Technical Joint Cross Service Group

June 1, 2005

Mr. Al Shaffer

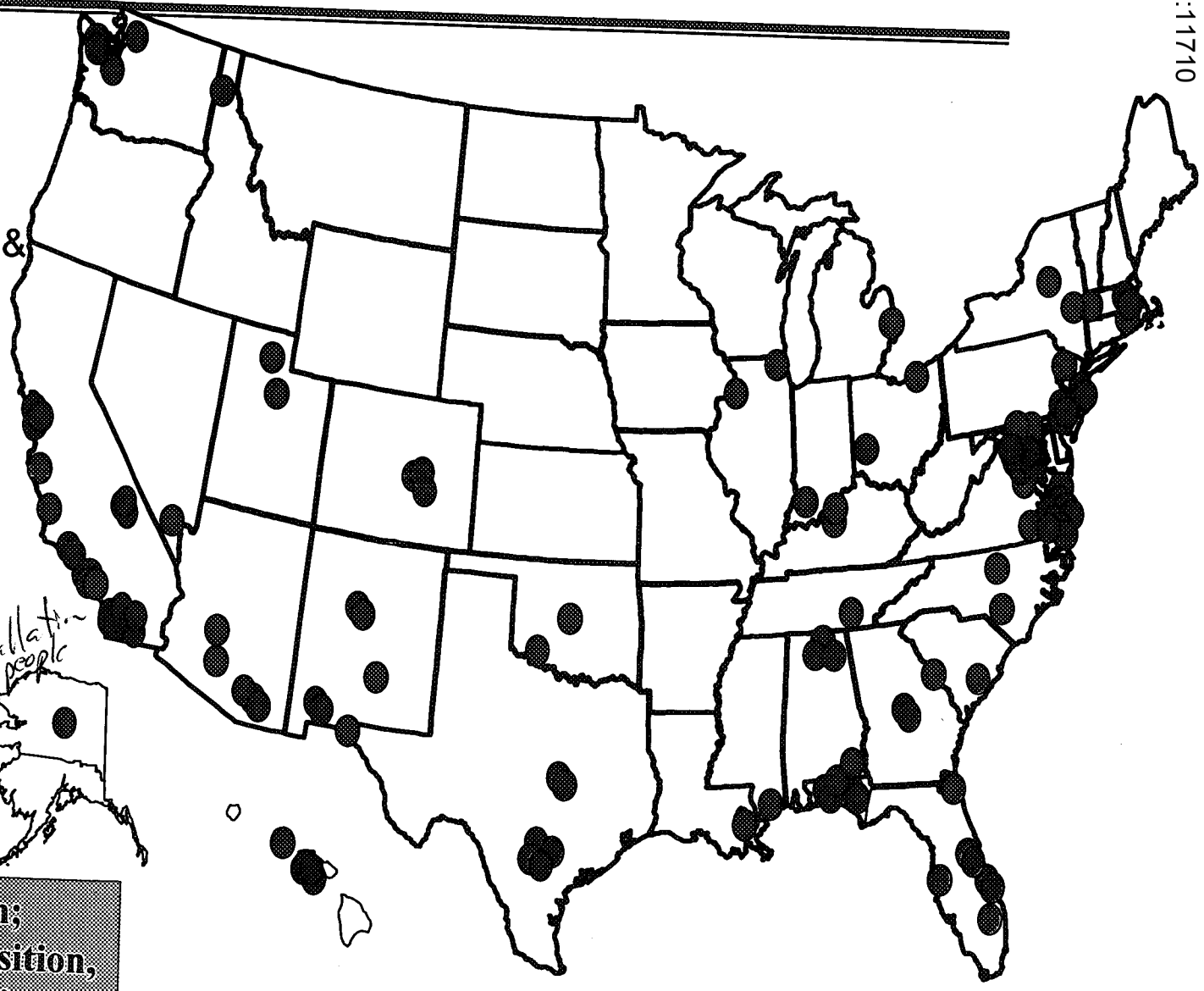
Installations With Technical Activity

- 3 Functions
  - Research
  - Development & Acquisition
  - Test & Evaluation
- 157,315 FTEs
- ~ $130B Annual Funding
- ~ 650 Technical Facilities

includes on-site contractors

25-33% of budget

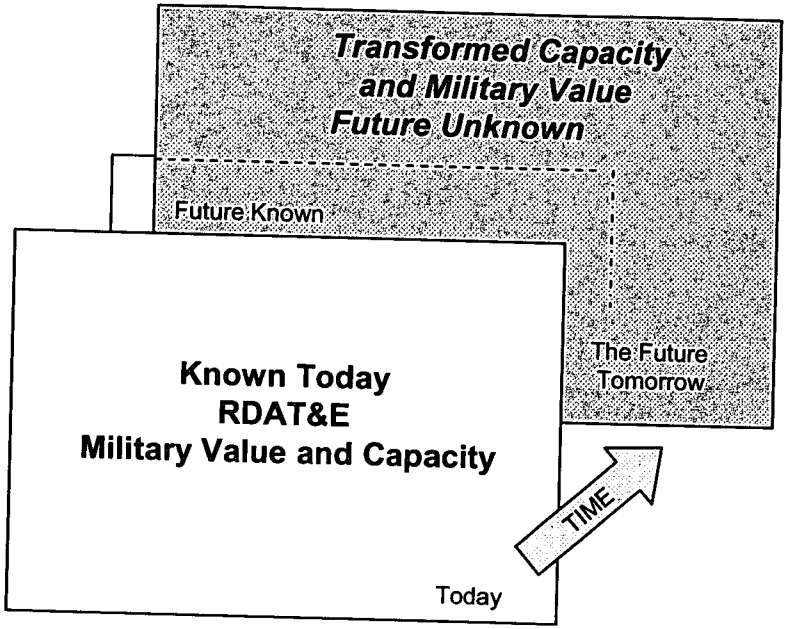
1 place type of work
a place: 146 actual installations
30 people generally



RDAT&E is Research; Development & Acquisition, and Test & Evaluation

● 146 Installations Comprising the RDAT&E Facilities

TJCSG Future Construct



The Future is Different than Today—Technology is:

Becoming Global, Rest of world getting smarter with Reduced Maturation Time;

Tomorrow's DoD Technology Infrastructure needs to be Agile

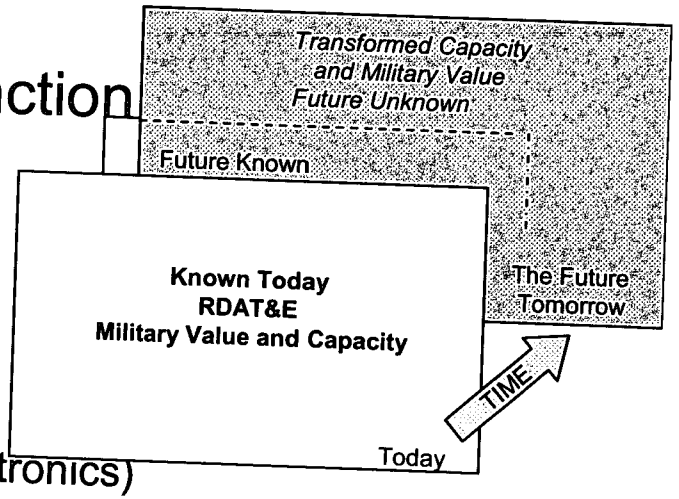
BRAC not place to grow different

Multi-functional where possible

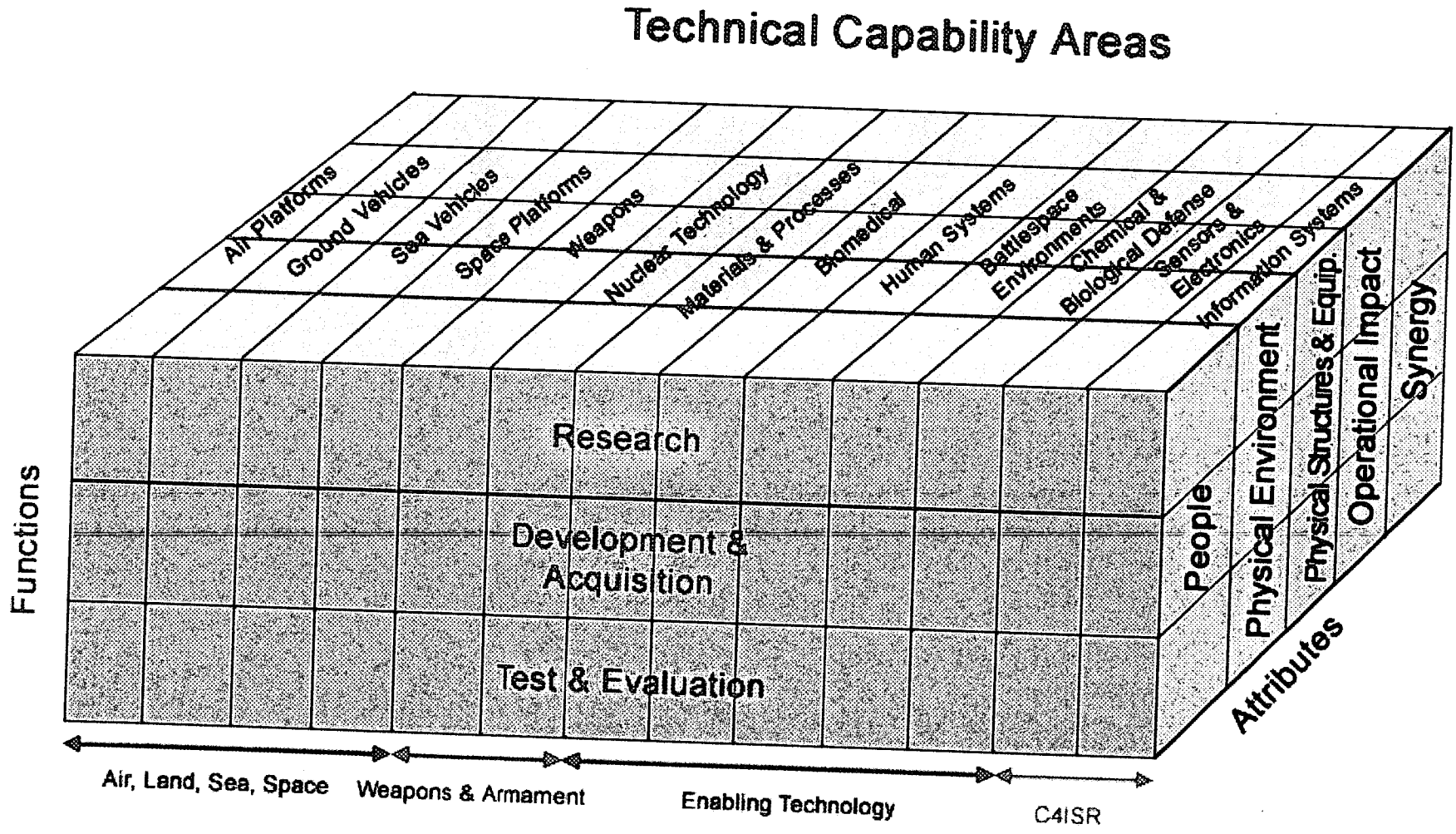
Multi-disciplinary also good

Future DoD Technology Function Needs

- Multi-mission weapon systems/platforms
  - Integrated sensors, information systems, materials, weapons, …..
- Incorporation of multi-disciplinary technologies
- Assumptions to meet future needs
  1. The future is multidisciplinary, multifunction
  2. Future growth areas include:
     - Autonomous Systems (Platforms + C^2)
     - Integrated sensors (Every platform a sensor)
     - Chemical-Biological Defense
     - Integrated Missile Defense
     - Miniaturization (Nanotechnology sensors, electronics)
  3. Multi-disciplinary future drives strategy
     - Integrated "Centers" with more disciplines
  4. DoD should use technical intellectual capital centers of mass



TJCSG Military Value Construct



TJCSG "Principles & Strategies"

Principles:

1) Ensure Efficiency--Consolidate to a few Integrated RDAT&E centers with specialty sites as required
2) Competition of Ideas--Maintain Complementary / Competitive Sites

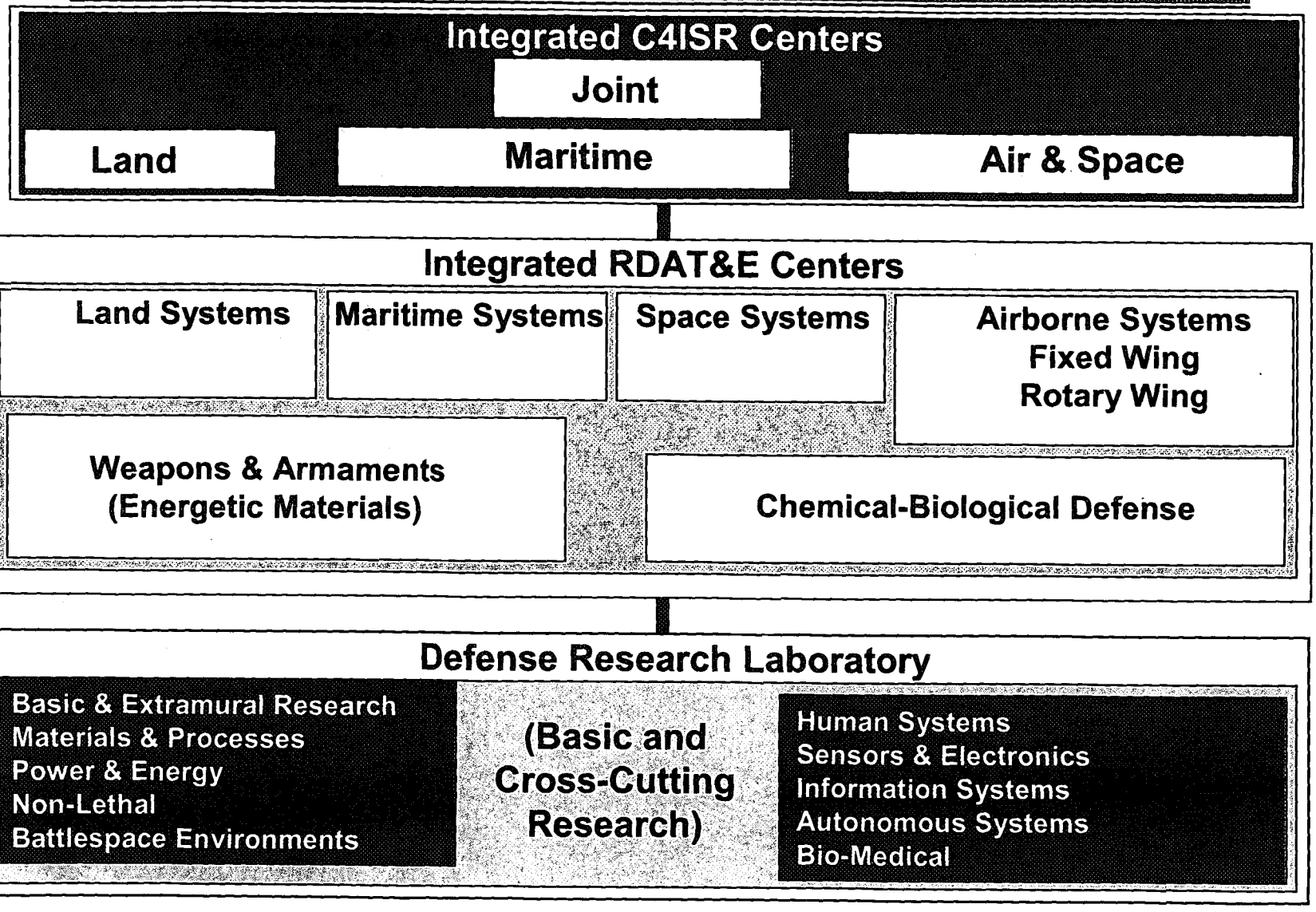
Strategies:

1) Establish Defense Research Laboratories
   A. Co-locate Program Managers
   B. Reduce Number of In-House Laboratory Sites
2) Establish Air & Space, Land, Maritime and Joint C4ISR Centers
3) Establish or Enhance Integrated RDAT&E Centers for Major Defense Systems
4) Position Technical Sites for Jointness

maintain competition

Commercial centers of excellen

TJCSG Transformational Framework



Future Research End State

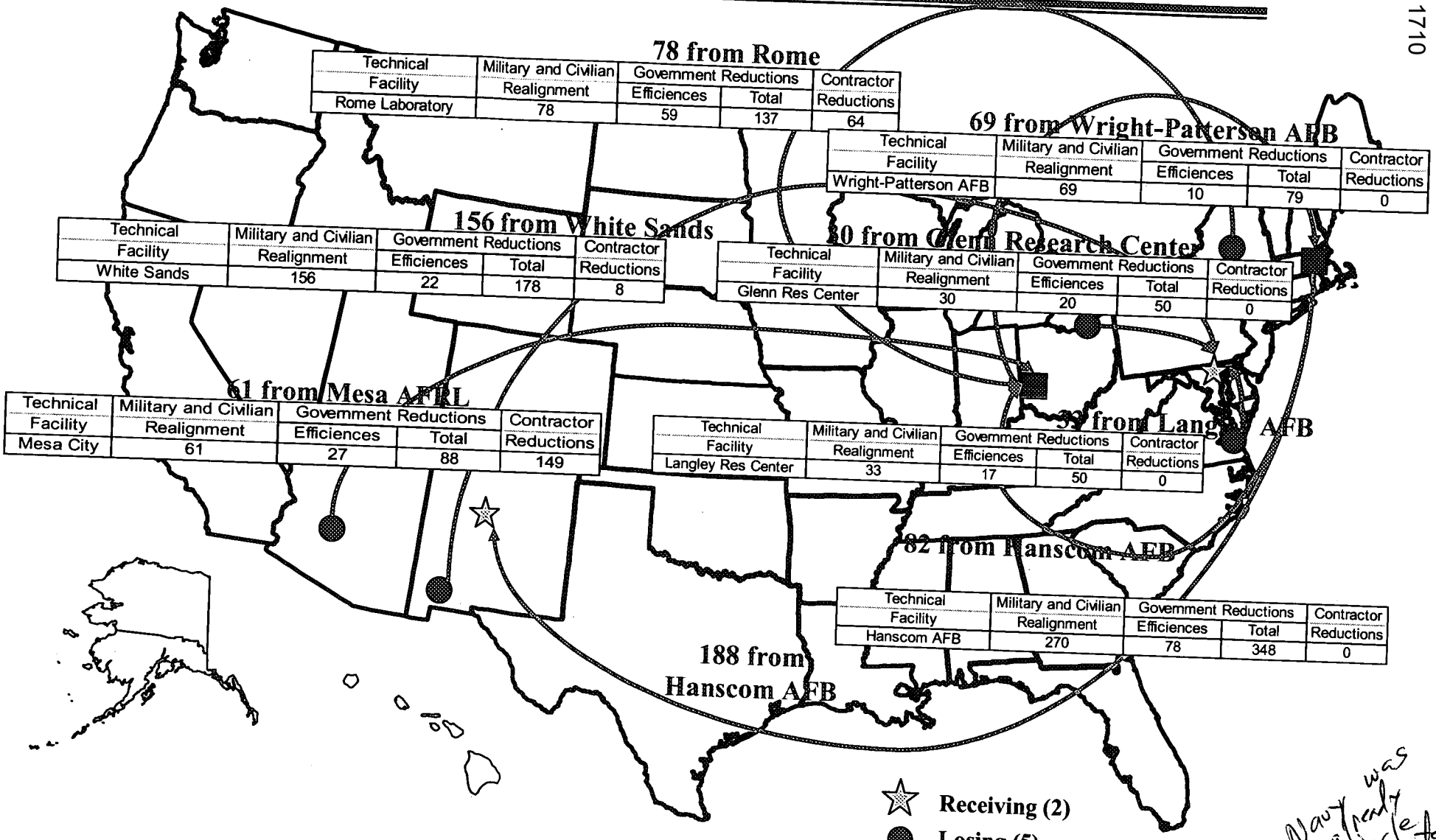
Research End State Consolidated/Collocated Sites

- Combined Research Laboratories
  - Co-location of Research Program Managers
    - ***Seven Sites to Bethesda***
  - Consolidation of Research Labs
    - Army - Aberdeen MD (Adelphi, MD)
    - Navy - Washington DC (Stennis Space Center, MS)
    - AF- Wright-Patterson (Kirtland AFB, Rome Lab)
  - Retention / Alignment of Product Centered Research for Major Acquisition (Major Defense Acquisition Program) Areas
    - For example, Weapon Research with D&A at – Redstone Arsenal, China Lake, Eglin AFB

