



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
DEPUTY CHIEF OF STAFF, G-8
700 ARMY PENTAGON
WASHINGTON DC 20310-0700
HSA-JCSG-D-05-489

DCN 8889

DAPR-ZB

9 August 2005

MEMORANDUM FOR OSD BRAC Clearinghouse

SUBJECT: DFAS Optimization Model Output

1. Reference verbal request from BRAC Commission staffers, Ms. M Wasleski and Mr. E Saxon, regarding DFAS Optimization Model and specific output.
2. Issues/Questions and Responses: Ms. Wasleski and Mr. Saxon requested a review of the Center for Naval Analysis (CNA) developed optimization model and runs used to determine optimal operational and facilities arrangement for DFAS. Additionally, Ms. Wasleski requested specific runs be accomplished to support Commission analysis.
3. Responses: Mr. Michael Bowes, CNA, provided requested reviews and additional optimization model runs IAW staffers' requirements. The hard copies of those runs are attached as enclosure 1.
4. Coordination: N/A

Enclosure
As stated

CARLA K. COULSON
COL, GS

Deputy, Headquarters and
Support Activities JCSG

dfas

```
#####
# Optimization Data File #
# HSA JCSG - DFAS #
# #
# Michael Bowes #
# Revised 07 Jul 2005 #
#####
```

```
#####
# DATA file #
#####
```

```
param:
Sites:
Arlington_VA__ 0.313 102979 0 Mil ATFP Cost :=
Charleston_SC_ 0.546 108580 0 1 3.8
Cleveland_OH__ 0.587 306801 0 1 29.21
Columbus_OH___ 0.688 558542 1 1 8.27
Dayton_OH_____ 0.625 81605 0 1 2.91
Denver_CO_____ 0.803 292991 1 1 9.15
Indianapolis___ 0.651 682885 0 .667 14.96
Kansas_City____ 0.451 219203 0 1 16.21
Lawton_Ft_Sill 0.787 64725 1 1 2.52
Lexington_KY___ 0.532 20056 0 1 8.74
Limestone_ME___ 0.548 68428 0 1 4.98
Norfolk_VA_____ 0.787 73144 1 1 7.47
Oakland_CA_____ 0.243 14620 0 .667 45.12
Omaha_NE_____ 0.673 63375 1 .667 4.45
Orlando_FL_____ 0.540 53211 0 1 5.75
Pacific_HI_____ 0.569 30553 1 1 7.72
Patuxent_RV____ 0.565 9553 0 1 23.66
Pensacola_NAS_ 0.720 68814 1 1 5.7
Pensacola_Sauf 0.805 48142 1 .667 7.38
Rock_Island_IL 0.846 42035 1 1 9.03
Rome_NY_____ 0.542 82736 0 1 4.26
San_Antonio_TX 0.586 64417 0 .333 18.2
San_Bernadino_ 0.429 30033 0 1 10.61
San_Diego_CA___ 0.569 46448 0 1 21.2
Seaside_CA_____ 0.433 23122 0 1 8.23
St_Louis_MO____ 0.612 78902 0 .667 15.93
;
```

```
param:
Arlington_VA__ 0 maxExp maxBuild safes keep close :=
Charleston_SC_ 0 0 375 0 0
Cleveland_OH__ 0 0 2810 0 0
Columbus_OH___ 363200 0 1024 0 0
Dayton_OH_____ 41775 0 220 0 0
Denver_CO_____ 185749 0 3827 0 0
Indianapolis___ 132078 0 18804 0 0
Kansas_City____ 0 0 539 0 0
Lawton_Ft_Sill 82741 896000 196 0 0
Lexington_KY___ 0 0 64 0 0
Limestone_ME___ 0 0 159 0 0
Norfolk_VA_____ 0 0 57 0 0
Oakland_CA_____ 0 0 16 0 0
Omaha_NE_____ 0 0 1607 0 0
Orlando_FL_____ 0 0 10 0 0
Pacific_HI_____ 0 0 443 0 0
Patuxent_RV____ 0 0 0 0 0
Pensacola_NAS_ 0 0 612 0 0
Pensacola_Sauf 0 0 19 0 0
```

```

                                dfas
Rock_Island_IL  0      0      16      0      0
Rome_NY_____ 0      0      6       0      0
San_Antonio_TX 0      0     238     0      0
San_Bernadino_ 0      0      23      0      0
San_Diego_CA___0      0     193     0      0
Seaside_CA_____0     0      4       0      0
St_Louis_MO____0     0     12      0      0
;
# The Keep and Close values should be set in the run file

```

```

param:
Functions: requirement:=
AcctArmy      2193
AcctFld 1172
AcctDoD 1344
CmPay 1820
MCPay 1362
NAFACct 165
CorpSpt 2127      # Allocate with the lines
HQAr1 149      # Allocate entire group somewhere
DMPOS 47      # locate with AcctArmy
DoDEA 29      # locate with AcctArmy
DTRA 24      # locate with AcctArmy
WHS 10      # locate with AcctDoD
;

```

```

set Acct := AcctFld AcctDoD AcctArmy;
set Line := AcctFld AcctDoD AcctArmy CmPay MCPay;

```

```

param Vault := 2744; # if non-DoD accounting only
param VaultDoD := 18701; # if DoD acctng
param SCIF := 1575; # if non-DoD accounting only
param SCIFDoD := 3150; # if DoD accounting
param TrainArmy := 17600; # if Army accounting (biggest of the three
applies)
param TrainDoD := 10000; # if DoD acctng
param TrainFld := 8500; # if Field accounting
param VTC := 2100; # if any businessline

```

```

param centers default 0: # Locations where function currently has significant
staffing

```

	AcctFld	AcctArmy	AcctDoD	CmPay	MCPay	:=
Cleveland_OH__	1	.	.	.	1	.
Columbus_OH__	1	.	1	1	.	.
Dayton_OH_____	.	.	.	.	.	.
Denver_CO_____	1	.	.	.	1	.
Indianapolis__	.	1	.	1	1	.
Kansas_City___	.	.	.	.	1	.
Limestone_ME__	.	.	.	1	.	.
San_Antonio_TX	.	.	.	1	.	.

dfas.mod

```
#####  
# Optimization Model File #  
# HSA JCSG - DFAS #  
# #  
# Michael Bowes #  
# Revised Aug 2 2005 - corrects balance constraints for acct sites #  
#####  
  
#####  
# Sets: Sites, Business Line Functions #  
#####  
set Sites; # List of DFAS Sites  
set Functions; # List of functional work area  
set Acct within Functions; # List of primary accounting functions  
set Line within Functions; # Primary business line functions  
  
#####  
# Parameters: Milval, Capacity, Requirements, etc #  
#####  
param MV{Sites}; # Military values for Sites  
  
param capac{Sites} >=0; # Site capacities (Usable Sq Ft)  
param safes{Sites}; # Add to capac to get full capacity  
param capacity{s in Sites} := capac[s] + safes[s];  
param total_capacity := sum {s in Sites} capacity[s];  
# Total capacity (Usable Sq Ft)  
param requirement{f in Functions};  
# Staff requirements, by function  
param useRate := 160; # Space use - 160 sf per capita  
  
param centers{s in Sites, f in Line};  
# Identify biggest current business line sites  
  
param Mil{Sites}; # Sites on military installation  
param ATPF{Sites}; # Off-base Sites that meet security needs (it's not  
really ATPF)  
param Secure{s in Sites} := min(Mil[s],ATPF[s]);  
  
param Cost{Sites}; # Cost per square foot for facilities support & lease  
  
param AvgCost := sum{s in Sites}(capacity[s]*Cost[s])/total_capacity;  
  
param minAssignLine; # Ensures balance in two major line centers  
param minCenterSpt; # Ensures support staff in the major centers  
param minAssignSpt; # Assign other support units in workable size  
  
param maxExp{Sites} default 0; # Space available for renovation/expansion  
param maxBuild{Sites} default 0; # Limit on new construction space  
  
#####  
# Parameters used to control the optimization #  
#####  
param rho_site; # Penalty on number of retained sites  
param rho_resource; # Penalty on retained square footage weighted by cost  
param rho_build; # Penalty on new construction  
param rho_expand; # Penalty on takeover of available space  
param rho_func; # Penalty on number of functional locations open  
param rho_move; # Encourage locating where function is now (avoid moves)  
param rho_secure; # Discourage locating at sites with inadequate security  
  
param Keep{Sites}; # Can be used to force open  
param Close{Sites}; # Can be used to force closure
```

dfas.mod

```

param Count;          # used to generate alternative closure scenarios

#####
# Variables
#####
var  Open{Sites} binary >= 0;          # Track which sites are kept open

var  OpenFunc{Sites, Functions} binary >= 0;          # Track which functions are present at a
site

var  Assign{Sites,Functions} integer >=0; # Staff of each type assigned to a site

var  Major{Sites, Line} binary >= 0;   # Track major centers for line functions

var  MajorSite{Sites} binary >= 0;     # Track sites with major centers

var  MajorAcct{Sites} binary >= 0;     # Track major accounting sites

var  expRes{Sites} >= 0;               # Expansion into extra space / renovation

var  buildRes{Sites} >= 0;             # Amount of newly constructed space

#####
# Special space needs
#####
param Vault;
param VaultDoD;
param SCIF;
param SCIFDoD;
param TrainArmy;
param TrainDoD;
param TrainFld;
param VTC;

var  a_VTC{Sites} binary >=0;          # VTC needed if a line function present
var  a_Vault{Sites} binary >=0;        # Vault 18701 needed if DoD Acct present
var  a_VaultDoD{Sites} binary >=0;     # Vault 2744 needed if other accounting present
var  a_SCIF{Sites} binary >=0;         # Secure room 3150 needed if DoD Acct present
var  a_SCIFDoD{Sites} binary >=0;      # Secure room 1575 needed if other Acct prese
var  a_TrainArmy{Sites} binary >=0;    # Training room 17600 if Army acctnt
var  a_TrainDoD{Sites} binary >=0;     # Training room 10000 if DoD acctnt
var  a_TrainFld{Sites} binary >=0;     # Training room 8500 if field acctnt
# Note that warehouse space is assumed to be available if needed

# OBJECTIVE FUNCTION
#####
maximize Military_Value :

    sum {s in Sites} (MV[s]* Open[s])

    - rho_site*sum {s0 in Sites} Open[s0]

    - rho_resource*sum{s1 in Sites}
      Cost[s1]*(capacity[s1]*Open[s1] + expRes[s1] +
buildRes[s1])/(AvgCost*total_capacity)

    - rho_expand*sum{s2 in Sites} expRes[s2]/total_capacity

    - rho_build*sum{s3 in Sites} buildRes[s3]/total_capacity

```

```

                                dfas.mod
- rho_func*sum{s4 in Sites, f4 in Line} (OpenFunc[s4,f4])/(card(Sites))
  # This is applied to the primary business line functions. It favors
specialization.

+ rho_move*sum{s5 in Sites, f5 in Line}
(centers[s5,f5]*Assign[s5,f5]/requirement[f5])
  # Favor keeping line staff in sites that already have significant staff doing
that work

- rho_secure*sum{s6 in Sites} (1-Secure[s6])/card(Sites)
  # Discourages assigning staff to Sites that are not secure
;

```

CONSTRAINTS

#####

#1.Can be used to force Sites Open or Closed

```

subject to Force_open {a in Sites: Keep[a]==1}: Open[a] == 1;
subject to Force_close {a in Sites: Close[a]==1}: Open[a] == 0;

```

#2. Meet requirements - staff must be assigned space somewhere

```

subject to Meet_Requirements {f in Functions}:
sum {s in Sites} Assign[s,f] = requirement[f];

```

#3. Resource use cannot exceed available capacity (including expansion)

```

subject to Resources_Available {s in Sites}:
sum {f in Functions} (Assign[s,f]*useRate)
+ a_VTC[s]*VTC + a_Vault[s]*Vault + a_VaultDoD[s]*VaultDoD
+ a_SCIF[s]*SCIF + a_SCIFDoD[s]*SCIFDoD
+ a_TrainArmy[s]*TrainArmy + a_TrainDoD[s]*TrainDoD + a_TrainFld[s]*TrainFld
<= (capacity[s]*Open[s] + expRes[s] + buildRes[s]);

```

#4a Expansion constraints - expansion to other open office space can't exceed availability

```

subject to Expansion_Space_Limits {s in Sites}:
expRes[s] <= maxExp[s]*Open[s];

```

#4b Expansion constraints - new building can't exceed the given limit

```

subject to Expansion_Build_Limits {s in Sites}:
buildRes[s] <= maxBuild[s]*Open[s];

```

#5 Do not assign functions to "closed" Sites.

```

subject to Functions_to_Open_Sites {f in Functions, s in Sites}:
OpenFunc[s,f] <= Open[s];

```

#6. Do not assign functional staff to location without that function present

```

subject to Assign_to_Open {f in Functions, s in Sites}:
Assign[s,f] <= OpenFunc[s,f]*requirement[f];

```

#7. Make sure unused Sites (no functions assigned) are forced closed !!!

```

subject to Close_Unused_Sites {s in Sites}:
Open[s] <= sum {f in Functions} Assign[s,f];

```

#7a.Make sure unused functions (no staff of that type assigned) are forced to zero !!!

```

subject to Close_Unused_Functions {s in Sites, f in Functions}:
OpenFunc[s,f] <= Assign[s,f]*requirement[f];

```

#8. Special space needs

#####

#8a VTC space

dfas.mod

```
subject to VTC_Space {s in Sites}:  
    a_VTC[s] >= sum{f in Line} ( OpenFunc[s,f]/(card(Sites)*card(Line)) );
```

```
#8b Vault space, if no DoD accounting  
subject to Vault_Space1 {s in Sites}:  
    a_Vault[s] >= sum{f in (Acct diff {'AcctDoD'})} (  
OpenFunc[s,f]/(card(Sites)*card(Line)) )  
    - OpenFunc[s,'AcctDoD'];
```

```
#8c Vault space, if DoD accounting  
subject to Vault_Space2 {s in Sites}:  
    a_VaultDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line));
```

```
#8d Vault space total  
subject to Vault_Space3 {s in Sites}:  
    a_Vault[s] + a_VaultDoD[s] <= 1;
```

```
#8e SCIF space, if no DoD accounting  
subject to SCIF_Space1 {s in Sites}:  
    a_SCIF[s] >= sum{f in (Acct diff {'AcctDoD'})} (  
OpenFunc[s,f]/(card(Sites)*card(Line)) )  
    - OpenFunc[s,'AcctDoD'];
```

```
#8f SCIF space, if DoD accounting  
subject to SCIF_Space2 {s in Sites}:  
    a_SCIFDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line));
```

```
#8g SCIF space total  
subject to SCIF_Space3 {s in Sites}:  
    a_SCIF[s] + a_SCIFDoD[s] <= 1;
```

```
#8h Training space, if Army accounting  
subject to Train_Space1 {s in Sites}:  
    a_TrainArmy[s] >= OpenFunc[s,'AcctArmy']/(card(Sites)*card(Line));
```

```
#8i Training space, if DoD accounting and no Army  
subject to Train_Space2 {s in Sites}:  
    a_TrainDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line))  
    - OpenFunc[s,'AcctArmy'];
```

```
#8j Training space, if Field accounting only  
subject to Train_Space3 {s in Sites}:  
    a_TrainFld[s] >= OpenFunc[s,'AcctFld']/(card(Sites)*card(Line))  
    - OpenFunc[s,'AcctDoD'] - OpenFunc[s,'AcctArmy'];
```

```
#8k Training space total  
subject to Train_Space4 {s in Sites}:  
    a_TrainArmy[s] + a_TrainDoD[s] + a_TrainFld[s] <= 1;
```

```
#9. At least two locations for each major business lines  
#####
```

```
subject to At_Least_2_MCPay:  
    sum {s in Sites} Major[s,'MCPay'] >=2;
```

```
subject to At_Least_2_CmPay:  
    sum {s in Sites} Major[s,'CmPay'] >=2;
```

```
subject to At_Least_2_Acct_p1:  
    sum {s in Sites, f in Acct} Major[s,f] >=2;
```

This alone could be met with two different types of accounting at a single site

```
subject to At_Least_2_Acct_p2:
```

```

dfas.mod
sum {s in Sites} MajorAcct[s] >=2;
# This makes sure there are actually 2 distinct major accounting sites
# Note that accounting as a whole counts as the business line

subject to Major_Acct_Site {s in Sites}:
    MajorAcct[s] >= sum{f in Acct} Major[s,f]/card(Acct);
# Tracks sites with major Accounting line (needed for constraint above)

subject to Not_Major_if_not_Open {s in Sites, f in Line}:
    OpenFunc[s,f] >= Major[s,f];

subject to Major_Sites {s in Sites}:
    MajorSite[s] >= sum{f in Line} Major[s,f]/card(Line);

subject to Balance_in_Major {s in Sites, f in Line}:
    Assign[s,f] >= Major[s,f]*minAssignLine;
# Ensure enough balance in the 2 major centers so the second could take over for the
first
# Original runs required at least 600 of the line staff in each major center

#10c HQ - maintain HQ with 149 people (the actual location of the HQ may change
# That is to be considered outside the optimization).
#####
subject to Arlington_Assign:
    Assign['Arlington_VA___','HQAr1'] == requirement['HQAr1'];

subject to Arlington_Open:
    Open['Arlington_VA___'] == 1;

subject to Arlington_OpenFunc:
    OpenFunc ['Arlington_VA___','HQAr1'] == 1;

subject to Arlington_Func2 {f in Functions: f <> 'HQAr1'}:
    OpenFunc['Arlington_VA___',f] == 0;

subject to Arlington_Func3 {s in Sites: s <> 'Arlington_VA___'}:
    OpenFunc[s,'HQAr1'] == 0;

#11. Linkages
#####
#11a Assign WHS to location with DoD Accounting
subject to WHS {s in Sites}:
    OpenFunc[s,'WHS'] <= OpenFunc[s,'AcctDoD'];

#11b Assign DoDEA. DTRA, DMPOS to location with Army Accounting
subject to DoDEA {s in Sites}:
    OpenFunc[s,'DoDEA'] <= OpenFunc[s,'AcctArmy'];

subject to DTRA {s in Sites}:
    OpenFunc[s,'DTRA'] <= OpenFunc[s,'AcctArmy'];

subject to DMPOS {s in Sites}:
    OpenFunc[s,'DMPOS'] <= OpenFunc[s,'AcctArmy'];

#11c Army NAF accounting with Army accounting
subject to NAF {s in Sites}:
    OpenFunc[s,'NAFACct'] <= OpenFunc[s,'AcctArmy'];

#11d Some accounting if any Commercial Pay
subject to Acct_if_Commercial_Pay {s in Sites}:
    sum {f in Acct} OpenFunc[s,f] >= OpenFunc[s,'CmPay'];

```

dfas.mod

```
#11e Some Acct people, if any CivPay
subject to Acct_if_MilCiv_Pay {s in Sites}:
    sum {f in Acct} OpenFunc[s,f] >= OpenFunc[s,'MCPay'];

#12. Distribute admin
#####
#Admin only if line function (except for HQ)
subject to Support_only_if_Line {s in Sites}:
    OpenFunc[s,'CorpSpt'] <= sum {f in Line} OpenFunc[s,f];

# Some Admin if Major Line
subject to Assign_Support_if_Major {s in Sites}:
    Assign[s,'CorpSpt'] >= sum {f in Line} Major[s,f]/card(Line);

# Min Support team assignments - 300 to major centers, at least 75 to others (if any
assigned)
subject to Min_Assign_Support {s in Sites}:
    Assign[s,'CorpSpt'] >= OpenFunc[s,'CorpSpt']*minAssignSpt;

subject to Min_Assign_Major_Support {s in Sites}:
    Assign[s,'CorpSpt'] >= MajorSite[s]*minCenterSpt;

# Max assignments
subject to Less_than_Line {s in Sites}:
    Assign[s,'CorpSpt'] <= sum {f1 in Line} Assign[s,f1];

#13. Alternatives Generation
#####
subject to Number_of_Sites_Open :
    sum {s in Sites} Open[s] = card(Sites) - Count;
```

dfas.run

```
#####  
# Optimization Run File #  
# HSA JCSG - DFAS #  
# #  
# Michael Bowes #  
# Revised 2 Aug 2005 #  
#####  
  
reset;  
  
model dfas.mod;  
data dfas.dat;  
option cplex_options 'timelimit=360 solutionlim=500000 mipgap=.00000001  
integrality=0';  
  
param KpCls symbolic default "";  
param KpCls1 symbolic default "";  
param KpCls2 symbolic default "";  
param KpCls3 symbolic default "";  
param KpCls4 symbolic default "";  
param KpCls5 symbolic default "";  
param RUN symbolic;  
param Loop symbolic default "Y";  
  
### ENTER RUN PARAMETERS  
#####  
let Loop := "Y"; # "N" if you want rho_site to drive number sites retained  
# "Y" to loop over specific number of sites retained  
  
let rho_resource := 1.5 ; # penalty on total cost of capacity retained  
(Try 1.5, 3, 10)  
let rho_build := 20 ; # penalty on new construction  
let rho_expand := 15 ; # penalty on expanding to available space nearby (Try  
7.5 or 15)  
let rho_func := 1 ; # favor fewer locations providing a function  
let rho_move := .1 ; # avoid moves, favor existing concentration !! (Try  
.01, .1, .5)  
let rho_secure := 0 ; # penalty on sites with security issues  
let rho_site := 1 ; # penalty on sites retained (must be > 1; not  
relevant if loop=Y);  
  
#Set Closure or Openings  
#let Close["Denver_CO_____"] := 1; let KpCls1 := "_noDenv"; # Close Denver  
#let Close["Cleveland_OH_____"] := 1; let KpCls2 := "_noClev"; # Close Cleveland  
#let Keep["Limestone_ME_____"] := 1; let KpCls3 := "_kpLime"; # Keep Limestone  
#let Keep["Rome_NY_____"] := 1; let KpCls4 := "_kpRome"; # Keep Rome  
  
let minAssignLine := 500;  
let minCenterSpt := 300;  
let minAssignSpt := 75;  
  
# Set upper and lower limits on number of closure alternatives to generate  
param C_up; let C_up := 22; # Retain 4 = 26-22 sites sites (3 plus HQ)  
param C_lo; let C_lo := 20; # Retain 6 = 26-20 sites (5 plus HQ)  
# with a single run, it doesn't matter what C_up is set to.  
  
param i_c; # used to track passes through loop
```

```

dfas.run
#####
# Setup the run and build output filename
if (Loop = "N")
  then {
    let C_lo := C_up;
    drop Number_of_Sites_Open;
    let RUN := "(r_site_" & rho_site & ",r_" & rho_resource & ",b_" & rho_build &
",e_" & rho_expand &
    ",f_" & rho_func & ",m_" & rho_move & ",s_" & rho_secure & ")"; }
  else {
    restore Number_of_Sites_Open;
    let rho_site := 0;
    let RUN := "(r_" & rho_resource & ",b_" & rho_build & ",e_" & rho_expand &
    ",f_" & rho_func & ",m_" & rho_move & ",s_" & rho_secure & ")"; }

param OutFile symbolic;
let kpCls := kpCls1 & kpCls2 & kpCls3 & kpCls4;
let OutFile := "dfas" & kpCls & RUN & ".out";

#To store for results
set METRICS := {"_AvgMV", "_%CapRtnd", "_Build", "_Renovate"};
set OUTPUTS := Sites union METRICS;

param Results{OUTPUTS, 1..10} ; ##### 10 has to be changed if loop is bigger ****
for {s in OUTPUTS, i in (1..10)} let Results[s,i] := -0.1; # initialize

#####

### Here's the main solution loop - Count is incremented on each pass
#####
let Count := C_up;
let i_c := 1; # Tracks the number of passes through loop

repeat {
solve;

printf "=====\n" > (OutFile);
printf "          \n" > (OutFile);
printf "=====\n" > (OutFile);

#####
# BEGIN IF statement - output for feasible solutions only
if (solve_result_num<104 or solve_result_num=422) then {
#####
printf "\n" > (OutFile);

printf "NUMBER OF SITES RETAINED = %2.0f of %2.0f \n",
sum {s in Sites} Open[s], card(Sites)
> (OutFile);
printf "\n" > (OutFile);

printf "Penalties used in the run \n" > (OutFile);
printf "=====\n" > (OutFile);
printf "          Penalty          ObjValue \n" > (OutFile);
printf "=====\n" > (OutFile);
printf "Penalty on Sites = %13.3f %9.2f \n", rho_site,
rho_site* sum {s in Sites} Open[s]
> (OutFile);
printf "Penalty on Capacity = %13.3f %9.2f \n", rho_resource,
rho_resource* sum {s in Sites} (capacity[s]*Open[s] + expRes[s] +
Page 2

