plus the Total Recurring Costs.

### **Total One-Time Costs**

The Total One-Time Costs for an installation are the total of Military Construction Costs, Civilian RIF Costs, Civilian Retirement Costs, Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Household Goods Cost, Civilian Miscellaneous Moving Cost, Civilian House Hunting Cost, Civilian Priority Placement Program Cost, Civilian RITA Cost, Packing/Unpacking Costs, Freight Shipping Costs, Vehicle Shipping Costs, Civilian Unemployment Costs, Information Technology Costs, Program Planning Cost, Support Contract Costs, Mothball Costs, One-Time Moving Costs, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Military Household Goods Cost, Military Miscellaneous Moving Cost, Military Eliminated PCS Costs, Homeowners Assistance Program/Relocation Service Entitlement Costs, Environmental Costs, Mission Contract Costs, and One-Time Other Costs.

The Summary report displays one Total One-Time Costs value for all bases in all years.

### **Total One-Time Net Costs**

The Total One-Time Net Costs for an installation are the Total One-Time Costs minus the Total One-Time Savings.

### **Total One-Time Savings**

The Total One-Time Savings of an installation are the total of Military Construction Savings, One-Time Moving Savings, Military Move Savings, Environmental Savings, and One-Time Other Savings.

### **Total Recurring Costs**

The Total Recurring Costs of an installation are the total of Sustainment Costs, Recapitalization Costs, BOS Costs, Civilian Salary Costs, TRICARE Costs, Officer Salary Costs, Enlisted Salary Costs, Housing Allowance Costs, Mission Costs, and Miscellaneous Recurring Costs.

### **Total Recurring Net Costs**

The Total Recurring Net Costs of an installation are the Total Recurring Costs minus the Total Recurring Savings.

### **Total Recurring Savings**

The Total Recurring Savings of an installation are the total of Family Housing Operations Savings, Sustainment Savings, Recapitalization Savings, BOS Savings, Civilian Salary Savings, Officer Salary Savings, Enlisted Salary Savings, Housing Allowance Savings, Procurement Avoidance Savings, Mission Savings, and Miscellaneous Recurring Savings.

### **Total Net Costs**

The Total Net Costs for an installation are the Total One-time Net Costs plus the Total Recurring Net Costs.

### **Total Savings**

The Total Savings of an installation are the sum of the Total One-Time Savings and the Total Recurring Savings.

### **Total Civilian Early Retirements**

Total Civilian Early Retirements is the sum of Impact Realignment Early Retire and Impact Elimination Early Retire.

### **Total Civilian Moving One-Time Costs**

The Total Civilian Moving One-Time Costs are the sum of Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Household Goods Cost, Civilian Miscellaneous Moving Cost, Information Technology Costs, Civilian House Hunting Cost, and Civilian RITA Cost (all described elsewhere).

### **Total Civilian New Hires**

Total Civilian New Hires is equal to Impact Realignment Additions plus Impact Realignment Hire.

### **Total Civilian Personnel Moved**

Total Civilian Personnel Moved is equal to the sum of Impact Realignment Moved Out and Impact Elimination Moved Out.

### **Total Civilian Position Realignment**

Total Civilian Position Realignments is the total of all Civilian Position Realignments (Screen Three – Movement Table) either into or out of a Base.

### **Total Civilian Priority Placements**

Total Civilian Priority Placements is equal to Impact Elimination PPP.

### **Total Civilian RIFs**

Total Civilian RIFs is the sum of Impact Realignment Not Move, Impact Elimination Not Move, and Impact Elimination RIE.

### **Total Eliminated Civilian Positions**

Total Eliminated Civilian Positions is the absolute value of the sum of all Civilian Scenario Position Changes where Civilian Scenario Position Changes is less than zero.

### **Total Eliminated Enlisted Positions**

Total Eliminated Enlisted Positions is the absolute value of the sum of all Enlisted Scenario Position Changes where Enlisted Scenario Position Changes is less than zero.