ONR OSR AF ARO DTRO DARPA

testing & acquisition when possible

Defense Research Service Led Laboratories



Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Rome Laboratory	78	59	137	64

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Wright-Patterson AFB	69	10	79	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
White Sands	156	22	178	8

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Glenn Res Center	30	20	50	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Mesa City	61	27	88	149

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Langley Res Center	33	17	50	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Hanscom AFB	270	78	348	0

Navy was already a single theater

9

yes, some people can avoid moving if offered work

As of: May 12, 2005

Co-locate Extramural Research Program Managers

All of the following locations are moving to Bethesda, MD:

CNR Arlington - 321
DARPA Rosslyn - 190
ARO/DTRA Belvoir - 201
ARL NC - 108
ARO/AFOSR Ballston - 128

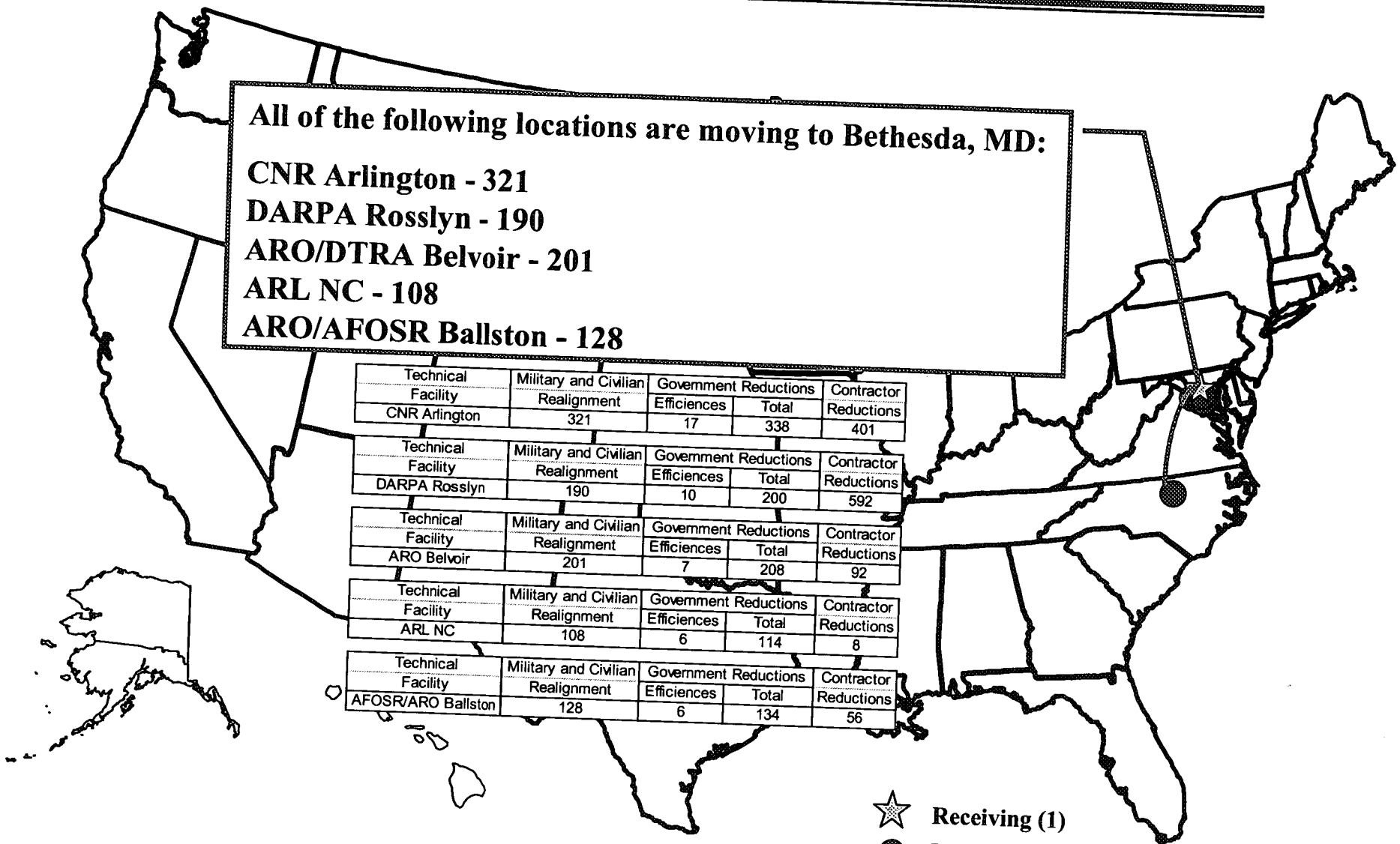
Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
CNR Arlington	321	17	338	401

Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
DARPA Rosslyn	190	10	200	592

Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
ARO Belvoir	201	7	208	92

Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
ARL NC	108	6	114	8

Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
AFOSR/ARO Ballston	128	6	134	56



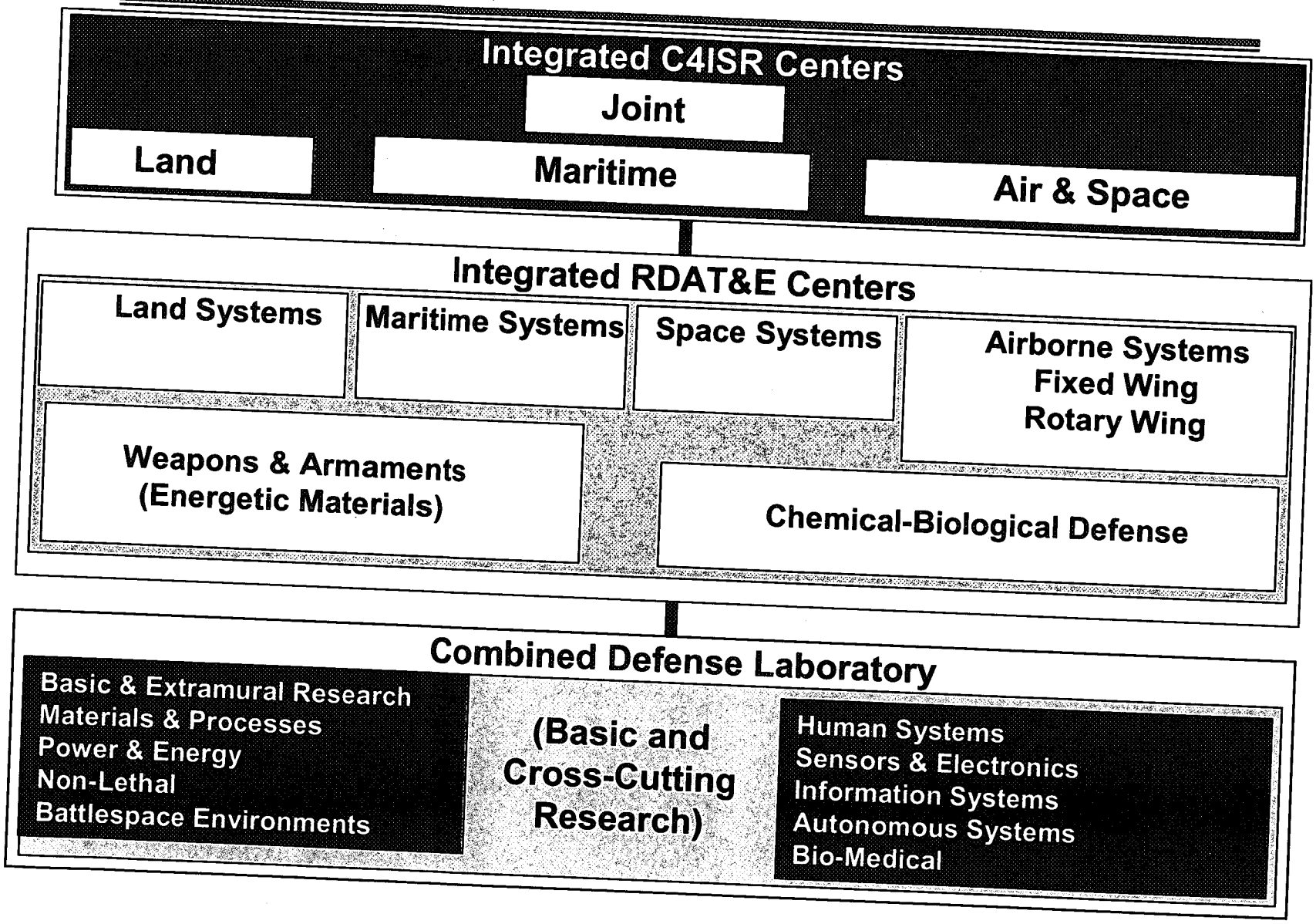
Receiving (1)

Losing (5)

*4 Losing are in the National Capital Region

As of: May 12, 2005

TJCSG Transformational Framework



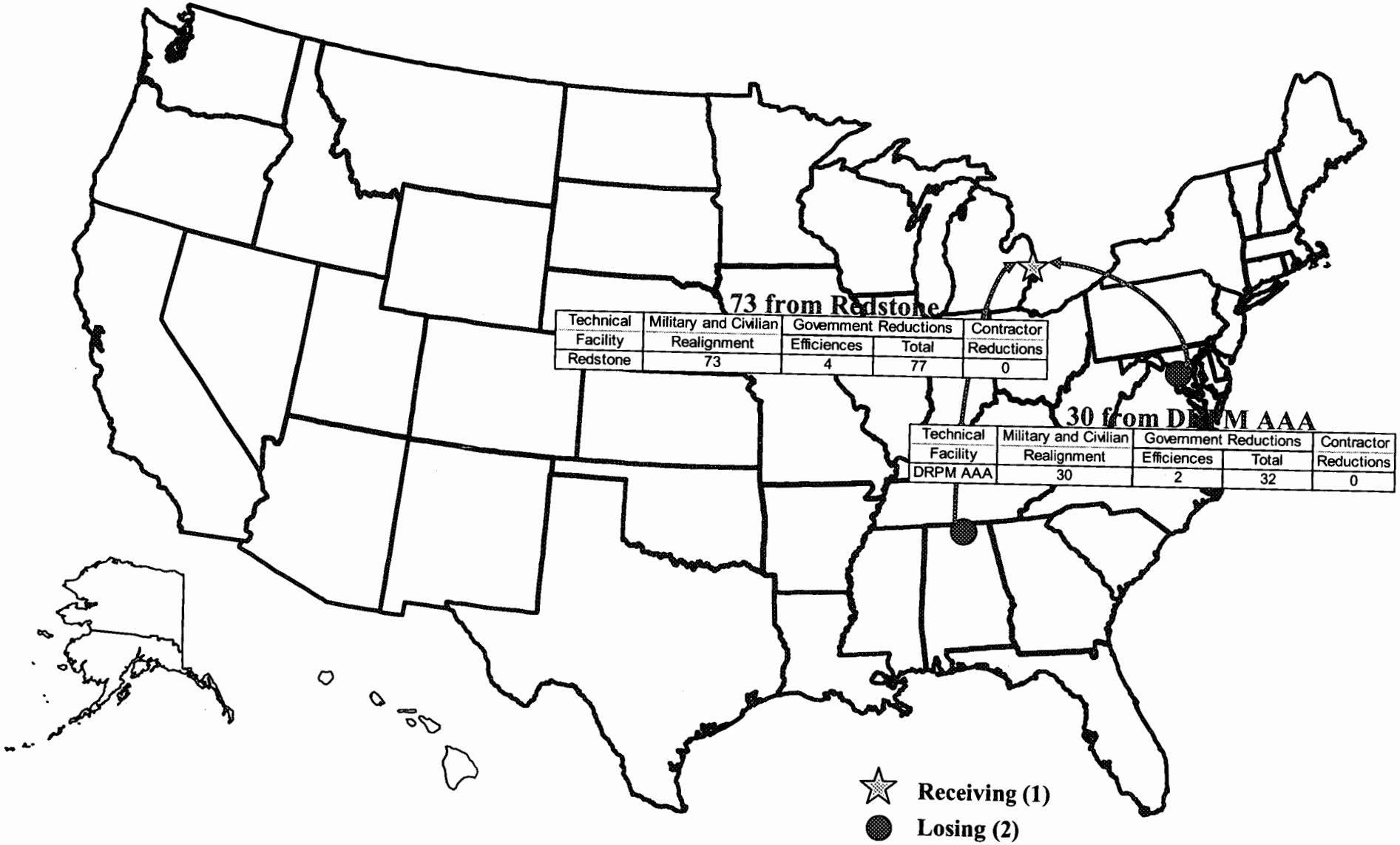
Integrated RDAT&E Centers

End State - Co-location, consolidation around larger centers

- Land Systems - Detroit Arsenal & Aberdeen Proving Grounds
- Maritime Systems - Naval Surface Weapons Center Carderock Division & Naval Sea Systems Command Washington Navy Yard
- Space Systems - Kirtland AFB & Los Angeles AFB
- Airborne Systems:
  - Fixed Wing – Wright-Patterson AFB & Patuxent River NAS
    - Lakehurst NJ Cats & Traps Specialty Site
    - Edwards AFB T&E Specialty Site
  - Rotary Wing – focus around Redstone & Patuxent River NAS
- Weapons Systems - China Lake, Eglin AFB, & Redstone Arsenal
  - Retain Specialty sites:
    - Guns - Picatinny & Dahlgren
    - Surface Ship Combat Systems Integration – Dahlgren
  - Retain Energetic Materials work at 4 sites:
    - China Lake, Eglin AFB, Indian Head, Redstone Arsenal