```

dfas.run

```
buildRes[s])/(total_capacity)
> (OutFile);
printf "Penalty on Expansion = %13.3f    %9.2f \n", rho_expand,
rho_expand * sum {s in Sites} expRes[s]/(total_capacity)
> (OutFile);
printf "Penalty on Building = %13.3f    %9.2f \n", rho_build,
rho_build * sum {s in Sites} buildRes[s]/(total_capacity)
> (OutFile);
printf "Reward Concentration = %13.3f    %9.2f \n", rho_func,
rho_func * sum {s in Sites, f in Line } OpenFunc[s,f]/(card(Sites))
> (OutFile);
printf "Penalize Moving Staff = %13.3f    %9.2f \n", rho_move,
rho_move * sum {s in Sites, f in Line}
(centers[s,f]*Assign[s,f]/requirement[f])
> (OutFile);
printf "Penalty on non-secure = %13.3f    %9.2f \n", rho_secure,
rho_secure * sum {s in Sites} (Secure[s]/card(Sites))
> (OutFile);
printf "===== \n" > (OutFile);

printf "Military Value: Total MV = %6.3f Average MV = %6.3f \n",
sum {s in Sites} MV[s]*Open[s],
(sum {s in Sites} MV[s]*Open[s])/(sum {s in Sites} Open[s])
> (OutFile);

printf "Overall Objective Function Value: = %9.3f \n", Military_value > (OutFile);
printf "\n" > (OutFile);
printf "\n" > (OutFile);

printf "Overall Capacity: Initial = %7.0f Final = %7.0f Retained = %5.1f(%%) \n",
total_capacity, sum {s in Sites} (capacity[s]*Open[s] + expRes[s] +
buildRes[s]),
sum {s in Sites} 100*(capacity[s]*Open[s] + expRes[s] +
buildRes[s])/total_capacity
> (OutFile);

printf "Expansion to available space = %7.0f New construction = %7.0f \n",
sum {s in Sites} expRes[s], sum {s in Sites} buildRes[s]
> (OutFile);
printf "\n" > (OutFile);

printf "\n" > (OutFile);

printf "Site Results (1 identifies retained sites) \n" > (OutFile);

display Open, MV, Cost > (OutFile);;
display Open;

printf "\n" > (OutFile);
printf "
Total \n" > (OutFile);
printf "
Used \n" > (OutFile);
printf "
===== \n" > (OutFile);

for {s in Sites}
{ printf "%14s    %8.0f %8.0f %8.0f %9.0f %8.0f %8.0f %8.0f \n",
s, capacity[s], expRes[s], buildRes[s], capacity[s]*Open[s] +
expRes[s] + buildRes[s],
sum{f in Functions} Assign[s,f]*useRate,
```

dfas.run

```
(Vault*a_Vault[s] + VaultDoD*a_VaultDoD[s] + SCIF*a_SCIF[s] +
SCIFDoD*a_SCIFDoD[s] +
TrainArmy*a_TrainArmy[s] + TrainDoD*a_TrainDoD[s] + TrainFld*a_TrainFld[s]
+
VTC*a_VTC[s] ),
(Vault*a_Vault[s] + VaultDoD*a_VaultDoD[s] + SCIF*a_SCIF[s] +
SCIFDoD*a_SCIFDoD[s] +
TrainArmy*a_TrainArmy[s] + TrainDoD*a_TrainDoD[s] + TrainFld*a_TrainFld[s]
+
VTC*a_VTC[s] + sum{f in Functions} Assign[s,f]*useRate)
> (OutFile);
};

printf "\n" > (OutFile);
printf "          Acct  Acct  Acct  Comm    MC    NAF    Def  Sprt |
Total  \n" > (OutFile);
printf "          Field  DoD  Army  Pay      Pay  Acct  Agency  Staff |
Staff  \n" > (OutFile);
printf "
===== \n" > (OutFile);

for {s in Sites}
  { printf "%14s  %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f | %6.0f \n",
    s, Assign[s,'AcctFld'], Assign[s,'AcctDoD'], Assign[s,'AcctArmy'],
Assign[s,'CmPay'], Assign[s,'MCPay'],
Assign[s,'NAFACct'], Assign[s,'DMPOS'] + Assign[s,'DoDEA'] +
Assign[s,'DTRA'] + Assign[s,'WHS'],
Assign[s,'Corpspt'] + Assign[s,'HQAr1'],
sum {f in Functions} Assign[s,f]
  > (OutFile);
};

for {s in Sites} let Results[s,i_c] := Open[s];
let Results["_AvgMV",i_c] := (sum {s in Sites} MV[s]*Open[s])/(sum {s in Sites}
Open[s]);
let Results["_CapRtnd",i_c] := sum {s in Sites} 100*(capacity[s]*Open[s] +
expRes[s] + buildRes[s])/total_capacity;
let Results["_Build",i_c] := sum {s in Sites} buildRes[s];
let Results["_Renovate",i_c] := sum {s in Sites} expRes[s];

#####
}
else
printf "Attempted to retain %2.0f of %2.0f. The run was infeasible\n ",
card(Sites) - Count, card(Sites) > (OutFile);

# This ends the if statement on output for feasible solutions
#####

printf "=====\n\n\n" > (OutFile);
```

dfas.run

```
let Count := Count - 1;
let i_c := i_c + 1;
} while Count >= C_lo;    # Ends the repeat Count

printf "\n" > (OutFile);
display Results > (OutFile);
printf "Results that show as -0.1 can be discarded \n" > (OutFile);
printf "\n" > (OutFile);

close (OutFile);
;
```

dfas

```
#####
# Optimization Data File #
# HSA JCSG - DFAS #
# #
# Michael Bowes #
# Revised 07 Jul 2005 #
#####
```

```
#####
# DATA file #
#####
```

```
param:
Sites:          MV      capac  Mil      ATPF      Cost      :=
Arlington_VA__ 0.313  102979  0        1         44.76
Charleston_SC_ 0.546  108580  0        1         3.8
Cleveland_OH__ 0.587  306801  0        1         29.21
Columbus_OH___ 0.688  558542  1        1         8.27
Dayton_OH_____ 0.625  81605   0        1         2.91
Denver_CO_____ 0.803  292991  1        1         9.15
Indianapolis___ 0.651  682885  0        .667      14.96
Kansas_City____ 0.451  219203  0        1         16.21
Lawton_Ft_Sill  0.787  64725   1        1         2.52
Lexington_KY___ 0.532  20056   0        1         8.74
Limestone_ME___ 0.548  68428   0        1         4.98
Norfolk_VA_____ 0.787  73144   1        1         7.47
Oakland_CA_____ 0.243  14620   0        .667      45.12
Omaha_NE_____  0.673  63375   1        .667      4.45
Orlando_FL_____ 0.540  53211   0        1         5.75
Pacific_HI_____ 0.569  30553   1        1         7.72
Patuxent_Rv____ 0.565  9553    0        1         23.66
Pensacola_NAS_  0.720  68814   1        1         5.7
Pensacola_Sauf  0.805  48142   1        .667      7.38
Rock_Island_IL  0.846  42035   1        1         9.03
Rome_NY_____  0.542  82736   0        1         4.26
San_Antonio_TX  0.586  64417   0        .333      18.2
San_Bernadino_  0.429  30033   0        1         10.61
San_Diego_CA___ 0.569  46448   0        1         21.2
Seaside_CA_____ 0.433  23122   0        1         8.23
St_Louis_MO___  0.612  78902   0        .667      15.93
;
```

```
param:          maxExp  maxBuild  safes  Keep  Close :=
Arlington_VA__ 0        0        34     0     0
Charleston_SC_ 0        0        375    0     0
Cleveland_OH__ 0        0        2810   0     0
Columbus_OH___ 363200  0        1024   0     0
Dayton_OH_____ 41775  0        220    0     0
Denver_CO_____ 185749  0        3827   0     0
Indianapolis___ 132078  0        18804  0     0
Kansas_City____ 0        0        539    0     0
Lawton_Ft_Sill  82741  896000  196    0     0
Lexington_KY___ 0        0        64     0     0
Limestone_ME___ 0        0        159    0     0
Norfolk_VA_____ 0        0        57     0     0
Oakland_CA_____ 0        0        16     0     0
Omaha_NE_____  0        0        1607   0     0
Orlando_FL_____ 0        0        10     0     0
Pacific_HI_____ 0        0        443    0     0
Patuxent_Rv____ 0        0        0       0     0
Pensacola_NAS_  0        0        612    0     0
Pensacola_Sauf  0        0        19     0     0
```

```

                                dfas
Rock_Island_IL  0      0      16      0      0
Rome_NY_____ 0      0       6      0      0
San_Antonio_TX 0      0     238      0      0
San_Bernadino_ 0      0      23      0      0
San_Diego_CA___0      0     193      0      0
Seaside_CA_____0      0       4      0      0
St_Louis_MO___ 0      0      12      0      0
;
# The Keep and Close values should be set in the run file

```

```

param:
Functions:  requirement:=
AcctArmy   2193
AcctFld    1172
AcctDoD    1344
CmPay      1820
MCPay      1362
NAFACct    165
CorpSpt    2127      # Allocate with the lines
HQAr1     149      # Allocate entire group somewhere
DMPOS      47      # locate with AcctArmy
DoDEA      29      # locate with AcctArmy
DTRA       24      # locate with AcctArmy
WHS        10      # locate with AcctDoD
;

```

```

set Acct    := AcctFld AcctDoD AcctArmy;
set Line    := AcctFld AcctDoD AcctArmy CmPay MCPay;

```

```

param Vault      := 2744; # if non-DoD accounting only
param VaultDoD   := 18701; # if DoD acctng
param SCIF       := 1575; # if non-DoD accounting only
param SCIFDoD    := 3150; # if DoD accounting
param TrainArmy  := 17600; # if Army accounting (biggest of the three
applies)
param TrainDoD   := 10000; # if DoD acctng
param TrainFld   := 8500; # if Field accounting
param VTC        := 2100; # if any businessline

```

```

param centers default 0: # Locations where function currently has significant
staffing

```

	AcctFld	AcctArmy	AcctDoD	CmPay	MCPay	:=
Cleveland_OH__	1	.	.	.	1	
Columbus_OH___	1	.	1	1	.	
Dayton_OH_____	.	.	.	.	.
Denver_CO_____	1	.	.	.	1	
Indianapolis__	.	1	.	1	1	
Kansas_City____	.	.	.	.	1	
Limestone_ME___	.	.	.	1	.	
San_Antonio_TX	.	.	.	1	.	

dfasCostMin.mod

```
#####
# Optimization Model File #
# HSA JCSG - DFAS #
# #
# Michael Bowes #
# Revised Aug 2 2005 - Corrects balance constraints for acct sites
# Cost Minimization version done for the BRAC commission
#####
# This file differs from the regular model only in the rescaling of three
# terms in the objective function so they are measured in square feet
# The run file set values so that:
# - Objective function is in cost terms; elements not related to
# cost are given trivially low weights.
# - Balance constraints are set at trivial level)
# - Possibility of building is dropped
#####
#####
# Sets: Sites, Business Line Functions
#####
set Sites; # List of DFAS Sites
set Functions; # List of functional work area
set Acct within Functions; # List of primary accounting functions
set Line within Functions; # Primary business line functions

#####
# Parameters: Milval, Capacity, Requirements, etc
#####
param MV{Sites}; # Military values for Sites

param capac{Sites} >=0; # Site capacities (Usable Sq Ft)
param safes{Sites}; # Add to capac to get full capacity
param capacity{s in Sites} := capac[s] + safes[s];
param total_capacity := sum {s in Sites} capacity[s];
# Total capacity (Usable Sq Ft)
param requirement{f in Functions};
# Staff requirements, by function
param useRate := 160; # Space use - 160 sf per capita

param centers{s in Sites, f in Line};
# Identify biggest current business line sites

param Mil{Sites}; # Sites on military installation
param ATFP{Sites}; # Off-base Sites that meet security needs (it's not
really ATFP)
param Secure{s in Sites} := min(Mil[s],ATFP[s]);

param Cost{Sites}; # Cost per square foot for facilites support & lease

param AvgCost := sum{s in Sites}(capacity[s]*Cost[s])/total_capacity;

param minAssignLine; # Ensures balance in two major line centers
param minCenterSpt; # Ensures support staff in the major centers
param minAssignSpt; # Assign other support units in workable size

param maxExp{Sites} default 0; # Space available for renovation/expansion
param maxBuild{Sites} default 0; # Limit on new construction space

#####
# Parameters used to control the optimization #
#####
param rho_site; # Penalty on number of retained sites
```

```

dfasCostMin.mod
param rho_resource; # Penalty on retained square footage weighted by cost
param rho_build; # Penalty on new construction
param rho_expand; # Penalty on takeover of available space
param rho_func; # Penalty on number of functional locations open
param rho_move; # Encourage locating where function is now (avoid moves)
param rho_secure; # Discourage locating at sites with inadequate security

param Keep{Sites}; # Can be used to force open
param Close{Sites}; # Can be used to force closure

param Count; # used to generate alternative closure scenarios

#####
# Variables #
#####
var Open{Sites} binary >= 0; # Track which sites are kept open

var OpenFunc{Sites, Functions} binary >= 0; # Track which functions are present at a
site

var Assign{Sites,Functions} integer >=0; # Staff of each type assigned to a site

var Major{Sites, Line} binary >= 0; # Track major centers for line functions

var MajorSite{Sites} binary >= 0; # Track sites with major centers

var MajorAcct{Sites} binary >= 0; # Track major accounting sites

var expRes{Sites} >= 0; # Expansion into extra space / renovation

var buildRes{Sites} >= 0; # Amount of newly constructed space

#####
# Special space needs
#####
param Vault;
param VaultDoD;
param SCIF;
param SCIFDoD;
param TrainArmy;
param TrainDoD;
param TrainFld;
param VTC;

var a_VTC{Sites} binary >=0; # VTC needed if a line function present
var a_Vault{Sites} binary >=0; # Vault 18701 needed if DoD Acct present
var a_VaultDoD{Sites} binary >=0; # Vault 2744 needed if other accounting present
var a_SCIF{Sites} binary >=0; # Secure room 3150 needed if DoD Acct present
var a_SCIFDoD{Sites} binary >=0; # Secure room 1575 needed if other Acct prese
var a_TrainArmy{Sites} binary >=0; # Training room 17600 if Army acctnt
var a_TrainDoD{Sites} binary >=0; # Training room 10000 if DoD acctnt
var a_TrainFld{Sites} binary >=0; # Training room 8500 if field acctnt
# Note that warehouse space is assumed to be available if needed

# OBJECTIVE FUNCTION
#####
maximize Military_Value :

sum {s in Sites} (MV[s]* Open[s])

- rho_site*sum {s0 in Sites} Open[s0]

```

dfasCostMin.mod

- rho_resource*sum{s1 in Sites}
Cost[s1]*(capacity[s1]*Open[s1] + expRes[s1] + buildRes[s1])
- rho_expand*sum{s2 in Sites} expRes[s2]
- rho_build*sum{s3 in Sites} buildRes[s3]

The three terms above are now in units of Sq Ft in this version.
This allows us to more easily set the penalties to approximate COBRA costs
The other terms will be weighted so low as to be irrelevant

- rho_func*sum{s4 in Sites, f4 in Line} (OpenFunc[s4,f4])/(card(Sites))
This is applied to the primary business line functions. It favors
specialization.

+ rho_move*sum{s5 in Sites, f5 in Line}
(centers[s5,f5]*Assign[s5,f5]/requirement[f5])
Favor keeping line staff in sites that already have significant staff doing
that work

- rho_secure*sum{s6 in Sites} (1-Secure[s6])/card(Sites)
Discourages assigning staff to Sites that are not secure

CONSTRAINTS

#####

#1.Can be used to force Sites Open or Closed

subject to Force_open {a in Sites: Keep[a]==1}: Open[a] == 1;
subject to Force_close {a in Sites: Close[a]==1}: Open[a] == 0;

#2. Meet requirements - staff must be assigned space somewhere

subject to Meet_Requirements {f in Functions}:
sum {s in Sites} Assign[s,f] = requirement[f];

#3. Resource use cannot exceed available capacity (including expansion)

subject to Resources_Available {s in Sites}:
sum {f in Functions} (Assign[s,f]*useRate
+ a_VTC[s]*VTC + a_Vault[s]*Vault + a_VaultDoD[s]*VaultDoD
+ a_SCIF[s]*SCIF + a_SCIFDoD[s]*SCIFDoD
+ a_TrainArmy[s]*TrainArmy + a_TrainDoD[s]*TrainDoD + a_TrainFld[s]*TrainFld
<= (capacity[s]*Open[s] + expRes[s] + buildRes[s]);

#4a Expansion constraints - expansion to other open office space can't exceed
availability

subject to Expansion_Space_Limits {s in Sites}:
expRes[s] <= maxExp[s]*Open[s];

#4b Expansion constraints - new building can't exceed the given limit

subject to Expansion_Build_Limits {s in Sites}:
buildRes[s] <= maxBuild[s]*Open[s];

#5 Do not assign functions to "closed" Sites.

subject to Functions_to_Open_Sites {f in Functions, s in Sites}:
OpenFunc[s,f] <= Open[s];

#6. Do not assign functional staff to location without that function present

subject to Assign_to_Open {f in Functions, s in Sites}:
Assign[s,f] <= OpenFunc[s,f]*requirement[f];

#7. Make sure unused Sites (no functions assigned) are forced closed !!!

```

subject to Close_Used_Sites {s in Sites}:
    Open[s] <= sum {f in Functions} Assign[s,f];

#7a. Make sure unused functions (no staff of that type assigned) are forced to zero
!!!
subject to Close_Used_Functions {s in Sites, f in Functions}:
    OpenFunc[s,f] <= Assign[s,f]*requirement[f];

#8. Special space needs
#####
#8a VTC space
subject to VTC_Space {s in Sites}:
    a_VTC[s] >= sum{f in Line} ( OpenFunc[s,f]/(card(Sites)*card(Line)) );

#8b vault space, if no DoD accounting
subject to Vault_Space1 {s in Sites}:
    a_Vault[s] >= sum{f in (Acct diff {'AcctDoD'})} (
OpenFunc[s,f]/(card(Sites)*card(Line)) )
    - OpenFunc[s,'AcctDoD'];

#8c Vault space, if DoD accounting
subject to Vault_Space2 {s in Sites}:
    a_VaultDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line));

#8d Vault space total
subject to Vault_Space3 {s in Sites}:
    a_Vault[s] + a_VaultDoD[s] <= 1;

#8e SCIF space, if no DoD accounting
subject to SCIF_Space1 {s in Sites}:
    a_SCIF[s] >= sum{f in (Acct diff {'AcctDoD'})} (
OpenFunc[s,f]/(card(Sites)*card(Line)) )
    - OpenFunc[s,'AcctDoD'];

#8f SCIF space, if DoD accounting
subject to SCIF_Space2 {s in Sites}:
    a_SCIFDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line));

#8g SCIF space total
subject to SCIF_Space3 {s in Sites}:
    a_SCIF[s] + a_SCIFDoD[s] <= 1;

#8h Training space, if Army accounting
subject to Train_Space1 {s in Sites}:
    a_TrainArmy[s] >= OpenFunc[s,'AcctArmy']/(card(Sites)*card(Line));

#8i Training space, if DoD accounting and no Army
subject to Train_Space2 {s in Sites}:
    a_TrainDoD[s] >= OpenFunc[s,'AcctDoD']/(card(Sites)*card(Line))
    - OpenFunc[s,'AcctArmy'];

#8j Training space, if Field accounting only
subject to Train_Space3 {s in Sites}:
    a_TrainFld[s] >= OpenFunc[s,'AcctFld']/(card(Sites)*card(Line))
    - OpenFunc[s,'AcctDoD'] - OpenFunc[s,'AcctArmy'];

#8k Training space total
subject to Train_Space4 {s in Sites}:
    a_TrainArmy[s] + a_TrainDoD[s] + a_TrainFld[s] <= 1;

```

#9. At least two locations for each major business lines

dfasCostMin.mod

```
#####
subject to At_Least_2_MCPay:
    sum {s in Sites} Major[s,'MCPay'] >=2;

subject to At_Least_2_CmPay:
    sum {s in Sites} Major[s,'CmPay'] >=2;

subject to At_Least_2_Acct_p1:
    sum {s in Sites, f in Acct} Major[s,f] >=2;
# This alone could be met with two different types of accounting at a single site

subject to At_Least_2_Acct_p2:
    sum {s in Sites} MajorAcct[s] >=2;
# This makes sure there are actually 2 distinct major accounting sites
# Note that accounting as a whole counts as the business line

subject to Major_Acct_Site {s in Sites}:
    MajorAcct[s] >= sum{f in Acct} Major[s,f]/card(Acct);
# Tracks sites with major Accounting line (needed for constraint above)

subject to Not_Major_if_not_Open {s in Sites, f in Line}:
    OpenFunc[s,f] >= Major[s,f];

subject to Major_Sites {s in Sites}:
    MajorSite[s] >= sum{f in Line} Major[s,f]/card(Line);

subject to Balance_in_Major {s in Sites, f in Line}:
    Assign[s,f] >= Major[s,f]*minAssignLine;
# Ensure enough balance in the 2 major centers so the second could take over for the
first
# Original runs required at least 600 of the line staff in each major center

#10c HQ - maintain HQ with 149 people (the actual location of the HQ may change
# That is to be considered outside the optimization).
#####
subject to Arlington_Assign:
    Assign['Arlington_VA__', 'HQAr1'] == requirement['HQAr1'];

subject to Arlington_Open:
    Open['Arlington_VA__'] == 1;

subject to Arlington_OpenFunc:
    OpenFunc ['Arlington_VA__', 'HQAr1'] == 1;

subject to Arlington_Func2 {f in Functions: f <> 'HQAr1'}:
    OpenFunc['Arlington_VA__', f] == 0;

subject to Arlington_Func3 {s in Sites: s <> 'Arlington_VA__'}:
    OpenFunc[s, 'HQAr1'] == 0;

#11. Linkages
#####
#11a Assign WHS to location with DoD Accounting
subject to WHS {s in Sites}:
    OpenFunc[s, 'WHS'] <= OpenFunc[s, 'AcctDoD'];

#11b Assign DoDEA. DTRA, DMPOS to location with Army Accounting
subject to DoDEA {s in Sites}:
    OpenFunc[s, 'DoDEA'] <= OpenFunc[s, 'AcctArmy'];

subject to DTRA {s in Sites}:
```

```

                                dfasCostMin.mod
OpenFunc[s,'DTRA'] <= OpenFunc[s,'AcctArmy'];
subject to DMPOS {s in Sites}:
    OpenFunc[s,'DMPOS'] <= OpenFunc[s,'AcctArmy'];
#11c Army NAF accounting with Army accounting
subject to NAF {s in Sites}:
    OpenFunc[s,'NAFacct'] <= OpenFunc[s,'AcctArmy'];
#11d Some accounting if any Commercial Pay
subject to Acct_if_Commercial_Pay {s in Sites}:
    sum {f in Acct} OpenFunc[s,f] >= OpenFunc[s,'CmPay'];
#11e Some Acct people, if any CivPay
subject to Acct_if_MilCiv_Pay {s in Sites}:
    sum {f in Acct} OpenFunc[s,f] >= OpenFunc[s,'MCPay'];

#12. Distribute admin
#####
#Admin only if line function (except for HQ)
subject to Support_only_if_Line {s in Sites}:
    OpenFunc[s,'CorpSpt'] <= sum {f in Line} OpenFunc[s,f];
# Some Admin if Major Line
subject to Assign_Support_if_Major {s in Sites}:
    Assign[s,'CorpSpt'] >= sum {f in Line} Major[s,f]/card(Line);
# Min Support team assignments - 300 to major centers, at least 75 to others (if any
assigned)
subject to Min_Assign_Support {s in Sites}:
    Assign[s,'CorpSpt'] >= OpenFunc[s,'CorpSpt']*minAssignSpt;
subject to Min_Assign_Major_Support {s in Sites}:
    Assign[s,'CorpSpt'] >= MajorSite[s]*minCenterSpt;
# Max assignments
subject to Less_than_Line {s in Sites}:
    Assign[s,'CorpSpt'] <= sum {f1 in Line} Assign[s,f1];

#13. Alternatives Generation
#####
subject to Number_of_Sites_Open :
    sum {s in Sites} Open[s] = card(Sites) - Count;

```

dfasCostMin.run

```
#####
# Optimization Run File #
# HSA JCSG - DFAS #
# #
# Michael Bowes #
# Revised 2 Aug 2005 - Cost Minimization Version #
#####

# This version has the objective function in cost per square feet terms;
# elements not related to cost are given trivially low weights.
# - Balance constraints are set at trivial level
# - Possibility of building is dropped

reset;

model dfasCostMin.mod;
data dfas.dat;
option cplex_options 'timelimit=480 solutionlim=500000 mipgap=.00000001
integrality=0';

param KpCls symbolic default "";
param KpCls1 symbolic default "";
param KpCls2 symbolic default "";
param KpCls3 symbolic default "";
param KpCls4 symbolic default "";
param KpCls5 symbolic default "";
param RUN symbolic;
param Loop symbolic default "Y";

### ENTER RUN PARAMETERS
#####
let Loop := "Y"; # "N" if you want one best solution
# "Y" to loop over specific number of sites retained

let rho_resource := 15.22; # cost of capacity retained
# 15.22 reflect 20 year stream of $1 at 3% discount
rate
let rho_build := 180; # cost per sf of new construction
let rho_expand := 90; # cost of renovation

let rho_func := .01 ; # favor fewer locations providing a function
let rho_move := .01 ; # avoid moves, favor existing concentration !! (Try
.01, .1, .5)
let rho_secure := 0 ; # penalty on sites with security issues
let rho_site := 1 ; # penalty on sites retained (must be > 1; not
relevant if loop=Y);

#Set Closure or Openings
#let Close["Denver_CO_____"] := 1; let KpCls1 := "_noDenv"; # Close Denver
#let Close["Cleveland_OH_____"] := 1; let KpCls2 := "_noClev"; # Close Cleveland
#let Keep["Limestone_ME_____"] := 1; let KpCls3 := "_kpLime"; # Keep Limestone
#let Keep["Rome_NY_____"] := 1; let KpCls4 := "_kpRome"; # Keep Rome

let minAssignLine := 10;
let minCenterSpt := 5;
let minAssignSpt := 5;

# Set upper and lower limits on number of closure alternatives to generate
param C_up; let C_up := 22; # Retain 4 = 26-22 sites sites (3 plus HQ)
param C_lo; let C_lo := 8; # Retain 18 = 26-8 sites (17 plus HQ)
# With a single run, it doesn't matter what C_up is set to.