### **Total Eliminated Officer Positions**

Total Eliminated Officer Positions is the absolute value of the sum of all Officer Scenario Position Changes where Officer Scenario Position Changes is less than zero.

### **Total Eliminated Positions**

Total Eliminated Positions is the sum of Total Eliminated Officer Positions, Total Eliminated Enlisted Positions, and Total Eliminated Civilian Positions.

### **Total Enlisted Position Realignments**

Total Enlisted Position Realignments is the total of all Enlisted Position Realignments (Screen Three – Movement Table) either into or out of a Base.

### **Total Programmed Installation Population Changes**

The Total Programmed Installation Population Changes is the sum of Programmed Installation Population Officer Changes, Programmed Installation Population Enlisted Changes, Programmed Installation Population Changes, and Programmed Installation Population Student Changes in Screen Six – Base Information (Personnel).

### **Total Freight One-Time Costs**

Total Freight One-Time Costs are the sum of Packing/ Unpacking Costs, Freight Shipping Costs, and Vehicle Shipping Costs.

### **Total Military Construction Costs**

The Total Military Construction Costs is the sum for all installations of all costs identified in this manual as [MilCon]. They are: Family Housing Rehabilitation Costs, and Military Construction Costs. This is a one-time cost with no recurring Beyond-Year value.

### **Total Military Construction Net Costs**

The Total Military Construction Net Costs is the Total Military Construction Costs minus the Total Military Construction Savings [see above], or the sum for all installations of Family Housing Rehabilitation Net Costs, and Military Construction Net Costs. This is a one-time net cost with no recurring Beyond-Year value.

### **Total Military Construction Project Costs**

Total Military Construction Project Costs is the sum of Military Construction Costs and Family Housing Rehabilitation Costs.

### **Total Military Construction Savings**

The Total Military Construction Savings is the sum for all installations of all savings identified in this manual as [MilCon]. They are: Family Housing Construction Savings and New Mission Military Construction Savings. This is a one-time savings with no recurring Beyond-Year value.

### **Total Military Moving One-Time Costs**

Total Military Moving One-Time Costs are the sum of Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Military Household Goods Cost, and Military Miscellaneous Moving Cost.

### **Total Mission Costs**

The Total Mission Costs is the sum for all installations of Mission Costs [see Mission Costs, Savings, and Net Costs].

### **Total Mission Net Costs**

The Total Mission Net Costs is the Total Mission Costs minus the Total Mission Savings, or the sum for all installations of Mission Net Costs (see Mission Costs, Savings, and Net Costs).

### **Total Mission Savings**

The Total Mission Savings is the sum for all installations of Mission Savings [see Mission Costs, Savings, and Net Costs].

### **Total Moving Costs**

The Total Moving Costs is the sum for all installations of all costs identified in this manual as [Moving]. They are: Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Household Goods Cost, Civilian Miscellaneous Moving Cost, Civilian House Hunting Cost, Civilian Priority Placement Program Cost, Civilian RITA Cost, Packing/Unpacking Costs, Freight Shipping Costs, Vehicle Shipping Costs, One-Time Moving Costs, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Military Household Goods Cost, IT Connection Costs, and Military Miscellaneous Moving Cost. This is a one-time cost with no recurring Beyond-Year value.

### **Total Moving Net Costs**

The Total Moving Net Costs is the Total Moving Costs minus the Total Moving Savings, or the sum for all installations of Civilian Per Diem Cost, Civilian Personally Owned Vehicle Mileage Cost, Civilian House Purchasing Cost, Civilian Household Goods Cost, Civilian Miscellaneous Moving Cost, Civilian House Hunting Cost, Civilian Priority Placement Program Cost, Civilian RITA Cost, Packing/Unpacking Costs, Freight Shipping Costs, Vehicle Shipping Costs, One-Time Moving Costs, Military Per Diem Cost, Military Personally Owned Vehicle Mileage Cost, Military Household Goods Cost, IT Connection Costs, and Military Miscellaneous Moving Cost minus the sum of One-Time Moving Savings and Military Move Savings. This is a one-time net cost with no recurring Beyond-Year value.