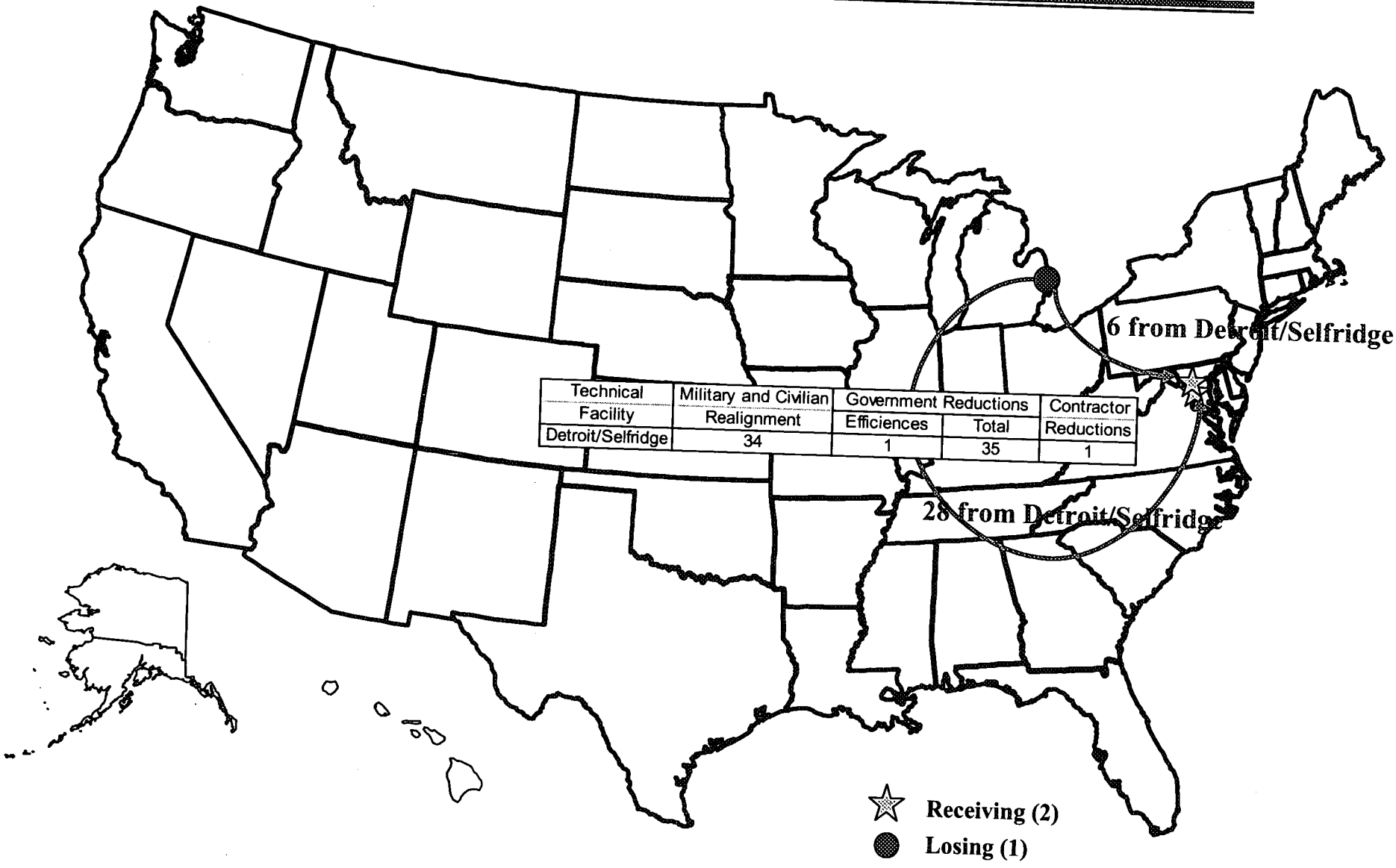
did not look at in fell in

Consolidate Ground Vehicle D&A in a Joint Center



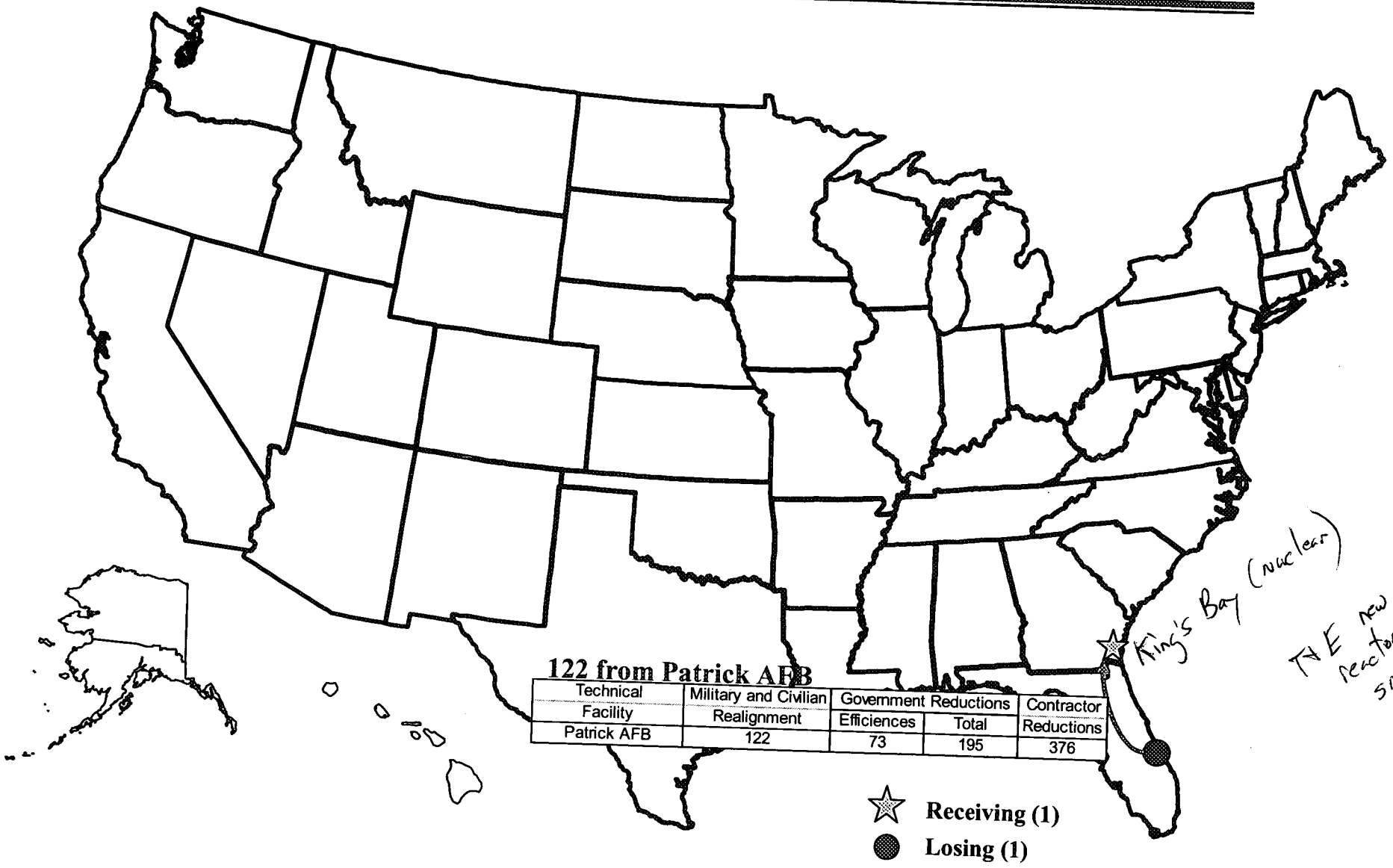
As of: May 12, 2005

Consolidate Sea Vehicle D&A



Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Detroit/Selfridge	34	1	35	1

Consolidate Navy Strategic Test & Evaluation



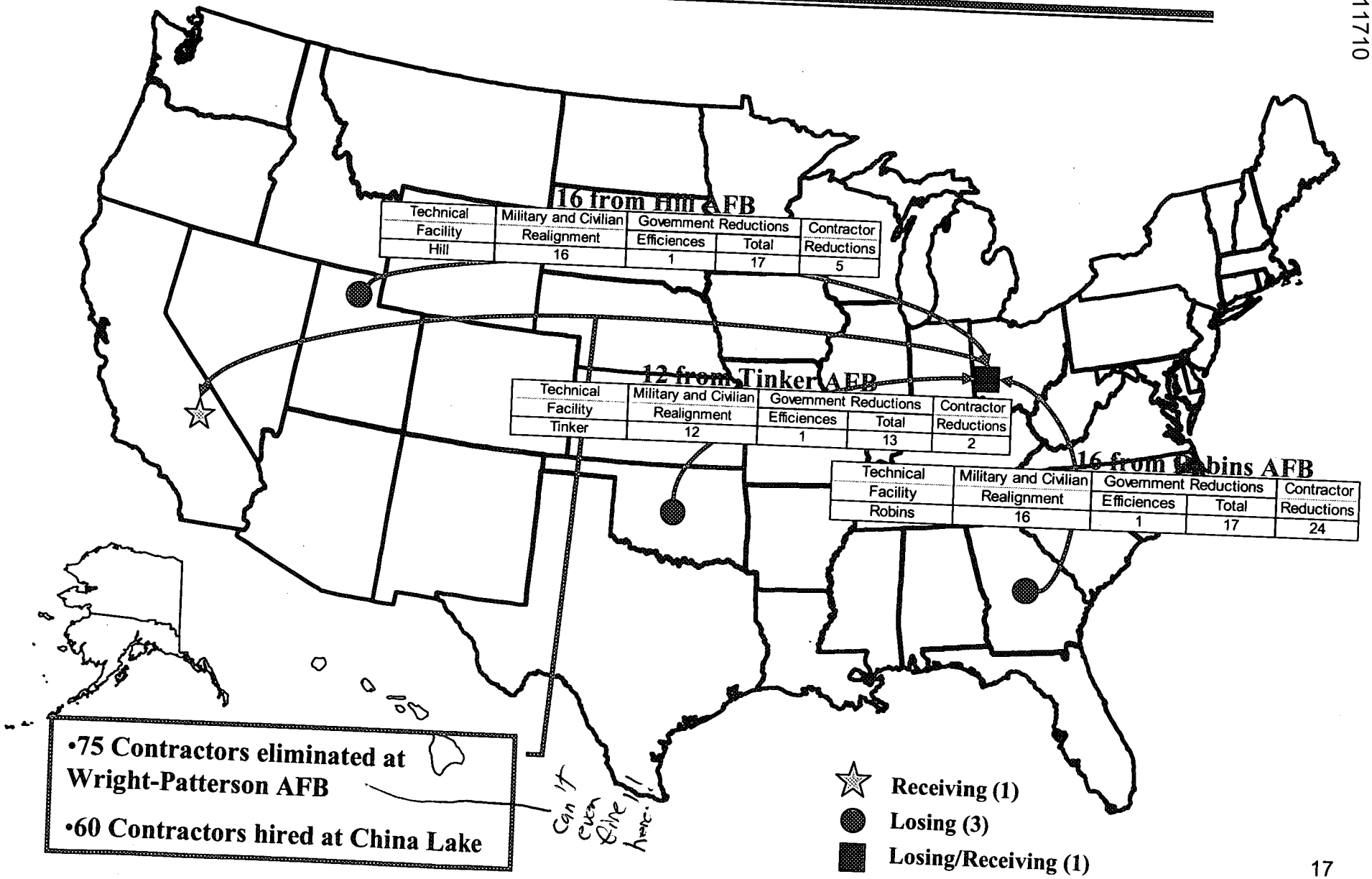
Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Patrick AFB	122	73	195	376

As of: May 12, 2005

Establish Centers for Rotary Wing Air Platform Development and Acquisition, Test & Evaluation

As of: May 12, 2005

Establish Centers for Fixed Wing Air Platform Development and Acquisition, Test & Evaluation



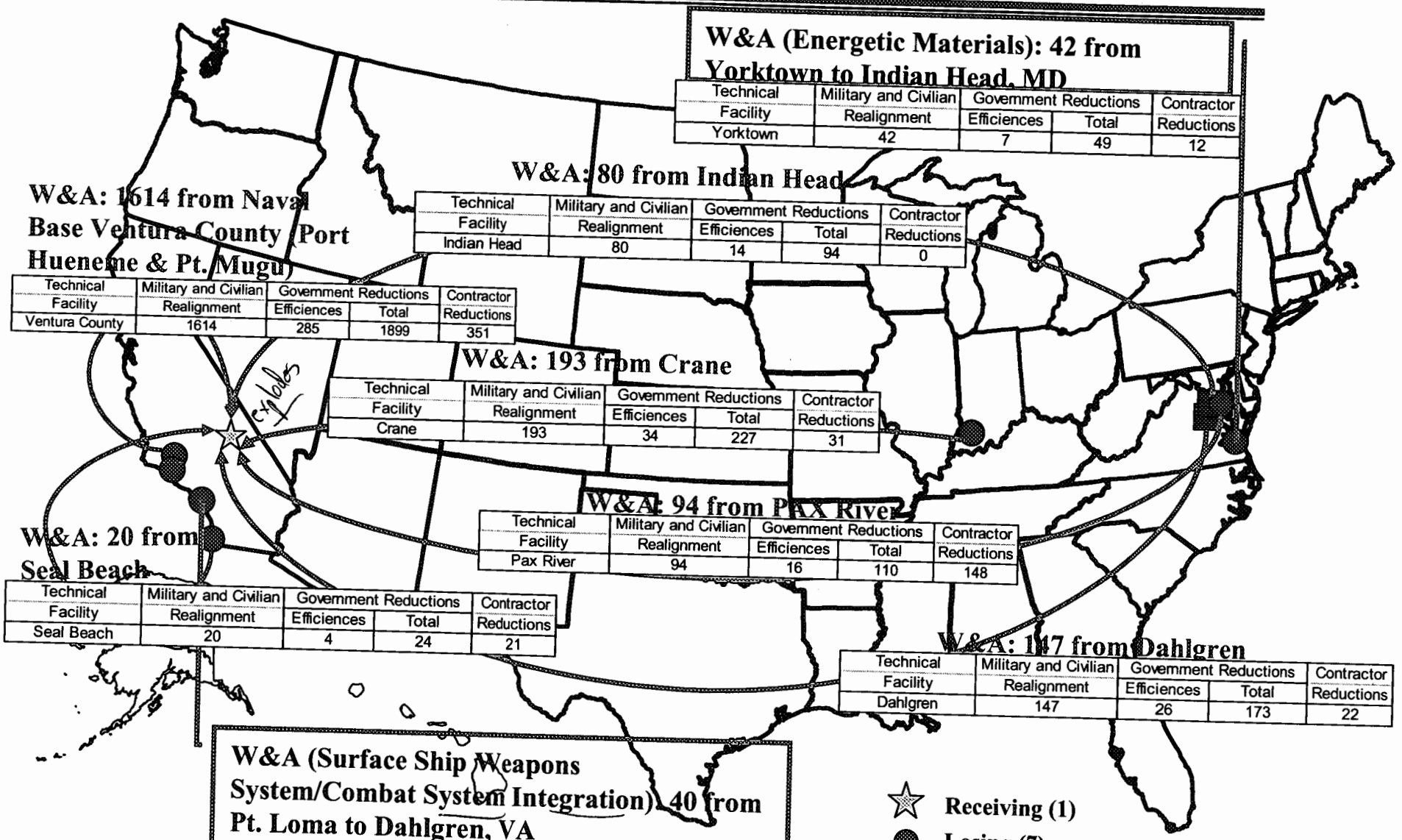
Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Hill	16	1	17	5

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Tinker	12	1	13	2

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Robins	16	1	17	24

As of: May 12, 2005

Create a Naval Integrated Weapons & Armaments Research, Development & Acquisition, Test & Evaluation Center



W&A (Energetic Materials): 42 from Yorktown to Indian Head, MD

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Yorktown	42	7	49	12

W&A: 80 from Indian Head

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Indian Head	80	14	94	0

W&A: 1614 from Naval Base Ventura County (Port Hueneme & Pt. Mugu)

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Ventura County	1614	285	1899	351

W&A: 193 from Crane

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Crane	193	34	227	31

W&A: 94 from PAX River

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Pax River	94	16	110	148

W&A: 20 from Seal Beach

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Seal Beach	20	4	24	21

W&A: 147 from Dahlgren

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Dahlgren	147	26	173	22

W&A (Surface Ship Weapons System/Combat System Integration): 40 from Pt. Loma to Dahlgren, VA

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Point Loma	40	7	47	0

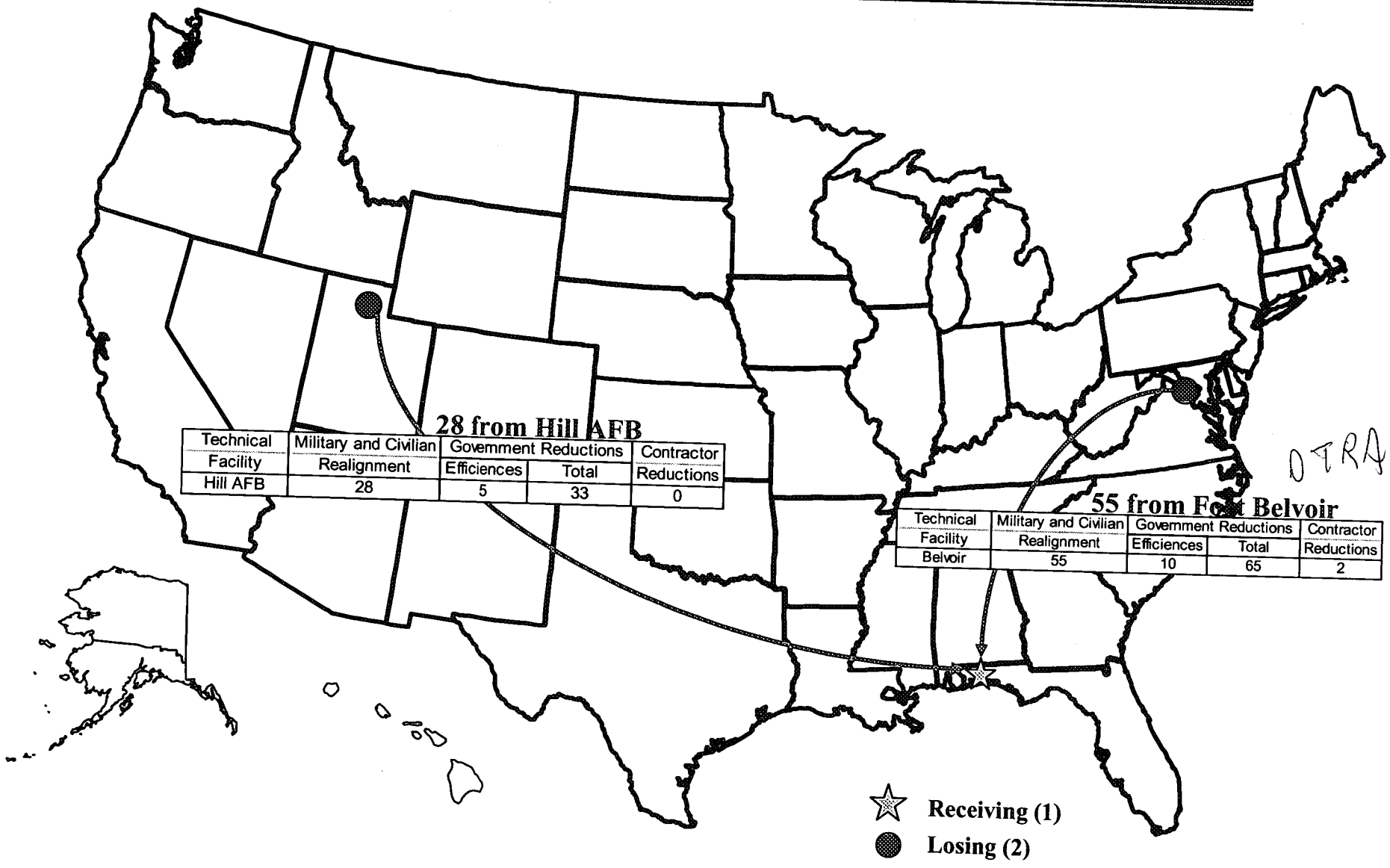
Receiving (1)

Losing (7)

Losing/Receiving (2)

As of: May 12, 2005

Create an Air Integrated Weapons & Armaments Research, Development & Acquisition, Test & Evaluation Center

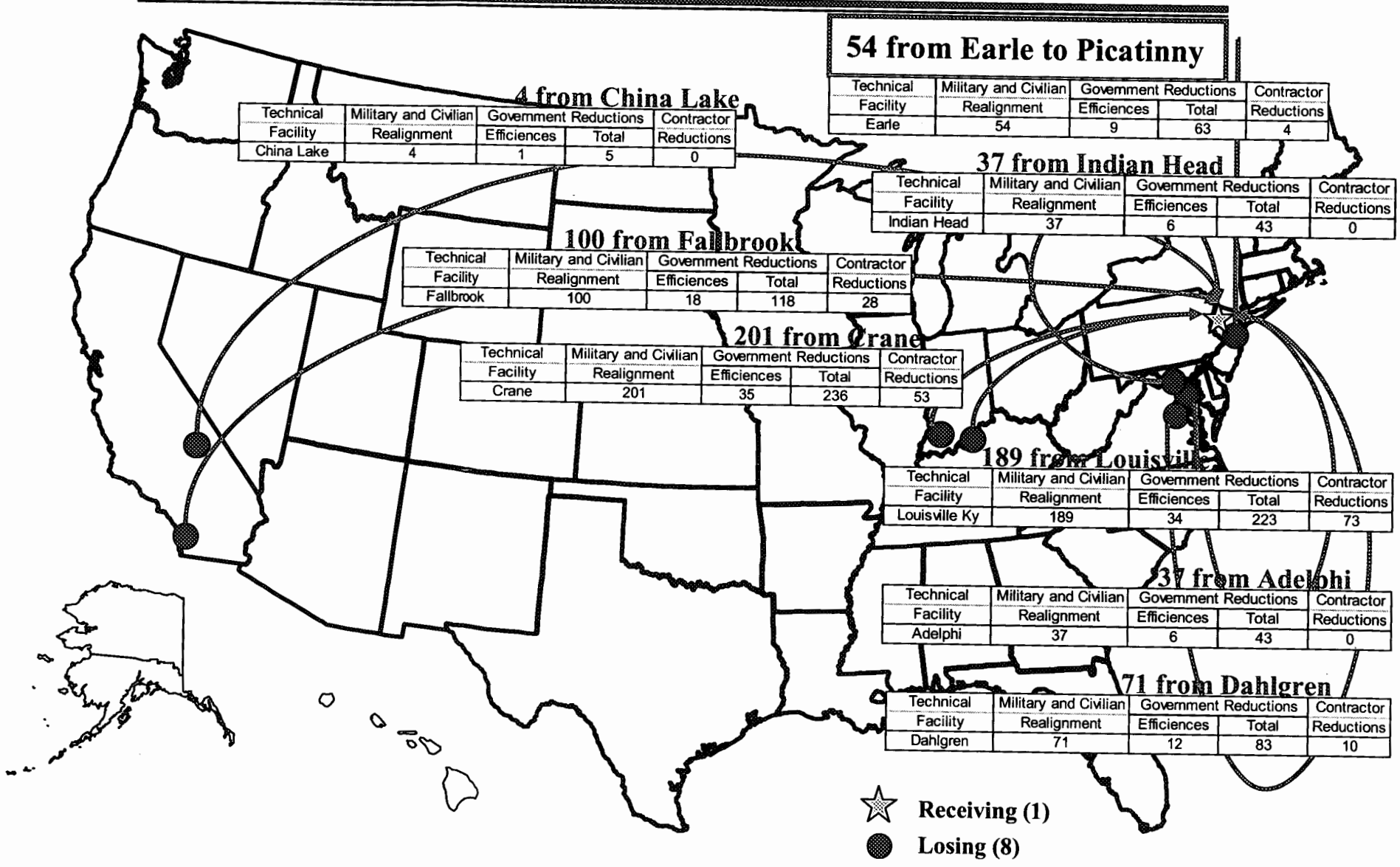


Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
Hill AFB	28	5	33	0

Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
Belvoir	55	10	65	2

As of: May 12, 2005

Create an Integrated Weapons & Armaments Specialty Site for Guns and Ammunition



4 from China Lake

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
China Lake	4	1	5	0

54 from Earle to Picatinny

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Earle	54	9	63	4

37 from Indian Head

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Indian Head	37	6	43	0

100 from Fallbrook

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Fallbrook	100	18	118	28

201 from Crane

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Crane	201	35	236	53

189 from Louisville

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Louisville Ky	189	34	223	73

37 from Adelphi

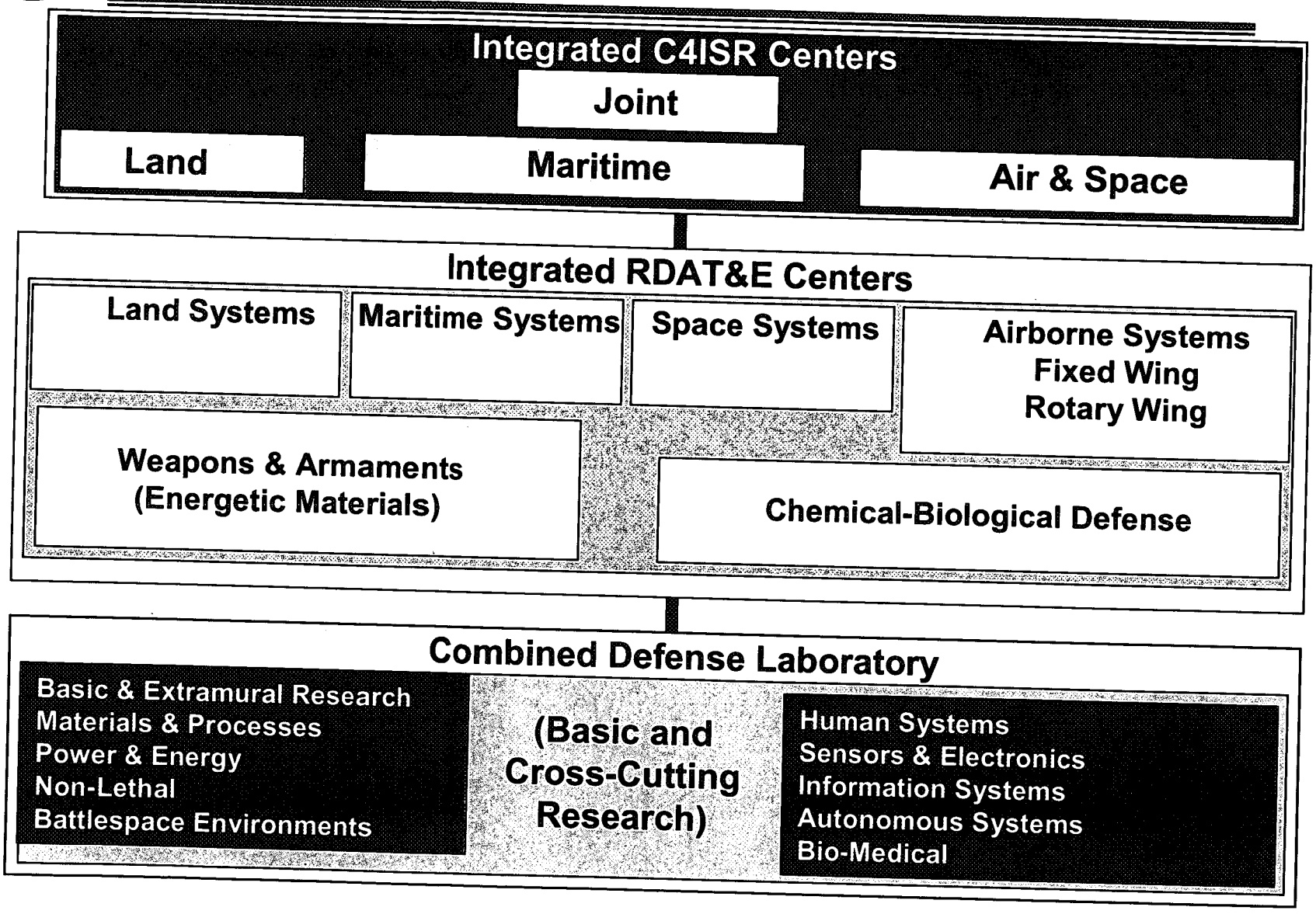
Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Adelphi	37	6	43	0