```

dfasCostMin.run

```

param i_c; # used to track passes through loop

#####
# Setup the run and build output filename

for {s in Sites} let maxBuild[s] := 0; # stop any building

if (Loop = "N")
  then {
    let C_lo := C_up;
    drop Number_of_Sites_Open;
    let RUN := "(1Best_r_site_" & rho_site & ",r_" & rho_resource & ",b_" &
rho_build & ",e_" & rho_expand &
    ",f_" & rho_func & ",m_" & rho_move & ",s_" & rho_secure & ")"; }
  else {
    restore Number_of_Sites_Open;
    let RUN := "(r_" & rho_resource & ",b_" & rho_build & ",e_" & rho_expand &
    ",f_" & rho_func & ",m_" & rho_move & ",s_" & rho_secure & ")"; }

param OutFile symbolic;
let KpCls := KpCls1 & KpCls2 & KpCls3 & KpCls4;
let OutFile := "dfasCostMin" & KpCls & RUN & ".out";

#To store for results
set METRICS := {"_AvgMV", "_CapRtnd", "_Build", "_Renovate"};
set OUTPUTS := Sites union METRICS;

param Results{OUTPUTS, 1..10} ; ##### 10 has to be changed if loop is bigger ****
for {s in OUTPUTS, i in (1..10)} let Results[s,i] := -0.1; # initialize

#####

### Here's the main solution loop - Count is incremented on each pass
#####
let Count := C_up;
let i_c := 1; # Tracks the number of passes through loop

repeat {
  solve;

  printf "===== \n" > (OutFile);
  printf " \n" > (OutFile);
  printf "===== \n" > (OutFile);

#####
# BEGIN IF statement - output for feasible solutions only
if (solve_result_num<104 or solve_result_num=422) then {
#####
printf "\n" > (OutFile);

printf "NUMBER OF SITES RETAINED = %2.0f of %2.0f \n",
sum {s in Sites} Open[s], card(Sites)
> (OutFile);
printf "\n" > (OutFile);

printf "Penalties used in the run \n" > (OutFile);
printf "===== \n" > (OutFile);

```

```

dfasCostMin.run
printf "Penalty ObjValue \n" > (OutFile);
printf "===== \n" > (OutFile);
printf "Penalty on Sites = %13.3f %9.2f \n", rho_site,
rho_site* sum {s in Sites} Open[s]
> (OutFile);
printf "Penalty on Capacity = %13.3f %9.2f \n", rho_resource,
rho_resource* sum {s in Sites} (capacity[s]*Open[s] + expRes[s] +
buildRes[s])/(total_capacity)
> (OutFile);
printf "Penalty on Expansion = %13.3f %9.2f \n", rho_expand,
rho_expand * sum {s in Sites} expRes[s]/(total_capacity)
> (OutFile);
printf "Penalty on Building = %13.3f %9.2f \n", rho_build,
rho_build * sum {s in Sites} buildRes[s]/(total_capacity)
> (OutFile);
printf "Reward Concentration = %13.3f %9.2f \n", rho_func,
rho_func * sum {s in Sites, f in Line } OpenFunc[s,f]/(card(Sites))
> (OutFile);
printf "Penalize Moving Staff = %13.3f %9.2f \n", rho_move,
rho_move * sum {s in Sites, f in Line}
(centers[s,f]*Assign[s,f]/requirement[f])
> (OutFile);
printf "Penalty on non-secure = %13.3f %9.2f \n", rho_secure,
rho_secure * sum {s in Sites} (Secure[s]/card(Sites))
> (OutFile);
printf "===== \n" > (OutFile);

printf "Military Value: Total MV = %6.3f Average MV = %6.3f \n",
sum {s in Sites} MV[s]*Open[s],
(sum {s in Sites} MV[s]*Open[s])/(sum {s in Sites} Open[s])
> (OutFile);

printf "Overall Objective Function Value: = %9.3f \n", Military_value > (OutFile);
printf "\n" > (OutFile);
printf "\n" > (OutFile);

printf "Overall Capacity: Initial = %7.0f Final = %7.0f Retained = %5.1f(%%) \n",
total_capacity, sum {s in Sites} (capacity[s]*Open[s] + expRes[s] +
buildRes[s]),
sum {s in Sites} 100*(capacity[s]*Open[s] + expRes[s] +
buildRes[s])/total_capacity
> (OutFile);

printf "Expansion to available space = %7.0f New construction = %7.0f \n",
sum {s in Sites} expRes[s], sum {s in Sites} buildRes[s]
> (OutFile);
printf "\n" > (OutFile);

printf "\n" > (OutFile);

printf "Site Results (1 identifies retained sites) \n" > (OutFile);

display Open, MV, Cost > (OutFile);;
display Open;

printf "\n" > (OutFile);
printf " Initial Take Build Final | Staff Special
Total \n" > (OutFile);
printf " Capacity Space Space Capacity | Use Use
Used \n" > (OutFile);
printf "

```

dfasCostMin.run

```

===== \n" > (OutFile);
for {s in Sites}
  { printf "%14s %8.0f %8.0f %8.0f %9.0f %8.0f %8.0f %8.0f \n",
    s, capacity[s], expRes[s], buildRes[s], capacity[s]*Open[s] +
expRes[s] + buildRes[s],
    sum{f in Functions} Assign[s,f]*useRate,
    (Vault*a_Vault[s] + VaultDoD*a_VaultDoD[s] + SCIF*a_SCIF[s] +
SCIFDoD*a_SCIFDoD[s] +
    TrainArmy*a_TrainArmy[s] + TrainDoD*a_TrainDoD[s] + TrainFld*a_TrainFld[s]
+
    VTC*a_VTC[s] ),
    (Vault*a_Vault[s] + VaultDoD*a_VaultDoD[s] + SCIF*a_SCIF[s] +
SCIFDoD*a_SCIFDoD[s] +
    TrainArmy*a_TrainArmy[s] + TrainDoD*a_TrainDoD[s] + TrainFld*a_TrainFld[s]
+
    VTC*a_VTC[s] + sum{f in Functions} Assign[s,f]*useRate)
    > (OutFile);
};

printf "\n" > (OutFile);
printf "
Acct Acct Acct Comm MC NAF Def Sprt |
Total \n" > (OutFile);
printf "
Field DoD Army Pay Pay Acct Agency Staff |
Staff \n" > (OutFile);
printf "
===== \n" > (OutFile);

for {s in Sites}
  { printf "%14s %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f %6.0f | %6.0f \n",
    s, Assign[s,'AcctFld'], Assign[s,'AcctDoD'], Assign[s,'AcctArmy'],
Assign[s,'CmPay'], Assign[s,'MCPay'],
    Assign[s,'NAFACct'], Assign[s,'DMPOS'] + Assign[s,'DoDEA'] +
Assign[s,'DTRA'] + Assign[s,'WHS'],
    Assign[s,'CorpSpt'] + Assign[s,'HQAr1'],
    sum {f in Functions} Assign[s,f]
    > (OutFile);
};

for {s in Sites} let Results[s,i_c] := Open[s];
let Results["_AvgMV",i_c] := (sum {s in Sites} MV[s]*Open[s])/(sum {s in Sites}
Open[s]);
let Results["_CapRtnd",i_c] := sum {s in Sites} 100*(capacity[s]*Open[s] +
expRes[s] + buildRes[s])/total_capacity;
let Results["_Build",i_c] := sum {s in Sites} buildRes[s];
let Results["_Renovate",i_c] := sum {s in Sites} expRes[s];

#####
}
else
printf "Attempted to retain %2.0f of %2.0f. The run was infeasible\n ",
card(Sites) - Count, card(Sites) > (OutFile);

```

```

dfasCostMin.run
# This ends the if statement on output for feasible solutions
#####
printf "=====\n\n" > (OutFile);

let Count := Count - 1;
let i_c := i_c + 1;
} while Count >= C_lo;    # Ends the repeat Count
printf "\n" > (OutFile);
display Results > (OutFile);
printf "Results that show as -0.1 can be discarded \n" > (OutFile);
printf "\n" > (OutFile);

close (OutFile);
;

```

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	objvalue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.74
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.455 Average MV = 0.614
 Overall Objective Function Value: = 0.683

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
 Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	0	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_RV__	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Columbus_OH___	559566	127985	0	687551	653600	33951	687551
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_Rv___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1205	0	0	10	1526	4085
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	1172	0	0	0	500	0	0	300	1972
Indianapolis__	0	0	2193	615	862	165	100	301	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_Rv___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.906 Average MV = 0.581
 Overall Objective Function Value: = 1.763

Overall Capacity: Initial = 3267208 Final = 1880828 Retained = 57.6(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	1	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_RV__	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	0	0	559566	525600	33951	559551
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	296818	281760	14919	296679
Indianapolis__	701689	0	0	701689	668960	24019	692979
Kansas_City__	219742	0	0	219742	170560	24019	194579
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Limestone_ME__	68587	0	0	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	0	0	0	0	0	0
Oakland_CA__	14636	0	0	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0	0	0
Patuxent_Rv__	9553	0	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY__	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0	0
Seaside_CA__	23126	0	0	0	0	0	0	0	0
St_Louis_MO__	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH__	0	1344	0	993	0	0	10	938	3285
Dayton_OH__	0	0	0	0	0	0	0	0	0
Denver_CO__	1172	0	0	0	0	0	0	589	1761
Indianapolis__	0	0	2192	827	862	0	0	300	4181
Kansas_City__	0	0	1	0	500	165	100	300	1066
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA__	0	0	0	0	0	0	0	0	0
Oakland_CA__	0	0	0	0	0	0	0	0	0
Omaha_NE__	0	0	0	0	0	0	0	0	0
Orlando_FL__	0	0	0	0	0	0	0	0	0
Pacific_HI__	0	0	0	0	0	0	0	0	0
Patuxent_Rv__	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY__	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA__	0	0	0	0	0	0	0	0	0
St_Louis_MO__	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.25
Penalty on Building	= 20.000	0.00

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.010 0.05
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.029 Average MV = 0.671
 Overall Objective Function Value: = 2.690

Overall Capacity: Initial = 3267208 Final = 1852662 Retained = 56.7(%)
 Expansion to available space = 53454 New construction = 0

Site Results (1 identifies retained sites)

```

:      Open      MV      :=
Arlington_VA__  1      0.313
Charleston_SC_  0      0.546
Cleveland_OH__  0      0.587
Columbus_OH___  1      0.688
Dayton_OH_____ 0      0.625
Denver_CO_____ 1      0.803
Indianapolis___ 1      0.651
Kansas_City____ 0      0.451
Lawton_Ft_Sill  1      0.787
Lexington_KY___ 0      0.532
Limestone_ME___ 0      0.548
Norfolk_VA_____ 1      0.787
Oakland_CA_____ 0      0.243
Omaha_NE_____  0      0.673
Orlando_FL_____ 0      0.54
Pacific_HI_____ 0      0.569
Patuxent_Rv____ 0      0.565
Pensacola_NAS_  0      0.72
Pensacola_Sauf  0      0.805
Rock_Island_IL  0      0.846
Rome_NY_____  0      0.542
San_Antonio_TX  0      0.586
San_Bernadino__ 0      0.429
San_Diego_CA___ 0      0.569
Seaside_CA_____ 0      0.433
St_Louis_MO____ 0      0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	53198	0	118119	103200	14919	118119
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_Rv____	9553	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA____	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	910	0	0	10	1022	3286
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	667	0	0	0	794	0	0	301	1762
Indianapolis___	0	0	2193	910	568	165	100	300	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	323	0	0	0	0	0	0	322	645
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV_____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA____	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 7 of 26

Penalties used in the run

	Penalty	Objvalue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	15.000	0.12
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.38
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 4.875 Average MV = 0.696
 Overall Objective Function Value: = 3.611

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Overall Capacity: Initial = 3267208 Final = 1867673 Retained = 57.2(%)
 Expansion to available space = 26414 New construction = 0

Site Results (1 identifies retained sites)

```

:
Open      MV      :=
Arlington_VA__ 1    0.313
Charleston_SC__ 0    0.546
Cleveland_OH__  0    0.587
Columbus_OH___ 1    0.688
Dayton_OH_____ 0    0.625
Denver_CO_____ 1    0.803
Indianapolis___ 1    0.651
Kansas_City____ 0    0.451
Lawton_Ft_Sill  1    0.787
Lexington_KY___ 0    0.532
Limestone_ME___ 0    0.548
Norfolk_VA_____ 1    0.787
Oakland_CA_____ 0    0.243
Omaha_NE_____  0    0.673
Orlando_FL_____ 0    0.54
Pacific_HI_____ 0    0.569
Patuxent_RV____ 0    0.565
Pensacola_NAS__ 0    0.72
Pensacola_Sauf  0    0.805
Rock_Island_IL  1    0.846
Rome_NY_____  0    0.542
San_Antonio_TX  0    0.586
San_Bernadino__ 0    0.429
San_Diego_CA___  0    0.569
Seaside_CA_____ 0    0.433
St_Louis_MO____ 0    0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	26158	0	91079	76160	14919	91079
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0
Pensacola_NAS__	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY_____	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Seaside_CA____	23126	0	0	0	0	0	0	0
St_Louis_MO____	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA____	0	0	0	0	0	0	0	149	149
Charleston_SC____	0	0	0	0	0	0	0	0	0
Cleveland_OH____	0	0	0	0	0	0	0	0	0
Columbus_OH____	0	1344	0	1320	0	0	10	612	3286
Dayton_OH____	0	0	0	0	0	0	0	0	0
Denver_CO____	667	0	0	0	795	0	0	300	1762
Indianapolis____	0	0	2193	500	567	165	100	711	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	238	0	0	0	0	0	0	238	476
Lexington_KY____	0	0	0	0	0	0	0	0	0
Limestone_ME____	0	0	0	0	0	0	0	0	0
Norfolk_VA____	182	0	0	0	0	0	0	182	364
Oakland_CA____	0	0	0	0	0	0	0	0	0
Omaha_NE____	0	0	0	0	0	0	0	0	0
Orlando_FL____	0	0	0	0	0	0	0	0	0
Pacific_HI____	0	0	0	0	0	0	0	0	0
Patuxent_Rv____	0	0	0	0	0	0	0	0	0
Pensacola_NAS____	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	85	0	0	0	0	0	0	84	169
Rome_NY____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino____	0	0	0	0	0	0	0	0	0
San_Diego_CA____	0	0	0	0	0	0	0	0	0
Seaside_CA____	0	0	0	0	0	0	0	0	0
St_Louis_MO____	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	:=
Arlington_VA____	1	1	1	1	-0.1	
Charleston_SC____	0	0	0	0	-0.1	
Cleveland_OH____	0	0	0	0	-0.1	
Columbus_OH____	1	1	1	1	-0.1	
Dayton_OH____	0	0	0	0	-0.1	
Denver_CO____	1	1	1	1	-0.1	
Indianapolis____	1	1	1	1	-0.1	
Kansas_City____	0	1	0	0	-0.1	
Lawton_Ft_Sill	0	0	1	1	-0.1	
Lexington_KY____	0	0	0	0	-0.1	
Limestone_ME____	0	0	0	0	-0.1	
Norfolk_VA____	0	0	1	1	-0.1	
Oakland_CA____	0	0	0	0	-0.1	
Omaha_NE____	0	0	0	0	-0.1	
Orlando_FL____	0	0	0	0	-0.1	
Pacific_HI____	0	0	0	0	-0.1	
Patuxent_Rv____	0	0	0	0	-0.1	
Pensacola_NAS____	0	0	0	0	-0.1	
Pensacola_Sauf	0	0	0	0	-0.1	
Rock_Island_IL	0	0	0	1	-0.1	
Rome_NY____	0	0	0	0	-0.1	
San_Antonio_TX	0	0	0	0	-0.1	
San_Bernadino____	0	0	0	0	-0.1	
San_Diego_CA____	0	0	0	0	-0.1	
Seaside_CA____	0	0	0	0	-0.1	

```

dfas(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out
St_Louis_MO_____ 0 0 0 0 -0.1
'_%CapRtnd' 55.7902 57.5668 56.7047 57.1642 -0.1
_AvgMV 0.61375 0.5812 0.6715 0.696429 -0.1
_Build 0 0 0 0 -0.1
_Renovate 161696 0 53454 26414 -0.1

: 6 7 8 9 10 :=
Arlington_VA_____ -0.1 -0.1 -0.1 -0.1 -0.1
Charleston_SC_____ -0.1 -0.1 -0.1 -0.1 -0.1
Cleveland_OH_____ -0.1 -0.1 -0.1 -0.1 -0.1
Columbus_OH_____ -0.1 -0.1 -0.1 -0.1 -0.1
Dayton_OH_____ -0.1 -0.1 -0.1 -0.1 -0.1
Denver_CO_____ -0.1 -0.1 -0.1 -0.1 -0.1
Indianapolis_____ -0.1 -0.1 -0.1 -0.1 -0.1
Kansas_City_____ -0.1 -0.1 -0.1 -0.1 -0.1
Lawton_Ft_Sill_____ -0.1 -0.1 -0.1 -0.1 -0.1
Lexington_KY_____ -0.1 -0.1 -0.1 -0.1 -0.1
Limestone_ME_____ -0.1 -0.1 -0.1 -0.1 -0.1
Norfolk_VA_____ -0.1 -0.1 -0.1 -0.1 -0.1
Oakland_CA_____ -0.1 -0.1 -0.1 -0.1 -0.1
Omaha_NE_____ -0.1 -0.1 -0.1 -0.1 -0.1
Orlando_FL_____ -0.1 -0.1 -0.1 -0.1 -0.1
Pacific_HI_____ -0.1 -0.1 -0.1 -0.1 -0.1
Patuxent_RV_____ -0.1 -0.1 -0.1 -0.1 -0.1
Pensacola_NAS_____ -0.1 -0.1 -0.1 -0.1 -0.1
Pensacola_Sauf_____ -0.1 -0.1 -0.1 -0.1 -0.1
Rock_Island_IL_____ -0.1 -0.1 -0.1 -0.1 -0.1
Rome_NY_____ -0.1 -0.1 -0.1 -0.1 -0.1
San_Antonio_TX_____ -0.1 -0.1 -0.1 -0.1 -0.1
San_Bernadino_____ -0.1 -0.1 -0.1 -0.1 -0.1
San_Diego_CA_____ -0.1 -0.1 -0.1 -0.1 -0.1
Seaside_CA_____ -0.1 -0.1 -0.1 -0.1 -0.1
St_Louis_MO_____ -0.1 -0.1 -0.1 -0.1 -0.1
'_%CapRtnd' -0.1 -0.1 -0.1 -0.1 -0.1
_AvgMV -0.1 -0.1 -0.1 -0.1 -0.1
_Build -0.1 -0.1 -0.1 -0.1 -0.1
_Renovate -0.1 -0.1 -0.1 -0.1 -0.1
;

```

Results that show as -0.1 can be discarded

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	3.000	1.67
Penalty on Expansion =	15.000	0.74
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.455 Average MV = 0.614
 Overall Objective Function Value: = -0.128

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
 Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	0	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_Rv__	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Columbus_OH___	559566	127985	0	0	687551	653600	33951	687551
Dayton_OH___	81825	0	0	0	0	0	0	0
Denver_CO___	296818	33621	0	0	330439	315520	14919	330439
Indianapolis___	701689	90	0	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC___	0	0	0	0	0	0	0	0	0
Cleveland_OH___	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1291	0	0	10	1440	4085
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	1172	0	0	0	500	0	0	300	1972
Indianapolis___	0	0	2193	529	862	165	100	387	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	3.000	1.69
Penalty on Expansion =	15.000	0.51
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.242 Average MV = 0.648
 Overall Objective Function Value: = 0.898

Overall Capacity: Initial = 3267208 Final = 1837701 Retained = 56.2(%)
 Expansion to available space = 111694 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	0	0.451	
Lawton_Ft_Sill	1	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_RV__	0	0.565	
Pensacola_NAS	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino_	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	28945	0	588511	554560	33951	588511
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	21	0	296839	281920	14919	296839
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City__	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	82638	0	147559	132640	14919	147559
Lexington_KY__	20120	0	0	0	0	0	0

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Limestone_ME	68587	0	0	0	0	0	0	0
Norfolk_VA	73201	0	0	0	0	0	0	0
Oakland_CA	14636	0	0	0	0	0	0	0
Omaha_NE	64982	0	0	0	0	0	0	0
Orlando_FL	53221	0	0	0	0	0	0	0
Pacific_HI	30996	0	0	0	0	0	0	0
Patuxent_Rv	9553	0	0	0	0	0	0	0
Pensacola_NAS	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino	30056	0	0	0	0	0	0	0
San_Diego_CA	46641	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1030	0	0	10	1082	3466
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	757	0	0	0	705	0	0	300	1762
Indianapolis	0	0	2193	790	657	165	100	331	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	415	0	0	0	0	0	0	414	829
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	0	0	0	0	0	0	0	0	0
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_Rv	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	Objvalue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 3.000	1.70
Penalty on Expansion	= 15.000	0.25
Penalty on Building	= 20.000	0.00

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.010 0.05
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.029 Average MV = 0.671
 Overall Objective Function Value: = 1.897

Overall Capacity: Initial = 3267208 Final = 1852662 Retained = 56.7(%)
 Expansion to available space = 53454 New construction = 0