### **Total Moving Savings**

The Total Moving Savings is the sum for all installations of all savings identified in this manual as [Moving]. They are One-Time Moving Savings and Military Move Savings. This is a one-time savings with no recurring Beyond-Year value.

### **Total Officer Position Realignments**

Total Officer Position Realignments is the total of all Officer Position Realignments (Screen Three – Movement Table) either into or out of a Base.

### **Total Other Costs**

The Total Other Costs is the sum for all installations of all costs identified in this manual as [Other]. They are: TRICARE Cost, Environmental Costs, Homeowner's Assistance Program/Relocation Service Entitlement Cost, and One-Time Other Costs.

Beyond-Year Total Other Cost is equal to the TRICARE Beyond-Year Costs (the others are all one-time costs).

### **Total Other Net Costs**

The Total Other Net Costs is the Total Other Costs minus the Total Other Savings [see above], or the sum for all installations of TRICARE Net Cost (see TRICARE Costs, Savings, and Net Costs), Environmental Net Costs, Homeowner's Assistance Program/Relocation Service Entitlement Cost, and One-Time Other Net Costs minus Procurement Avoidance Savings.

Beyond-Year Total Other Net Costs is the TRICARE Beyond-Year Net Costs minus Procurement Avoidance Beyond-Year Savings (the others are all one-time costs).

### **Total Other One-Time Costs**

The Total Overhead One-Time Costs is the sum of Homeowners Assistance

Program/Relocations Service Entitlement Costs, Environmental Costs, and One-Time Other Costs (described elsewhere).

### **Total Other Savings**

The Total Other Savings is the sum for all installations of all savings identified in this manual as [Other]. They are: TRICARE Savings, Environmental Savings, Procurement Avoidance Savings, and One-Time Other Savings.

Beyond-Year Total Other Savings is the sum of TRICARE Beyond-Year Savings and Procurement Avoidance Beyond-Year Savings (the others are all one-time costs).

### **Total Overhead Costs**

The Total Overhead Costs is the sum for all installations of all costs identified in this manual as [Overhead]. They are: Program Management Costs, Mothball Costs, Family Housing Operations Costs, Sustainment Costs (see Sustainment Costs, Savings, and Net Costs), BOS Costs (see BOS Costs, Savings, and Net Costs), Recapitalization Costs, and Miscellaneous Recurring Costs.

The Beyond-Year Total Overhead Costs is the sum for all installations of the Beyond-Year Family Housing Operations Costs, Sustainment Costs (see Sustainment Costs, Savings, and Net Costs), Recapitalization Costs, BOS Costs (see BOS Costs, Savings, and Net Costs), and Miscellaneous Recurring Costs. Program Planning Costs and Mothball Costs do not have Beyond-Year values.

### **Total Overhead Net Costs**

The Total Overhead Net Costs is the Total Overhead Costs minus the Total Overhead Savings [see above], or the sum for all installations of Program Planning Costs, Mothball Costs, Family Housing Operations Net Costs, Sustainment Net Costs (see Sustainment Costs, Savings, and Net Costs), Recapitalization Net Costs, BOS Net Costs (see BOS Costs, Savings, and Net Costs), and Miscellaneous Recurring Net Costs.

The Beyond-Year Total Overhead Net Costs is the sum for all installations of the Beyond-Year Family Housing Operations Net Costs, Sustainment Net Costs (see Sustainment Costs, Savings, and Net Costs), Recapitalization Net Costs, BOS Net Costs (see BOS Costs, Savings, and Net Costs), and Miscellaneous Recurring Net Costs. Program Planning Costs and Mothball Costs do not have Beyond-Year values.

### **Total Overhead One-Time Costs**

The Total Overhead One-Time Costs is the sum of Program Planning Costs and Mothball Costs.

## **Total Overhead Savings**

The Total Overhead Savings is the sum for all installations of all savings identified in this manual as [Overhead]. They are: Family Housing Operations Savings, Sustainment Savings (see Sustainment Costs, Savings, and Net Costs), Recapitalization Savings, BOS Savings (see BOS Costs, Savings, and Net Costs), and Miscellaneous Recurring Savings. All of these savings have Beyond-Year values.