71 from Dahlgren

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Dahlgren	71	12	83	10

As of: May 12, 2005

TJCSG Transformational Framework

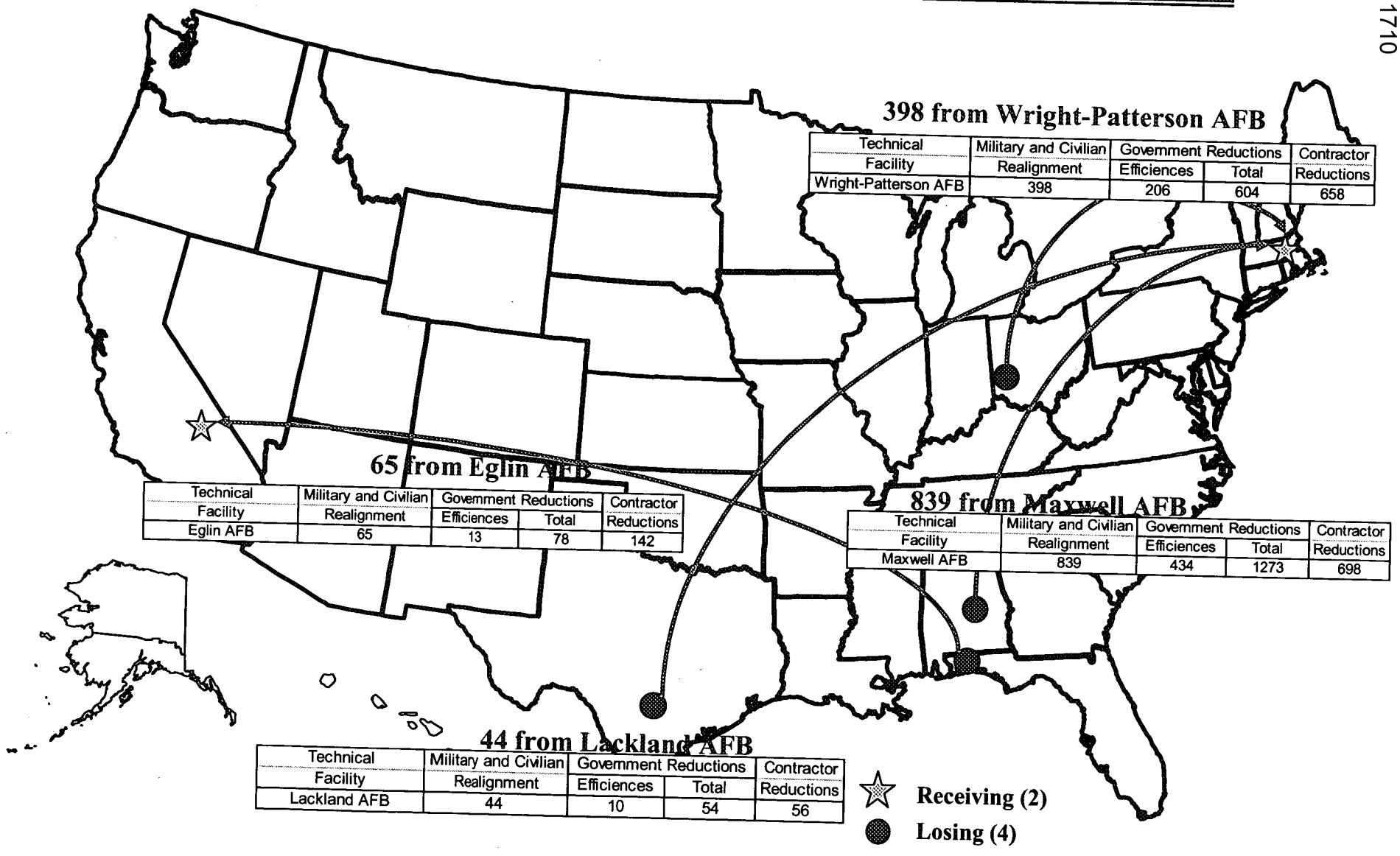


Integrated C4ISR Centers

- Create Domain Emphasis C4ISR Centers with an Overarching Joint Center
  - Joint Center at Ft. Meade
  - Cross Service Centers
    - Land Center at Aberdeen Proving Grounds and ***Adelphi, MD***
    - Maritime Centers at San Diego, Norfolk and Dahlgren
    - Air & Space Centers at Hanscom and Wright-Patterson AFB
  - Specialty Center (underwater) at Newport RI
  - Specialty Test Center at Edwards AFB

industrial infrastructure crane

Consolidate Air and Space C4ISR Research, Development & Acquisition, Test & Evaluation



Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Wright-Patterson AFB	398	206	604	658

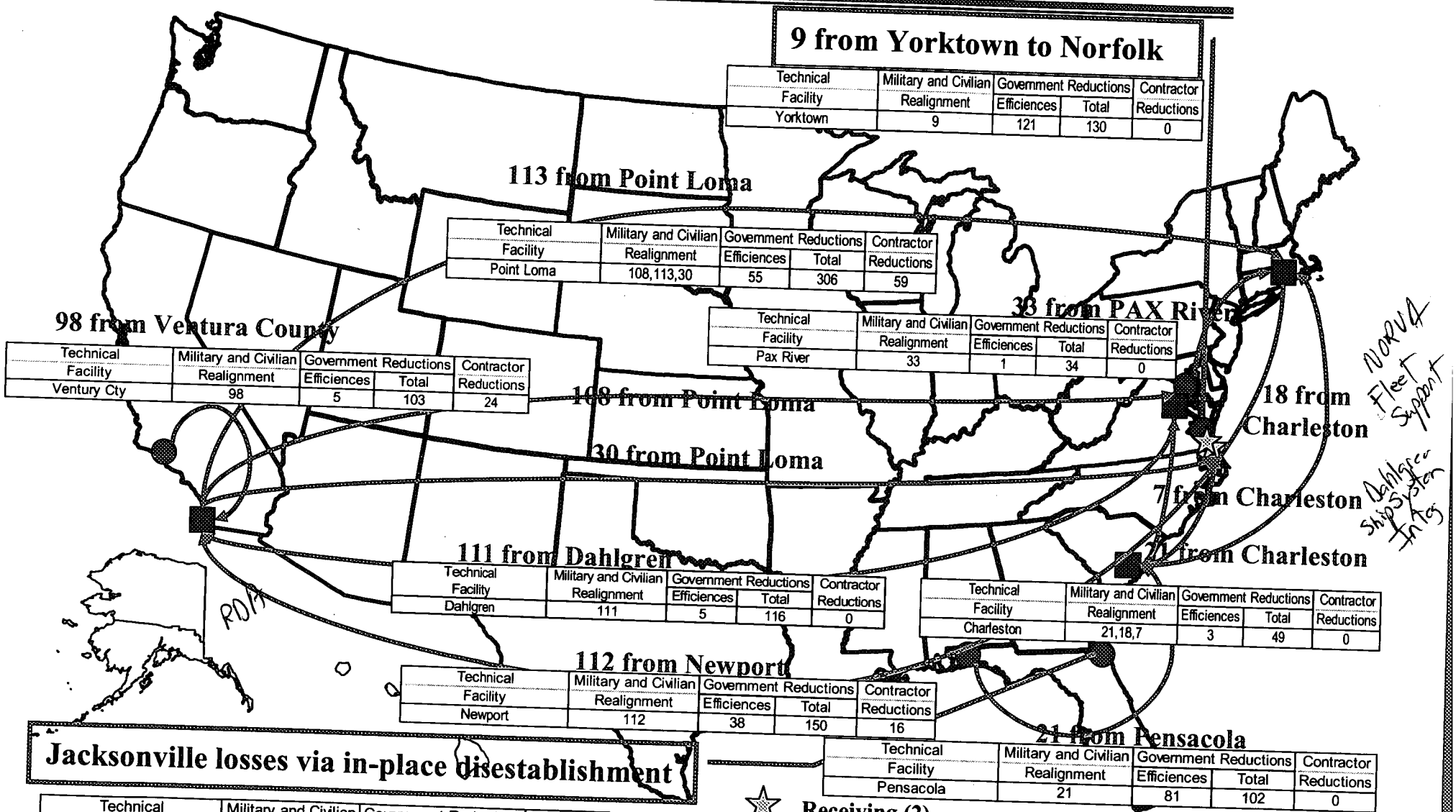
Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Eglin AFB	65	13	78	142

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Maxwell AFB	839	434	1273	698

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Government Reductions Total	Contractor Reductions
Lackland AFB	44	10	54	56

As of: May 12, 2005

Consolidate Maritime C4ISR Research, Development & Acquisition, Test & Evaluation



Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Yorktown	9	121	130	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Point Loma	108,113,30	55	306	59

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Ventury Cty	98	5	103	24

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Pax River	33	1	34	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Dahlgren	111	5	116	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Charleston	21,18,7	3	49	0

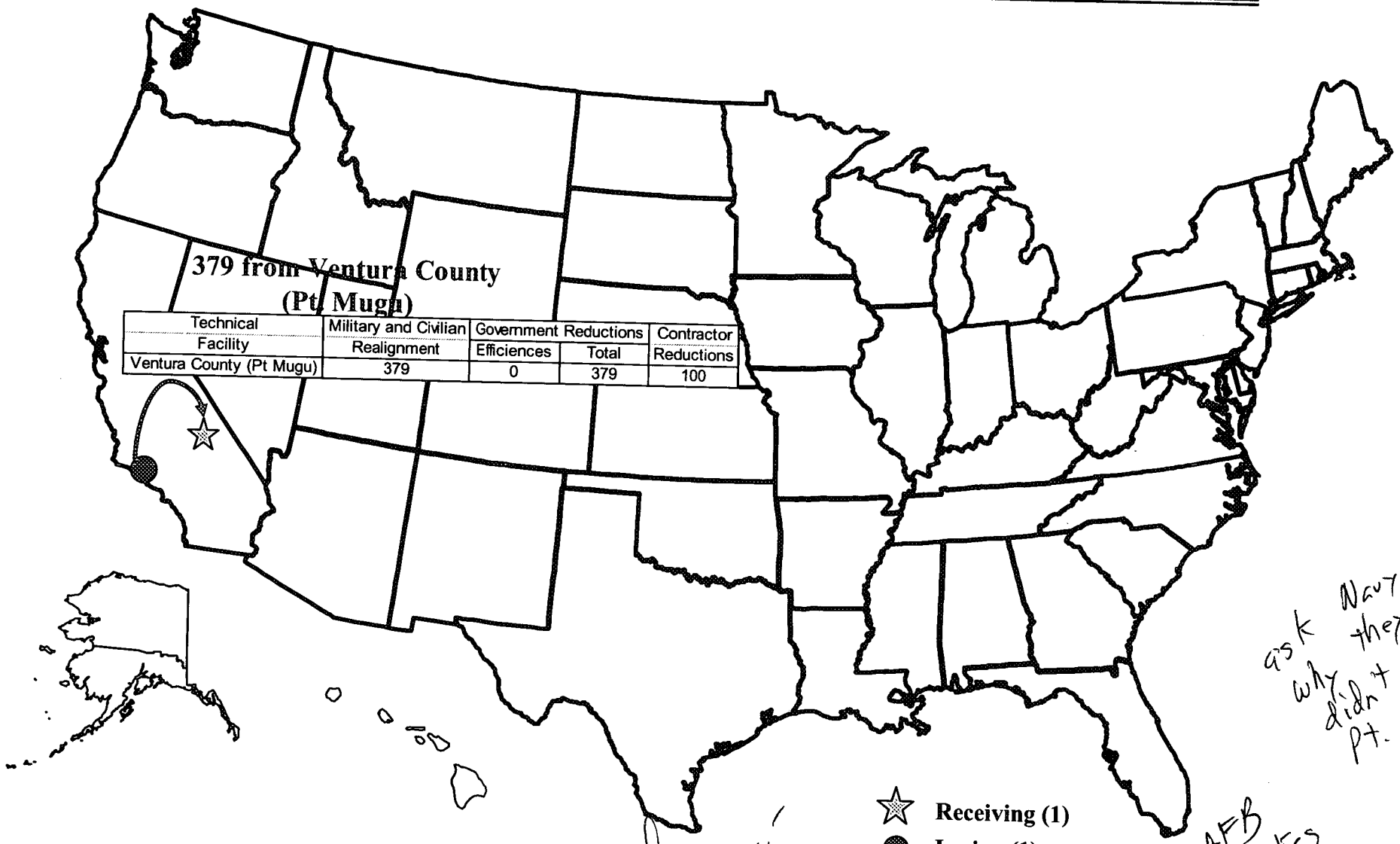
Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Newport	112	38	150	16

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Pensacola	21	81	102	0

Technical Facility	Military and Civilian Realignment	Government Reductions Efficiences	Total	Contractor Reductions
Jacksonville	0	34	34	0

As of: May 12, 2005

Navy Sensors, Electronic Warfare, and Electronics RDAT&E



Technical Facility	Military and Civilian Realignment	Government Reductions		Contractor Reductions
		Efficiences	Total	
Ventura County (Pt Mugu)	379	0	379	100

ask Navy why they didn't close Mugu pt.

Met Cal Corona goes PAX

March AFB move makes more space

As of: May 12, 2005

Summary

- DoD technical function end state is better than where we started
- Greater synergy focus
- More multidisciplinary

Technical
Joint Cross Service Group
(Weapons & Armament)

Briefing for

19 July 2005

Why DoD Considered Consolidating Guns and Ammunition RD&A at Picatinny Arsenal

- Picatinny Arsenal scored highest in Military Value for guns and ammunition RD&A installations
- Most gun/ammo work is already performed at Picatinny
- Picatinny Arsenal already has DoD Single Manager for Conventional Ammunition and other joint gun/ammo programs
- Transformational opportunity for joint gun/ammo center

Weapon & Armaments Strategy

- Reduce Infrastructure via boldest realignment with joint considerations
- Gain synergy and efficiency through integrated lifecycle R/D&A/T&E
- Select "core complexes" whose W&A FTEs are in the top 80% of total W&A work in all three functions [RDAT&E]
  - China Lake, Eglin, and Redstone Arsenal selected
- Identify "Specialty Sites" with unique attributes or critical mass in special areas
  - Guns/Ammo to Picatinny
  - Combat ship weapons systems integration to Dahlgren
- Examine excursions where loss of critical mass or intellectual capital could "break" the capability
  - Retained energetics capability at Indian Head
- W&A specific work to move from donor sites that are not core or specialty

Scenarios that include PHD Louisville

- **Tech 0018 - Integrated Weapons & Armaments RDAT&E Centers**
  - Five parts to this scenario
  - 18B: relocate DoD guns & ammunition RD&A to one location (Picatinny)
    - Included Port Hueneme Detachment (PHD) Louisville

- **Tech 0002 - Establish Core Centers and Specialty Centers for Weapons and Armament R, D&A and T&E**
  - Relocate DoD guns & ammunition RD&A to one location (Picatinny)
    - Included PHD Louisville
- **Tech 0017 - Relocate DoD Guns & Ammunition RD&A and selected T&E at one location (Picatinny)**
  - Included PHD Louisville
- **Tech 0044 - Relocate DoD Guns & Ammunition RD&A and selected T&E at one location (Dahlgren)**
  - Included PHD Louisville

TECH-0018B: RD&A Guns and Ammunition Specialty Site at Picatinny Arsenal

DCN:11710

Start State (without recommendation)

- 9 sites performing gun & ammo work
  - Majority of work @ 1 site
  - Smaller, fragmented efforts at other sites
  - Duplicative efforts
  - Service specific efforts

End State (with recommendation)

- Consolidated to 1 site
  - Promotes jointness
  - Increases technical synergy
  - Eliminates unnecessary duplication

Create an Integrated Weapons & Armaments Specialty Site for Guns and Ammunition

DCN:11710

Recommendation (summary): Realign Guns & Ammunition Research, Development and Acquisition from Adelphi, MD; Indian Head, MD; Crane, IN; Dahlgren, VA; Louisville, KY; Fallbrook, CA; and China Lake, CA to Picatinny Arsenal, NJ. Realign weapons packaging from Earle, NJ to Picatinny Arsenal, NJ.

Justification

- Creates DoD specialty center for guns and ammunition RD&A to Picatinny – maintains over-water T&E site at Dahlgren

Military Value

- Picatinny has highest MV for guns/ammo in both Research and D&A

Payback

• One-time cost:	$116M
• Net implementation cost:	$81M
• Annual recurring savings:	$11M
• Payback time:	13 years
• NPV(Savings):	$33M

Impacts

- Criteria 6: -11 to -506 jobs; <0.1% to 4.9%
- Criteria 7: No issues
- Criteria 8: No impediments

✓ Strategy
✓ COBRA
✓ Capacity Analysis / Data Verification
✓ Military Value Analysis / Data Verification
✓ JCSG/MilDep Recommended
✓ Criteria 6-8 Analysis
✓ De-conflicted w/JCSGs
✓ De-conflicted w/MilDeps

Recommendation Detail

Tech - 9 Consolidate Maritime C4ISR Research, Development & Acquisition, Test & Evaluation

	Y	N

DoD Description Realign Washington Navy Yard, DC, by disestablishing the Space Warfare Systems Center Charleston, SC, detachment Washington Navy Yard and assign functions to the new Space Warfare Systems Command Atlantic Naval Amphibious Base, Little Creek, VA.
Realign Naval Station, Norfolk, VA, by disestablishing the Space Warfare Systems Center Norfolk, VA, and the Space Warfare Systems Center Charleston, SC, detachment Norfolk, VA, and assign functions to the new Space Warfare Systems Command Atlantic Naval Amphibious Base, Little Creek, VA.
Realign Naval Weapons Station Charleston, SC, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI; and relocate the Command Structure of the Space Warfare Center to Naval Amphibious Base, Little Creek, VA, and consolidate it with billets from Space Warfare Systems Command San Diego to create the Space Warfare Systems Command Atlantic, Naval Amphibious Base, Little Creek, VA. The remaining Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation functions at Naval Weapons Station Charleston, SC, are assigned to Space Warfare Systems Command Atlantic, Naval Amphibious Base, Little Creek, VA.
Realign Naval Base Ventura County, CA, Naval Surface Warfare Center Division, Dahlgren, VA, and Naval Station Newport, RI, by relocating Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation to Naval Submarine Base Point Loma, San Diego, CA, and consolidating with the Space Warfare Center to create the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA.
Realign Naval Submarine Base Point Loma, San Diego, CA, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI; disestablish Space Warfare Systems Center Norfolk, VA, detachment San Diego, CA, and assign functions to the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA; disestablish Naval Center for Tactical Systems Interoperability, San Diego, CA, and assign functions to the new Space Warfare Systems Command Pacific, Naval Submarine Base Point Loma, San Diego, CA; and disestablish Space Warfare Systems Command San Diego, CA, detachment Norfolk, VA, and assign functions to the new Space Warfare Systems Command Atlantic, Naval Amphibious Base, Little Creek , VA.
Realign Naval Air Station Patuxent River, MD, by relocating Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Naval Air Warfare Center, Aircraft Division to Naval Station Newport, RI.
Realign Naval Air Station Jacksonville, FL, by disestablishing the Space Warfare Systems Center Charleston, SC, detachment Jacksonville, FL.
Realign Naval Air Station Pensacola, FL, by relocating the Space Warfare Systems Center Charleston, SC, detachment Pensacola, FL, to Naval Weapons Station Charleston, SC. Realign Naval Weapons Station Yorktown, VA, by relocating the Space Warfare Systems Center Charleston, SC, detachment Yorktown, VA, to Naval Station Norfolk, VA, and consolidating it into the new Space Warfare Systems Command Atlantic detachment, Naval Station Norfolk, VA.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total
$106.10	52	0.44%