Site Results (1 identifies retained sites)

```

:      Open      MV      :=
Arlington_VA__  1      0.313
Charleston_SC__ 0      0.546
Cleveland_OH__  0      0.587
Columbus_OH__   1      0.688
Dayton_OH____  0      0.625
Denver_CO____  1      0.803
Indianapolis__  1      0.651
Kansas_City___  0      0.451
Lawton_Ft_Sill  1      0.787
Lexington_KY___ 0      0.532
Limestone_ME___ 0      0.548
Norfolk_VA____ 1      0.787
Oakland_CA____ 0      0.243
Omaha_NE____   0      0.673
Orlando_FL____ 0      0.54
Pacific_HI____  0      0.569
Patuxent_RV___  0      0.565
Pensacola_NAS_  0      0.72
Pensacola_Sauf 0      0.805
Rock_Island_IL 0      0.846
Rome_NY____   0      0.542
San_Antonio_TX  0      0.586
San_Bernadino__ 0      0.429
San_Diego_CA___ 0      0.569
Seaside_CA____ 0      0.433
St_Louis_MO___  0      0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH____	81825	0	0	0	0	0	0
Denver_CO____	296818	21	0	296839	281920	14919	296839
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	53198	0	118119	103200	14919	118119
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA____	73201	0	0	73201	58240	14919	73159
Oakland_CA____	14636	0	0	0	0	0	0
Omaha_NE____	64982	0	0	0	0	0	0
Orlando_FL____	53221	0	0	0	0	0	0
Pacific_HI____	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA_____	23126	0	0	0	0	0	0	0
St_Louis_MO____	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1320	0	0	10	612	3286
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	667	0	0	0	795	0	0	300	1762
Indianapolis___	0	0	2193	500	567	165	100	711	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	323	0	0	0	0	0	0	322	645
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_Rv____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO____	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 7 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	3.000	1.71
Penalty on Expansion =	15.000	0.12
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.38
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 4.875 Average MV = 0.696
 Overall objective Function value: = 2.808

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Overall Capacity: Initial = 3267208 Final = 1867673 Retained = 57.2(%)
 Expansion to available space = 26414 New construction = 0

Site Results (1 identifies retained sites)

```

:
Open      MV      :=
Arlington_VA___ 1    0.313
Charleston_SC___ 0    0.546
Cleveland_OH___ 0    0.587
Columbus_OH___  1    0.688
Dayton_OH___    0    0.625
Denver_CO___    1    0.803
Indianapolis___ 1    0.651
Kansas_City___  0    0.451
Lawton_Ft_Sill  1    0.787
Lexington_KY___ 0    0.532
Limestone_ME___ 0    0.548
Norfolk_VA___   1    0.787
Oakland_CA___   0    0.243
Omaha_NE___     0    0.673
Orlando_FL___   0    0.54
Pacific_HI___   0    0.569
Patuxent_RV___  0    0.565
Pensacola_NAS___ 0    0.72
Pensacola_Sauf  0    0.805
Rock_Island_IL  1    0.846
Rome_NY___      0    0.542
San_Antonio_TX  0    0.586
San_Bernadino___ 0    0.429
San_Diego_CA___ 0    0.569
Seaside_CA___   0    0.433
St_Louis_MO___  0    0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA___	103013	0	0	103013	23840	0	23840
Charleston_SC___	108955	0	0	0	0	0	0
Cleveland_OH___	309611	0	0	0	0	0	0
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	26158	0	91079	76160	14919	91079
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	73201	58240	14919	73159
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0
Pensacola_NAS___	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino___	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Seaside_CA_____	23126	0	0	0	0	0	0	0
St_Louis_MO_____	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_____	0	0	0	0	0	0	0	149	149
Charleston_SC_____	0	0	0	0	0	0	0	0	0
Cleveland_OH_____	0	0	0	0	0	0	0	0	0
Columbus_OH_____	0	1344	0	909	0	0	10	1023	3286
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	667	0	0	0	795	0	0	300	1762
Indianapolis_____	0	0	2193	911	567	165	100	300	4236
Kansas_City_____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill_____	238	0	0	0	0	0	0	238	476
Lexington_KY_____	0	0	0	0	0	0	0	0	0
Limestone_ME_____	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV_____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_____	0	0	0	0	0	0	0	0	0
Pensacola_Sauf_____	0	0	0	0	0	0	0	0	0
Rock_Island_IL_____	85	0	0	0	0	0	0	84	169
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX_____	0	0	0	0	0	0	0	0	0
San_Bernadino_____	0	0	0	0	0	0	0	0	0
San_Diego_CA_____	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO_____	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5 :=
Arlington_VA_____	1	1	1	1	-0.1
Charleston_SC_____	0	0	0	0	-0.1
Cleveland_OH_____	0	0	0	0	-0.1
Columbus_OH_____	1	1	1	1	-0.1
Dayton_OH_____	0	0	0	0	-0.1
Denver_CO_____	1	1	1	1	-0.1
Indianapolis_____	1	1	1	1	-0.1
Kansas_City_____	0	0	0	0	-0.1
Lawton_Ft_Sill_____	0	1	1	1	-0.1
Lexington_KY_____	0	0	0	0	-0.1
Limestone_ME_____	0	0	0	0	-0.1
Norfolk_VA_____	0	0	1	1	-0.1
Oakland_CA_____	0	0	0	0	-0.1
Omaha_NE_____	0	0	0	0	-0.1
Orlando_FL_____	0	0	0	0	-0.1
Pacific_HI_____	0	0	0	0	-0.1
Patuxent_Rv_____	0	0	0	0	-0.1
Pensacola_NAS_____	0	0	0	0	-0.1
Pensacola_Sauf_____	0	0	0	0	-0.1
Rock_Island_IL_____	0	0	0	1	-0.1
Rome_NY_____	0	0	0	0	-0.1
San_Antonio_TX_____	0	0	0	0	-0.1
San_Bernadino_____	0	0	0	0	-0.1
San_Diego_CA_____	0	0	0	0	-0.1
Seaside_CA_____	0	0	0	0	-0.1

```

dfas(r_3,b_20,e_15,f_1,m_0.01,s_0).out
St_Louis_MO___      0          0          0          0          -0.1
'_%CapRtnd'        55.7902      56.2468      56.7047      57.1642      -0.1
_AvgMV             0.61375     0.6484       0.6715       0.696429     -0.1
_Build            0          0          0          0          -0.1
_Renovate         161696     111694       53454        26414        -0.1

:                   6          7          8          9          10      :=
Arlington_VA___   -0.1      -0.1      -0.1      -0.1      -0.1
Charleston_SC___ -0.1      -0.1      -0.1      -0.1      -0.1
Cleveland_OH___  -0.1      -0.1      -0.1      -0.1      -0.1
Columbus_OH___   -0.1      -0.1      -0.1      -0.1      -0.1
Dayton_OH___     -0.1      -0.1      -0.1      -0.1      -0.1
Denver_CO___     -0.1      -0.1      -0.1      -0.1      -0.1
Indianapolis___  -0.1      -0.1      -0.1      -0.1      -0.1
Kansas_City___   -0.1      -0.1      -0.1      -0.1      -0.1
Lawton_Ft_Sill   -0.1      -0.1      -0.1      -0.1      -0.1
Lexington_KY___  -0.1      -0.1      -0.1      -0.1      -0.1
Limestone_ME___  -0.1      -0.1      -0.1      -0.1      -0.1
Norfolk_VA___    -0.1      -0.1      -0.1      -0.1      -0.1
Oakland_CA___    -0.1      -0.1      -0.1      -0.1      -0.1
Omaha_NE___      -0.1      -0.1      -0.1      -0.1      -0.1
Orlando_FL___    -0.1      -0.1      -0.1      -0.1      -0.1
Pacific_HI___    -0.1      -0.1      -0.1      -0.1      -0.1
Patuxent_RV___   -0.1      -0.1      -0.1      -0.1      -0.1
Pensacola_NAS___ -0.1      -0.1      -0.1      -0.1      -0.1
Pensacola_Sauf   -0.1      -0.1      -0.1      -0.1      -0.1
Rock_Island_IL   -0.1      -0.1      -0.1      -0.1      -0.1
Rome_NY___       -0.1      -0.1      -0.1      -0.1      -0.1
San_Antonio_TX   -0.1      -0.1      -0.1      -0.1      -0.1
San_Bernadino___ -0.1      -0.1      -0.1      -0.1      -0.1
San_Diego_CA___  -0.1      -0.1      -0.1      -0.1      -0.1
Seaside_CA___    -0.1      -0.1      -0.1      -0.1      -0.1
St_Louis_MO___   -0.1      -0.1      -0.1      -0.1      -0.1
'_%CapRtnd'      -0.1      -0.1      -0.1      -0.1      -0.1
_AvgMV           -0.1      -0.1      -0.1      -0.1      -0.1
_Build           -0.1      -0.1      -0.1      -0.1      -0.1
_Renovate        -0.1      -0.1      -0.1      -0.1      -0.1
;

```

Results that show as -0.1 can be discarded

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.74
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.100	0.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.455 Average MV = 0.614
 Overall Objective Function Value: = 1.133

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
 Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC_	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH___	1	0.688	
Dayton_OH_____	0	0.625	
Denver_CO_____	1	0.803	
Indianapolis__	1	0.651	
Kansas_City___	0	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA____	0	0.787	
Oakland_CA____	0	0.243	
Omaha_NE______	0	0.673	
Orlando_FL____	0	0.54	
Pacific_HI_____	0	0.569	
Patuxent_Rv___	0	0.565	
Pensacola_NAS_	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY______	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino_	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA____	0	0.433	
St_Louis_MO___	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Columbus_OH___	559566	127985	0	687551	653600	33951	687551
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_Rv___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH___	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1319	0	0	10	1412	4085
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	1172	0	0	0	500	0	0	300	1972
Indianapolis__	0	0	2193	501	862	165	100	415	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_Rv___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.100	0.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.906 Average MV = 0.581
 Overall Objective Function value: = 2.213

Overall Capacity: Initial = 3267208 Final = 1880828 Retained = 57.6(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	1	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_RV__	0	0.565	
Pensacola_NAS	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino_	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	0	0	559566	525600	33951	559551
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	296818	248000	14919	262919
Indianapolis__	701689	0	0	701689	677600	24019	701619
Kansas_City__	219742	0	0	219742	195680	24019	219699
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Limestone_ME_	68587	0	0	0	0	0	0	0	0
Norfolk_VA_	73201	0	0	0	0	0	0	0	0
Oakland_CA_	14636	0	0	0	0	0	0	0	0
Omaha_NE_	64982	0	0	0	0	0	0	0	0
Orlando_FL_	53221	0	0	0	0	0	0	0	0
Pacific_HI_	30996	0	0	0	0	0	0	0	0
Patuxent_RV_	9553	0	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY_	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0	0
Seaside_CA_	23126	0	0	0	0	0	0	0	0
St_Louis_MO_	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH_	0	0	0	0	0	0	0	0	0
Columbus_OH_	0	1344	0	983	0	0	10	948	3285
Dayton_OH_	0	0	0	0	0	0	0	0	0
Denver_CO_	1172	0	0	0	0	0	0	378	1550
Indianapolis_	0	0	2192	837	862	43	1	300	4235
Kansas_City_	0	0	1	0	500	122	99	501	1223
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY_	0	0	0	0	0	0	0	0	0
Limestone_ME_	0	0	0	0	0	0	0	0	0
Norfolk_VA_	0	0	0	0	0	0	0	0	0
Oakland_CA_	0	0	0	0	0	0	0	0	0
Omaha_NE_	0	0	0	0	0	0	0	0	0
Orlando_FL_	0	0	0	0	0	0	0	0	0
Pacific_HI_	0	0	0	0	0	0	0	0	0
Patuxent_RV_	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA_	0	0	0	0	0	0	0	0	0
St_Louis_MO_	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.25
Penalty on Building	= 20.000	0.00

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.100 0.47
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.029 Average MV = 0.671
 Overall Objective Function Value: = 3.105

Overall Capacity: Initial = 3267208 Final = 1852662 Retained = 56.7(%)
 Expansion to available space = 53454 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH___	1	0.688	
Dayton_OH_____	0	0.625	
Denver_CO_____	1	0.803	
Indianapolis___	1	0.651	
Kansas_City____	0	0.451	
Lawton_Ft_Sill	1	0.787	
Lexington_KY___	0	0.532	
Limestone_ME___	0	0.548	
Norfolk_VA_____	1	0.787	
Oakland_CA_____	0	0.243	
Omaha_NE_____	0	0.673	
Orlando_FL_____	0	0.54	
Pacific_HI_____	0	0.569	
Patuxent_RV____	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY_____	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA___	0	0.569	
Seaside_CA_____	0	0.433	
St_Louis_MO____	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	53105	0	612671	578720	33951	612671
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA	46641	0	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprtt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1320	0	0	10	943	3617
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	833	0	0	0	500	0	0	429	1762
Indianapolis	0	0	2193	500	862	165	100	416	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	182	0	0	0	0	0	0	182	364
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_Rv	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 7 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	15.000	0.12
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.38
Penalize Moving Staff =	0.100	0.46
Penalty on non-secure =	0.000	0.00

Military value: Total MV = 4.875 Average MV = 0.696
 Overall Objective Function value: = 4.024

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Overall Capacity: Initial = 3267208 Final = 1867673 Retained = 57.2(%)
 Expansion to available space = 26414 New construction = 0

Site Results (1 identifies retained sites)

```

:
Open      MV      :=
Arlington_VA__ 1    0.313
Charleston_SC__ 0    0.546
Cleveland_OH__  0    0.587
Columbus_OH___ 1    0.688
Dayton_OH_____ 0    0.625
Denver_CO_____ 1    0.803
Indianapolis___ 1    0.651
Kansas_City____ 0    0.451
Lawton_Ft_Sill  1    0.787
Lexington_KY___ 0    0.532
Limestone_ME___ 0    0.548
Norfolk_VA_____ 1    0.787
Oakland_CA_____ 0    0.243
Omaha_NE_______ 0    0.673
Orlando_FL_____ 0    0.54
Pacific_HI_____ 0    0.569
Patuxent_Rv____ 0    0.565
Pensacola_NAS__ 0    0.72
Pensacola_Sauf  0    0.805
Rock_Island_IL  1    0.846
Rome_NY_______ 0    0.542
San_Antonio_TX  0    0.586
San_Bernadino___ 0    0.429
San_Diego_CA___  0    0.569
Seaside_CA_____ 0    0.433
St_Louis_MO____ 0    0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	26065	0	585631	551680	33951	585631
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_______	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_Rv____	9553	0	0	0	0	0	0
Pensacola_NAS__	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY_______	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino___	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Seaside_CA_____ 23126 0 0 0 0 0 0 0
 St_Louis_MO_____ 78914 0 0 0 0 0 0 0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_____	0	0	0	0	0	0	0	149	149
Charleston_SC_____	0	0	0	0	0	0	0	0	0
Cleveland_OH_____	0	0	0	0	0	0	0	0	0
Columbus_OH_____	0	1344	0	990	0	0	10	1104	3448
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	748	0	0	0	714	0	0	300	1762
Indianapolis_____	0	0	2193	830	648	165	100	300	4236
Kansas_City_____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill_____	157	0	0	0	0	0	0	157	314
Lexington_KY_____	0	0	0	0	0	0	0	0	0
Limestone_ME_____	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV_____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_____	0	0	0	0	0	0	0	0	0
Pensacola_Sauf_____	0	0	0	0	0	0	0	0	0
Rock_Island_IL_____	85	0	0	0	0	0	0	84	169
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX_____	0	0	0	0	0	0	0	0	0
San_Bernadino_____	0	0	0	0	0	0	0	0	0
San_Diego_CA_____	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO_____	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	:=
Arlington_VA_____	1	1	1	1	-0.1	
Charleston_SC_____	0	0	0	0	-0.1	
Cleveland_OH_____	0	0	0	0	-0.1	
Columbus_OH_____	1	1	1	1	-0.1	
Dayton_OH_____	0	0	0	0	-0.1	
Denver_CO_____	1	1	1	1	-0.1	
Indianapolis_____	1	1	1	1	-0.1	
Kansas_City_____	0	1	0	0	-0.1	
Lawton_Ft_Sill_____	0	0	1	1	-0.1	
Lexington_KY_____	0	0	0	0	-0.1	
Limestone_ME_____	0	0	0	0	-0.1	
Norfolk_VA_____	0	0	1	1	-0.1	
Oakland_CA_____	0	0	0	0	-0.1	
Omaha_NE_____	0	0	0	0	-0.1	
Orlando_FL_____	0	0	0	0	-0.1	
Pacific_HI_____	0	0	0	0	-0.1	
Patuxent_RV_____	0	0	0	0	-0.1	
Pensacola_NAS_____	0	0	0	0	-0.1	
Pensacola_Sauf_____	0	0	0	0	-0.1	
Rock_Island_IL_____	0	0	0	1	-0.1	
Rome_NY_____	0	0	0	0	-0.1	
San_Antonio_TX_____	0	0	0	0	-0.1	
San_Bernadino_____	0	0	0	0	-0.1	
San_Diego_CA_____	0	0	0	0	-0.1	
Seaside_CA_____	0	0	0	0	-0.1	

```

dfas(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out
St_Louis_MO___      0          0          0          0          -0.1
'_%CapRtnd'        55.7902    57.5668    56.7047    57.1642    -0.1
_AvgMV             0.61375    0.5812     0.6715     0.696429   -0.1
_Build             0          0          0          0          -0.1
_Renovate          161696     0          53454     26414     -0.1

:                   6          7          8          9          10      :=
Arlington_VA___   -0.1     -0.1     -0.1     -0.1     -0.1
Charleston_SC___ -0.1     -0.1     -0.1     -0.1     -0.1
Cleveland_OH___  -0.1     -0.1     -0.1     -0.1     -0.1
Columbus_OH___   -0.1     -0.1     -0.1     -0.1     -0.1
Dayton_OH___     -0.1     -0.1     -0.1     -0.1     -0.1
Denver_CO___     -0.1     -0.1     -0.1     -0.1     -0.1
Indianapolis___  -0.1     -0.1     -0.1     -0.1     -0.1
Kansas_City___   -0.1     -0.1     -0.1     -0.1     -0.1
Lawton_Ft_Sill   -0.1     -0.1     -0.1     -0.1     -0.1
Lexington_KY___  -0.1     -0.1     -0.1     -0.1     -0.1
Limestone_ME___ -0.1     -0.1     -0.1     -0.1     -0.1
Norfolk_VA___   -0.1     -0.1     -0.1     -0.1     -0.1
Oakland_CA___   -0.1     -0.1     -0.1     -0.1     -0.1
Omaha_NE___     -0.1     -0.1     -0.1     -0.1     -0.1
Orlando_FL___   -0.1     -0.1     -0.1     -0.1     -0.1
Pacific_HI___   -0.1     -0.1     -0.1     -0.1     -0.1
Patuxent_RV___  -0.1     -0.1     -0.1     -0.1     -0.1
Pensacola_NAS_  -0.1     -0.1     -0.1     -0.1     -0.1
Pensacola_Sauf  -0.1     -0.1     -0.1     -0.1     -0.1
Rock_Island_IL  -0.1     -0.1     -0.1     -0.1     -0.1
Rome_NY___      -0.1     -0.1     -0.1     -0.1     -0.1
San_Antonio_TX  -0.1     -0.1     -0.1     -0.1     -0.1
San_Bernadino_  -0.1     -0.1     -0.1     -0.1     -0.1
San_Diego_CA___ -0.1     -0.1     -0.1     -0.1     -0.1
Seaside_CA___   -0.1     -0.1     -0.1     -0.1     -0.1
St_Louis_MO___  -0.1     -0.1     -0.1     -0.1     -0.1
'_%CapRtnd'     -0.1     -0.1     -0.1     -0.1     -0.1
_AvgMV          -0.1     -0.1     -0.1     -0.1     -0.1
_Build          -0.1     -0.1     -0.1     -0.1     -0.1
_Renovate       -0.1     -0.1     -0.1     -0.1     -0.1
;

```

Results that show as -0.1 can be discarded

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	Objvalue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.74
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.455 Average MV = 0.614
 Overall Objective Function Value: = 3.133

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
 Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	1	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_Rv__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Columbus_OH___	559566	127985	0	687551	653600	33951	687551
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH___	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1205	0	0	10	1526	4085
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	1172	0	0	0	500	0	0	300	1972
Indianapolis__	0	0	2193	615	862	165	100	301	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_Rv___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino__	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

=====
 =====
 =====

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.906 Average MV = 0.581
 Overall Objective Function value: = 4.213

Overall Capacity: Initial = 3267208 Final = 1880828 Retained = 57.6(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	1	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City___	1	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA____	0	0.787	7.47	
Oakland_CA____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	0	0	559566	525600	33951	559551
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	296818	281760	14919	296679
Indianapolis__	701689	0	0	701689	643840	24019	667859
Kansas_City___	219742	0	0	219742	195680	24019	219699
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Limestone_ME_	68587	0	0	0	0	0	0	0
Norfolk_VA_	73201	0	0	0	0	0	0	0
Oakland_CA_	14636	0	0	0	0	0	0	0
Omaha_NE_	64982	0	0	0	0	0	0	0
Orlando_FL_	53221	0	0	0	0	0	0	0
Pacific_HI_	30996	0	0	0	0	0	0	0
Patuxent_Rv_	9553	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0
Seaside_CA_	23126	0	0	0	0	0	0	0
St_Louis_MO_	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA_	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH_	0	0	0	0	0	0	0	0	0
Columbus_OH_	0	1344	0	1268	0	0	10	663	3285
Dayton_OH_	0	0	0	0	0	0	0	0	0
Denver_CO_	1172	0	0	0	0	0	0	589	1761
Indianapolis_	0	0	2192	552	789	164	26	301	4024
Kansas_City_	0	0	1	0	573	1	74	574	1223
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY_	0	0	0	0	0	0	0	0	0
Limestone_ME_	0	0	0	0	0	0	0	0	0
Norfolk_VA_	0	0	0	0	0	0	0	0	0
Oakland_CA_	0	0	0	0	0	0	0	0	0
Omaha_NE_	0	0	0	0	0	0	0	0	0
Orlando_FL_	0	0	0	0	0	0	0	0	0
Pacific_HI_	0	0	0	0	0	0	0	0	0
Patuxent_Rv_	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA_	0	0	0	0	0	0	0	0	0
St_Louis_MO_	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	Objvalue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.29
Penalty on Building	= 20.000	0.00

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.500 2.42
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.029 Average MV = 0.671
 Overall Objective Function Value: = 5.013

Overall Capacity: Initial = 3267208 Final = 1861782 Retained = 57.0(%)
 Expansion to available space = 62574 New construction = 0

Site Results (1 identifies retained sites)

:	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	1	0.803	9.15	
Indianapolis___	1	0.651	14.96	
Kansas_City____	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY___	0	0.532	8.74	
Limestone_ME___	0	0.548	4.98	
Norfolk_VA_____	1	0.787	7.47	
Oakland_CA_____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_RV____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	
;				

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	53745	0	613311	579360	33951	613311
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	8501	0	305319	290400	14919	305319
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	49120	24019	73139
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1121	0	0	10	1146	3621
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	1015	0	0	0	500	0	0	300	1815
Indianapolis	0	0	2151	699	862	0	0	524	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	0	0	42	0	0	165	100	0	307
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_RV	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA	1	0	1	-0.1	-0.1	-0.1	
Charleston_SC	0	1	0	-0.1	-0.1	-0.1	
Cleveland_OH	0	0	0	-0.1	-0.1	-0.1	
Columbus_OH	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH	0	0	0	-0.1	-0.1	-0.1	
Denver_CO	1	1	1	-0.1	-0.1	-0.1	
Indianapolis	1	1	1	-0.1	-0.1	-0.1	
Kansas_City	0	1	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	0	1	-0.1	-0.1	-0.1	
Lexington_KY	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA	0	0	1	-0.1	-0.1	-0.1	
Oakland_CA	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI	0	0	0	-0.1	-0.1	-0.1	
Patuxent_RV	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS	0	0	0	-0.1	-0.1	-0.1	

```

dfas(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out
Pensacola_Sauf      0      0      0      -0.1  -0.1  -0.1
Rock_Island_IL     0      0      0      -0.1  -0.1  -0.1
Rome_NY_____     0      0      0      -0.1  -0.1  -0.1
San_Antonio_TX     0      0      0      -0.1  -0.1  -0.1
San_Bernadino_     0      0      0      -0.1  -0.1  -0.1
San_Diego_CA_____ 0      0      0      -0.1  -0.1  -0.1
Seaside_CA_____   0      0      0      -0.1  -0.1  -0.1
St_Louis_MO_____  0      0      0      -0.1  -0.1  -0.1
'_%CapRtnd'        55.7902  57.5668  56.9839 -0.1  -0.1  -0.1
_AvgMV              0.61375  0.5812   0.6715  -0.1  -0.1  -0.1
_Build              0      0      0      -0.1  -0.1  -0.1
_Renovate           161696   0      62574  -0.1  -0.1  -0.1

```