## **Total Personnel Costs**

The Total Personnel Costs is the sum for all installations of all costs identified in this manual as [Personnel]. They are: Housing Allowance Costs (see Housing Allowance Costs, Savings, and Net Costs), Civilian Retirement Costs, Civilian RIF Costs, Military Eliminated PCS Costs, Civilian Unemployment Costs, Officer Salary Costs, Enlisted Salary Costs, and Civilian Salary Costs.

The Total Personnel Costs for the Beyond Years is the sum for all installations of Beyond-Year Housing Allowance Costs, Officer Salary Costs, Enlisted Salary Costs, and Civilian Salary Costs. All other costs are one-time costs.

## **Total Personnel Net Costs**

The Total Personnel Net Costs is the Total Personnel Costs minus the Total Personnel Savings [see above], or the sum for all installations of Housing Allowance Net Costs (see Housing Allowance Costs, Savings, and Net Costs), Civilian Retirement/RIF Net Costs, Military Eliminated PCS Costs, Civilian Unemployment Costs, Military Salary Net Costs, and Civilian Salary Net Costs.

The Total Personnel Net Costs for the Beyond Years is the sum for all installations of Beyond-Year Housing Allowance Net Costs, Military Salary Net Costs, and Civilian Salary Net Costs. All other net costs are one-time net costs.

## **Total Personnel One-Time Costs**

The Total Personnel Costs is the sum of all one-time costs identified in this manual as [Personnel]. They are: Civilian Retirement Costs, Civilian RIF Costs, Military Eliminated PCS Costs, and Civilian Unemployment Costs.

## **Total Personnel Realigned**

Total Personnel Realigned is the total of all Officer Position Realignments, Enlisted Position Realignments, Civilian Position Realignments, and Student Position Realignments either into or out of a base (Screen Three – Movement Table).

## **Total Personnel Realigned/Eliminated**

Total Personnel Realigned/Eliminated is the total of all Officer Position Realignments, Enlisted Position Realignments, Civilian Position Realignments, and Student Position Realignments out of a base (in Screen Three – Movement Table) plus the absolute value of the sum of all Officer Scenario Position Changes, Enlisted Scenario Position Changes, and Civilian Scenario Position Changes (in Screen Six – Base Information (Personnel)) where the Position Changes are less than zero.

### **Total Personnel Savings**

The Total Personnel Savings is the sum for all installations of all savings identified in this manual as [Personnel]. They are: Housing Allowance Savings (see Housing Allowance Costs, Savings, and Net Costs), Officer Salary Costs, Enlisted Salary Costs, and Civilian Salary Costs. All of these savings have Beyond-Year values.

### **Total Realigned Civilian Positions**

Total Realigned Civilian Positions is the sum of all Civilian Positions Realigned fields (Screen Three – Movement Table) for all base pairs.

### **Total Realigned Enlisted Positions**

Total Realigned Enlisted Positions is the sum of all Enlisted Positions Realigned fields (Screen Three – Movement Table) for all base pairs.

### **Total Realigned Officer Positions**

Total Realigned Officer Positions is the sum of all Officer Positions Realigned fields (Screen Three – Movement Table) for all base pairs.

## **Total Realigned Positions**

Total Realigned Positions is the sum of Total Realigned Officer Positions, Total Realigned Enlisted Positions, Total Realigned Student Positions, and Total Realigned Civilian Positions.

## **Total Realigned Student Positions**

Total Realigned Student Positions is the sum of all Student Positions Realigned fields (Screen Three – Movement Table) for all base pairs.

## **Total Realignment Costs**

The Total Realignment Costs is the sum of Total Military Construction Costs, Total Personnel Costs, Total Overhead Costs, Total Moving Costs, Total Mission Costs, and Total Other Costs. This will be equal to Total Costs.