Payback (Years)
1

6 Year Net ($M)	Rank/190
($88.56)	25

20-Year NPV ($M)	Rank/190	% Total
($455.10)	34	0.93%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Naval Air Station Jacksonville	FL	0	-34	0	**-34**	-47	-81
Realign	Naval Air Station Patuxent River	MD	-2	-32	0	**-34**	-43	-77
Realign	Naval Air Station Pensacola	FL	0	-102	0	**-102**	-176	-278
Realign	Naval Base Ventura County	CA	-1	-102	-24	**-127**	-158	-285
Realign	Naval District Washington	DC	0	-172	0	**-172**	-130	-302
Realign	Naval Weapons Station Charleston	SC	-1	-27	-380	**-408**	-636	-1,044
Realign	Naval Weapons Station Yorktown	VA	0	-130	0	**-130**	-180	-310
Gainer	Naval Amphibious Base Little Creek	VA	10	27	0	**37**	47	84
Gainer	Naval Base Point Loma	CA	-11	26	-59	**-44**	-44	-88
Gainer	Naval Station Newport	RI	2	12	-16	**-2**	-3	-5
Gainer	Naval Station Norfolk	VA	-1	7	0	**6**	8	14
Gainer	Naval Surface Warfare Center Dahlgren	VA	0	13	144	**157**	102	259

Recommendation Detail

Net jobs for this Recommendation	**-4**	**-514**	**-335**	**-853**	**-1,260**	**-2,113**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

182 **Tech - 12 Consolidate Navy Strategic Test and Evaluation** | | Y | | N 182

DoD Description Realign Patrick Air Force Base, Cape Canaveral, FL, by relocating Nuclear Test and Evaluation at the Naval Ordnance Test Unit to Strategic Weapons Facility Atlantic, Kings Bay, GA.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$86.40	62	0.36%	7	$76.69	158	($61.40)	96	0.13%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Patrick Air Force Base	FL	-136	-59	0	**-195**	-165	-360
Gainer	Submarine Base Kings Bay	GA	100	22	0	**122**	59	181
	Net jobs for this Recommendation		**-36**	**-37**	**0**	**-73**	**-106**	**-179**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

183 **Tech - 13 Consolidate Sea Vehicle Development & Acquisition** | | Y | | N 183

DoD Description Realign Detroit Arsenal, MI, by relocating Sea Vehicle Development and Acquisition to Naval Surface Warfare Center Carderock Division, Bethesda, MD, and Program Management and Direction of Sea Vehicle Development and Acquisition to Naval Sea Systems Command, Washington Navy Yard, DC.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$1.50	184	0.01%	7	$0.14	79	($2.00)	161	0.00%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Detroit Arsenal	MI	-4	-31	0	**-35**	-19	-54
Gainer	Naval District Washington	DC	4	24	0	**28**	20	48
Gainer	Naval Surface Weapons Station Carderock	MD	0	6	0	**6**	5	11
	Net jobs for this Recommendation		**0**	**-1**	**0**	**-1**	**6**	**5**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

Recommendation Detail

184 Tech - 15 Create a Naval Integrated Weapons & Armaments Research, Development & Acquisition, Test and Ev | Y | N

DoD Description Realign Naval Surface Warfare Center Crane, IN, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except gun/ammo, combat system security, and energetic materials to Naval Air Weapons Station China Lake, CA.
Realign Naval Surface Warfare Center Indian Head, MD, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except gun/ammo, underwater weapons, and energetic materials, to Naval Air Weapons Station China Lake, CA.
Realign Naval Air Station Patuxent River, MD, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except the Program Executive Office and Program Management Offices in Naval Air Systems Command, to Naval Air Weapons Station China Lake, CA.
Realign Naval Base Ventura County, Point Mugu, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Air Weapons Station China Lake, CA.
Realign Naval Weapons Station Seal Beach, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except underwater weapons and energetic materials, to Naval Air Weapons Station China Lake, CA.
Realign Naval Surface Warfare Center, Yorktown, VA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Indian Head, MD.
Realign Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons and Armaments Research, Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA.
Realign Fleet Combat Training Center, CA (Port Hueneme Detachment, San Diego, CA), by relocating all Weapons and Armaments weapon system integration Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Dahlgren, VA.
Realign Naval Surface Warfare Center Dahlgren, VA, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except guns/ammo and weapon systems integration to Naval Air Weapons Station China Lake, CA.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total
$358.10	15	1.49%

Payback (Years)
7

6 Year Net ($M)	Rank/190
$148.66	174

20-Year NPV ($M)	Rank/190	% Total
($433.40)	36	0.89%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Naval Air Station Patuxent River	MD	0	-110	-148	**-258**	-285	-543
Realign	Naval Base Point Loma	CA	0	-47	0	**-47**	-50	-97
Realign	Naval Base Ventura County	CA	-220	-1,679	-351	**-2,250**	-2,760	-5,010
Realign	Naval Support Activity Crane	IN	0	-227	-31	**-258**	-117	-375
Realign	Naval Surface Warfare Center Dahlgren	VA	0	-133	-22	**-155**	-177	-332
Realign	Naval Surface Warfare Center Indian Head	MD	0	-52	0	**-52**	-39	-91
Realign	Naval Weapons Station Seal Beach	CA	0	-24	-21	**-45**	-31	-76
Realign	Naval Weapons Station Yorktown	VA	0	-49	-12	**-61**	-81	-142
Gainer	Naval Air Weapons Station China Lake	CA	187	1,961	493	**2,641**	3,168	5,809
		Net jobs for this Recommendation	**-33**	**-360**	**-92**	**-485**	**-372**	**-857**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

Recommendation Detail

185 **Tech - 18** **Create an Air Integrated Weapons & Armaments Research, Development & Acquisition, Test & Evalu** | | Y N **185**

DoD Description Realign Hill Air Force Base, UT, by relocating Weapons and Armaments In-Service Engineering Research, Development & Acquisition, and Test and Evaluation to Eglin Air Force Base, FL. Realign Fort Belvoir, VA, by relocating Defense Threat Reduction Agency National Command Region conventional armament Research to Eglin Air Force Base, FL.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total
$2.70	174	0.01%

Payback (Years)
2

6 Year Net ($M)	Rank/190
($4.87)	61

20-Year NPV ($M)	Rank/190	% Total
($17.90)	130	0.04%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Fort Belvoir	VA	-24	-41	0	-65	-46	-111
Realign	Hill Air Force Base	UT	-7	-26	0	-33	-31	-64
Gainer	Eglin Air Force Base	FL	26	57	0	83	65	148
		Net jobs for this Recommendation	**-5**	**-10**	**0**	**-15**	**-12**	**-27**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

Recommendation Detail

186 Tech - 19 Create an Integrated Weapons & Armaments Specialty Site for Guns and Ammunition | Y | N 186

DoD Description Realign the Adelphi Laboratory Center, MD, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign the Fallbrook, CA, detachment of Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign Naval Surface Warfare Center Division Dahlgren, VA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign Naval Air Warfare Center Weapons Division China Lake, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign Naval Surface Warfare Center Division Indian Head, MD, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.
Realign Naval Surface Warfare Center Division Earle, NJ, by relocating weapon and armament packaging Research and Development & Acquisition to Picatinny Arsenal, NJ.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$116.30	50	0.48%	13	$81.24	161	($32.60)	114	0.07%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Army Research Laboratory, Adelphi	MD	0	-43	0	**-43**	-39	-82
Realign	Naval Air Weapons Station China Lake	CA	0	-5	0	**-5**	-6	-11
Realign	Naval Support Activity Crane	IN	0	-236	0	**-236**	-106	-342
Realign	Naval Surface Warfare Center Dahlgren	VA	0	-83	0	**-83**	-102	-185
Realign	Naval Surface Warfare Center Indian Head	MD	0	-43	0	**-43**	-32	-75
Realign	Naval Weapons Station Earle	NJ	0	-63	0	**-63**	-55	-118
Realign	Naval Weapons Station Fallbrook	CA	0	-118	0	**-118**	-126	-244
Realign	Navy Recruiting Command Louisville	KY	-6	-217	0	**-223**	-165	-388
Gainer	Picatinny Arsenal	NJ	5	688	0	**693**	565	1,258
	Net jobs for this Recommendation		**-1**	**-120**	**0**	**-121**	**-66**	**-187**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

Recommendation Detail

187 Tech - 22 Defense Research Service Led Laboratories

Y	N	187

DoD Description Close the Air Force Research Laboratory, Mesa City, AZ. Relocate all functions to Wright Patterson Air Force Base, OH.
Realign Air Force Research Laboratory, Hanscom, MA, by relocating the Sensors Directorate to Wright Patterson Air Force Base, OH, and the Space Vehicles Directorate to Kirtland Air Force Base, NM.
Realign Rome Laboratory, NY, by relocating the Sensor Directorate to Wright Patterson Air Force Base, OH, and consolidating it with the Air Force Research Laboratory, Sensor Directorate at Wright Patterson Air Force Base, OH.
Realign Air Force Research Laboratory, Wright Patterson Air Force Base, OH, by relocating the Information Systems Directorate to Hanscom Air Force Base, MA.
Realign Army Research Laboratory Langley, VA, and Army Research Laboratory Glenn, OH, by relocating the Vehicle Technology Directorates to Aberdeen Proving Ground, MD.
Realign the Army Research Laboratory White Sands Missile Range, NM, by relocating all Army Research Laboratory activities except the minimum detachment required to maintain the Test and Evaluation functions at White Sands Missile Range, NM, to Aberdeen Proving Ground, MD.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$164.60	36	0.68%	4	$45.03	144	($357.30)	40	0.73%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Closure	Air Force Research Lab, Mesa City	AZ	-42	-46	0	**-88**	-82	-170
Realign	Glenn Research Center	OH	0	-50	0	**-50**	-42	-92
Realign	Hanscom Air Force Base	MA	-60	-219	0	**-279**	-178	-457
Realign	Langley Air Force Base	VA	-4	-46	0	**-50**	-67	-117
Realign	Rome Laboratory	NY	-13	-124	0	**-137**	-122	-259
Realign	White Sands Missile Range	NM	-13	-165	0	**-178**	-189	-367
Gainer	Aberdeen Proving Ground	MD	14	214	0	**228**	215	443
Gainer	Kirtland Air Force Base	NM	41	162	0	**203**	200	403
Gainer	Wright Patterson Air Force Base	OH	43	99	0	**142**	116	258
		Net jobs for this Recommendation	**-34**	**-175**	**0**	**-209**	**-149**	**-358**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

Recommendation Detail

188 Tech - 24 Establish Centers for Fixed Wing Air Platform Research, Development & Acquisition, Test & Evaluati | | Y | | N 188

DoD Description Realign Tinker Air Force Base, OK, Robins, Air Force Base, GA, and Hill Air Force Base, UT, by relocating fixed wing related Air Platform Development and Acquisition to Wright Patterson Air Force Base, OH.

Realign Wright Patterson Air Force Base, OH, by relocating fixed wing related Live Fire Test and Evaluation to Naval Air Weapons Station China Lake, CA.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$17.70	130	0.07%	9	$7.91	102	($17.90)	131	0.04%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Hill Air Force Base	UT	-6	-11	0	**-17**	-15	-32
Realign	Robins Air Force Base	GA	-9	-8	0	**-17**	-11	-28
Realign	Tinker Air Force Base	OK	-1	-12	0	**-13**	-15	-28
Gainer	Wright Patterson Air Force Base	OH	15	31	0	**46**	37	83
	Net jobs for this Recommendation		**-1**	**0**	**0**	**-1**	**-4**	**-5**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

189 Tech - 26 Establish Centers for Rotary Wing Air Platform Development & Acquisition, Test & Evaluation | | Y | | N 189

DoD Description Realign Wright Patterson Air Force Base, OH, by relocating Air Force Materiel Command V-22 activities in rotary wing air platform development and acquisition to Patuxent River, MD. Realign the Naval Air Engineering Station Lakehurst, NJ, by relocating activities in rotary wing air platform development, acquisition, test and evaluation to Patuxent River, MD. Realign Ft. Rucker, AL, by relocating the Aviation Technical Test Center to Redstone Arsenal, AL, and consolidating it with the Technical Test Center at Redstone Arsenal, AL. Realign Warner-Robins Air Force Base, GA, by relocating activities in rotary wing air platform development and acquisition to Redstone Arsenal, AL.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$49.40	89	0.20%	26	$40.22	138	$11.80	178	-0.02%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Fort Rucker	AL	-18	-102	0	**-120**	-121	-241
Realign	Naval Air Engineering Station Lakehurst	NJ	0	-13	0	**-13**	-11	-24
Realign	Robins Air Force Base	GA	0	-50	0	**-50**	-31	-81
Realign	Wright Patterson Air Force Base	OH	-8	-51	0	**-59**	-49	-108
Gainer	Naval Air Station Patuxent River	MD	7	54	0	**61**	77	138
Gainer	Redstone Arsenal	AL	16	124	0	**140**	102	242
	Net jobs for this Recommendation		**-3**	**-38**	**0**	**-41**	**-33**	**-74**

Other OSD Recommendations

*****See Appendix - Alphabetical Listing of Bases**

Recommendation Detail

190 Tech - 28 Navy Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, Test & Eva

Y N 190

DoD Description Realign Naval Air Warfare Center, Weapons Division, Point Mugu, CA. Relocate the Sensors, Electronic Warfare (EW), and Electronics Research, Development, Acquisition, Test & Evaluation (RDAT&E) functions to Naval Air Warfare Center, Weapons Division, China Lake, CA.

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$72.70	71	0.30%	12	$50.87	152	($16.90)	135	0.03%

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Naval Base Ventura County	CA	-11	-368	-100	-479	-595	-1,074
Gainer	Naval Air Weapons Station China Lake	CA	11	368	0	379	484	863
		Net jobs for this Recommendation	**0**	**0**	**-100**	**-100**	**-111**	**-211**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

191 Add 1 Close or Further Realign Naval Air Station Brunswick, ME

Y N 191

DoD Description Close Brunswick

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total
$185.84			1	$50.87		($844.00)		

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Closure	Naval Air Station Brunswick	ME	-2,875	-395	0	-3,270	0	0
		Net jobs for this Recommendation	**-2,875**	**-395**	**0**	**-3,270**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

Recommendation Detail

192 Add 2 Close or Realign Broadway Complex San Diego, CA [ ] Y [ ] N 192

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Closure	Broadway Complex San Diego	CA	0	0	0	0	0	0
		Net jobs for this Recommendation	**0**	**0**	**0**	**0**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

193 Add 3 Close or Further Realign Master Jet Base Oceana, VA [ ] Y [ ] N 193

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Closure	Naval Air Station Oceana	VA	0	0	0	0	0	0
		Net jobs for this Recommendation	**0**	**0**	**0**	**0**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

Recommendation Detail

194 Add 4 Close or Further Realign Pope AFB, NC

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

[ ] Y [ ] N 194

Job Impact at Affected Bases

Action	Base Name
Closure	Pope Air Force Base

State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
NC	0	0	0	0	0	0
Net jobs for this Recommendation	0	0	0	0	0	0

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

195 Add 5 Close or Further Realign Galena Airport FOL, AK

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

[ ] Y [ ] N 195

Job Impact at Affected Bases

Action	Base Name
Closure	Galena Airport Forward Operating Location

State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
AK	0	0	0	0	0	0
Net jobs for this Recommendation	0	0	0	0	0	0

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

Recommendation Detail

196 Add 6 Close or Realign Defense Finance and Accounting Service

[ ] Y [ ] N 196

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	Air Reserve Personnel Center	CO	0	0	0	0	0	0
Realign	Defense Finance and Accounting Service, Indianapolis	IN	0	0	0	0	0	0
Realign	Defense Supply Center Columbus	OH	0	0	0	0	0	0
		Net jobs for this Recommendation	**0**	**0**	**0**	**0**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

197 Add 7 Close or Realign Professional Development Education

[ ] Y [ ] N 197

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

Job Impact at Affected Bases

Action	Base Name	State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
Realign	NAVPGSCOL MONTEREY, CA	CA	0	0	0	0	0	0
Realign	Wright Patterson Air Force Base	OH	0	0	0	0	0	0
		Net jobs for this Recommendation	**0**	**0**	**0**	**0**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

Recommendation Detail

198 **Add 8** **Close or Realign Joint Medical Command HQs**

Y N 198

DoD Description

COBRA Data

1 Time Costs ($M)	Rank/190	% Total	Payback (Years)	6 Year Net ($M)	Rank/190	20-Year NPV ($M)	Rank/190	% Total

Job Impact at Affected Bases

Action	Base Name
Closure	BAILEY'S CROSSROADS, VA
Closure	Potomac Annex
Realign	Bolling Air Force Base

State	Net Mil.	Net Civ.	Net Cont.	Total Dir.	Total InDir.	Total Chng
VA	0	0	0	0	0	0
DC	0	0	0	0	0	0
DC	0	0	0	0	0	0
Net jobs for this Recommendation	**0**	**0**	**0**	**0**	**0**	**0**

Other OSD Recommendations

***See Appendix - Alphabetical Listing of Bases

DCN:11710

NSWC PHD BRAC Clarification and COBRA Issues forwarded to NSWC 14 July 2005

1. **TECH-0018DR - Create an Integrated Weapons and Armaments Specialty Site for Guns and Ammunition (Page TECH 19):**

1. The DONBITS certified explanations in Question # 47 of the Scenario Data Call TECH 0018DR (formerly TECH 0002A) were not applied in the development of the BRAC Recommendation. In addition to the 134 FTEs that were certified as Missile, Guns or Energetics, the DOD BRAC Recommendation included relocation/realignment of the "Other" non-Missile, Gun, or Energetic (113 Civilians) or Inextricable Programs (178 Civilians + 6 Enlisted) that were identified in Question # 47. In accordance with one of the Scenario Data Call (SDC) Assumptions, NSWC PHD identified 3 categories of Programs that were involved in Weapons and Armament (W&A) excluding Weapon System Integration (WSI):

- Missile, Gun or Energetic: Work that NSWC PHD certified that should be realigned/relocated.
- "Other" non Missile, Gun, or Energetic: Work that NSWC PHD certified that is not related to Missile, Gun, or Energetics and is not WSI
- Inextricable ISE work from WSI: Work that is integrated with other NSWC PHD Programs that we certified is required to continue to perform its mission.

Direction to NSWC PHD required that Action #9 ("Realign Port Hueneme (N63394) W&A RDAT&E (except weapon system integration) and relocate to China Lake (N650530)) of the SDC be a total of the three categories and any conflicts be explained in Question #47. There was concern that if presented as a single number totaling all personnel in all three categories that it might be used without considering the conflicts identified in Question # 47. Therefore, NSWC PHD identified their response in the three categories by entering three Action #9 responses in their certified DONBITs, to illustrate the differences between the three categories. It is clear however that none of the areas of conflict identified in Question # 47 were applied in the development of the DOD BRAC Recommendation. Only the 134 FTEs certified in DONBITs from Scenario TECH 0018DR are within the scope of Missiles, Guns or Energetics. The Relocation/Realignment of those Programs identified as "Other" and "Inextricable" will critically damage NSWC PHDs ability to perform its mission. If relocated, most of these resources must be reconstituted for NSWC PHD to perform its mission.

B. NSWC Port Hueneme COBRA Data Questions:

Technical JCSG COBRA scenario TECH-0018DR versus Scenario Data Call TECH-0002A, TECH-0002C and TECH-0018, certified activity responses.

1. Port Hueneme data input reported 431 Civilian FTEs tied to Weapons & Armament, which includes 184 inextricably linked to Weapons Systems Integration and 113 tied to "Other" non Missiles, Guns or Energetics work. The COBRA data shows 366 Port Hueneme employees for realignment and 65 employees eliminated. All personnel identified are tied to funded workload and are required to satisfy mission requirements. To the extent personnel

are included for elimination, the costs associated with this BRAC recommendation are understated and the savings are overstated.

2. COBRA assumes workforce can move in FY08 prior to labs being built in FY09, which is an incorrect assumption. The CNI spreadsheet indicates BRACON starting in FY06 and taking three years, which would result in movement of personnel in FY09. This is inconsistent with the movement of personnel in FY08.

3. It appears that the Test Equipment associated with Missile Test has been eliminated in COBRA and all remaining equipment to be moved has been reduced by 25%.

4. COBRA eliminated 15% of the contractors reported. What is the rationale for applying a 15% reduction to contractor personnel? To the extent personnel are included for elimination, the costs associated with this BRAC recommendation are understated and the savings are overstated.

5. Shipboard assessment testing in lieu of laboratory certification for non-weapon non-sensor interfaces has been deleted.