```

:      7      8      9      10      :=
Arlington_VA___ -0.1 -0.1 -0.1 -0.1
Charleston_SC_ -0.1 -0.1 -0.1 -0.1
Cleveland_OH___ -0.1 -0.1 -0.1 -0.1
Columbus_OH___ -0.1 -0.1 -0.1 -0.1
Dayton_OH_____ -0.1 -0.1 -0.1 -0.1
Denver_CO_____ -0.1 -0.1 -0.1 -0.1
Indianapolis___ -0.1 -0.1 -0.1 -0.1
Kansas_City____ -0.1 -0.1 -0.1 -0.1
Lawton_Ft_Sill -0.1 -0.1 -0.1 -0.1
Lexington_KY___ -0.1 -0.1 -0.1 -0.1
Limestone_ME___ -0.1 -0.1 -0.1 -0.1
Norfolk_VA_____ -0.1 -0.1 -0.1 -0.1
Oakland_CA_____ -0.1 -0.1 -0.1 -0.1
Omaha_NE_____ -0.1 -0.1 -0.1 -0.1
Orlando_FL_____ -0.1 -0.1 -0.1 -0.1
Pacific_HI_____ -0.1 -0.1 -0.1 -0.1
Patuxent_Rv____ -0.1 -0.1 -0.1 -0.1
Pensacola_NAS_ -0.1 -0.1 -0.1 -0.1
Pensacola_Sauf -0.1 -0.1 -0.1 -0.1
Rock_Island_IL -0.1 -0.1 -0.1 -0.1
Rome_NY_____ -0.1 -0.1 -0.1 -0.1
San_Antonio_TX -0.1 -0.1 -0.1 -0.1
San_Bernadino_ -0.1 -0.1 -0.1 -0.1
San_Diego_CA___ -0.1 -0.1 -0.1 -0.1
Seaside_CA_____ -0.1 -0.1 -0.1 -0.1
St_Louis_MO____ -0.1 -0.1 -0.1 -0.1
'_%CapRtnd'    -0.1 -0.1 -0.1 -0.1
_AvgMV         -0.1 -0.1 -0.1 -0.1
_Build         -0.1 -0.1 -0.1 -0.1
_Renovate      -0.1 -0.1 -0.1 -0.1
;

```

Results that show as -0.1 can be discarded

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.37
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.100	0.50
Penalty on non-secure =	0.000	0.00

Military value: Total MV = 2.455 Average MV = 0.614
Overall Objective Function Value: = 1.504

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH__	1	0.688	
Dayton_OH__	0	0.625	
Denver_CO__	1	0.803	
Indianapolis__	1	0.651	
Kansas_City__	0	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY__	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA__	0	0.787	
Oakland_CA__	0	0.243	
Omaha_NE__	0	0.673	
Orlando_FL__	0	0.54	
Pacific_HI__	0	0.569	
Patuxent_RV__	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY__	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA__	0	0.569	
Seaside_CA__	0	0.433	
St_Louis_MO__	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Columbus_OH___	559566	127985	0	687551	653600	33951	687551
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_Rv___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH___	0	1344	0	1204	0	0	10	1527	4085
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	1172	0	0	0	500	0	0	300	1972
Indianapolis__	0	0	2193	616	862	165	100	300	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.24
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.100	0.48
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.242 Average MV = 0.648
 Overall Objective Function Value: = 2.369

Overall Capacity: Initial = 3267208 Final = 1837743 Retained = 56.2(%)
 Expansion to available space = 103456 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	:=
Arlington_VA__	1	0.313	
Charleston_SC__	0	0.546	
Cleveland_OH__	0	0.587	
Columbus_OH___	1	0.688	
Dayton_OH_____	0	0.625	
Denver_CO_____	1	0.803	
Indianapolis___	1	0.651	
Kansas_City____	0	0.451	
Lawton_Ft_Sill	0	0.787	
Lexington_KY___	0	0.532	
Limestone_ME__	0	0.548	
Norfolk_VA_____	1	0.787	
Oakland_CA_____	0	0.243	
Omaha_NE_____	0	0.673	
Orlando_FL_____	0	0.54	
Pacific_HI_____	0	0.569	
Patuxent_Rv____	0	0.565	
Pensacola_NAS__	0	0.72	
Pensacola_Sauf	0	0.805	
Rock_Island_IL	0	0.846	
Rome_NY_____	0	0.542	
San_Antonio_TX	0	0.586	
San_Bernadino__	0	0.429	
San_Diego_CA___	0	0.569	
Seaside_CA_____	0	0.433	
St_Louis_MO____	0	0.612	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	98865	0	658431	624480	33951	658431
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	4501	0	301319	286400	14919	301319
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Limestone_ME__	68587	0	0	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	73201	58240	14919	73159		
Oakland_CA__	14636	0	0	0	0	0	0		
Omaha_NE__	64982	0	0	0	0	0	0		
Orlando_FL__	53221	0	0	0	0	0	0		
Pacific_HI__	30996	0	0	0	0	0	0		
Patuxent_Rv__	9553	0	0	0	0	0	0		
Pensacola_NAS_	69426	0	0	0	0	0	0		
Pensacola_Sauf	48161	0	0	0	0	0	0		
Rock_Island_IL	42051	0	0	0	0	0	0		
Rome_NY__	82742	0	0	0	0	0	0		
San_Antonio_TX	64655	0	0	0	0	0	0		
San_Bernadino_	30056	0	0	0	0	0	0		
San_Diego_CA__	46641	0	0	0	0	0	0		
Seaside_CA__	23126	0	0	0	0	0	0		
St_Louis_MO__	78914	0	0	0	0	0	0		

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH__	0	1344	0	1205	0	0	10	1344	3903
Dayton_OH__	0	0	0	0	0	0	0	0	0
Denver_CO__	990	0	0	0	500	0	0	300	1790
Indianapolis__	0	0	2193	615	862	165	100	301	4236
Kansas_City__	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA__	182	0	0	0	0	0	0	182	364
Oakland_CA__	0	0	0	0	0	0	0	0	0
Omaha_NE__	0	0	0	0	0	0	0	0	0
Orlando_FL__	0	0	0	0	0	0	0	0	0
Pacific_HI__	0	0	0	0	0	0	0	0	0
Patuxent_Rv__	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY__	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA__	0	0	0	0	0	0	0	0	0
St_Louis_MO__	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 7.500	0.12
Penalty on Building	= 20.000	0.00

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.100 0.47
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.029 Average MV = 0.671
 Overall Objective Function Value: = 3.228

Overall Capacity: Initial = 3267208 Final = 1852662 Retained = 56.7(%)
 Expansion to available space = 53454 New construction = 0

Site Results (1 identifies retained sites)

```

:      Open      MV      :=
Arlington_VA__  1      0.313
Charleston_SC__ 0      0.546
Cleveland_OH___ 0      0.587
Columbus_OH___  1      0.688
Dayton_OH_____ 0      0.625
Denver_CO_____ 1      0.803
Indianapolis___ 1      0.651
Kansas_City____ 0      0.451
Lawton_Ft_Sill  1      0.787
Lexington_KY___ 0      0.532
Limestone_ME___ 0      0.548
Norfolk_VA_____ 1      0.787
Oakland_CA_____ 0      0.243
Omaha_NE_____  0      0.673
Orlando_FL_____ 0      0.54
Pacific_HI_____ 0      0.569
Patuxent_RV_____ 0      0.565
Pensacola_NAS__ 0      0.72
Pensacola_Sauf  0      0.805
Rock_Island_IL  0      0.846
Rome_NY_____  0      0.542
San_Antonio_TX  0      0.586
San_Bernadino__ 0      0.429
San_Diego_CA___ 0      0.569
Seaside_CA_____ 0      0.433
St_Louis_MO____ 0      0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH___	309611	0	0	0	0	0	0
Columbus_OH___	559566	53105	0	612671	578720	33951	612671
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV_____	9553	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1319	0	0	10	944	3617
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	833	0	0	0	629	0	0	300	1762
Indianapolis	0	0	2193	501	733	165	100	544	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	182	0	0	0	0	0	0	182	364
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_Rv	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 7 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.86
Penalty on Expansion =	7.500	0.06
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.38
Penalize Moving Staff =	0.100	0.46
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 4.875 Average MV = 0.696
 Overall Objective Function Value: = 4.085

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Overall Capacity: Initial = 3267208 Final = 1867673 Retained = 57.2(%)
 Expansion to available space = 26414 New construction = 0

Site Results (1 identifies retained sites)

```

:
Open      MV      :=
Arlington_VA__ 1    0.313
Charleston_SC__ 0    0.546
Cleveland_OH__  0    0.587
Columbus_OH___ 1    0.688
Dayton_OH_____ 0    0.625
Denver_CO_____ 1    0.803
Indianapolis___ 1    0.651
Kansas_City____ 0    0.451
Lawton_Ft_Sill  1    0.787
Lexington_KY___ 0    0.532
Limestone_ME___ 0    0.548
Norfolk_VA_____ 1    0.787
Oakland_CA_____ 0    0.243
Omaha_NE_______ 0    0.673
Orlando_FL_____ 0    0.54
Pacific_HI_____ 0    0.569
Patuxent_Rv____ 0    0.565
Pensacola_NAS__ 0    0.72
Pensacola_Sauf  0    0.805
Rock_Island_IL  1    0.846
Rome_NY_______ 0    0.542
San_Antonio_TX  0    0.586
San_Bernadino___ 0    0.429
San_Diego_CA___  0    0.569
Seaside_CA_____ 0    0.433
St_Louis_MO____ 0    0.612
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH___	559566	26065	0	585631	551680	33951	585631
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_______	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0
Pensacola_NAS__	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY_______	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino___	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Seaside_CA_____ 23126 0 0 0 0 0 0 0
 St_Louis_MO_____ 78914 0 0 0 0 0 0 0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_____	0	0	0	0	0	0	0	149	149
Charleston_SC_____	0	0	0	0	0	0	0	0	0
Cleveland_OH_____	0	0	0	0	0	0	0	0	0
Columbus_OH_____	0	1344	0	1319	0	0	10	775	3448
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	748	0	0	0	713	0	0	301	1762
Indianapolis_____	0	0	2193	501	649	165	100	628	4236
Kansas_City_____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill_____	157	0	0	0	0	0	0	157	314
Lexington_KY_____	0	0	0	0	0	0	0	0	0
Limestone_ME_____	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV_____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_____	0	0	0	0	0	0	0	0	0
Pensacola_Sauf_____	0	0	0	0	0	0	0	0	0
Rock_Island_IL_____	85	0	0	0	0	0	0	84	169
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX_____	0	0	0	0	0	0	0	0	0
San_Bernadino_____	0	0	0	0	0	0	0	0	0
San_Diego_CA_____	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO_____	0	0	0	0	0	0	0	0	0

Results [*,*]

	1	2	3	4	5 :=
Arlington_VA_____	1	1	1	1	-0.1
Charleston_SC_____	0	0	0	0	-0.1
Cleveland_OH_____	0	0	0	0	-0.1
Columbus_OH_____	1	1	1	1	-0.1
Dayton_OH_____	0	0	0	0	-0.1
Denver_CO_____	1	1	1	1	-0.1
Indianapolis_____	1	1	1	1	-0.1
Kansas_City_____	0	0	0	0	-0.1
Lawton_Ft_Sill_____	0	0	1	1	-0.1
Lexington_KY_____	0	0	0	0	-0.1
Limestone_ME_____	0	0	0	0	-0.1
Norfolk_VA_____	0	1	1	1	-0.1
Oakland_CA_____	0	0	0	0	-0.1
Omaha_NE_____	0	0	0	0	-0.1
Orlando_FL_____	0	0	0	0	-0.1
Pacific_HI_____	0	0	0	0	-0.1
Patuxent_RV_____	0	0	0	0	-0.1
Pensacola_NAS_____	0	0	0	0	-0.1
Pensacola_Sauf_____	0	0	0	0	-0.1
Rock_Island_IL_____	0	0	0	1	-0.1
Rome_NY_____	0	0	0	0	-0.1
San_Antonio_TX_____	0	0	0	0	-0.1
San_Bernadino_____	0	0	0	0	-0.1
San_Diego_CA_____	0	0	0	0	-0.1
Seaside_CA_____	0	0	0	0	-0.1

```

dfas(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out
St_Louis_MO___      0          0          0          0          -0.1
'_%CapRtnd'        55.7902      56.2481      56.7047      57.1642      -0.1
_AvgMV             0.61375      0.6484       0.6715       0.696429     -0.1
_Build             0          0          0          0          -0.1
_Renovate          161696      103456       53454        26414        -0.1

:                   6          7          8          9          10      :=
Arlington_VA___   -0.1      -0.1      -0.1      -0.1      -0.1
Charleston_SC___ -0.1      -0.1      -0.1      -0.1      -0.1
Cleveland_OH___  -0.1      -0.1      -0.1      -0.1      -0.1
Columbus_OH___   -0.1      -0.1      -0.1      -0.1      -0.1
Dayton_OH___     -0.1      -0.1      -0.1      -0.1      -0.1
Denver_CO___     -0.1      -0.1      -0.1      -0.1      -0.1
Indianapolis___  -0.1      -0.1      -0.1      -0.1      -0.1
Kansas_City___   -0.1      -0.1      -0.1      -0.1      -0.1
Lawton_Ft_Sill   -0.1      -0.1      -0.1      -0.1      -0.1
Lexington_KY___  -0.1      -0.1      -0.1      -0.1      -0.1
Limestone_ME___ -0.1      -0.1      -0.1      -0.1      -0.1
Norfolk_VA___   -0.1      -0.1      -0.1      -0.1      -0.1
Oakland_CA___   -0.1      -0.1      -0.1      -0.1      -0.1
Omaha_NE___     -0.1      -0.1      -0.1      -0.1      -0.1
Orlando_FL___   -0.1      -0.1      -0.1      -0.1      -0.1
Pacific_HI___   -0.1      -0.1      -0.1      -0.1      -0.1
Patuxent_Rv___  -0.1      -0.1      -0.1      -0.1      -0.1
Pensacola_NAS___ -0.1      -0.1      -0.1      -0.1      -0.1
Pensacola_Sauf  -0.1      -0.1      -0.1      -0.1      -0.1
Rock_Island_IL  -0.1      -0.1      -0.1      -0.1      -0.1
Rome_NY___      -0.1      -0.1      -0.1      -0.1      -0.1
San_Antonio_TX  -0.1      -0.1      -0.1      -0.1      -0.1
San_Bernadino___ -0.1      -0.1      -0.1      -0.1      -0.1
San_Diego_CA___ -0.1      -0.1      -0.1      -0.1      -0.1
Seaside_CA___   -0.1      -0.1      -0.1      -0.1      -0.1
St_Louis_MO___  -0.1      -0.1      -0.1      -0.1      -0.1
'_%CapRtnd'     -0.1      -0.1      -0.1      -0.1      -0.1
_AvgMV          -0.1      -0.1      -0.1      -0.1      -0.1
_Build          -0.1      -0.1      -0.1      -0.1      -0.1
_Renovate       -0.1      -0.1      -0.1      -0.1      -0.1
;

```

Results that show as -0.1 can be discarded

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.37
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.455 Average MV = 0.614
Overall Objective Function Value: = 3.504

Overall Capacity: Initial = 3267208 Final = 1822782 Retained = 55.8(%)
Expansion to available space = 161696 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	1	0.803	9.15	
Indianapolis___	1	0.651	14.96	
Kansas_City____	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY___	0	0.532	8.74	
Limestone_ME___	0	0.548	4.98	
Norfolk_VA_____	0	0.787	7.47	
Oakland_CA_____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Columbus_OH	559566	127985	0	0	687551	653600	33951	687551
Dayton_OH	81825	0	0	0	0	0	0	0
Denver_CO	296818	33621	0	0	330439	315520	14919	330439
Indianapolis	701689	90	0	0	701779	677760	24019	701779
Kansas_City	219742	0	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0	0
Lexington_KY	20120	0	0	0	0	0	0	0
Limestone_ME	68587	0	0	0	0	0	0	0
Norfolk_VA	73201	0	0	0	0	0	0	0
Oakland_CA	14636	0	0	0	0	0	0	0
Omaha_NE	64982	0	0	0	0	0	0	0
Orlando_FL	53221	0	0	0	0	0	0	0
Pacific_HI	30996	0	0	0	0	0	0	0
Patuxent_RV	9553	0	0	0	0	0	0	0
Pensacola_NAS	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino	30056	0	0	0	0	0	0	0
San_Diego_CA	46641	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1205	0	0	10	1526	4085
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	1172	0	0	0	500	0	0	300	1972
Indianapolis	0	0	2193	615	862	165	100	301	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	0	0	0	0	0	0	0	0	0
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_RV	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

=====
 NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.85
Penalty on Expansion =	7.500	0.28
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.242 Average MV = 0.648
 Overall Objective Function value: = 4.352

Overall Capacity: Initial = 3267208 Final = 1846801 Retained = 56.5(%)
 Expansion to available space = 120794 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA__	1	0.313	44.76
Charleston_SC__	0	0.546	3.8
Cleveland_OH__	0	0.587	29.21
Columbus_OH__	1	0.688	8.27
Dayton_OH__	0	0.625	2.91
Denver_CO__	1	0.803	9.15
Indianapolis__	1	0.651	14.96
Kansas_City__	0	0.451	16.21
Lawton_Ft_Sill	1	0.787	2.52
Lexington_KY__	0	0.532	8.74
Limestone_ME__	0	0.548	4.98
Norfolk_VA__	0	0.787	7.47
Oakland_CA__	0	0.243	45.12
Omaha_NE__	0	0.673	4.45
Orlando_FL__	0	0.54	5.75
Pacific_HI__	0	0.569	7.72
Patuxent_Rv__	0	0.565	23.66
Pensacola_NAS__	0	0.72	5.7
Pensacola_sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY__	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino__	0	0.429	10.61
San_Diego_CA__	0	0.569	21.2
Seaside_CA__	0	0.433	8.23
St_Louis_MO__	0	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	85425	0	644991	611040	33951	644991
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City__	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	1658	0	66579	42560	24019	66579
Lexington_KY__	20120	0	0	0	0	0	0

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Limestone_ME__	68587	0	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	0	0	0	0	0
Oakland_CA__	14636	0	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0	0
Patuxent_RV__	9553	0	0	0	0	0	0	0
Pensacola_NAS__	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY__	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA__	23126	0	0	0	0	0	0	0
St_Louis_MO__	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH__	0	0	0	0	0	0	0	0	0
Columbus_OH__	0	1344	0	938	0	0	10	1527	3819
Dayton_OH__	0	0	0	0	0	0	0	0	0
Denver_CO__	1172	0	0	0	500	0	0	300	1972
Indianapolis__	0	0	2192	882	862	0	0	300	4236
Kansas_City__	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	1	0	0	165	100	0	266
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA__	0	0	0	0	0	0	0	0	0
Oakland_CA__	0	0	0	0	0	0	0	0	0
Omaha_NE__	0	0	0	0	0	0	0	0	0
Orlando_FL__	0	0	0	0	0	0	0	0	0
Pacific_HI__	0	0	0	0	0	0	0	0	0
Patuxent_RV__	0	0	0	0	0	0	0	0	0
Pensacola_NAS__	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY__	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino__	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA__	0	0	0	0	0	0	0	0	0
St_Louis_MO__	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.86
Penalty on Expansion	= 7.500	0.22
Penalty on Building	= 20.000	0.00

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.500 2.48
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 4.088 Average MV = 0.681
 Overall Objective Function Value: = 5.183

Overall Capacity: Initial = 3267208 Final = 1870994 Retained = 57.3(%)
 Expansion to available space = 94656 New construction = 0

Site Results (1 identifies retained sites)

:	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	1	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	1	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_RV__	0	0.565	23.66	
Pensacola_NAS_	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	1	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	0	0	0	0
Columbus_OH__	559566	60945	0	620511	586560	33951	620511
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	33621	0	330439	315520	14919	330439
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City__	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	73201	49120	24019	73139
Oakland_CA__	14636	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0
Patuxent_RV__	9553	0	0	0	0	0	0

```
dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out
```

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	42051	17920	24019	41939	
Rome_NY	82742	0	0	0	0	0	0	
San_Antonio_TX	64655	0	0	0	0	0	0	
San_Bernadino_	30056	0	0	0	0	0	0	
San_Diego_CA	46641	0	0	0	0	0	0	
Seaside_CA	23126	0	0	0	0	0	0	
St_Louis_MO	78914	0	0	0	0	0	0	

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	0	0	0	0	0	0	0	0	0
Columbus_OH	0	1344	0	1319	0	0	10	993	3666
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	1172	0	0	0	500	0	0	300	1972
Indianapolis	0	0	2115	501	862	0	0	758	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	0	0	76	0	0	108	47	76	307
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_RV	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	2	0	0	57	53	0	112
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6 :=
Arlington_VA	1	1	1	-0.1	-0.1	-0.1
Charleston_SC	0	0	0	-0.1	-0.1	-0.1
Cleveland_OH	0	0	0	-0.1	-0.1	-0.1
Columbus_OH	1	1	1	-0.1	-0.1	-0.1
Dayton_OH	0	0	0	-0.1	-0.1	-0.1
Denver_CO	1	1	1	-0.1	-0.1	-0.1
Indianapolis	1	1	1	-0.1	-0.1	-0.1
Kansas_City	0	0	0	-0.1	-0.1	-0.1
Lawton_Ft_Sill	0	1	0	-0.1	-0.1	-0.1
Lexington_KY	0	0	0	-0.1	-0.1	-0.1
Limestone_ME	0	0	0	-0.1	-0.1	-0.1
Norfolk_VA	0	0	1	-0.1	-0.1	-0.1
Oakland_CA	0	0	0	-0.1	-0.1	-0.1
Omaha_NE	0	0	0	-0.1	-0.1	-0.1
Orlando_FL	0	0	0	-0.1	-0.1	-0.1
Pacific_HI	0	0	0	-0.1	-0.1	-0.1
Patuxent_Rv	0	0	0	-0.1	-0.1	-0.1
Pensacola_NAS	0	0	0	-0.1	-0.1	-0.1

```

dfas(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out
Pensacola_Sauf      0      0      0      -0.1      -0.1      -0.1
Rock_Island_IL      0      0      1      -0.1      -0.1      -0.1
Rome_NY_____      0      0      0      -0.1      -0.1      -0.1
San_Antonio_TX      0      0      0      -0.1      -0.1      -0.1
San_Bernadino_      0      0      0      -0.1      -0.1      -0.1
San_Diego_CA_____ 0      0      0      -0.1      -0.1      -0.1
Seaside_CA_____   0      0      0      -0.1      -0.1      -0.1
St_Louis_MO_____  0      0      0      -0.1      -0.1      -0.1
'_%CapRtnd'        55.7902  56.5254  57.2658  -0.1      -0.1      -0.1
_AvgMV             0.61375  0.6484   0.681333 -0.1      -0.1      -0.1
_Build             0          0          0          -0.1      -0.1      -0.1
_Renovate          161696    120794    94656     -0.1      -0.1      -0.1