## **Total Realignment Net Costs**

The Total Realignment Net Costs is the Total Realignment Costs minus the Total Realignment Savings, or the sum of Total Military Construction Net Costs, Total Personnel Net Costs, Total Overhead Net Costs, Total Moving Net Costs, Total Mission Net Costs, and Total Other Net Costs. This will be equal to Total Net Costs.

## **Total Realignment Savings**

The Total Realignment Savings is the sum of Total Military Construction Savings, Total Personnel Savings, Total Overhead Savings, Total Moving Savings, Total Mission Savings, and Total Other Savings. This will be equal to Total Savings.

## **Total Sustainment/Recap/BOS Net Costs**

Total Sustainment/BOS Net Costs are the total of Sustainment Net Costs (see Sustainment Costs, Savings, and Net Costs), Recapitalization Net Costs (see Recapitalization Costs and Savings), BOS Net Costs (see BOS Costs, Savings, and Net Costs), and Family Housing Operations Net Costs.

## **Total Scenario Position Changes**

The Total Scenario Position Changes is the sum of Officer Scenario Position Changes, Enlisted Scenario Position Changes, Civilian Scenario Position Changes, and Student Scenario Position Changes in Screen Six – Base Information (Personnel).

## **Total Student Position Realignments**

Total Student Position Realignments is the total of all Student Position Realignments (Screen Three – Movement Table) either into or out of a Base.

## **TRICARE Costs [Other]**

TRICARE Costs for a base when the Medical Treatment Facility (MTF) is closing, or eliminating in-patient care, are equal to the number of Inpatient Admissions Retiree Claims (Screen Four – Base Information (Static)) times the Inpatient Admissions Cost Factor (Screen Four – Base Information (Static)) (inpatient services or MTF closes) plus the number of Outpatient Visits Retiree Claims (Screen Four – Base Information (Static)) times the Outpatient Visits Cost Factor (Screen Four – Base Information (Static)) (MTF closes) plus number or Prescription Retiree Claims (Screen Four – Base Information (Static)) times the Prescriptions Cost Factor (Screen Four – Base Information (Static)) (MTF closes) plus 20 percent of the number of Inpatient Admissions 65 and Older Retiree Claims (Screen Four – Base Information (Static)) times the Inpatient Admissions Cost Factor (Screen Four – Base Information (Static)) (inpatient or MTF closes) plus 20% of the number of Outpatient Visits 65 and Older Retiree Claims (Screen Four – Base Information (Static)) times the Outpatient Visits Cost Factor (Screen Four – Base Information (Static)) (MTF closes), plus the number of Prescription 65 and Older Retiree Claims (Screen Four – Base Information (Static)) times the Prescriptions Cost Factor (Screen Four - Base Information (Static)) (MTF closes).

TRICARE Costs at a receiving installation are equal to the Total Military Realigned into the installation divided by the Total Military Population at the losing installation, times the sum of:

The number of In-Patient Admissions Active Duty Purchases (losing installation) (Screen Four – Base Information (Static)) times the Inpatient Admission Cost Factor (gaining installation) (Screen Four – Base Information (Static)) plus the number of Outpatient Visits Active Duty Purchases (losing installation) (Screen Four – Base Information (Static)) times the Outpatient Visits Cost Factor (gaining installation) (Screen Four – Base Information (Static))

And

The number of Inpatient Admissions Active Duty Purchases (losing installation) (Screen Four – Base Information (Static)) times the Inpatient Admissions Cost Factor (gaining installation) (Screen Four – Base Information (Static)) minus the Inpatient Admissions Cost Factor (losing installation) (Screen Four – Base Information (Static)).

And

The number of Outpatient Visits Active Duty Purchases (losing installation) (Screen Four – Base Information (Static)) times the Outpatient Visit Cost Factor (gaining installation) (Screen Four – Base Information (Static)) minus the Outpatient Visit Cost Factor (losing installation) (Screen Four – Base Information (Static)).