2. TECH-0042AR - Consolidate Maritime C4ISR RDAT&E (Page TECH 9):

A. Clarification Needed on the Recommendation:

The original TJCSG scenario data calls (TECH-0008E & 0008F) stated: "In addition, when specific FTEs, equipment and facilities are an inextricable part of a specific effort performed by your activity that is not Maritime (surface and above) Sensors, Electronic Warfare and Electronics RDAT&E (TECH 0008E) or Maritime Information Systems RDAT&E (TECH 0008F) identify those FTEs, equipment and facilities and provide justification for those areas of conflict in #USN0047." Clarification is needed to understand why the work identified in Question #USN0047 ("Inextricable" from the Activity's Weapons Systems Integration Mission, and "Other" work not within the scope of the scenario data calls) was not included in the BRAC Recommendation. Relocation/realignment of the work identified in Question #USN0047 as inextricable will have a critical impact on the Activity's impact to perform its remaining mission efforts.

In addition to the 6 Civilians and 1 Contractor to be realigned/relocated to SPAWAR, the TJCSG included the relocation/realignment of inextricable programs and personnel (96 Civilians, 1 Officer, and 23 Contractors) that were identified in PHD's certified DONBITS Question #47 data for Scenario Data Call TECH 0008F. Relocation of these programs and personnel that are inextricable to Weapon Systems Integration (WSI) work at PHD will critically impact NSWC PHD's ability to perform its mission. If relocated, most of these resources must be reconstituted for NSWC PHD to perform its mission. Naval Shipborne Warfare Systems are specifically designed to be fully embedded within the form of a ship's hull design. The elements of the detect-to-engage sequence (e.g., detection, classification, targeting, weapons initiation, launcher control, weapons control and command & control) are

physically and functionally integrated and not separable as independent components. This response identifies the work (and severs for realignment/relocation) associated with that portion of combat systems equipment in-service support that is separable from the support for the integrated elements of naval warfare systems.

B. NSWC Port Hueneme COBRA Data Questions:
Technical JCSG COBRA scenario TECH 0042AR versus Scenario Data Call TECH-0008E & TECH-0008F certified activity responses.

Port Hueneme data input reported 103 FTEs tied to Maritime Information Systems, which includes 97 inextricably linked to Weapons Systems Integration. The COBRA data shows 97 Port Hueneme employees for realignment and 5 employees eliminated. All personnel identified are tied to funded workload and are required to satisfy mission requirements. To the extent personnel are included for elimination, the costs associated with this BRAC recommendation are understated and the savings are overstated.

3. TECH-0018B - Create an Integrated Weapons and Armaments Specialty Site for Guns and Ammunition (Page TECH 19):

A. Clarification Needed on the Recommendation:

1. T&E Function and Sustainment Sub-function: The BRAC Recommendation in Section 2 beginning on page 19, indicates that only RD&A is associated with all 8 relocation and realignment actions. Additionally, in the "Technical Joint Cross Service Group Analyses and Recommendations (Volume XII) Part II, page 15", states that "Weapons specialty sites at Picatinny Arsenal, NJ (small caliber gun RDAT&E); Naval Surface Warfare Center, Dahlgren, VA (large caliber gun T&E and Ship Weapons Integration); and Indian Head, MD (energetic materials RDAT&E)." The noted exclusion of the large caliber gun T&E of Dahlgren reinforces that the BRAC Recommendation does not include T&E functions. Is this the correct intention? If so, NSWC Crane, Dahlgren, Indian Head and NSWC Det. Earle, Fallbrook and Louisville certified data for RDAT&E must be adjusted to reflect only RDA.

4. While not specifically mentioned in the recommendation, the COBRA data shows that personnel and equipment associated with Sustainment sub-function were deleted from the scenario [Per COBRA Input Data Report (Page 45), Footnotes for Screen Three - Indian Head to Picatinny reduced civilan positon (less 3 sustainment) by 15% to 37.] If this is the intention, NSWC Crane, Dahlgren, Indian Head and NSWC Det. Earle, Fallbrook and Louisville certified data for Guns and Ammo must be adjusted to remove Guns and Ammo sustainment.

5. The MK34 Gun Weapon System, MK15 Close In Weapon System, MK36/53 Decoy Launching System and MK38 Gun Weapon System should have been identified as part of Weapon System Integration in the data call. The scenario defines Weapon Systems Integration as "combines weapon system(s) together on a platform

via an automated control system. It allows for orchestrated weapon system engagement decisions and coordination on the host platform and/or between weapon systems on multiple platforms..." subsequent discussions make it clear that combat system level integration that NSWC PHD, Detachment Louisville performs for these programs should not have been included within the small caliber gun RDAT&E category and should have remained within its current mission assignment.

B. NSWC Port Hueneme COBRA Data Questions:

Technical JCSG COBRA scenario TECH-0018B versus Scenario TECH-0017, TECH-0002D, TECH-0002E

1. The COBRA data reflects a 15% elimination of personnel (Officers, Enlisted, and Civilians). There is also a 15% reduction in contractor support. All personnel identified are tied to funded workload and are required to satisfy mission requirements. To the extent personnel are eliminated, the costs associated with this BRAC recommendation are understated and the savings associated with this BRAC recommendation are overstated.

2. The tons of equipment to be moved identified in DONBITS has been reduced to 25%, and 33% and at other times even deleted in its entirety. To the extent moving costs are reduced, the costs associated with this BRAC recommendation are understated and the savings are overstated.

3. The COBRA model deleted the TECH REPs that the activity entered into DONBITS and had identified as required, to be on-site with the OEMs.

4. The COBRA data assumes that the workforce can move in FY08 prior to the labs being built in FY09 which is an incorrect assumption, and not consistent with the activity certified data in DONBITS.

C. Other Issues/Questions:

1. 86 PHD Det. Louisville work years were reported in DONBITS as contractor mission support employees for Question #46. This was an incorrect response. 81 of the 86 work years represent acquisition of mission products and not contractors integrated within the workforce.

2. Under the guidance of the Quarterback for the scenario, "ALL," PHD Det. Louisville work years were to be reported. Those work years for Strategic Program Tech Pub Maintenance were included as "ALL" and were not part of the intent of the "Guns" scenario and therefore were not properly categorized.

4. TECH 0002F – Relocate ICSTD to Dahlgren NSWC Port Hueneme, Det San Diego, CA to Dahlgren Virginia - COBRA Data Questions:

1. The COBRA data reflects a 15% elimination of personnel (Officers, Enlisted, and Civilians). All personnel identified are tied to funded workload and are required to satisfy mission requirements. To the extent personnel are included for elimination, the costs associated with this BRAC recommendation are understated and the savings are overstated.

2. The activity identified a $6M cost in DONBITS under "Losing Activity – Mission Costs". This cost was deleted from the COBRA data and without any further consideration.

3. The COBRA data assumes that the workforce can move in FY08 prior to the labs being built in FY09 which is an incorrect assumption, and not consistent with what the activity identified in DONBITS.

5. **BRAC Report - Consolidate Maritime C4ISR Research, Development & Acquisition, T&E (Page TECH 9):**

Realign Naval Weapons Station Charleston, SC, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI.

Realign Naval Base Ventura County, CA, Naval Surface Warfare Center Division, Dahlgren, VA, and Naval Station Newport, RI, by relocating Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation to Naval Submarine Base Point Loma, San Diego, CA.

Realign Naval Submarine Base Point Loma, San Diego, CA, as follows: relocate Surface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Surface Warfare Center Division, Dahlgren, VA; relocate Subsurface Maritime Sensors, Electronic Warfare, and Electronics Research, Development & Acquisition, and Test & Evaluation of the Space Warfare Center to Naval Station Newport, RI.

Technical JCSG Analyses and Recommendations – Technical JCSG Report (Vol. XII, Part IV, p. 47)

Justification: These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR. This recommendation will also reduce the number of technical facilities engaged in Maritime Sensors, Electronic Warfare, & Electronics and Information Systems RDAT&E from twelve to five. This, in turn, will reduce overlapping infrastructure increase the efficiency of operations and support an integrated approach to RDAT&E for maritime C4ISR. Another result would also be reduced cycle time for fielding systems to the warfighter.

6. **BRAC Report - Create an Integrated Weapons and Armaments Specialty Site for Guns and Ammunition (Page TECH 19):**

Realign Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign the Fallbrook, CA, detachment of Naval Surface Warfare Center Division Crane, IN, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Dahlgren, VA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign the Louisville, KY, detachment of Naval Surface Warfare Center Division Port Hueneme, CA, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Indian Head, MD, by relocating gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ.

Realign Naval Surface Warfare Center Division Earle, NJ, by relocating weapon and armament packaging Research and Development & Acquisition to Picatinny Arsenal, NJ.

Technical JCSG Analysis and Recommendations – Technical JCSG Report Vol. XII, Part IV (Page 44):

Justification: This recommendation realigns and consolidates those gun and ammunition facilities working in Weapons and Armaments (W&A) Research (R), Development & Acquisition (D&A). This realignment would result in a more robust joint center for gun and ammunition Research, Development & Acquisition at Picatinny Arsenal, NJ. This location is already the greatest concentration of military value in gun and ammunition W&A RD&A.

Picatinny Arsenal is the center-of-mass for DoD's Research, Development & Acquisition of guns and ammunition, with a workload more than an order of magnitude greater than any other DoD facility in this area. It also is home to the DoD's Single Manager for Conventional Ammunition. Movement of all the Services' guns and ammunition work to Picatinny Arsenal will create a joint center of excellence and provide synergy in armament development for the near future and beyond, featuring a Joint Packaging, Handling, Shipping and Transportation (PHS&T) Center, particularly important in this current time of high demand for guns and ammunition by all the services. Technical facilities with lower quantitative military value are relocated to Picatinny Arsenal. This recommendation includes Research, Development & Acquisition activities in the Army and Navy. It promotes jointness, enables technical synergy, and positions the Department of Defense to exploit center-of-mass scientific, technical, and acquisition expertise within the weapons and armament Research, Development & Acquisition

community that currently resides at this DoD specialty location.

3. **BRAC Report - Naval Integrated Weapons and Armaments RDAT&E Center (Page TECH 15):**

Realign Naval Surface Warfare Center Crane, IN, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except gun/ammo, combat system security, and energetic materials to Naval Air Weapons Station China Lake, CA.

Realign Naval Surface Warfare Center Indian Head, MD, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except gun/ammo, underwater weapons, and energetic materials, to Naval Air Weapons Station China Lake, CA.

Realign Naval Surface Warfare Center Seal Beach, CA, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except underwater weapons, and energetic materials, to Naval Air Weapons Station China Lake, CA.

Realign Naval Surface Warfare Center Yorktown, VA, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Indian Head, MD.

Realign Naval Base Ventura County, Port Hueneme, CA, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except weapon system integration, to Naval Air Weapons Station China Lake, CA.

Realign Fleet Combat Training Center, CA (Port Hueneme Detachment, San Diego, CA), by relocating all Weapons & Armaments weapon system integration Research, Development & Acquisition, and Test & Evaluation to Naval Surface Warfare Center Dahlgren, VA.

Realign Naval Surface Warfare Center Dahlgren, VA, by relocating all Weapons & Armaments Research, Development & Acquisition, and Test & Evaluation, except guns/ammo and weapon systems integration to Naval Air Weapons Station China Lake, CA.

Technical JCSG Analysis and Recommendations – Technical JCSG, Vol. XII, Part IV (Page 40):

Justification: This recommendation realigns and consolidates those facilities working in Weapons & Armaments (W&A) Research, Development & Acquisition, and Test and Evaluation (RDAT&E) into a Naval Integrated RDAT&E center at the Naval Air Warfare Center, China Lake, CA. Additional synergistic realignments for W&A was achieved at two receiver sites for specific focus. The Naval Surface Warfare Center, Dahlgren, VA, is a receiver specialty site for Naval surface weapons systems integration and receives a west coast site for consolidation. This construct creates an integrated W&A RDAT&E center in China Lake, CA, energetics center at Indian Head, MD, and consolidates Navy surface weapons system integration at Dahlgren, VA. All actions relocate technical facilities with lower overall quantitative Military Value (across

Research, Development & Acquisition and Test & Evaluation) into the Integrated RDAT&E center and other receiver sites with greater quantitative Military Value.

Consolidating the Navy's air-to-air, air-to-ground, and surface launched missile RD&A, and T&E activities at China Lake, CA, would create an efficient integrated RDAT&E center. China Lake is able to accommodate with minor modification/addition both mission and life-cycle/sustainment functions to create synergies between these traditionally independent communities.

During the other large scale movements of W&A capabilities noted above, Weapon System Integration was specifically addressed to preserve the synergies between large highly integrated control system developments (Weapon Systems Integration) and the weapon system developments themselves. A specialty site for Naval Surface Warfare was identified at Dahlgren, VA, that was unique to the services and a centroid for Navy surface ship developments. A satellite unit from the Naval Surface Warfare Center, Port Hueneme, San Diego Detachment will be relocated to Dahlgren.

The Integrated RDAT&E Center at China Lake provides a diverse set of open-air range and test environments (desert, mountain, forest) for W&A RDAT&E functions. Synergy will be realized in air-to-air, air-to-ground, and surface launched mission areas.

This recommendation enables technical synergy, and positions the Department of Defense to exploit center-of-mass scientific, technical and acquisition expertise with weapons and armament Research, Development & Acquisition that currently resides at 10 locations into the one Integrated RDAT&E site, one specialty site, and an energetics site.

DCN:11710

OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING
3040 DEFENSE PENTAGON
WASHINGTON, DC 20301-3040

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RECEIVED

JUN 22 2005

Mr. Frank Cirillo
Director, Review & Analysis
Defense Base Closure and Realignment Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

Dear Mr. Cirillo:

Thank you for your recent inquiry concerning the 2005 Base Realignment and Closure recommendations. You asked four questions numbered 12, 13, 14, and 15.

Technical Joint Cross-Service Group (TJCSG) answered questions 12 and 14. See the attached. The TJCSG will provide responses to questions 13 and 15 within 2 work days.

Thank you for the opportunity to address your questions.

Sincerely,

for Alan R. Shaffer
Executive Director
Technical Joint Cross-Service Group

Attachment:
As stated.

Technical Joint Cross-Service Group Responses to
BRAC 2005 Commission Inquiries
DSE Numbers 12 and 14
June 22, 2005

DSE Number 12

Was the intent of TECH 15 to consolidate Navy's air-to-air, air-to-ground, and surface launched missile RD&A [research, development, and acquisition], and T&E [test and evaluation] activities at China Lake, CA? What does that imply in terms of its impact on Dahlgren and other commands that are slated to transfer personnel and capability to China Lake in accordance with this recommendation?

The intent of TECH 15 was to consolidate weapons and armaments, except Guns and Ammo, into an integrated R, D&A, T&E at one of three sites that rated high in military value in all of these three functions. In this case, Navy's air-to-air, air-to-ground and surface launched missile RD&A and T&E are recommended to move to China Lake, with the exception of surface ship weapons system integration which would remain at Dahlgren. The impact on Dahlgren and other commands would be that personnel and capability in weapons subsystem and weapons would move to China Lake.

DSE Number 14

Regarding the recommendation Tech 19, is the intent to retain large caliber naval gun RDA at Naval Surface Warfare Center Dahlgren VA? It would appear that this recommendation would then separate the Guns and Ammo programs being moved to Picatinny from the Open Air (Over water Gun) Range and associated gun systems. Was this intentional? If not, you might want to rewrite the recommendation to read "Realign Naval Surface Warfare Center Division Dahlgren, VA, by relocating small caliber Naval and Marine Corps gun and ammunition Research and Development & Acquisition to Picatinny Arsenal, NJ."

The intent of Tech 19 was to move guns and ammo RDA functions, including large caliber naval guns, to Picatinny.

The large caliber naval gun T&E function will remain at Naval Surface Warfare Center, Dahlgren VA, including the Open Air Over Water gun range. Supporting analysis reflects this intent.

CTNSP S&T
ADM HAL GEHMAN
CHARLIE BATTAGLIA

DC 11710

DEPARTMENT OF DEFENSE
NATIONAL DEFENSE UNIVERSITY
WASHINGTON, D.C. 20319-5066

REPLY TO
ATTENTION OF:

NDU-CTNSP

29 June 2005

The Honorable Anthony J. Principi
Chairman, Base Realignment and Closure Commission
2521 South Clark Street, Suite 600
Arlington, VA, 22202.

Dear Mr. Chairman:

The Center for Technology and National Security Policy has been in touch with Commissioner Hal Gehman to see if our experience in the area of Science and Technology (S&T) can be useful to the Base Realignment and Closure (BRAC) Commission. The Center employs several very senior scientists, including former directors of each Service Defense Lab (see list attached). We have also conducted the so-called Section 913 study on the relevance of the Defense Labs. Admiral Gehman and the Commission staff encouraged us to prepare a letter with our views on the impact of BRAC recommendations on the Defense Labs. Our review considered only the potential impact of the BRAC recommendations on DOD S&T programs.

We are in general pleased with the discretion shown in recommending relocations and closures regarding S&T. Efficiencies in consolidation are often overshadowed by a loss of key personnel and by a loss of the innovation brought about by diversity. The DOD S&T workforce has also become somewhat fragile due to previous BRAC closures and the outsourcing of the expertise the DOD requires to participate in the global S&T enterprise. While we did have a few concerns (given below), we found positive recommendations for relocation as well. For example the consolidation of sensors related S&T from Hanscom and Rome to Wright Patterson Air Force Base should strengthen the Air Force sensor program even though a few senior S&T personnel may be lost. Similarly, the actions proposed for the Naval Air Warfare Center, China Lake; Naval Surface Warfare Center, Dahlgren; and Naval Surface Warfare Center, Indian Head accomplish a long sought after Navy objective of rationalizing the S&T programs among those locations. In addition, there are positive steps being taken in the cross-service area. These include the realignment and consolidation of several service gun and ammunition activities to the Integrated Weapons and Specialty Site for Guns and Ammunition to be located at Picatinny Arsenal. The concerns mentioned above are detailed below:

1. The future will be characterized increasingly by the globalization of science and technology. While the United States will continue to be a major force in science and technology, its share of the world's program will decline. In such a world the DOD would be wise to move toward greater engagement and diversity regarding science and technology. The BRAC recommendations indicate some worrisome trends in this regard. For example, the co-location of DOD science and technology funding organizations at Bethesda and the removal of DOD contingents from other government locations could reduce the diversity of DOD science and technology efforts and hamper the coordination of DOD science and technology with efforts funded by other government agencies. Such an outcome would not be in the best long-term interests of DOD.

2. Though figures vary from location to location, data from the last BRAC round indicate that on average only about 25-30 percent of scientists and engineers assigned to relocate actually do so, and many of those who do relocate subsequently leave the government.[1] If this BRAC round results in a similar proportion of resignations, it would mean a very serious loss of technical talent. In this regard, the proposed closure of Fort Monmouth and the relocation of the Communications and Electronics Research, Development and Engineering Center (CERDEC) to Aberdeen Proving Ground and the relocation of the CERDEC Night Vision and Electronics Sensors Directorate from Fort Belvoir to Aberdeen are troubling. Also, because of the need to construct new facilities at Aberdeen (there is no core of C4ISR expertise or culture there) the consolidation would take several years. During this time, again based on past experience, there could be a serious slump in productivity in an area where maintaining a vigorous S&T program is of national importance for combating terrorism as well as for the network-centric operations of the Army's Future Combat System.

As a concluding observation, even at the S&T level it is important to facilitate the concept of "Jointness." It is important to keep this in mind as S&T activities move from one location to another as a result of BRAC decisions. The establishment of the proper infrastructure is often a key to enabling "Joint" activities at the S&T (and higher) level. For example, C3 is an area that clearly requires "Joint" S&T work. By its very nature, C3 is a distributed activity and need not be conducted at only one location. However, "Joint" geographically distributed work in this area requires deliberate infrastructure investments and planning. While not equivalent to C3 from a warfighter's perspective, a successful example in this regard is the

[1] Michael L. Marshall, "Defense Laboratories and Military Capability: Headed for a BRACdown?" *Defense Horizons* 44 (Washington, DC: National Defense University Press, July 2004). Also based on data supplied by Army Research Laboratory for early 1990s BRAC consolidation at Adelphi, Maryland.

DOD High-performance Computing Program. This is a cross-Service activity that is distributed among a number of DOD laboratories and selected universities. The program has been very valuable in modernizing and facilitating computing for DOD S&T purposes. It has also facilitated "Joint" activity among the laboratories. However, without infrastructure investments, coordination and planning, the program would not have been successful. The time to consider the necessary investments is the time at which moves are decided upon. Such planning may therefore be relevant to BRAC decisions.

The above considerations are called to your attention in the hope that they may contribute to the very thorough inquiry that your Commission will perform regarding the BRAC recommendations. We would be pleased to discuss these matters with you should you so desire.