:      7      8      9      10      :=
Arlington_VA_____ -0.1     -0.1     -0.1     -0.1
Charleston_SC_____ -0.1     -0.1     -0.1     -0.1
Cleveland_OH_____  -0.1     -0.1     -0.1     -0.1
Columbus_OH_____   -0.1     -0.1     -0.1     -0.1
Dayton_OH_____      -0.1     -0.1     -0.1     -0.1
Denver_CO_____      -0.1     -0.1     -0.1     -0.1
Indianapolis_____  -0.1     -0.1     -0.1     -0.1
Kansas_City_____    -0.1     -0.1     -0.1     -0.1
Lawton_Ft_Sill_____ -0.1     -0.1     -0.1     -0.1
Lexington_KY_____   -0.1     -0.1     -0.1     -0.1
Limestone_ME_____  -0.1     -0.1     -0.1     -0.1
Norfolk_VA_____    -0.1     -0.1     -0.1     -0.1
Oakland_CA_____     -0.1     -0.1     -0.1     -0.1
Omaha_NE_____       -0.1     -0.1     -0.1     -0.1
Orlando_FL_____     -0.1     -0.1     -0.1     -0.1
Pacific_HI_____     -0.1     -0.1     -0.1     -0.1
Patuxent_RV_____    -0.1     -0.1     -0.1     -0.1
Pensacola_NAS_____ -0.1     -0.1     -0.1     -0.1
Pensacola_Sauf_____ -0.1     -0.1     -0.1     -0.1
Rock_Island_IL_____ -0.1     -0.1     -0.1     -0.1
Rome_NY_____         -0.1     -0.1     -0.1     -0.1
San_Antonio_TX_____ -0.1     -0.1     -0.1     -0.1
San_Bernadino_____  -0.1     -0.1     -0.1     -0.1
San_Diego_CA_____   -0.1     -0.1     -0.1     -0.1
Seaside_CA_____     -0.1     -0.1     -0.1     -0.1
St_Louis_MO_____    -0.1     -0.1     -0.1     -0.1
'_%CapRtnd'         -0.1     -0.1     -0.1     -0.1
_AvgMV              -0.1     -0.1     -0.1     -0.1
_Build              -0.1     -0.1     -0.1     -0.1
_Renovate           -0.1     -0.1     -0.1     -0.1
;

```

Results that show as -0.1 can be discarded

dfasCostMin(Best).out

NUMBER OF SITES RETAINED = 14 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	1.000	14.00
Penalty on Capacity =	15.220	9.18
Penalty on Expansion =	90.000	6.99
Penalty on Building =	180.000	0.00
Reward Concentration =	0.010	0.01
Penalize Moving Staff =	0.010	0.02
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 9.223 Average MV = 0.659
 Overall Objective Function Value: = -283689867.934

Overall Capacity: Initial = 3267208 Final = 1971367 Retained = 60.3(%)
 Expansion to available space = 253898 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	1	0.546	3.8	
Cleveland_OH__	0	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	1	0.625	2.91	
Denver_CO_____	1	0.803	9.15	
Indianapolis___	0	0.651	14.96	
Kansas_City____	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY___	0	0.532	8.74	
Limestone_ME___	1	0.548	4.98	
Norfolk_VA_____	1	0.787	7.47	
Oakland_CA_____	0	0.243	45.12	
Omaha_NE_____	1	0.673	4.45	
Orlando_FL_____	1	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_RV____	0	0.565	23.66	
Pensacola_NAS__	1	0.72	5.7	
Pensacola_Sauf	1	0.805	7.38	
Rock_Island_IL	1	0.846	9.03	
Rome_NY_____	1	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	108955	93920	14919	108839
Cleveland_OH__	309611	0	0	0	0	0	0

dfasCostMin(Best).out

Columbus_OH___	559566	129505	0	689071	647520	41551	689071
Dayton_OH___	81825	41734	0	123559	108640	14919	123559
Denver_CO___	296818	21	0	296839	281920	14919	296839
Indianapolis___	701689	0	0	0	0	0	0
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	82638	0	147559	132640	14919	147559
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	68587	53600	14919	68519
Norfolk_VA___	73201	0	0	73201	58240	14919	73159
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	64982	49920	14919	64839
Orlando_FL___	53221	0	0	53221	38240	14919	53159
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	69426	54400	14919	69319
Pensacola_Sauf	48161	0	0	48161	33120	14919	48039
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY___	82742	0	0	82742	67680	14919	82599
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	1	0	0	293	0	0	0	293	587
Cleveland_OH___	0	0	0	0	0	0	0	0	0
Columbus_OH___	190	1344	2193	40	0	165	110	5	4047
Dayton_OH___	1	0	0	101	572	0	0	5	679
Denver_CO___	731	0	0	150	0	0	0	881	1762
Indianapolis___	0	0	0	0	0	0	0	0	0
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	1	0	0	568	0	0	0	260	829
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	1	0	0	233	95	0	0	6	335
Norfolk_VA___	2	0	0	1	361	0	0	0	364
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	156	0	0	0	0	0	0	156	312
Orlando_FL___	1	0	0	120	0	0	0	118	239
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	1	0	0	0	334	0	0	5	340
Pensacola_Sauf	1	0	0	103	0	0	0	103	207
Rock_Island_IL	85	0	0	0	0	0	0	84	169
Rome_NY___	1	0	0	211	0	0	0	211	423
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	7	8 :=
Arlington_VA___	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Charleston_SC_	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Cleveland_OH___	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Columbus_OH___	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1

```

dfasCostMin(Best).out
Dayton_OH_____ 1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Denver_CO_____ 1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Indianapolis___ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Kansas_City____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Lawton_Ft_Sill  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Lexington_KY___ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Limestone_ME___ 1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Norfolk_VA_____ 1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Oakland_CA_____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Omaha_NE_____  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Orlando_FL_____ 1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Pacific_HI_____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Patuxent_RV_____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Pensacola_NAS_  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Pensacola_Sauf  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Rock_Island_IL  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Rome_NY_____  1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
San_Antonio_TX  0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
San_Bernadino_  0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
San_Diego_CA___  0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
Seaside_CA_____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
St_Louis_MO____ 0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
'_%CapRtdn'     60.338 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
_AvgMV          0.658786 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
_Build          0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1
_Renovate      253898 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1

```

```

:          9      10      :=
Arlington_VA___ -0.1 -0.1
Charleston_SC___ -0.1 -0.1
Cleveland_OH___  -0.1 -0.1
Columbus_OH___   -0.1 -0.1
Dayton_OH_____ -0.1 -0.1
Denver_CO_____ -0.1 -0.1
Indianapolis___ -0.1 -0.1
Kansas_City____ -0.1 -0.1
Lawton_Ft_Sill  -0.1 -0.1
Lexington_KY___ -0.1 -0.1
Limestone_ME___ -0.1 -0.1
Norfolk_VA_____ -0.1 -0.1
Oakland_CA_____ -0.1 -0.1
Omaha_NE_____   -0.1 -0.1
Orlando_FL_____ -0.1 -0.1
Pacific_HI_____ -0.1 -0.1
Patuxent_RV_____ -0.1 -0.1
Pensacola_NAS_  -0.1 -0.1
Pensacola_Sauf  -0.1 -0.1
Rock_Island_IL  -0.1 -0.1
Rome_NY_____   -0.1 -0.1
San_Antonio_TX  -0.1 -0.1
San_Bernadino_  -0.1 -0.1
San_Diego_CA___ -0.1 -0.1
Seaside_CA_____ -0.1 -0.1
St_Louis_MO____ -0.1 -0.1
'_%CapRtdn'     -0.1 -0.1
_AvgMV          -0.1 -0.1
_Build          -0.1 -0.1
_Renovate       -0.1 -0.1
;

```

Results that show as -0.1 can be discarded

dfasCostMin_noDenver(Best).out

NUMBER OF SITES RETAINED = 14 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	1.000	14.00
Penalty on Capacity =	15.220	9.18
Penalty on Expansion =	90.000	13.00
Penalty on Building =	180.000	0.00
Reward Concentration =	0.010	0.01
Penalize Moving Staff =	0.010	0.02
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 9.032 Average MV = 0.645
 Overall Objective Function Value: = -308559149.520

Overall Capacity: Initial = 3267208 Final = 1971522 Retained = 60.3(%)
 Expansion to available space = 471957 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA__	1	0.313	44.76
Charleston_SC__	1	0.546	3.8
Cleveland_OH__	0	0.587	29.21
Columbus_OH__	1	0.688	8.27
Dayton_OH_____	1	0.625	2.91
Denver_CO_____	0	0.803	9.15
Indianapolis__	0	0.651	14.96
Kansas_City___	0	0.451	16.21
Lawton_Ft_Sill	1	0.787	2.52
Lexington_KY__	0	0.532	8.74
Limestone_ME__	1	0.548	4.98
Norfolk_VA_____	1	0.787	7.47
Oakland_CA_____	0	0.243	45.12
Omaha_NE_____	1	0.673	4.45
Orlando_FL_____	1	0.54	5.75
Pacific_HI_____	0	0.569	7.72
Patuxent_Rv____	0	0.565	23.66
Pensacola_NAS__	1	0.72	5.7
Pensacola_Sauf	1	0.805	7.38
Rock_Island_IL	1	0.846	9.03
Rome_NY_____	1	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino__	0	0.429	10.61
San_Diego_CA___	0	0.569	21.2
Seaside_CA_____	0	0.433	8.23
St_Louis_MO____	1	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	108955	93920	14919	108839
Cleveland_OH__	309611	0	0	0	0	0	0

dfasCostMin_noDenver(Best).out

Columbus_OH___	559566	347585	0	907151	865600	41551	907151
Dayton_OH_____	81825	41734	0	123559	108640	14919	123559
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis__	701689	0	0	0	0	0	0
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	82638	0	147559	132640	14919	147559
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	68587	53600	14919	68519
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	64982	49920	14919	64839
Orlando_FL_____	53221	0	0	53221	38240	14919	53159
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_Rv____	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	69426	54400	14919	69319
Pensacola_Sauf	48161	0	0	48161	33120	14919	48039
Rock_Island_IL	42051	0	0	42051	27040	14919	41959
Rome_NY_____	82742	0	0	82742	67680	14919	82599
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA_____	23126	0	0	0	0	0	0
St_Louis_MO_____	78914	0	0	78914	63840	14919	78759

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC__	1	0	0	293	0	0	0	293	587
Cleveland_OH___	0	0	0	0	0	0	0	0	0
Columbus_OH_____	764	1344	2193	834	0	165	110	0	5410
Dayton_OH_____	2	0	0	1	339	0	0	337	679
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis__	0	0	0	0	0	0	0	0	0
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	1	0	0	0	414	0	0	414	829
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME___	1	0	0	329	0	0	0	5	335
Norfolk_VA_____	1	0	0	0	181	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	1	0	0	0	155	0	0	156	312
Orlando_FL_____	10	0	0	152	0	0	0	77	239
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_Rv____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	1	0	0	0	273	0	0	66	340
Pensacola_Sauf	104	0	0	0	0	0	0	103	207
Rock_Island_IL	85	0	0	0	0	0	0	84	169
Rome_NY_____	1	0	0	211	0	0	0	211	423
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino__	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO_____	200	0	0	0	0	0	0	199	399

Results [*,*]

:	1	2	3	4	5	6	7	8 :=
Arlington_VA___	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Charleston_SC__	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Cleveland_OH___	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Columbus_OH_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1

dfasCostMin_noDenver(Best).out

Dayton_OH_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Denver_CO_____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Indianapolis___	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Kansas_City____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Lawton_Ft_Sill__	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Lexington_KY____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Limestone_ME____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Norfolk_VA_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Oakland_CA_____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Omaha_NE_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Orlando_FL_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Pacific_HI_____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Patuxent_RV_____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Pensacola_NAS___	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Pensacola_Sauf__	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Rock_Island_IL___	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Rome_NY_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
San_Antonio_TX___	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
San_Bernadino___	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
San_Diego_CA____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Seaside_CA_____	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
St_Louis_MO_____	1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
'_%CapRtnd'	60.3427	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
_AvgMV	0.645143	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
_Build	0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
_Renovate	471957	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1

:	9	10	:=
Arlington_VA___	-0.1	-0.1	
Charleston_SC__	-0.1	-0.1	
Cleveland_OH___	-0.1	-0.1	
Columbus_OH____	-0.1	-0.1	
Dayton_OH_____	-0.1	-0.1	
Denver_CO_____	-0.1	-0.1	
Indianapolis___	-0.1	-0.1	
Kansas_City____	-0.1	-0.1	
Lawton_Ft_Sill__	-0.1	-0.1	
Lexington_KY____	-0.1	-0.1	
Limestone_ME____	-0.1	-0.1	
Norfolk_VA_____	-0.1	-0.1	
Oakland_CA_____	-0.1	-0.1	
Omaha_NE_____	-0.1	-0.1	
Orlando_FL_____	-0.1	-0.1	
Pacific_HI_____	-0.1	-0.1	
Patuxent_RV_____	-0.1	-0.1	
Pensacola_NAS___	-0.1	-0.1	
Pensacola_Sauf__	-0.1	-0.1	
Rock_Island_IL___	-0.1	-0.1	
Rome_NY_____	-0.1	-0.1	
San_Antonio_TX___	-0.1	-0.1	
San_Bernadino___	-0.1	-0.1	
San_Diego_CA____	-0.1	-0.1	
Seaside_CA_____	-0.1	-0.1	
St_Louis_MO_____	-0.1	-0.1	
'_%CapRtnd'	-0.1	-0.1	
_AvgMV	-0.1	-0.1	
_Build	-0.1	-0.1	
_Renovate	-0.1	-0.1	
;			

Results that show as -0.1 can be discarded

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.68
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
 Overall Objective Function Value: = 0.310

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
 Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City___	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA____	0	0.787	7.47	
Oakland_CA____	0	0.243	45.12	
Omaha_NE______	0	0.673	4.45	
Orlando_FL____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv___	0	0.565	23.66	
Pensacola_NAS_	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY______	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino_	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA____	0	0.433	8.23	
St_Louis_MO___	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Columbus_OH___	559566	148945	0	708511	674560	33951	708511
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	0	0	0	0
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_Rv____	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA_____	23126	0	0	0	0	0	0
St_Louis_MO____	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1172	0	0	0	0	0	0	669	1841
Columbus_OH___	0	1344	0	1204	500	0	10	1158	4216
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	616	862	165	100	300	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	0	0	0	0	0	0	0	0	0
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_Rv____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO____	0	0	0	0	0	0	0	0	0

=====

=====

=====

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.87
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.690 Average MV = 0.538
 Overall Objective Function Value: = 1.332

Overall Capacity: Initial = 3267208 Final = 1893621 Retained = 58.0(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	1	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_RV__	0	0.565	23.66	
Pensacola_NAS	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino_	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH__	559566	0	0	559566	525600	33951	559551
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	0	0	0	0
Indianapolis__	701689	0	0	701689	677600	24019	701619
Kansas_City__	219742	0	0	219742	149120	24019	173139
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Limestone_ME__	68587	0	0	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	0	0	0	0	0	0
Oakland_CA__	14636	0	0	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0	0	0
Patuxent_RV__	9553	0	0	0	0	0	0	0	0
Pensacola_NAS__	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY__	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0	0
Seaside_CA__	23126	0	0	0	0	0	0	0	0
St_Louis_MO__	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH__	1172	0	0	0	0	0	0	669	1841
Columbus_OH__	0	1344	0	1073	0	0	10	858	3285
Dayton_OH__	0	0	0	0	0	0	0	0	0
Denver_CO__	0	0	0	0	0	0	0	0	0
Indianapolis__	0	0	2192	747	758	164	74	300	4235
Kansas_City__	0	0	1	0	604	1	26	300	932
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA__	0	0	0	0	0	0	0	0	0
Oakland_CA__	0	0	0	0	0	0	0	0	0
Omaha_NE__	0	0	0	0	0	0	0	0	0
Orlando_FL__	0	0	0	0	0	0	0	0	0
Pacific_HI__	0	0	0	0	0	0	0	0	0
Patuxent_RV__	0	0	0	0	0	0	0	0	0
Pensacola_NAS__	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY__	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino__	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA__	0	0	0	0	0	0	0	0	0
St_Louis_MO__	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.19
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.010 0.05
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function Value: = 2.318

Overall Capacity: Initial = 3267208 Final = 1852794 Retained = 56.7(%)
 Expansion to available space = 40793 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis___	1	0.651	14.96	
Kansas_City____	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY___	0	0.532	8.74	
Limestone_ME___	0	0.548	4.98	
Norfolk_VA_____	1	0.787	7.47	
Oakland_CA_____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	40558	0	105479	90560	14919	105479
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_Rv____	9553	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA____	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	707	0	0	0	834	0	0	300	1841
Columbus_OH___	0	1344	0	870	0	0	10	1062	3286
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	950	528	165	100	300	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	283	0	0	0	0	0	0	283	566
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV_____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA__	1	1	1	-0.1	-0.1	-0.1	
Charleston_SC_	0	0	0	-0.1	-0.1	-0.1	
Cleveland_OH__	1	1	1	-0.1	-0.1	-0.1	
Columbus_OH___	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH_____	0	0	0	-0.1	-0.1	-0.1	
Denver_CO_____	0	0	0	-0.1	-0.1	-0.1	
Indianapolis___	1	1	1	-0.1	-0.1	-0.1	
Kansas_City____	0	1	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	0	1	-0.1	-0.1	-0.1	
Lexington_KY___	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME___	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA_____	0	0	1	-0.1	-0.1	-0.1	
Oakland_CA_____	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE_____	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL_____	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI_____	0	0	0	-0.1	-0.1	-0.1	
Patuxent_RV_____	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1	

```

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.01,s_0).out
Pensacola_Sauf      0      0      0      -0.1 -0.1 -0.1
Rock_Island_IL      0      0      0      -0.1 -0.1 -0.1
Rome_NY_____      0      0      0      -0.1 -0.1 -0.1
San_Antonio_TX      0      0      0      -0.1 -0.1 -0.1
San_Bernadino_      0      0      0      -0.1 -0.1 -0.1
San_Diego_CA_____ 0      0      0      -0.1 -0.1 -0.1
Seaside_CA_____   0      0      0      -0.1 -0.1 -0.1
St_Louis_MO_____  0      0      0      -0.1 -0.1 -0.1
'_%CapRtnd'        55.7942  57.9584  56.7088 -0.1 -0.1 -0.1
_AvgMV             0.55975  0.538    0.6355  -0.1 -0.1 -0.1
_Build            0      0      0      -0.1 -0.1 -0.1
_Renovate         149035  0      40793   -0.1 -0.1 -0.1

:      7      8      9      10      :=
Arlington_VA_____ -0.1 -0.1 -0.1 -0.1
Charleston_SC_____ -0.1 -0.1 -0.1 -0.1
Cleveland_OH_____ -0.1 -0.1 -0.1 -0.1
Columbus_OH_____   -0.1 -0.1 -0.1 -0.1
Dayton_OH_____      -0.1 -0.1 -0.1 -0.1
Denver_CO_____      -0.1 -0.1 -0.1 -0.1
Indianapolis_____ -0.1 -0.1 -0.1 -0.1
Kansas_City_____   -0.1 -0.1 -0.1 -0.1
Lawton_Ft_Sill_____ -0.1 -0.1 -0.1 -0.1
Lexington_KY_____  -0.1 -0.1 -0.1 -0.1
Limestone_ME_____ -0.1 -0.1 -0.1 -0.1
Norfolk_VA_____    -0.1 -0.1 -0.1 -0.1
Oakland_CA_____     -0.1 -0.1 -0.1 -0.1
Omaha_NE_____       -0.1 -0.1 -0.1 -0.1
Orlando_FL_____    -0.1 -0.1 -0.1 -0.1
Pacific_HI_____    -0.1 -0.1 -0.1 -0.1
Patuxent_Rv_____   -0.1 -0.1 -0.1 -0.1
Pensacola_NAS_____ -0.1 -0.1 -0.1 -0.1
Pensacola_Sauf_____ -0.1 -0.1 -0.1 -0.1
Rock_Island_IL_____ -0.1 -0.1 -0.1 -0.1
Rome_NY_____        -0.1 -0.1 -0.1 -0.1
San_Antonio_TX_____ -0.1 -0.1 -0.1 -0.1
San_Bernadino_____ -0.1 -0.1 -0.1 -0.1
San_Diego_CA_____   -0.1 -0.1 -0.1 -0.1
Seaside_CA_____     -0.1 -0.1 -0.1 -0.1
St_Louis_MO_____   -0.1 -0.1 -0.1 -0.1
'_%CapRtnd'        -0.1 -0.1 -0.1 -0.1
_AvgMV             -0.1 -0.1 -0.1 -0.1
_Build            -0.1 -0.1 -0.1 -0.1
_Renovate         -0.1 -0.1 -0.1 -0.1
;

```

Results that show as -0.1 can be discarded

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	3.000	1.67
Penalty on Expansion =	15.000	0.68
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
 Overall Objective Function Value: = -0.711

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
 Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_Rv__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Columbus_OH___	559566	148945	0	0	708511	674560	33951	708511
Dayton_OH___	81825	0	0	0	0	0	0	0
Denver_CO___	296818	0	0	0	0	0	0	0
Indianapolis__	701689	90	0	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino__	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	1172	0	0	0	0	0	0	669	1841
Columbus_OH___	0	1344	0	1268	500	0	10	1094	4216
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis__	0	0	2193	552	862	165	100	364	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino__	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	3.000	1.69
Penalty on Expansion =	15.000	0.45
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.010	0.05
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.026 Average MV = 0.605
 Overall Objective Function Value: = 0.317

Overall Capacity: Initial = 3267208 Final = 1837833 Retained = 56.3(%)
 Expansion to available space = 99033 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA__	1	0.313	44.76
Charleston_SC__	0	0.546	3.8
Cleveland_OH__	1	0.587	29.21
Columbus_OH__	1	0.688	8.27
Dayton_OH__	0	0.625	2.91
Denver_CO__	0	0.803	9.15
Indianapolis__	1	0.651	14.96
Kansas_City__	0	0.451	16.21
Lawton_Ft_Sill	1	0.787	2.52
Lexington_KY__	0	0.532	8.74
Limestone_ME__	0	0.548	4.98
Norfolk_VA__	0	0.787	7.47
Oakland_CA__	0	0.243	45.12
Omaha_NE__	0	0.673	4.45
Orlando_FL__	0	0.54	5.75
Pacific_HI__	0	0.569	7.72
Patuxent_Rv__	0	0.565	23.66
Pensacola_NAS_	0	0.72	5.7
Pensacola_Sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY__	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino_	0	0.429	10.61
San_Diego_CA__	0	0.569	21.2
Seaside_CA__	0	0.433	8.23
St_Louis_MO__	0	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH__	559566	16305	0	575871	541920	33951	575871
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	0	0	0	0
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City__	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	82638	0	147559	132640	14919	147559
Lexington_KY__	20120	0	0	0	0	0	0

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Limestone_ME	68587	0	0	0	0	0	0	0	0
Norfolk_VA	73201	0	0	0	0	0	0	0	0
Oakland_CA	14636	0	0	0	0	0	0	0	0
Omaha_NE	64982	0	0	0	0	0	0	0	0
Orlando_FL	53221	0	0	0	0	0	0	0	0
Pacific_HI	30996	0	0	0	0	0	0	0	0
Patuxent_RV	9553	0	0	0	0	0	0	0	0
Pensacola_NAS	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino	30056	0	0	0	0	0	0	0	0
San_Diego_CA	46641	0	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA	0	0	0	0	0	0	0	149	149
Charleston_SC	0	0	0	0	0	0	0	0	0
Cleveland_OH	757	0	0	0	783	0	0	301	1841
Columbus_OH	0	1344	0	1317	0	0	10	716	3387
Dayton_OH	0	0	0	0	0	0	0	0	0
Denver_CO	0	0	0	0	0	0	0	0	0
Indianapolis	0	0	2193	503	579	165	100	696	4236
Kansas_City	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	415	0	0	0	0	0	0	414	829
Lexington_KY	0	0	0	0	0	0	0	0	0
Limestone_ME	0	0	0	0	0	0	0	0	0
Norfolk_VA	0	0	0	0	0	0	0	0	0
Oakland_CA	0	0	0	0	0	0	0	0	0
Omaha_NE	0	0	0	0	0	0	0	0	0
Orlando_FL	0	0	0	0	0	0	0	0	0
Pacific_HI	0	0	0	0	0	0	0	0	0
Patuxent_RV	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino	0	0	0	0	0	0	0	0	0
San_Diego_CA	0	0	0	0	0	0	0	0	0
Seaside_CA	0	0	0	0	0	0	0	0	0
St_Louis_MO	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 3.000	1.70
Penalty on Expansion	= 15.000	0.19
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.010 0.05
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function Value: = 1.311

Overall Capacity: Initial = 3267208 Final = 1852794 Retained = 56.7(%)
 Expansion to available space = 40793 New construction = 0

Site Results (1 identifies retained sites)