#### EQUATIONS:

Losing Installation:

$$\text{TRICARE Cost}_{\text{close inpatient}} = N_{RI} \times C_I + .2( N_{R65I} \times C_I)$$

$$\text{TRICARE Cost}_{\text{close MTF}} = N_{RI} \times C_I + N_{RO} \times C_O + N_{RP} \times C_P + .2( N_{R65I} \times C_I + N_{R65O} \times C_O) + N_{R65P} \times C_P$$

Gaining Installation:

$$\text{TRICARE Cost} = (\text{Tot Mil In}/\text{Total Mil Pop}_{\text{Losing}}) \times ((N_{AI} \times C_{IG} + N_{AO} \times C_{OG}) + (N_{AIP})(C_{IG} - C_{IL}) + (N_{AOP})(C_{OG} - C_{OL}))$$

Where

- $C_{IG}$  – gaining installation Inpatient Admissions Cost Factor
- $C_{OG}$  - gaining installation Outpatient Visits Cost Factor
- $C_{PG}$  - gaining installation Prescription Cost Factor
- $C_{IL}$  - losing installation Inpatient Admissions Cost Factor
- $C_{OL}$  - losing installation Outpatient Visits Cost Factor
- $C_{PL}$  - losing installation Prescription Cost Factor
- $N_{AI}$  - number of Inpatient Admissions Active Duty MTE
- $N_{AO}$  - number of Outpatient Visits Active Duty MTE
- $N_{AP}$  – number of Prescriptions Active Duty MTE
- $N_{RI}$  - number of Inpatient Admissions Retiree Claims
- $N_{AIP}$  - number of Inpatient Admissions Active Duty Purchases
- $N_{AOP}$  - number of Outpatient Visits Active Duty Purchases
- $N_{RO}$  – number of Outpatient Visits Retiree Claims
- $N_{RP}$  - number of Prescriptions Retiree Claims
- $N_{R65I}$  - number of Inpatient Admissions 65 and Older Retiree Claims
- $N_{R65O}$  - number of Outpatient Visits 65 and Older Retiree Claims
- $N_{R65P}$  - number of Prescriptions 65 and Older Retiree Claims

### **Vehicle Shipping Costs [Moving]**

The Vehicle Shipping Costs are the sum of the Total Military Light Vehicles Moved (Screen Three – Movement Table) divided by two times the Vehicle Shipping Cost (\$/Lift/Mile, Screen Four – Base Information (Static), receiving installation) times the Distance (miles) between bases plus Total Military Heavy/Special Vehicles (Screen Three – Movement Table) times the Vehicle Shipping Cost (\$/Lift/Mile, Screen Four – Base Information (Static), receiving installation) times the Distance (miles) between bases. Since distances vary, Vehicle Shipping Cost is calculated separately for each receiving base, then added together.

#### **EQUATIONS:**

$$\begin{aligned} \text{Vehicle Ship Cost} = & (\text{Total Mil Lt Veh}/2) \times \text{Veh Ship Cost} \times \text{Distance} \\ & + \text{Tot Mil Hvy Veh} \times \text{Veh Ship Cost} \times \text{Distance} \end{aligned}$$

## APPENDIX A – TABLE OF ACRONYMS

Acronym	Meaning	Acronym	Meaning
\$K	Thousands of Dollars	PCS	Permanent Change of Station
BAH	Basic Allowance for Housing	POV	Privately Owned Vehicle
BOS	Base Operations Support	PPP	Priority Placement Program
DA	Department of the Army	PRV	Plant Replacement Value
DOD	Department of Defense	RIF	Reduction In Force
FAC	Facility Analysis Category	RITA	Relocation Income Tax Allowance
FH	Family Housing	ROI	Return on Investment
FY	Fiscal Year	RSE	Relocation Service Entitlement
FYDP	Future Year Development Program	SF	Square Feet
GAO	General Accounting Office	SIOH	Supervision, Inspection, and Overhead
GS	General Services	TDY	Temporary Duty
HAP	Homeowners Assistance Program	UCA	Unit Cost Adjustment
HHG	Household Goods	UM	Unit of Measure
KSF	Thousands of Square Feet		
MILCON	Military Construction		
MTF	Medical Treatment Facility		
NPV	Net Present Value		