Sincerely,

Hans Binnendijk,
Director
Center for Technology and
National Security Policy
The National Defense University

Attachment

DCN:11710

Senior Scientists at the Center for Technology and National Security Policy

Dr. Timothy Coffey
Former Director of Research, Naval Research Laboratory

Dr. Richard Chait
Former Director of Army Research and Laboratory Management

Dr. Donald Daniel
Former Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering

Dr. John Lyons
Former Director of the National Bureau of Standards and former Director of the Army Research Laboratory

Dr. Elihu Zimet
Former Head of the Expeditionary Warfare Science and Technology Department, Office of Naval Research

Epstein, David, CIV, WSO-BRAC

From: Hamm, Walter B. Col BRAC [walter.hamm@navy.mil]
Sent: Friday, August 19, 2005 7:12 PM
To: David.Epstein@wso.whs.mil
Cc: Shibley, Eileen P CIV BRAC; Kennedy, Joe R. Col
Subject: FW: Activitiy Functions

David,

Per your request, here are technical functions by activity. This is the 10,000 foot view and doesn't portray many of the unique things they do. Likewise, an activity may be a relatively small player in a larger field, but still gets to claim "being a player" .

1) Create an Integrated Weapons and Armaments Specialty Site for Guns and Ammunition

Naval Surface Warfare Center Division, Port Hueneme Division, Detachment Louisville: guns and ammunition RD&A, primarily in-service-engineering. They are Contracting Officer's Representative for the depot privitization contracts (original equipment manufacturers) at Louisville. They are also both the Contracting Officer and Contracting Officer's Represenative for the in-service engineering privitization contracts at Louisville.

Naval Surface Warfare Center, Indian Head Division, Detachment Earle: weapons and armament packaging, handling, storage and transportation RDAT&E.

Naval Surface Warfare Center, Crane Division: RDAT&E of small arms guns and ammunition

Naval Surface Warfare Center, Dahlgren Division: RDAT&E for guns and ammunition for various sizes.

Naval Surface Warfare Center, Crane Division, Detachment Fallbrook (Marine Corps Program Department): DAT&E for small arms through large caliber (155mm) guns and ammunition

Naval Air Warfare Center Weapons Division, China Lake: RDAT&E for small/medium caliber aircraft guns.

Naval Surface Warfare Center, Indian Head Division: RDAT&E for energetics for guns and ammunition.

2) Create a Naval Integrated Weapons and Armaments RDAT&E Center

Naval Surface Warfare Center, Crane, IN - RDAT&E for missile/guidance, energetic materials and guns, weapons-related airborne EW

Naval Surface Warfare Center, Indian Head, MD - RDAT&E and production for energetics materials, weapons simulations and air weapons electronic QE

Naval Air Warfare Center Aircraft Division, Patuxent, MD - RDAT&E of air platforms and

platform integration, free-fall and guided weapon simulation, instrumentation, & delivery

Naval Air Warfare Center, Point Mugu, CA - RDAT&E for guided/freefall weapons, weapons integration, fuzing, mission planning, weapons logistics and in-service engineering

Naval Surface Warfare Center, Seal Beach, CA - Weapons calibration, ship system integration, and in service support

Naval Surface Warfare Center, Port Hueneme, CA - Weapons in-service support and ship system integration

Naval Surface Warfare Center, Dahlgren, VA - Shipboard C2 systems, ship integration, CEC, warhead and fuzing design and testing and insensitive munitions functions

3) Maritime C4ISR RDAT&E

SPAWARSYSCEN SAN DIEGO, CA - Navy's RDAT&E engineering and fleet support center for C4ISR.

SPAWARSYSCOM SAN DIEGO, CA - Echelon II command, systems command for providing (C4ISR) and Space Systems.

SPAWARSYSCEN CHARLESTON, SC - Engineering center that performs engineering, rapid acquisition, integration and deployment of interoperable C4ISR solutions for DoD, HLS and other federal agencies.

SPAWARSYSCEN CHARLESTON, SC detachment NAS Pensacola, FL - joint information systems functions and network analysis support for DISA and commercial SATCOM support for the Navy.

SPAWARSYSCEN CHARLESTON, SC detachment NAS Jacksonville, FL - Perform non-core IT work that is mostly non-Navy since implementation of NMCI.

SPAWARSYSCEN CHARLESTON, SC detachment WPNSTA Yorktown, VA - Perform non-core IT work that is mostly non-Navy since implementation of NMCI. Engineering, acquisition and life cycle support for Navy shipboard interior communication systems.

SPAWARSYSCEN CHARLESTON, SC detachment Washington DC - Provides support to joint information systems for Homeland Security, DoD unique software systems engineering functions and business and LAN IT support.

SPAWARSYSCEN NORFOLK, VA - Supply/Logistics information systems development and support.

SPAWARSYSCEN NORFOLK, VA detachment San Diego, CA - Global cradle to grave software support and engineering for fleet standard automated information systems afloat and ashore.

NSWC DAHLGREN, VA - Principally performs RDAT&E on advanced radars, Electro Optic/Infrared, Electronic Warfare Sensor Systems and Maritime Info Systems tied directly to the

integration of the ship and ship systems.

NUWC NEWPORT, RI - Center for undersea warfare RDAT&E to include responsibility for the full life cycle of submarine and undersea warfare systems, including associated C4ISR systems.

NAS PATUXENT RIVER, MD - Provide sonobuoy RDAT&E, engineering and life cycle support relative to subsurface sensors.

NAVBASE VENTURA CTY (PORT HUENEME), CA - Provide Test and Evaluation, In-Service Engineering, and Integrated Logistics Support for Surface Warfare Combat Systems and Subsystems, including certain C4ISR systems.

NCTSI SAN DIEGO, CA - Interoperability certification testing and development of interoperability criteria for Navy C4I and data link systems.

Regards,

Walter

Walter B. Hamm
Colonel USMC
OASN I&E DASN IS&A
2221 South Clark, Suite 900 (CP6)
Arlington, VA 22202
(703) 602-6421

DCN:11710

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 SOUTH CLARK STREET, SUITE 600
ARLINGTON, VA 22202
TELEPHONE: 703-699-2950
FAX: 703-699-2735

July 1, 2005
DSE #22

Mr. Bob Meyer
Director
BRAC Clearinghouse
1401 Oak St.
Rosslyn VA 22209

Dear Mr. Meyer:

I respectfully request a written response from the Department of Defense concerning the enclosed document:

☐ *Base Closure & Realignment Commission question*

☐ *Question for the record*

☐ *Community input*

☐ *COBRA Please see below*

X ☐ *OTHER: Some recommendations which are comprised of multiple parts show a total savings, but the individual parts may reflect losses. For each Navy and Joint Service recommendation, please provide the key financial numbers (one-time cost, annual recurring savings, net savings (cost) during implementation, return on investment year, and net present value over 20 years) for each recommended movement that does not show a savings during the 20 year horizon.*

I would appreciate your response by July 1, 2005. Please provide a control number for this request and do not hesitate to contact me if I can provide further information concerning this request.

Yours sincerely,

Frank Cirillo
Director
Review & Analysis

Enclosures (5): Questions for the record to the Secretary of Defense, Secretary of the Army, Secretary of the Navy, Secretary of the Air Force and the Under Secretary of Defense (Acquisition and Technology).

DCN:11710

PROGRAM
FOR

BRAC COMMISSION STAFF

10-11 JULY 2005

NAVAL AIR WEAPONS STATION HOST:
CAPTAIN MARK STORCH, USN
COMMANDING OFFICER
NAVAL AIR WEAPONS STATION
CHINA LAKE, CALIFORNIA
AND
NAVAIR WEAPONS DIVISION HOST:
REAR ADMIRAL MARK SKINNER, USN
COMMANDER
NAVAL AIR WARFARE CENTER WEAPONS DIVISION (NAWCWD)

SUNDAY, 10 JULY

1330 CONVENE IN LOBBY OF HERITAGE INN HOTEL MET BY:

CAPTAIN MARK STORCH, USN

MR. BRAD HARLOW
DEPUTY, RESEARCH AND ENGINEERING

MS. DORIS SORENSEN
LEAD, DISTINGUISHED VISITORS PLANNING AND RESOURCE OFFICE
CORPORATE OPERATIONS

PROCEED TO NAVAL AIR WEAPONS STATION, MICHELSON LABORATORY

1345 CONVENE IN MANAGEMENT CENTER

WELCOME AND INTRODUCTIONS

REAR ADMIRAL MARK SKINNER, USN

CAPTAIN MARK STORCH, USN

1400 NAVAL AIR WEAPONS STATION (NAWS) OVERVIEW

CAPTAIN MARK STORCH, USN

1415 NAVAL AIR WARFARE CENTER WEAPONS DIVISION (NAWCWD) OVERVIEW

MR. SCOTT O'NEIL
ACTING EXECUTIVE DIRECTOR
NAVAL AIR WARFARE CENTER WEAPONS DIVISION (NAWCWD)

1500 WALK THROUGH WEAPONS AND RESEARCH DISPLAYS IN LOBBY

1525 PROCEED TO INTEGRATED BATTLESPACE ARENA (IBAR)

1530 CONVENE IN IBAR MAIN ENTRANCE. MET BY:

MR. BILL HARRIS
DIRECTOR, INTEGRATED BATTLESPACE ARENA
WEAPONS SYSTEMS ENGINEERING DIVISION
WEAPONS AND ENERGETICS DEPARTMENT
RESEARCH AND ENGINEERING

1545 PROCEED TO PRECISION ENGAGEMENT CENTER (PEC)

1550 CONVENE IN PRECISION ENGAGEMENT CENTER. MET BY:

MR. DANNY SEARLE
DEPUTY, WEAPONS ENGAGEMENT OFFICE
WEAPONS AND ENERGETICS DEPARTMENT
RESEARCH AND ENGINEERING

1620 PROCEED TO ADVANCED WEAPONS LABORATORY (AWL)

1635 CONVENE IN AWL CONFERENCE ROOM 106. MET BY:

MR. BARRY DOUGLAS
F/A-18 IPT LEADER, ADVANCED WEAPONS LABORATORY
SYSTEMS ENGINEERING DIVISION
SYSTEMS ENGINEERING DEPARTMENT
RESEARCH AND ENGINEERING

1715 DAY ONE WRAP-UP

MONDAY, 11 JULY

0715 CONVENE IN LOBBY OF HERITAGE INN. MET BY:

CAPTAIN MARK STORCH, USN

MR. BRAD HARLOW

MS. DORIS SORENSEN

PROCEED TO NAVAL AIR WEAPONS STATION, MICHELSON LABORATORY

DCN:11710

0730 CONVENE IN MANAGEMENT CENTER

EW CAPABILITIES

MR. MALLORY BOYD
HEAD, INFORMATION WARFARE SYSTEMS DIVISION
AVIONICS DEPARTMENT
RESEARCH AND ENGINEERING

0830 BRAC FACILITIES PLANS

CAPTAIN MARK STORCH, USN

0930 WATER RESOURCES

MR. MIKE STONER

1015 PERSONNEL HIRING AND RETENTION

MS. NANCY CRAWFORD

1045 PROCEED TO CITY OF RIDGECREST

INVITED GUESTS OF COMMISSION STAFF

MS. SHELBY HAGENAUER (CONGRESSMAN THOMAS REPRESENTATIVE)

MR. JON MCQUISTION (COUNTY SUPERVISOR)

MR. CHIP HOLLOWAY (CITY MAYOR)

MR. VINCEN FONG (CONGRESSMAN THOMAS REPRESENTATIVE)

MR. RUSSELL JOHNSON (STATE ASSEMBLYMAN REPRESENTATIVE)

DSN:11710

OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING
3040 DEFENSE PENTAGON
WASHINGTON, DC 20301-3040

Mr. Frank Cirillo
Director, Review & Analysis
Defense Base Closure and Realignment Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

Dear Mr. Cirillo:

Thank you for your recent inquiry concerning the 2005 Base Realignment and Closure recommendations.

You asked four questions numbered 12, 13, 14, and 15. Questions 12 and 14 were answered yesterday. Questions 13 and 15 required additional research because each contained quantitative data from unspecified sources. Responses to questions 13 and 15 are attached.

Please let me know if you have any additional questions or concerns.

Sincerely,

Alan R. Shaffer
Executive Director
Technical Joint Cross-Service Group

Attachment:
As stated.

Technical Joint Cross-Service Group Responses to
BRAC 2005 Commission Inquiries
DSE Numbers 13 and 15
June 22, 2005

DSE Number 13

Does the Naval Surface Warfare Center Dahlgren Weapons Systems Integration (WSI) Specialty Site Designation further support Dahlgren's certified position that 58 of the 173 workyears are "inextricable" from their WSI efforts? Therefore, should I conclude that you are agreeing that to reduce the number of relocating personnel from 173 to 115? If so, please run a revised COBRA for Tech 15. Would you agree that it would be appropriate to rewrite this piece of the Tech 15 recommendation to read, "Realign Naval Surface Warfare Center Dahlgren, VA, by relocating surface launched missile Weapons & Armaments activities Research, Development & Acquisition, and Test & Evaluation, except weapon systems integration to Naval Air Weapons Station China Lake, CA?

The work year numbers the TJCSG used for analysis was based on certified data provided to the TJCSG. The different work year estimates in question 13 are not part of the certified data provided to the TJCSG. The analysis, based on the certified data, supports all actions in the recommendation. The certified data available to the TJCSG does not support revising scenario or COBRA analysis.

DSE Number 15

Regarding the recommendation Tech 9, does the Naval Surface Warfare Center Dahlgren Weapons Systems Integration Specialty Site Designation apply to this recommendation (i.e. to consolidate C4ISR Research, Development and Acquisition Test and Evaluation?) Does this mean that since 86 of the 116 workyears in this area are "inextricably" linked to Dahlgren, as they documented in their BRAC input, that only 30 positions should be transferred to Naval Station? Please run a corrected COBRA if appropriate. Consider rewriting the recommendation to read "Realign Naval Base Ventura County, CA, Naval Surface Warfare Center Division, Dahlgren, VA, and Naval Station Newport, RI, by relocating Maritime Information, Systems, except for Weapons Systems Integration, Research, Development & Acquisition, and Test & Evaluation to Naval Submarine Base Point Loma, San Diego, CA."

The TJCSG made a deliberative decision to move the referenced Dahlgren activity to San Diego. The decision to give preference to (a) a common capability

or (b) tailored capabilities relies on judgment. In the case of the Dahlgren technical activity, professional military judgment concluded that a common capability, interoperable with the remaining Maritime Information Systems community products had priority for the future and hence the recommendation to consolidate the activity at Point Loma. Therefore, a revised COBRA run is not required.

Tuesday 295 Part 2

28 July 2004

NOTIONAL SCENARIOS
Issue #07-28-04-01

Issue: On 23 July 2004, the Infrastructure Steering Group (ISG) directed the Joint Cross Service Groups to provide notional scenarios for discussion at its next meeting. Fulfilling this request is inadvisable due to the risk of consequential perceptions that the Department created the answers before the data was in. Any doubts among the Commission and communities that "a fair process"[1] was conducted will jeopardize the scenarios of the Technical Joint Cross Service Group (TJCSG) that are eventually derived through its ongoing analytical process.

Point of Contact: Don DeYoung, Capabilities Integration Team (Alternate), U.S. Navy

Issue Summary:

1. *The TJCSG's Dilemma.*

   The TJCSG is being asked to consider closure scenarios *before the analytical work has been completed on the critical precursor stages.* The stages yet to be completed include: (a) collecting the data; (b) establishing whether there is excess capacity within the DoD in-house system of labs, centers, and test ranges (and if so, to what extent); and (c) determining the military value of each site.

2. *Scenarios Should Not Be Generated Before Excess Capacity Has Been Determined.*

   Conventional wisdom after the last closure round in 1995 held that substantial excess capacity remained. However, the circumstances supporting that contention were profoundly altered by a foreign attack on our homeland. As a result, (a) the nation's defense budget has risen steadily (with an accompanying increase in DoD lab/center workload)[2], (b) serious Congressional consideration is being given to *increasing* the size of the force structure, and (c) major technical challenges exist that require extensive levels of RDT&E, such as finding reliable means for the remote sensing of everything from conventional explosives, to bio-agents, to nuclear material.

3. *Excess Capacity Estimates in the March 04 Report to Congress Were Very Likely Overstated.*

   Some will say that the DoD's March 2004 report to Congress already established the existing levels of excess RDT&E capacity.[3] That argument is weak.

   First, the report's findings of excess capacity are inexact and merely met a Congressional milestone that allowed the Department to proceed with the more rigorous analytical standards of a base closure round. In fact, the report itself states,

   > "*Only a comprehensive BRAC analysis can determine the exact nature or location of potential excess.* In preparing a list of realignment and closure recommendations in May 2005, the Department will conduct a thorough review of its existing infrastructure in accordance with the

[1] Public Law 101-510, as amended through the National Defense Authorization Act of Fiscal Year 2003, SEC. 2901. (b)
[2] Navy Laboratory Community Coordinating Group data show a 10% increase in the one year from FY01 to FY02 in reimbursable funding, and direct cites (including non-Navy funding sources).
[3] Department of Defense, "Report Required by Section 2912 of the Defense Base Closure and Realignment Act of 1990, as amended through the National Defense Authorization Act for Fiscal Year 2003," (March 2004), p.47 and 52.

> law and Department of Defense BRAC 2005 guiding procedures, *ensuring that all military installations are treated equally and evaluated on their continuing military value to our nation."*[4]

Second, solid evidence suggests that the report's estimates are much overstated. The report estimated that the FY09 excess capacity for Army and Air Force labs/T&E sites would be 62 percent (or 825 square feet per person) and 18 percent (or 750 square feet per person), respectively.[5] Looking more closely one finds that these estimates are ratios where the "acquisition workforce" divides total square footage. But what is that workforce? Is it both contractor and in-house personnel, *or is it a partial picture that uses just government employees*? Evidence suggests the latter.[6] This matters a lot. Since 1996 (a year after the last BRAC round) the Services have been complying with ambitious outsourcing goals levied by the DoD. Many of the positions formerly filled by government workers are now performed on-base by private sector employees. Assuming that 50 percent of the on-site population is comprised of contractors (an underestimate at many sites), then both the Army and Air Force have instead about 400 square feet per person. But what does that really mean? Is that a lot? Is it too much? An historical example might be useful here.

> In 1876, Thomas Edison opened what has been called the first R&D laboratory, as well as one of the most productive, at Menlo Park, New Jersey. The lab building was a 100-foot by 25-foot structure with two floors (5,000 square feet).[7] Edison's staff numbered 25, which amounted to 200 square feet per person. When one factors in facility requirements dictated by equipment that is far more powerful and dependent on carefully controlled environments than Edison's 19th century equipment, maybe 400-sq ft per "acquisition worker" is to be expected.

Third, if ever there were a seductive capacity metric for physical infrastructure, it is square footage. It promises simplicity, clarity, and accuracy, but delivers none. The above discussion reveals some of the challenges posed by DoD's use of this problematic "physical infrastructure metric." Using the example of the Air Force's McKinley Climatic Chamber shows another. The 6-chamber facility is huge, with its main chamber being 65,520 square feet.[8] Assume the site downsized its workforce by 18 percent. I doubt anyone would argue that this unique, state-of-the-art facility would then have a correlating excess capacity of nearly 12,000 sq. ft (i.e., 18% of 65,520). *All* 65,000-plus sq. ft. would still be necessary whether 1000 persons, or 1 person, worked there. *The key metric for capacity is work-years, not the amount of space available.*

4. *Notional Does Not Mean Acceptable.*

Some will argue that early scenario generation is acceptable because they are only notional, general, and do not specify names. The idea here is that the less they represent reality, the more acceptable they become. This rationale will not reassure a skeptical audience. This situation is also a "Catch-22". *If these scenarios are truly so general as to be safe from prejudicing the*

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[4] Ibid., p.3.
[5] Unlike these estimates using square footage, Navy estimates were based on in-house work-years.
[6] Office of the Under Secretary of Defense (Acquisition & Technology), "Right-Sizing the Department of Defense Acquisition Workforce", (28 January 1997). In this report to Congress, the Department's total acquisition workforce (i.e., all Services, plus Defense Agencies) was stated to be 617,000 *employees* in FY89.[6] It happens that the March 2004 report identifies 158,000 in the Army acquisition workforce for that same year — FY89. At the risk of being simplistic, assume an equal share of the acquisition workforce among the Army, Navy, Air Force, and Defense Agencies. An equal share of 158,000 among the four would yield about 632,000, which is very close to the number of *employees* cited in the 1997 report. It appears then that the 158,000-person Army workforce is made up of government employees, and therefore the estimate does not include the on-site contractors who also use base infrastructure.
[7] http://www.edisonnj.org/menlopark/tacmenlo.asp
[8] http://www.eglin.af.mil/TS/climlab/main.html

process, then they will also be useless for any of the current tasks at hand. And, anything more than useless compromises the integrity of the process. It will not be difficult for a clever community consultant to show how the general features of a notional scenario resemble that of a base proposed for closure.