```

:      Open      MV      Cost      :=
Arlington_VA__  1    0.313  44.76
Charleston_SC__ 0    0.546   3.8
Cleveland_OH__  1    0.587  29.21
Columbus_OH___  1    0.688   8.27
Dayton_OH_____ 0    0.625   2.91
Denver_CO_____ 0    0.803   9.15
Indianapolis___ 1    0.651  14.96
Kansas_City____ 0    0.451  16.21
Lawton_Ft_Sill  1    0.787   2.52
Lexington_KY___ 0    0.532   8.74
Limestone_ME___ 0    0.548   4.98
Norfolk_VA_____ 1    0.787   7.47
Oakland_CA_____ 0    0.243  45.12
Omaha_NE_____  0    0.673   4.45
Orlando_FL_____ 0    0.54   5.75
Pacific_HI_____ 0    0.569   7.72
Patuxent_RV____ 0    0.565  23.66
Pensacola_NAS_  0    0.72   5.7
Pensacola_Sauf  0    0.805   7.38
Rock_Island_IL  0    0.846   9.03
Rome_NY_____  0    0.542   4.26
San_Antonio_TX  0    0.586  18.2
San_Bernadino__ 0    0.429  10.61
San_Diego_CA___ 0    0.569  21.2
Seaside_CA_____ 0    0.433   8.23
St_Louis_MO____ 0    0.612  15.93
;
  
```

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH___	559566	145	0	559711	525760	33951	559711
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	40558	0	105479	90560	14919	105479
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0	0	0
Seaside_CA_____	23126	0	0	0	0	0	0	0	0
St_Louis_MO____	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH___	707	0	0	0	833	0	0	301	1841
Columbus_OH____	0	1344	0	871	0	0	10	1061	3286
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	949	529	165	100	300	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	283	0	0	0	0	0	0	283	566
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO____	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA___	1	1	1	-0.1	-0.1	-0.1	
Charleston_SC__	0	0	0	-0.1	-0.1	-0.1	
Cleveland_OH___	1	1	1	-0.1	-0.1	-0.1	
Columbus_OH____	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH_____	0	0	0	-0.1	-0.1	-0.1	
Denver_CO_____	0	0	0	-0.1	-0.1	-0.1	
Indianapolis___	1	1	1	-0.1	-0.1	-0.1	
Kansas_City____	0	0	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	1	1	-0.1	-0.1	-0.1	
Lexington_KY___	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME___	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA_____	0	0	1	-0.1	-0.1	-0.1	
Oakland_CA_____	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE_____	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL_____	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI_____	0	0	0	-0.1	-0.1	-0.1	
Patuxent_RV____	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1	

```

dfas_noDenv(r_3,b_20,e_15,f_1,m_0.01,s_0).out
Pensacola_Sauf      0      0      0      -0.1  -0.1  -0.1
Rock_Island_IL      0      0      0      -0.1  -0.1  -0.1
Rome_NY_____      0      0      0      -0.1  -0.1  -0.1
San_Antonio_TX      0      0      0      -0.1  -0.1  -0.1
San_Bernadino_      0      0      0      -0.1  -0.1  -0.1
San_Diego_CA_____ 0      0      0      -0.1  -0.1  -0.1
Seaside_CA_____   0      0      0      -0.1  -0.1  -0.1
St_Louis_MO_____  0      0      0      -0.1  -0.1  -0.1
'_%CapRtnd'        55.7942  56.2509  56.7088  -0.1  -0.1  -0.1
_AvgMV              0.55975  0.6052  0.6355  -0.1  -0.1  -0.1
_Build              0      0      0      -0.1  -0.1  -0.1
_Renovate           149035   99033   40793   -0.1  -0.1  -0.1

:      7      8      9      10      :=
Arlington_VA_____ -0.1  -0.1  -0.1  -0.1
Charleston_SC_____ -0.1  -0.1  -0.1  -0.1
Cleveland_OH_____  -0.1  -0.1  -0.1  -0.1
Columbus_OH_____   -0.1  -0.1  -0.1  -0.1
Dayton_OH_____      -0.1  -0.1  -0.1  -0.1
Denver_CO_____      -0.1  -0.1  -0.1  -0.1
Indianapolis_____  -0.1  -0.1  -0.1  -0.1
Kansas_City_____    -0.1  -0.1  -0.1  -0.1
Lawton_Ft_Sill_____ -0.1  -0.1  -0.1  -0.1
Lexington_KY_____  -0.1  -0.1  -0.1  -0.1
Limestone_ME_____  -0.1  -0.1  -0.1  -0.1
Norfolk_VA_____    -0.1  -0.1  -0.1  -0.1
Oakland_CA_____     -0.1  -0.1  -0.1  -0.1
Omaha_NE_____       -0.1  -0.1  -0.1  -0.1
Orlando_FL_____     -0.1  -0.1  -0.1  -0.1
Pacific_HI_____     -0.1  -0.1  -0.1  -0.1
Patuxent_Rv_____   -0.1  -0.1  -0.1  -0.1
Pensacola_NAS_____ -0.1  -0.1  -0.1  -0.1
Pensacola_Sauf_____ -0.1  -0.1  -0.1  -0.1
Rock_Island_IL_____ -0.1  -0.1  -0.1  -0.1
Rome_NY_____        -0.1  -0.1  -0.1  -0.1
San_Antonio_TX_____ -0.1  -0.1  -0.1  -0.1
San_Bernadino_____  -0.1  -0.1  -0.1  -0.1
San_Diego_CA_____   -0.1  -0.1  -0.1  -0.1
Seaside_CA_____     -0.1  -0.1  -0.1  -0.1
St_Louis_MO_____    -0.1  -0.1  -0.1  -0.1
'_%CapRtnd'         -0.1  -0.1  -0.1  -0.1
_AvgMV              -0.1  -0.1  -0.1  -0.1
_Build              -0.1  -0.1  -0.1  -0.1
_Renovate           -0.1  -0.1  -0.1  -0.1
;

```

Results that show as -0.1 can be discarded

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	objValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.68
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.100	0.46
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
 Overall Objective Function Value: = 0.727

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
 Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_Rv__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Columbus_OH___	559566	148945	0	708511	674560	33951	708511
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1172	0	0	0	0	0	0	669	1841
Columbus_OH___	0	1344	0	1205	500	0	10	1157	4216
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	615	862	165	100	301	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

	Penalty	objValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.87
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.100	0.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.690 Average MV = 0.538
 Overall Objective Function Value: = 1.782

Overall Capacity: Initial = 3267208 Final = 1893621 Retained = 58.0(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City___	1	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA____	0	0.787	7.47	
Oakland_CA____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO___	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	250560	14919	265479
Columbus_OH__	559566	0	0	559566	525440	33951	559391
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis__	701689	0	0	701689	675200	24019	699219
Kansas_City___	219742	0	0	219742	195680	24019	219699
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Limestone_ME_	68587	0	0	0	0	0	0	0	0
Norfolk_VA_	73201	0	0	0	0	0	0	0	0
Oakland_CA_	14636	0	0	0	0	0	0	0	0
Omaha_NE_	64982	0	0	0	0	0	0	0	0
Orlando_FL_	53221	0	0	0	0	0	0	0	0
Pacific_HI_	30996	0	0	0	0	0	0	0	0
Patuxent_RV_	9553	0	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY_	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0	0
Seaside_CA_	23126	0	0	0	0	0	0	0	0
St_Louis_MO_	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH_	1172	0	0	0	0	0	0	394	1566
Columbus_OH_	0	1344	0	1060	0	0	10	870	3284
Dayton_OH_	0	0	0	0	0	0	0	0	0
Denver_CO_	0	0	0	0	0	0	0	0	0
Indianapolis_	0	0	2192	760	800	165	3	300	4220
Kansas_City_	0	0	1	0	562	0	97	563	1223
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY_	0	0	0	0	0	0	0	0	0
Limestone_ME_	0	0	0	0	0	0	0	0	0
Norfolk_VA_	0	0	0	0	0	0	0	0	0
Oakland_CA_	0	0	0	0	0	0	0	0	0
Omaha_NE_	0	0	0	0	0	0	0	0	0
Orlando_FL_	0	0	0	0	0	0	0	0	0
Pacific_HI_	0	0	0	0	0	0	0	0	0
Patuxent_RV_	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA_	0	0	0	0	0	0	0	0	0
St_Louis_MO_	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.19
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.100 0.47
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function Value: = 2.736

Overall Capacity: Initial = 3267208 Final = 1852794 Retained = 56.7(%)
 Expansion to available space = 40793 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City___	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA____	1	0.787	7.47	
Oakland_CA____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_RV___	0	0.565	23.66	
Pensacola_NAS_	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino_	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO___	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH___	559566	40465	0	600031	566080	33951	600031
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA____	73201	0	0	73201	58240	14919	73159
Oakland_CA____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0	0
Seaside_CA____	23126	0	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	833	0	0	0	708	0	0	300	1841
Columbus_OH___	0	1344	0	996	0	0	10	1188	3538
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	824	654	165	100	300	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA____	182	0	0	0	0	0	0	182	364
Oakland_CA____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA____	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA__	1	1	1	-0.1	-0.1	-0.1	
Charleston_SC_	0	0	0	-0.1	-0.1	-0.1	
Cleveland_OH__	1	1	1	-0.1	-0.1	-0.1	
Columbus_OH___	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH_____	0	0	0	-0.1	-0.1	-0.1	
Denver_CO_____	0	0	0	-0.1	-0.1	-0.1	
Indianapolis___	1	1	1	-0.1	-0.1	-0.1	
Kansas_City___	0	1	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	0	1	-0.1	-0.1	-0.1	
Lexington_KY__	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME__	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA____	0	0	1	-0.1	-0.1	-0.1	
Oakland_CA____	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE_____	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL_____	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI_____	0	0	0	-0.1	-0.1	-0.1	
Patuxent_RV____	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1	

```

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.1,s_0).out
Pensacola_Sauf      0      0      0      -0.1 -0.1 -0.1
Rock_Island_IL     0      0      0      -0.1 -0.1 -0.1
Rome_NY            0      0      0      -0.1 -0.1 -0.1
San_Antonio_TX     0      0      0      -0.1 -0.1 -0.1
San_Bernadino_     0      0      0      -0.1 -0.1 -0.1
San_Diego_CA       0      0      0      -0.1 -0.1 -0.1
Seaside_CA         0      0      0      -0.1 -0.1 -0.1
St_Louis_MO        0      0      0      -0.1 -0.1 -0.1
'_%CapRtnd'        55.7942  57.9584  56.7088 -0.1 -0.1 -0.1
_AvgMV             0.55975  0.538    0.6355  -0.1 -0.1 -0.1
_Build            0      0      0      -0.1 -0.1 -0.1
_Renovate          149035  0      40793  -0.1 -0.1 -0.1

:      7      8      9      10      :=
Arlington_VA_     -0.1 -0.1 -0.1 -0.1
Charleston_SC_    -0.1 -0.1 -0.1 -0.1
Cleveland_OH_     -0.1 -0.1 -0.1 -0.1
Columbus_OH_      -0.1 -0.1 -0.1 -0.1
Dayton_OH_        -0.1 -0.1 -0.1 -0.1
Denver_CO_        -0.1 -0.1 -0.1 -0.1
Indianapolis_     -0.1 -0.1 -0.1 -0.1
Kansas_City_      -0.1 -0.1 -0.1 -0.1
Lawton_Ft_Sill   -0.1 -0.1 -0.1 -0.1
Lexington_KY_     -0.1 -0.1 -0.1 -0.1
Limestone_ME_    -0.1 -0.1 -0.1 -0.1
Norfolk_VA_       -0.1 -0.1 -0.1 -0.1
Oakland_CA_       -0.1 -0.1 -0.1 -0.1
Omaha_NE_         -0.1 -0.1 -0.1 -0.1
Orlando_FL_       -0.1 -0.1 -0.1 -0.1
Pacific_HI_       -0.1 -0.1 -0.1 -0.1
Patuxent_RV_      -0.1 -0.1 -0.1 -0.1
Pensacola_NAS_    -0.1 -0.1 -0.1 -0.1
Pensacola_Sauf   -0.1 -0.1 -0.1 -0.1
Rock_Island_IL   -0.1 -0.1 -0.1 -0.1
Rome_NY_          -0.1 -0.1 -0.1 -0.1
San_Antonio_TX   -0.1 -0.1 -0.1 -0.1
San_Bernadino_   -0.1 -0.1 -0.1 -0.1
San_Diego_CA     -0.1 -0.1 -0.1 -0.1
Seaside_CA       -0.1 -0.1 -0.1 -0.1
St_Louis_MO      -0.1 -0.1 -0.1 -0.1
'_%CapRtnd'      -0.1 -0.1 -0.1 -0.1
_AvgMV           -0.1 -0.1 -0.1 -0.1
_Build           -0.1 -0.1 -0.1 -0.1
_Renovate        -0.1 -0.1 -0.1 -0.1
;

```

Results that show as -0.1 can be discarded

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	15.000	0.68
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
 Overall Objective Function value: = 2.726

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
 Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA	1	0.313	44.76
Charleston_SC	0	0.546	3.8
Cleveland_OH	1	0.587	29.21
Columbus_OH	1	0.688	8.27
Dayton_OH	0	0.625	2.91
Denver_CO	0	0.803	9.15
Indianapolis	1	0.651	14.96
Kansas_City	0	0.451	16.21
Lawton_Ft_Sill	0	0.787	2.52
Lexington_KY	0	0.532	8.74
Limestone_ME	0	0.548	4.98
Norfolk_VA	0	0.787	7.47
Oakland_CA	0	0.243	45.12
Omaha_NE	0	0.673	4.45
Orlando_FL	0	0.54	5.75
Pacific_HI	0	0.569	7.72
Patuxent_Rv	0	0.565	23.66
Pensacola_NAS	0	0.72	5.7
Pensacola_Sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino	0	0.429	10.61
San_Diego_CA	0	0.569	21.2
Seaside_CA	0	0.433	8.23
St_Louis_MO	0	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	special Use	Total Used
Arlington_VA	103013	0	0	103013	23840	0	23840
Charleston_SC	108955	0	0	0	0	0	0
Cleveland_OH	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Columbus_OH___	559566	148945	0	0	708511	674560	33951	708511
Dayton_OH___	81825	0	0	0	0	0	0	0
Denver_CO___	296818	0	0	0	0	0	0	0
Indianapolis__	701689	90	0	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	421	0	0	0	500	0	0	920	1841
Columbus_OH___	751	1344	0	1205	0	0	10	906	4216
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis__	0	0	2193	615	862	165	100	301	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.87
Penalty on Expansion =	15.000	0.00
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military value: Total MV = 2.690 Average MV = 0.538
 Overall Objective Function Value: = 3.781

Overall Capacity: Initial = 3267208 Final = 1893621 Retained = 58.0(%)
 Expansion to available space = 0 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA__	1	0.313	44.76
Charleston_SC__	0	0.546	3.8
Cleveland_OH__	1	0.587	29.21
Columbus_OH__	1	0.688	8.27
Dayton_OH__	0	0.625	2.91
Denver_CO__	0	0.803	9.15
Indianapolis__	1	0.651	14.96
Kansas_City__	1	0.451	16.21
Lawton_Ft_Sill	0	0.787	2.52
Lexington_KY__	0	0.532	8.74
Limestone_ME__	0	0.548	4.98
Norfolk_VA__	0	0.787	7.47
Oakland_CA__	0	0.243	45.12
Omaha_NE__	0	0.673	4.45
Orlando_FL__	0	0.54	5.75
Pacific_HI__	0	0.569	7.72
Patuxent_Rv__	0	0.565	23.66
Pensacola_NAS__	0	0.72	5.7
Pensacola_Sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY__	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino__	0	0.429	10.61
San_Diego_CA__	0	0.569	21.2
Seaside_CA__	0	0.433	8.23
St_Louis_MO__	0	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH__	559566	0	0	559566	479040	33951	512991
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	0	0	0	0
Indianapolis__	701689	0	0	701689	677600	24019	701619
Kansas_City__	219742	0	0	219742	195680	24019	219699
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Limestone_ME___	68587	0	0	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA_	46641	0	0	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1172	0	0	0	0	0	0	669	1841
Columbus_OH___	0	1344	0	1320	0	0	10	320	2994
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2192	500	862	41	3	637	4235
Kansas_City___	0	0	1	0	500	124	97	501	1223
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 15.000	0.23
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.500 2.42
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function value: = 4.643

Overall Capacity: Initial = 3267208 Final = 1861914 Retained = 57.0(%)
 Expansion to available space = 49913 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA	1	0.313	44.76
Charleston_SC	0	0.546	3.8
Cleveland_OH	1	0.587	29.21
Columbus_OH	1	0.688	8.27
Dayton_OH	0	0.625	2.91
Denver_CO	0	0.803	9.15
Indianapolis	1	0.651	14.96
Kansas_City	0	0.451	16.21
Lawton_Ft_Sill	1	0.787	2.52
Lexington_KY	0	0.532	8.74
Limestone_ME	0	0.548	4.98
Norfolk_VA	1	0.787	7.47
Oakland_CA	0	0.243	45.12
Omaha_NE	0	0.673	4.45
Orlando_FL	0	0.54	5.75
Pacific_HI	0	0.569	7.72
Patuxent_Rv	0	0.565	23.66
Pensacola_NAS	0	0.72	5.7
Pensacola_Sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino	0	0.429	10.61
San_Diego_CA	0	0.569	21.2
Seaside_CA	0	0.433	8.23
St_Louis_MO	0	0.612	15.93

Site	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA	103013	0	0	103013	23840	0	23840
Charleston_SC	108955	0	0	0	0	0	0
Cleveland_OH	309611	0	0	309611	294560	14919	309479
Columbus_OH	559566	49585	0	609151	575200	33951	609151
Dayton_OH	81825	0	0	0	0	0	0
Denver_CO	296818	0	0	0	0	0	0
Indianapolis	701689	90	0	701779	677760	24019	701779
Kansas_City	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY	20120	0	0	0	0	0	0
Limestone_ME	68587	0	0	0	0	0	0
Norfolk_VA	73201	0	0	73201	49120	24019	73139
Oakland_CA	14636	0	0	0	0	0	0
Omaha_NE	64982	0	0	0	0	0	0
Orlando_FL	53221	0	0	0	0	0	0
Pacific_HI	30996	0	0	0	0	0	0
Patuxent_Rv	9553	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0	0	0
Seaside_CA_____	23126	0	0	0	0	0	0	0	0
St_Louis_MO____	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprnt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC__	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1015	0	0	0	526	0	0	300	1841
Columbus_OH___	0	1344	0	1320	0	0	10	921	3595
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2151	500	836	0	0	749	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	0	0	42	0	0	165	100	0	307
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_Rv____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO____	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA___	1	1	1	-0.1	-0.1	-0.1	
Charleston_SC__	0	0	0	-0.1	-0.1	-0.1	
Cleveland_OH___	1	1	1	-0.1	-0.1	-0.1	
Columbus_OH___	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH_____	0	0	0	-0.1	-0.1	-0.1	
Denver_CO_____	0	0	0	-0.1	-0.1	-0.1	
Indianapolis___	1	1	1	-0.1	-0.1	-0.1	
Kansas_City____	0	1	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	0	1	-0.1	-0.1	-0.1	
Lexington_KY___	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME___	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA_____	0	0	1	-0.1	-0.1	-0.1	
Oakland_CA_____	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE_____	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL_____	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI_____	0	0	0	-0.1	-0.1	-0.1	
Patuxent_Rv____	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1	

```

dfas_noDenv(r_1.5,b_20,e_15,f_1,m_0.5,s_0).out
Pensacola_Sauf      0      0      0      -0.1  -0.1  -0.1
Rock_Island_IL     0      0      0      -0.1  -0.1  -0.1
Rome_NY            0      0      0      -0.1  -0.1  -0.1
San_Antonio_TX    0      0      0      -0.1  -0.1  -0.1
San_Bernadino_    0      0      0      -0.1  -0.1  -0.1
San_Diego_CA      0      0      0      -0.1  -0.1  -0.1
Seaside_CA        0      0      0      -0.1  -0.1  -0.1
St_Louis_MO       0      0      0      -0.1  -0.1  -0.1
'_%CapRtnd'       55.7942  57.9584  56.9879 -0.1  -0.1  -0.1
_AvgMV            0.55975  0.538    0.6355  -0.1  -0.1  -0.1
_Build            0      0      0      -0.1  -0.1  -0.1
_Renovate         149035  0      49913  -0.1  -0.1  -0.1

:      7      8      9      10      :=
Arlington_VA__ -0.1  -0.1  -0.1  -0.1
Charleston_SC_ -0.1  -0.1  -0.1  -0.1
Cleveland_OH__ -0.1  -0.1  -0.1  -0.1
Columbus_OH___ -0.1  -0.1  -0.1  -0.1
Dayton_OH_____ -0.1  -0.1  -0.1  -0.1
Denver_CO_____ -0.1  -0.1  -0.1  -0.1
Indianapolis___ -0.1  -0.1  -0.1  -0.1
Kansas_City____ -0.1  -0.1  -0.1  -0.1
Lawton_Ft_Sill_ -0.1  -0.1  -0.1  -0.1
Lexington_KY___ -0.1  -0.1  -0.1  -0.1
Limestone_ME___ -0.1  -0.1  -0.1  -0.1
Norfolk_VA_____ -0.1  -0.1  -0.1  -0.1
Oakland_CA_____ -0.1  -0.1  -0.1  -0.1
Omaha_NE_____ -0.1  -0.1  -0.1  -0.1
Orlando_FL_____ -0.1  -0.1  -0.1  -0.1
Pacific_HI_____ -0.1  -0.1  -0.1  -0.1
Patuxent_RV_____ -0.1  -0.1  -0.1  -0.1
Pensacola_NAS_ -0.1  -0.1  -0.1  -0.1
Pensacola_Sauf -0.1  -0.1  -0.1  -0.1
Rock_Island_IL -0.1  -0.1  -0.1  -0.1
Rome_NY_____ -0.1  -0.1  -0.1  -0.1
San_Antonio_TX -0.1  -0.1  -0.1  -0.1
San_Bernadino_ -0.1  -0.1  -0.1  -0.1
San_Diego_CA___ -0.1  -0.1  -0.1  -0.1
Seaside_CA_____ -0.1  -0.1  -0.1  -0.1
St_Louis_MO____ -0.1  -0.1  -0.1  -0.1
'_%CapRtnd'    -0.1  -0.1  -0.1  -0.1
_AvgMV         -0.1  -0.1  -0.1  -0.1
_Build         -0.1  -0.1  -0.1  -0.1
_Renovate      -0.1  -0.1  -0.1  -0.1
;

```

Results that show as -0.1 can be discarded

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	Objvalue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.34
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.27
Penalize Moving Staff =	0.100	0.46
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
 Overall Objective Function Value: = 1.069

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
 Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_Rv__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Columbus_OH___	559566	148945	0	708511	674560	33951	708511
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_RV___	9553	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1172	0	0	0	0	0	0	669	1841
Columbus_OH___	0	1344	0	1319	500	0	10	1043	4216
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	501	862	165	100	415	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_RV___	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.21
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.100	0.48
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.026 Average MV = 0.605
 Overall Objective Function Value: = 1.971

Overall Capacity: Initial = 3267208 Final = 1837875 Retained = 56.3(%)
 Expansion to available space = 90795 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City___	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA____	1	0.787	7.47	
Oakland_CA____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_Rv___	0	0.565	23.66	
Pensacola_NAS_	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino_	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO___	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH__	559566	90705	0	650271	616320	33951	650271
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY__	20120	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Limestone_ME_	68587	0	0	0	0	0	0	0
Norfolk_VA_	73201	0	0	73201	58240	14919	73159	
Oakland_CA_	14636	0	0	0	0	0	0	
Omaha_NE_	64982	0	0	0	0	0	0	
Orlando_FL_	53221	0	0	0	0	0	0	
Pacific_HI_	30996	0	0	0	0	0	0	
Patuxent_RV_	9553	0	0	0	0	0	0	
Pensacola_NAS_	69426	0	0	0	0	0	0	
Pensacola_Sauf	48161	0	0	0	0	0	0	
Rock_Island_IL	42051	0	0	0	0	0	0	
Rome_NY_	82742	0	0	0	0	0	0	
San_Antonio_TX	64655	0	0	0	0	0	0	
San_Bernadino_	30056	0	0	0	0	0	0	
San_Diego_CA_	46641	0	0	0	0	0	0	
Seaside_CA_	23126	0	0	0	0	0	0	
St_Louis_MO_	78914	0	0	0	0	0	0	

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA_	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH_	990	0	0	0	551	0	0	300	1841
Columbus_OH_	0	1344	0	1153	0	0	10	1345	3852
Dayton_OH_	0	0	0	0	0	0	0	0	0
Denver_CO_	0	0	0	0	0	0	0	0	0
Indianapolis_	0	0	2193	667	811	165	100	300	4236
Kansas_City_	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY_	0	0	0	0	0	0	0	0	0
Limestone_ME_	0	0	0	0	0	0	0	0	0
Norfolk_VA_	182	0	0	0	0	0	0	182	364
Oakland_CA_	0	0	0	0	0	0	0	0	0
Omaha_NE_	0	0	0	0	0	0	0	0	0
Orlando_FL_	0	0	0	0	0	0	0	0	0
Pacific_HI_	0	0	0	0	0	0	0	0	0
Patuxent_Rv_	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA_	0	0	0	0	0	0	0	0	0
St_Louis_MO_	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 7.500	0.09
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.100 0.47
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function Value: = 2.829

Overall Capacity: Initial = 3267208 Final = 1852794 Retained = 56.7(%)
 Expansion to available space = 40793 New construction = 0

Site Results (1 identifies retained sites)

	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC_	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH___	1	0.688	8.27	
Dayton_OH_____	0	0.625	2.91	
Denver_CO_____	0	0.803	9.15	
Indianapolis___	1	0.651	14.96	
Kansas_City____	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY___	0	0.532	8.74	
Limestone_ME___	0	0.548	4.98	
Norfolk_VA_____	1	0.787	7.47	
Oakland_CA_____	0	0.243	45.12	
Omaha_NE_____	0	0.673	4.45	
Orlando_FL_____	0	0.54	5.75	
Pacific_HI_____	0	0.569	7.72	
Patuxent_RV____	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY_____	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA___	0	0.569	21.2	
Seaside_CA_____	0	0.433	8.23	
St_Louis_MO____	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	staff Use	special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC_	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH___	559566	40465	0	600031	566080	33951	600031
Dayton_OH_____	81825	0	0	0	0	0	0
Denver_CO_____	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City____	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	238	0	65159	50240	14919	65159
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA_____	73201	0	0	73201	58240	14919	73159
Oakland_CA_____	14636	0	0	0	0	0	0
Omaha_NE_____	64982	0	0	0	0	0	0
Orlando_FL_____	53221	0	0	0	0	0	0
Pacific_HI_____	30996	0	0	0	0	0	0
Patuxent_RV____	9553	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY_____	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA____	23126	0	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	833	0	0	0	708	0	0	300	1841
Columbus_OH___	0	1344	0	997	0	0	10	1187	3538
Dayton_OH_____	0	0	0	0	0	0	0	0	0
Denver_CO_____	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	823	654	165	100	301	4236
Kansas_City____	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	157	0	0	0	0	0	0	157	314
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA_____	182	0	0	0	0	0	0	182	364
Oakland_CA_____	0	0	0	0	0	0	0	0	0
Omaha_NE_____	0	0	0	0	0	0	0	0	0
Orlando_FL_____	0	0	0	0	0	0	0	0	0
Pacific_HI_____	0	0	0	0	0	0	0	0	0
Patuxent_RV____	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_____	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA_____	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6	:=
Arlington_VA__	1	1	1	-0.1	-0.1	-0.1	
Charleston_SC_	0	0	0	-0.1	-0.1	-0.1	
Cleveland_OH__	1	1	1	-0.1	-0.1	-0.1	
Columbus_OH___	1	1	1	-0.1	-0.1	-0.1	
Dayton_OH_____	0	0	0	-0.1	-0.1	-0.1	
Denver_CO_____	0	0	0	-0.1	-0.1	-0.1	
Indianapolis___	1	1	1	-0.1	-0.1	-0.1	
Kansas_City____	0	0	0	-0.1	-0.1	-0.1	
Lawton_Ft_Sill	0	0	1	-0.1	-0.1	-0.1	
Lexington_KY___	0	0	0	-0.1	-0.1	-0.1	
Limestone_ME___	0	0	0	-0.1	-0.1	-0.1	
Norfolk_VA_____	0	1	1	-0.1	-0.1	-0.1	
Oakland_CA_____	0	0	0	-0.1	-0.1	-0.1	
Omaha_NE_____	0	0	0	-0.1	-0.1	-0.1	
Orlando_FL_____	0	0	0	-0.1	-0.1	-0.1	
Pacific_HI_____	0	0	0	-0.1	-0.1	-0.1	
Patuxent_RV____	0	0	0	-0.1	-0.1	-0.1	
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1	

```

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.1,s_0).out
Pensacola_Sauf      0      0      0      -0.1  -0.1  -0.1
Rock_Island_IL     0      0      0      -0.1  -0.1  -0.1
Rome_NY            0      0      0      -0.1  -0.1  -0.1
San_Antonio_TX     0      0      0      -0.1  -0.1  -0.1
San_Bernadino_     0      0      0      -0.1  -0.1  -0.1
San_Diego_CA       0      0      0      -0.1  -0.1  -0.1
Seaside_CA         0      0      0      -0.1  -0.1  -0.1
St_Louis_MO        0      0      0      -0.1  -0.1  -0.1
'_%CapRtnd'        55.7942  56.2522  56.7088  -0.1  -0.1  -0.1
_AvgMV              0.55975  0.6052  0.6355  -0.1  -0.1  -0.1
_Build              0      0      0      -0.1  -0.1  -0.1
_Renovate           149035  90795  40793  -0.1  -0.1  -0.1

:      7      8      9      10      :=
Arlington_VA_     -0.1  -0.1  -0.1  -0.1
Charleston_SC_    -0.1  -0.1  -0.1  -0.1
Cleveland_OH_     -0.1  -0.1  -0.1  -0.1
Columbus_OH_      -0.1  -0.1  -0.1  -0.1
Dayton_OH_        -0.1  -0.1  -0.1  -0.1
Denver_CO_        -0.1  -0.1  -0.1  -0.1
Indianapolis_     -0.1  -0.1  -0.1  -0.1
Kansas_City_      -0.1  -0.1  -0.1  -0.1
Lawton_Ft_Sill_   -0.1  -0.1  -0.1  -0.1
Lexington_KY_     -0.1  -0.1  -0.1  -0.1
Limestone_ME_     -0.1  -0.1  -0.1  -0.1
Norfolk_VA_       -0.1  -0.1  -0.1  -0.1
Oakland_CA_       -0.1  -0.1  -0.1  -0.1
Omaha_NE_         -0.1  -0.1  -0.1  -0.1
Orlando_FL_       -0.1  -0.1  -0.1  -0.1
Pacific_HI_       -0.1  -0.1  -0.1  -0.1
Patuxent_Rv_      -0.1  -0.1  -0.1  -0.1
Pensacola_NAS_    -0.1  -0.1  -0.1  -0.1
Pensacola_Sauf    -0.1  -0.1  -0.1  -0.1
Rock_Island_IL    -0.1  -0.1  -0.1  -0.1
Rome_NY_          -0.1  -0.1  -0.1  -0.1
San_Antonio_TX    -0.1  -0.1  -0.1  -0.1
San_Bernadino_    -0.1  -0.1  -0.1  -0.1
San_Diego_CA_     -0.1  -0.1  -0.1  -0.1
Seaside_CA_       -0.1  -0.1  -0.1  -0.1
St_Louis_MO_      -0.1  -0.1  -0.1  -0.1
'_%CapRtnd'       -0.1  -0.1  -0.1  -0.1
_AvgMV            -0.1  -0.1  -0.1  -0.1
_Build            -0.1  -0.1  -0.1  -0.1
_Renovate         -0.1  -0.1  -0.1  -0.1
;

```

Results that show as -0.1 can be discarded

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

NUMBER OF SITES RETAINED = 4 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.84
Penalty on Expansion =	7.500	0.34
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.31
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 2.239 Average MV = 0.560
Overall Objective Function Value: = 3.068

Overall Capacity: Initial = 3267208 Final = 1822914 Retained = 55.8(%)
Expansion to available space = 149035 New construction = 0

Site Results (1 identifies retained sites)

:	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	0	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	0	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_Rv__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Columbus_OH___	559566	148945	0	708511	674560	33951	708511
Dayton_OH___	81825	0	0	0	0	0	0
Denver_CO___	296818	0	0	0	0	0	0
Indianapolis___	701689	90	0	701779	677760	24019	701779
Kansas_City___	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	0	0	0	0
Lexington_KY___	20120	0	0	0	0	0	0
Limestone_ME___	68587	0	0	0	0	0	0
Norfolk_VA___	73201	0	0	0	0	0	0
Oakland_CA___	14636	0	0	0	0	0	0
Omaha_NE___	64982	0	0	0	0	0	0
Orlando_FL___	53221	0	0	0	0	0	0
Pacific_HI___	30996	0	0	0	0	0	0
Patuxent_Rv___	9553	0	0	0	0	0	0
Pensacola_NAS	69426	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0
Rome_NY___	82742	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0
San_Diego_CA___	46641	0	0	0	0	0	0
Seaside_CA___	23126	0	0	0	0	0	0
St_Louis_MO___	78914	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA___	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH___	1038	0	0	0	500	0	0	303	1841
Columbus_OH___	134	1344	0	1204	0	0	10	1524	4216
Dayton_OH___	0	0	0	0	0	0	0	0	0
Denver_CO___	0	0	0	0	0	0	0	0	0
Indianapolis___	0	0	2193	616	862	165	100	300	4236
Kansas_City___	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	0	0	0	0	0	0	0
Lexington_KY___	0	0	0	0	0	0	0	0	0
Limestone_ME___	0	0	0	0	0	0	0	0	0
Norfolk_VA___	0	0	0	0	0	0	0	0	0
Oakland_CA___	0	0	0	0	0	0	0	0	0
Omaha_NE___	0	0	0	0	0	0	0	0	0
Orlando_FL___	0	0	0	0	0	0	0	0	0
Pacific_HI___	0	0	0	0	0	0	0	0	0
Patuxent_Rv___	0	0	0	0	0	0	0	0	0
Pensacola_NAS	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY___	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA___	0	0	0	0	0	0	0	0	0
Seaside_CA___	0	0	0	0	0	0	0	0	0
St_Louis_MO___	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 5 of 26

Penalties used in the run

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

	Penalty	ObjValue
Penalty on Sites =	0.000	0.00
Penalty on Capacity =	1.500	0.85
Penalty on Expansion =	7.500	0.25
Penalty on Building =	20.000	0.00
Reward Concentration =	1.000	0.35
Penalize Moving Staff =	0.500	2.50
Penalty on non-secure =	0.000	0.00

Military Value: Total MV = 3.026 Average MV = 0.605
 Overall Objective Function Value: = 3.916

Overall Capacity: Initial = 3267208 Final = 1846933 Retained = 56.5(%)
 Expansion to available space = 108133 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost
Arlington_VA	1	0.313	44.76
Charleston_SC	0	0.546	3.8
Cleveland_OH	1	0.587	29.21
Columbus_OH	1	0.688	8.27
Dayton_OH	0	0.625	2.91
Denver_CO	0	0.803	9.15
Indianapolis	1	0.651	14.96
Kansas_City	0	0.451	16.21
Lawton_Ft_Sill	1	0.787	2.52
Lexington_KY	0	0.532	8.74
Limestone_ME	0	0.548	4.98
Norfolk_VA	0	0.787	7.47
Oakland_CA	0	0.243	45.12
Omaha_NE	0	0.673	4.45
Orlando_FL	0	0.54	5.75
Pacific_HI	0	0.569	7.72
Patuxent_RV	0	0.565	23.66
Pensacola_NAS	0	0.72	5.7
Pensacola_Sauf	0	0.805	7.38
Rock_Island_IL	0	0.846	9.03
Rome_NY	0	0.542	4.26
San_Antonio_TX	0	0.586	18.2
San_Bernadino	0	0.429	10.61
San_Diego_CA	0	0.569	21.2
Seaside_CA	0	0.433	8.23
St_Louis_MO	0	0.612	15.93

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA	103013	0	0	103013	23840	0	23840
Charleston_SC	108955	0	0	0	0	0	0
Cleveland_OH	309611	0	0	309611	294560	14919	309479
Columbus_OH	559566	106385	0	665951	632000	33951	665951
Dayton_OH	81825	0	0	0	0	0	0
Denver_CO	296818	0	0	0	0	0	0
Indianapolis	701689	90	0	701779	677760	24019	701779
Kansas_City	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	1658	0	66579	42560	24019	66579
Lexington_KY	20120	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Limestone_ME__	68587	0	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	0	0	0	0	0
Oakland_CA__	14636	0	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0	0
Patuxent_Rv__	9553	0	0	0	0	0	0	0
Pensacola_NAS_	69426	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0
Rome_NY__	82742	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0
San_Diego_CA__	46641	0	0	0	0	0	0	0
Seaside_CA__	23126	0	0	0	0	0	0	0
St_Louis_MO__	78914	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agency	Sprt Staff	Total Staff
Arlington_VA__	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH__	1041	0	0	0	500	0	0	300	1841
Columbus_OH__	131	1344	0	1320	0	0	10	1145	3950
Dayton_OH__	0	0	0	0	0	0	0	0	0
Denver_CO__	0	0	0	0	0	0	0	0	0
Indianapolis__	0	0	2192	500	862	0	0	682	4236
Kansas_City__	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	0	0	1	0	0	165	100	0	266
Lexington_KY__	0	0	0	0	0	0	0	0	0
Limestone_ME__	0	0	0	0	0	0	0	0	0
Norfolk_VA__	0	0	0	0	0	0	0	0	0
Oakland_CA__	0	0	0	0	0	0	0	0	0
Omaha_NE__	0	0	0	0	0	0	0	0	0
Orlando_FL__	0	0	0	0	0	0	0	0	0
Pacific_HI__	0	0	0	0	0	0	0	0	0
Patuxent_Rv__	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY__	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA__	0	0	0	0	0	0	0	0	0
Seaside_CA__	0	0	0	0	0	0	0	0	0
St_Louis_MO__	0	0	0	0	0	0	0	0	0

NUMBER OF SITES RETAINED = 6 of 26

Penalties used in the run

	Penalty	ObjValue
Penalty on Sites	= 0.000	0.00
Penalty on Capacity	= 1.500	0.85
Penalty on Expansion	= 7.500	0.11
Penalty on Building	= 20.000	0.00

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Reward Concentration = 1.000 0.35
 Penalize Moving Staff = 0.500 2.42
 Penalty on non-secure = 0.000 0.00

=====
 Military Value: Total MV = 3.813 Average MV = 0.635
 Overall Objective Function Value: = 4.758

Overall Capacity: Initial = 3267208 Final = 1861996 Retained = 57.0(%)
 Expansion to available space = 49995 New construction = 0

Site Results (1 identifies retained sites)

Site	Open	MV	Cost	:=
Arlington_VA__	1	0.313	44.76	
Charleston_SC__	0	0.546	3.8	
Cleveland_OH__	1	0.587	29.21	
Columbus_OH__	1	0.688	8.27	
Dayton_OH__	0	0.625	2.91	
Denver_CO__	0	0.803	9.15	
Indianapolis__	1	0.651	14.96	
Kansas_City__	0	0.451	16.21	
Lawton_Ft_Sill	1	0.787	2.52	
Lexington_KY__	0	0.532	8.74	
Limestone_ME__	0	0.548	4.98	
Norfolk_VA__	1	0.787	7.47	
Oakland_CA__	0	0.243	45.12	
Omaha_NE__	0	0.673	4.45	
Orlando_FL__	0	0.54	5.75	
Pacific_HI__	0	0.569	7.72	
Patuxent_RV__	0	0.565	23.66	
Pensacola_NAS__	0	0.72	5.7	
Pensacola_Sauf	0	0.805	7.38	
Rock_Island_IL	0	0.846	9.03	
Rome_NY__	0	0.542	4.26	
San_Antonio_TX	0	0.586	18.2	
San_Bernadino__	0	0.429	10.61	
San_Diego_CA__	0	0.569	21.2	
Seaside_CA__	0	0.433	8.23	
St_Louis_MO__	0	0.612	15.93	

	Initial Capacity	Take Space	Build Space	Final Capacity	Staff Use	Special Use	Total Used
Arlington_VA__	103013	0	0	103013	23840	0	23840
Charleston_SC__	108955	0	0	0	0	0	0
Cleveland_OH__	309611	0	0	309611	294560	14919	309479
Columbus_OH__	559566	49905	0	609471	575520	33951	609471
Dayton_OH__	81825	0	0	0	0	0	0
Denver_CO__	296818	0	0	0	0	0	0
Indianapolis__	701689	90	0	701779	677760	24019	701779
Kansas_City__	219742	0	0	0	0	0	0
Lawton_Ft_Sill	64921	0	0	64921	49920	14919	64839
Lexington_KY__	20120	0	0	0	0	0	0
Limestone_ME__	68587	0	0	0	0	0	0
Norfolk_VA__	73201	0	0	73201	49120	24019	73139
Oakland_CA__	14636	0	0	0	0	0	0
Omaha_NE__	64982	0	0	0	0	0	0
Orlando_FL__	53221	0	0	0	0	0	0
Pacific_HI__	30996	0	0	0	0	0	0
Patuxent_RV__	9553	0	0	0	0	0	0

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out

Pensacola_NAS_	69426	0	0	0	0	0	0	0	0
Pensacola_Sauf	48161	0	0	0	0	0	0	0	0
Rock_Island_IL	42051	0	0	0	0	0	0	0	0
Rome_NY	82742	0	0	0	0	0	0	0	0
San_Antonio_TX	64655	0	0	0	0	0	0	0	0
San_Bernadino_	30056	0	0	0	0	0	0	0	0
San_Diego_CA	46641	0	0	0	0	0	0	0	0
Seaside_CA	23126	0	0	0	0	0	0	0	0
St_Louis_MO	78914	0	0	0	0	0	0	0	0

	Acct Field	Acct DoD	Acct Army	Comm Pay	MC Pay	NAF Acct	Def Agncy	Sprt Staff	Total Staff
Arlington_VA_	0	0	0	0	0	0	0	149	149
Charleston_SC_	0	0	0	0	0	0	0	0	0
Cleveland_OH_	1016	0	0	0	500	0	0	325	1841
Columbus_OH_	0	1344	0	897	0	0	10	1346	3597
Dayton_OH_	0	0	0	0	0	0	0	0	0
Denver_CO_	0	0	0	0	0	0	0	0	0
Indianapolis_	0	0	2151	923	862	0	0	300	4236
Kansas_City_	0	0	0	0	0	0	0	0	0
Lawton_Ft_Sill	156	0	0	0	0	0	0	156	312
Lexington_KY_	0	0	0	0	0	0	0	0	0
Limestone_ME_	0	0	0	0	0	0	0	0	0
Norfolk_VA_	0	0	42	0	0	165	100	0	307
Oakland_CA_	0	0	0	0	0	0	0	0	0
Omaha_NE_	0	0	0	0	0	0	0	0	0
Orlando_FL_	0	0	0	0	0	0	0	0	0
Pacific_HI_	0	0	0	0	0	0	0	0	0
Patuxent_RV_	0	0	0	0	0	0	0	0	0
Pensacola_NAS_	0	0	0	0	0	0	0	0	0
Pensacola_Sauf	0	0	0	0	0	0	0	0	0
Rock_Island_IL	0	0	0	0	0	0	0	0	0
Rome_NY_	0	0	0	0	0	0	0	0	0
San_Antonio_TX	0	0	0	0	0	0	0	0	0
San_Bernadino_	0	0	0	0	0	0	0	0	0
San_Diego_CA_	0	0	0	0	0	0	0	0	0
Seaside_CA_	0	0	0	0	0	0	0	0	0
St_Louis_MO_	0	0	0	0	0	0	0	0	0

Results [*,*]

:	1	2	3	4	5	6 :=
Arlington_VA_	1	1	1	-0.1	-0.1	-0.1
Charleston_SC_	0	0	0	-0.1	-0.1	-0.1
Cleveland_OH_	1	1	1	-0.1	-0.1	-0.1
Columbus_OH_	1	1	1	-0.1	-0.1	-0.1
Dayton_OH_	0	0	0	-0.1	-0.1	-0.1
Denver_CO_	0	0	0	-0.1	-0.1	-0.1
Indianapolis_	1	1	1	-0.1	-0.1	-0.1
Kansas_City_	0	0	0	-0.1	-0.1	-0.1
Lawton_Ft_Sill	0	1	1	-0.1	-0.1	-0.1
Lexington_KY_	0	0	0	-0.1	-0.1	-0.1
Limestone_ME_	0	0	0	-0.1	-0.1	-0.1
Norfolk_VA_	0	0	1	-0.1	-0.1	-0.1
Oakland_CA_	0	0	0	-0.1	-0.1	-0.1
Omaha_NE_	0	0	0	-0.1	-0.1	-0.1
Orlando_FL_	0	0	0	-0.1	-0.1	-0.1
Pacific_HI_	0	0	0	-0.1	-0.1	-0.1
Patuxent_RV_	0	0	0	-0.1	-0.1	-0.1
Pensacola_NAS_	0	0	0	-0.1	-0.1	-0.1

```

dfas_noDenv(r_1.5,b_20,e_7.5,f_1,m_0.5,s_0).out
Pensacola_Sauf      0      0      0      -0.1  -0.1  -0.1
Rock_Island_IL     0      0      0      -0.1  -0.1  -0.1
Rome_NY_____     0      0      0      -0.1  -0.1  -0.1
San_Antonio_TX     0      0      0      -0.1  -0.1  -0.1
San_Bernadino_     0      0      0      -0.1  -0.1  -0.1
San_Diego_CA_____0      0      0      -0.1  -0.1  -0.1
Seaside_CA_____  0      0      0      -0.1  -0.1  -0.1
St_Louis_MO_____ 0      0      0      -0.1  -0.1  -0.1
'_%CapRtnd'       55.7942 56.5294 56.9904 -0.1  -0.1  -0.1
_AvgMV            0.55975 0.6052 0.6355 -0.1  -0.1  -0.1
_Build            0      0      0      -0.1  -0.1  -0.1
_Renovate         149035 108133 49995  -0.1  -0.1  -0.1

:      7      8      9      10      :=
Arlington_VA_____ -0.1  -0.1  -0.1  -0.1
Charleston_SC_____ -0.1  -0.1  -0.1  -0.1
Cleveland_OH_____ -0.1  -0.1  -0.1  -0.1
Columbus_OH_____ -0.1  -0.1  -0.1  -0.1
Dayton_OH_____ -0.1  -0.1  -0.1  -0.1
Denver_CO_____ -0.1  -0.1  -0.1  -0.1
Indianapolis_____ -0.1  -0.1  -0.1  -0.1
Kansas_City_____ -0.1  -0.1  -0.1  -0.1
Lawton_Ft_Sill_____ -0.1  -0.1  -0.1  -0.1
Lexington_KY_____ -0.1  -0.1  -0.1  -0.1
Limestone_ME_____ -0.1  -0.1  -0.1  -0.1
Norfolk_VA_____ -0.1  -0.1  -0.1  -0.1
Oakland_CA_____ -0.1  -0.1  -0.1  -0.1
Omaha_NE_____ -0.1  -0.1  -0.1  -0.1
Orlando_FL_____ -0.1  -0.1  -0.1  -0.1
Pacific_HI_____ -0.1  -0.1  -0.1  -0.1
Patuxent_RV_____ -0.1  -0.1  -0.1  -0.1
Pensacola_NAS_____ -0.1  -0.1  -0.1  -0.1
Pensacola_Sauf_____ -0.1  -0.1  -0.1  -0.1
Rock_Island_IL_____ -0.1  -0.1  -0.1  -0.1
Rome_NY_____ -0.1  -0.1  -0.1  -0.1
San_Antonio_TX_____ -0.1  -0.1  -0.1  -0.1
San_Bernadino_____ -0.1  -0.1  -0.1  -0.1
San_Diego_CA_____ -0.1  -0.1  -0.1  -0.1
Seaside_CA_____ -0.1  -0.1  -0.1  -0.1
St_Louis_MO_____ -0.1  -0.1  -0.1  -0.1
'_%CapRtnd'_____ -0.1  -0.1  -0.1  -0.1
_AvgMV_____ -0.1  -0.1  -0.1  -0.1
_Build_____ -0.1  -0.1  -0.1  -0.1
_Renovate_____ -0.1  -0.1  -0.1  -0.1
;

```

Results that show as -0.1 can be discarded