5. *The Private Sector is Not Responsible for Either the Analysis or a Fair Process.*

Some will argue that ideas for "transformational scenario options" were requested and received from the private sector (e.g., Business Executives for National Security) a year ago, so this request is merely gathering additional information. This argument does not recognize the fundamental objectivity and analytical integrity that must be preserved within the TJCSG. It is one thing for the private sector to offer its preferred solutions to the Department's perceived excess of infrastructure. And, it is another thing to ask the TJCSG for ideas before the data is in, excess capacity is verified and measured, and the sites are fairly evaluated on their military value.

6. *Do Not Deviate From the Established Analytical Process.*

When discussing the objective standards to be used by the Commission for evaluating DoD BRAC recommendations, the law provides that,

> "the Commission may make changes in any of the recommendations made by the Secretary if the Commission determines that the Secretary *deviated substantially from the force-structure plan and final criteria* (emphasis added) referred to in subsection (c)(1) in making recommendations."[9]

This means that the DoD's recommendations to close and/or realign laboratories, centers, and test ranges are theoretically the easiest of all BRAC proposals to defend before the Commission because there is (a) no clear relationship between RDT&E infrastructure and the force-structure plan (for 2025), and (b) no mention of RDT&E in the BRAC Final Criteria.

Why is there no clear relationship between RDT&E and the force-structure plan?

- First, over time, "the threat" shapes the force structure. Sometimes the threat is predictable, and sometimes it is not. For example, the DoD's concepts for future force structure after September 11 are different than they were before that date.
- Second, S&T's impact on the force structure 20 years hence is unknowable, especially given that basic research is unpredictable and often produces unexpected benefits. Moreover, many of the most revolutionary technologies born in DoD S&T, like radar and GPS, will take as many as 20 years to reach operational use.
- Third, the impact of current D&A is less speculative than for S&T, but it is guesswork nonetheless. For example, during the first BRAC round in 1988 the Navy's experts might have said that the DoN's 1998 force structure (i.e., only 10 years later, *not 20*) would have had more than 850 A-12 Avengers streaming off the Fleet's carriers.[10] Things happen.

As for the BRAC Final Criteria, they do not address RDT&E (although the criteria speak directly to other facets of national defense, like joint warfighting, training, and readiness). Last year the TJCSG requested that the criteria also address RDT&E, but the BRAC Office chose to "preserve flexibility."

[9] Public Law 101-510, as amended through the National Defense Authorization Act of Fiscal Year 2003, SEC. 2903. (d)
[10] http://www.fas.org/man/dod-101/sys/ac/a-12.htm

That flexibility may well harden if we deviate from the established analytical process. Notions that we marshaled data to support preexisting, or preferred, solutions will be difficult, if not impossible to dispel if the scenarios precede analysis.

Recommendation: The TJCSG should urge the ISG to reconsider its request to generate notional closure scenarios before our analytical work on capacity and military value is accomplished. While beyond our charter, it may also be advisable to suggest that the other JCSGs also refrain from generating notional scenarios. Many of the above arguments pertain to them as well.

Army Position: _____
AF Position: _____
Navy Position: _____
Marine Corps Position: _____
JCS Position: _____

Final Resolution: *No Vote / No Action*

POC Signature: _____ Date: 11/11/04

CIT Chair: _____ Date: _____

PROPOSED CONTINGENCY PLAN
Issue #08-06-04-02

Issue: As requested by the CIT, the Sub-Groups spent great time and effort during the week of 19 July developing a timeline to get the TJCSG's BRAC analysis on track for success. Subsequent to that effort, a contingency plan was also requested by the CIT to mitigate risks should the incoming data for calculating excess capacity and military value prove unusable. The proposed contingency plan places a premium on: (1) scenario development *prior* to runs of the Linear Optimization Model (LOM), and (2) military judgment. An undefined "trigger event" for implementing the contingency plan occurs on 10 August. Issues of defensibility argue for rejecting the proposal. On the other hand, the valid need for mitigating risk argues simplifying our approach to calculating excess capacity.

Point of Contact: Don DeYoung, Capabilities Integration Team (Alternate), U.S. Navy

Issue Summary:

1. *Unanswered Questions*

   - Question #1. What happens, or does not happen, by 10 August that requires implementation of the plan?

   - Question #2. How do the milestones of the contingency plan map against the approved timeline developed by the Sub-Groups?

   - Question #3. Given that the contingency plan is the same analytical model (according to Mr. A. Goldstayn, Air Force CIT Principal) used by the Air Force during BRAC-95, how do we avoid the criticism made of that approach by the General Accounting Office which found that, "the Air Force's process made it difficult to easily track resulting recommendations."[1]? GAO's report went on to say,

     > "...the process was not sufficiently documented to substantiate the extent of deliberations and analyses leading to decisions to close or realign individual bases. This was especially problematic for bases where deliberations occurred and decisions were made that bases could not be closed or realigned."[2]

2. *Scenario Development Cannot be the Front-End of the Analytical Process*

   - To preserve the integrity of BRAC-05, scenario development *cannot* be the front-end of the analytical process. Issues of defensibility will almost certainly arise if scenario development is performed prior to the quantitative analyses. *Notions that we marshaled data to support preexisting, or preferred, solutions will be difficult, if not impossible to dispel.*

   - Before scenarios are developed, we need to ensure that our analytical process follows the objective sequence of precursor stages: (a) collecting the data; (b) establishing whether there is excess capacity within the DoD in-house system of labs, centers, and test ranges (and if so, to what extent and where); and (c) determining the military value of each site.

[1] GAO, *Report to the Congress and the Chairman, Defense Base Closure and Realignment Commission*, "Military Bases: Analysis of DoD's 1995 Process and Recommendations for Closure and Realignment," (GAO/NSIAD-95-133), April 1995, p.51.
[2] Ibid., p. 53.

3. *Military Judgment is No Substitute for Capacity and Military Value Data*

- Military judgment is a critical adjunct to our analyses. It is the essential filter through which all proposed BRAC actions must pass. An extreme hypothetical example would be if a scenario generated by the LOM, or transformational option proposed by the private sector, led to closing Pearl Harbor. Military judgment would doubtless reject it on the solid ground of strategic and tactical military interests.

- Military judgment cannot, however, substitute for the objective quantitative data necessary for deriving excess capacity and military value. The uncomfortable reality of our situation is that *the data must be useful*.

- Capacity data must allow us to "*determine the exact nature or location of potential excess*," and military value data must be accurate, thus *"ensuring that all military installations are treated equally and evaluated on their continuing military value to our nation."*[3]

- If the data is unusable, then we have failed. If we fail, then there will be no quantitative means by which to make fair, objective, and defensible assessments. Replacing quantitative data with the subjective military judgment of a small number of individuals will not pass the scrutiny of the Commission and the communities.

- The law is clear on the point that "military value is the primary consideration in the making of recommendations for the closure or realignment of military installations",[4] and on the requirement "to provide a fair process."[5] When it comes to collecting solid data for informed decision-making that meets those two goals, failure is not an option.

4. *Useful Capacity Data By Simplification*

- The root problem with our capacity data is complexity. We are making the job harder than it needs to be. The following is based on Service-specific experience, but it could help us sort things out. As a former member of the BRAC-95 Navy Base Structure Analysis Team, I can say that the capacity unit for *all* RDT&E — including the acquisition function — was the work-year. The Navy's report to the BRAC Commission stated that,

> "Budgeted work-years were used as a measuring tool for capacity because of its commonality within the functionally diverse Technical Centers whose products range from published scientific papers to the installation of a new piece of shipboard equipment to the live testing of a new warhead or airframe."[6]

- Although the metric was flawed in that it counted only government personnel (therefore missing the sizeable use of infrastructure by the on-site contractor workforce),[7] this approach was successful. In BRAC-95, the GAO examined the closure process and decisions of each Service, including their capacity and military value analyses. It found that "the Navy's

[3] Department of Defense, "Report Required by Section 2912 of the Defense Base Closure and Realignment Act of 1990, as amended through the National Defense Authorization Act for Fiscal Year 2003," (March 2004), p.3.
[4] Public Law 101-510, as amended through the National Defense Authorization Act of Fiscal Year 2003, SEC. 2913. (b)
[5] Public Law 101-510, SEC. 2901. (b)
[6] Report to the Commission: Department of the Navy Analyses and Recommendations, Vol. IV (March 1995), p. X-5, [http://www.defenselink.mil/brac/navy.htm].
[7] D.J. DeYoung, "The Silence of the Labs," *Defense Horizons*, No. 21 (January 2003), p.6.

process and recommendations were sound."[8] The same GAO report stated about the Navy process that, "The configuration analysis for this subcategory (Technical Centers) involved complicated assessments of the existing capabilities and requirements for 29 functional categories, such as undersea and surface ship platforms, *across four phases of work: RDT&E, acquisition, lifetime support, and general.*"[9] This shows that the work-year even satisfied requirements of functions beyond RDT&E and acquisition. In the end, the Navy recommended 21 lab/center closure or realignment actions, and was successful with all but a few. The process for analyzing capacity stood up to the inevitable challenges by being both defensible and equitable. *In short, work-years did the job — for S&T, D&A, and T&E.*

- By deciding to count on-site contractor work-years, the TJCSG has fixed the Navy BRAC-95 problem cited above. There is, of course, the downside of verifying the numbers of on-site contractors, but this metric stands the best chance of producing an accurate estimate of a site's true capacity.

- We can improve our odds for success by: eliminating two metrics (i.e., ACATs and Extramural Funding); firmly defining Force Structure Adjustment; and deferring square footage to the "feasibility-fit" phase of COBRA (Cost of Base Realignment Actions). For more detail on the square footage metric, see the issue paper, "Notional Scenarios."

    - ACATs: The use of ACATs (count and funding) is analytically unsound and will be hard to defend. ACAT programs exhibit large ranges in cost and have great variances in complexity. This leads to considerable differences in personnel, funding, and infrastructure requirements between programs — even at the same ACAT level. ACATs have some use in measuring military value, but as a capacity unit they are much too imprecise. Finally, this approach fails to capture *non*-ACAT development programs (e.g., see "Major Navy Non-ACAT Programs"[10]). We will compromise the whole process if we miss counting substantial D&A workload at some sites.

    - Extramural Funding. To be blunt, this unit is absurd. First, dollars provided to external organizations (either to the private sector or to other government (DoD and non-DoD) agencies), is not a measure of on-site capacity. By this rationale DARPA, with nearly $2.7 billion in FY03, should have a sprawling infrastructure, but it occupies merely an office building.[11] Second, this unit introduces private sector infrastructure into an analysis of the public sector. BRAC is about closing, reducing, and/or realigning government, *not private sector*, infrastructure. Third, by using dollars sent to other DoD organizations, we are ensuring double-counting (or worse) of the same dollar as it passes from sponsor, to program manager, to performer, and to sub-contractor. Lastly, the unit is based the faulty assumption that the level of dollars is directly related to the workload level of a contract manager; i.e., a one-to-one correspondence between number of dollars and number of contract managers.

    - The Force Structure Adjustment (FSA). This metric is supposed to identify any of today's capacity that may not be necessary in 2025 given what we believe the force structure will have in place 20 years from now. The plan is to use the expert military judgment resident in the TJCSG sub-groups for such determinations, and the idea is to adjust the estimated required capacity, up or down, by what they think will happen. It is unclear how we will be able to defend a quantitative value based on such speculative judgments. We need to firmly define a defensible and valid manner for the use of this metric so that FSA does not instead

[8] GAO, "Military Bases: Analysis of DoD's 1995 Process and Recommendations for Closure and Realignment", p.87.
[9] Report to the Commission: Department of the Navy Analyses and Recommendations, p. 96-7.
[10] http://www.abm.rda.hq.navy.mil/navyaos/content/view/full/2876
[11] http://www.darpa.mil/body/pdf/FY03BudEst.pdf

become known as a "Favored Scenario Adjustment." Moreover, the judgments leading to each FSA will be subject to the following significant limitations.

- First, over time, "the threat" shapes the force structure. Sometimes the threat is predictable, and sometimes it is not. For example, the DoD's concepts for future force structure after September 11 are different than they were before that date.

- Second, S&T's impact on the force structure 20 years hence is unknowable, especially given that basic research is unpredictable and often produces unexpected benefits. Moreover, the most revolutionary technologies born in DoD S&T, like radar and GPS, can take as many as 20 years to reach operational use.

- Third, the impact of current D&A is less speculative than for S&T, but it is guesswork nonetheless. For example, during the first BRAC round in 1988 the Navy's experts might have said that the DoN's 1998 force structure (i.e., only 10 years later, *not 20*) would have had more than 850 A-12 Avengers streaming off the Fleet's carriers.[12] Things happen.

5. *BRAC Mistakes Cannot be Undone by the Private Sector*

- The DoD laboratories and centers are responsible for performing three roles: *performer* of long-term, high-risk projects; *quick responder* in crises; and *yardstick*,[13] a term referring to the standard that it sets by providing authoritative, objective advice to governmental decisionmakers. This latter role is critical to good government. The Federal Government must be able to choose among competing options offered by industrial producers. The need for profit makes each company an advocate of its own product, so, given those natural tendencies, the Government "requires internal technical capability of sufficient breadth, depth, and continuity to assure that the public interest is served."[14]

- Industry will not take on the full range of necessary work because many areas hold limited opportunities for profit. Specialized defense technologies often have little or no applicability to commercial products. Unlike the situation during World War II, or even the Vietnam era, the DOD market is now often too small to justify a significant investment of scarce capital. In addition, R&D is expensive, the time to achieve success is long, the work is often very risky, and the payoff (especially from research) is usually not immediate.

- A healthy in-house system is a vital partner to a healthy industrial sector, and both are indispensable to our nation's defense. Given the different roles that each play, *major damage done to the in-house system cannot be compensated by a mere increased investment in the private sector.*

- In all BRAC actions, America depends on our ability to cut fat while avoiding muscle. To show the high cost of failure, a short timeline may be useful. Over the years, the in-house system invented:

    - the *first modern U.S. radar,* fielded in time for duty in the great Pacific naval battles of *World War II* where it contributed to crucial victories at Coral Sea, Midway, and Guadalcanal

[12] http://www.fas.org/man/dod-101/sys/ac/a-12.htm
[13] H. L. Nieburg, *In the Name of Science* (Chicago: Quadrangle Books, 1966).
[14] William J. Perry, *Required In-House Capabilities for Department of Defense Research, Development, Test and Evaluation* (Washington, DC: Department of Defense, 1980).

- the critical *synthetic lubricants* needed for the new gas-turbine engines of high-performance jet aircraft, warplanes that dominated the skies in the *Korean War*
- the *world's first intelligence satellite*, launched at the height of the *Cold War*, which reestablished surveillance of the Soviet Union less than two months after an American U-2 spy plane was downed
- the *anti-corrosion coating* that solved the new M-16's tendency to corrode and jam in the hot, humid conditions of the *Vietnam War*, helping to restore the infantry's faith in its primary weapon
- the first four satellite prototypes (and the first operational satellite) for what became *NAVSTAR GPS*, the revolutionary navigation system that played a pivotal role in the *Gulf War*
- the *night-vision technologies* and lethal *"Silver Bullet"* ammunition that made the tank battles of the *Gulf War* a "turkey shoot"
- the *ALE-50* that protected combat aircraft over *the Balkans*, a decoy so effective it earned the nickname "Little Buddy" from U.S. pilots
- the *thermobaric warhead* used for defeating the Taliban and terrorists in the mountain caves and tunnels of *Afghanistan*, and
- the *F/A-18 SHARP reconnaissance system* that provided real-time digital imagery (vice the 3-9 day norm) and was credited with saving lives in *Operation Iraqi Freedom*.

The calculus of BRAC is not difficult. Every dollar spent on unnecessary infrastructure robs our treasury and burdens our armed forces. Our first task is to determine whether that excess exists, and if it does, where it is and how much there is of it. Our second task is to assess the military value of the Services' corporate laboratories and warfare/product centers. Both tasks must be accomplished *objectively* and *accurately*, and they must be done *prior* to the generation of any closure scenarios. Lack of objectivity damages the defensibility of the work, which in turn jeopardizes any potential savings that can be used for our troops. Lack of accuracy damages the DoD's ability to provide new warfighting technologies, which in turn jeopardizes national security and the lives of tomorrows' troops.

Much rides on our decisions and actions, even more so than ten years ago. Our country is engaged in a prolonged struggle with an opportunistic, fanatical enemy who has unlimited apocalyptic goals and is not deterred by traditional means. We need to identify and collect any potential savings — and we need all of the technical options we can get.

Recommendation: The TJCSG should (1) reject the proposed contingency plan on the basis of its threat to the defensibility of our analytical process, and (2) simplify our approach to calculating excess capacity.

Army Position: _____
AF Position: _____
Navy Position: _____
Marine Corps Position: _____
JCS Position: _____

Final Resolution: *No Vote / No Action*

POC Signature: _____ Date: 11/11/04

CIT Chair: _____ Date: _____

DECISION CRITERIA FOR SCENARIO PROPOSALS
Issue # 07-30-04-05

Issue: Scenario proposals will be developed from: (1) ideas proposed by OSD,[1] the MILDEPs, and the TJCSG, and (2) options generated by the Linear Optimization Model. To become closure / realignment scenarios, all options must be systematically evaluated for effectiveness and feasibility. This paper proposes some criteria to assist in that evaluation process and to help provide an "audit trail" to support each decision. Candidate scenarios that pass through this decision filter are eligible to become, with ISG approval, scenarios for COBRA (Cost of Base Realignment Actions) analysis.

Point of Contact: Don DeYoung, Capabilities Integration Team (Alternate), U.S. Navy

Issue Summary:

(a) *Background*

- Options generated by the Linear Optimization Model (LOM) are filtered by quantitative parameters, such as excess capacity and military value. The LOM has two advantages. The first is that a limited number of options are produced from a large universe of potential options. For example, given 10 sites, there are 175 alternatives that close 1, 2, or 3 sites.[2] The second advantage is that *it provides an objective means by which to defend the selected set of scenarios.* The disadvantage is that it does not provide "answers", but instead serves as a decision aid.

- Transformational options (i.e., those developed by the military judgment of the OSD, MILDEPs, and TJCSG) are limited only by imagination, which is appropriate for an innovative endeavor. *The advantage of deriving options in this manner is the potential for transformational payoff. The disadvantage lies in the difficulty we will have justifying our selected set of candidate recommendations when a much larger universe of potential options was not considered.*

- The above problem is compounded by the ISG's request for notional scenarios (for which some JCSGs have identified "winners"and "losers")[3], and its requirement that the JCSGs begin to register recommendations in September. Unfortunately, the TJCSG's actions to develop candidate scenarios began well before the military value data was received from the sites, and before the excess capacity and military value of each site was calculated.

(b) *The Decision Metrics*

- Keeping in mind the requirement "to provide a fair process"[4], both the LOM-generated and transformational options must be evaluated by the same decision criteria. Each option, however it is derived, can be evaluated by decision criteria grouped in two sets: those for *effectiveness* and for *feasibility*.

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[1] Along with the closure scenarios that it formulates independent of the TJCSG process, OSD also solicited transformation options from the private sector (e.g., Business Executives for National Security) in August 2003.
[2] DON IAT Briefing, "Proposed Optimization Methodology: Generating Alternatives."
[3] Briefing to the Infrastructure Steering Group, 27 August 2004
[4] Public Law 101-510, as amended through the National Defense Authorization Act of Fiscal Year 2003, SEC. 2901. (b)

- Decision criteria for effectiveness are:
  - Do the components of the option possess the required workforce skill set and expertise?
  - Do the components of the option possess the required physical plant and scientific / engineering equipment?
  - Do the components of the option have an established track record of success? If not, does the gaining site have adequate technical and acquisition talent in a related technical area?
  - Do the components of the option possess an average military value equal to or greater than that of the original configuration? If not, is the decrease justifiable in military and economic terms?
  - Can the components of the option satisfy DoD required capacity (based upon their demonstrated historical peak capacity)?
  - Does the option increase or decrease synergy?
  - Does the option have the potential to increase interoperability or "jointness" of systems delivered to the warfighter?
  - Does the option decrease unwarranted duplication, or does it diminish a needed capability?
  - Does the option degrade or improve Life Cycle Management?
  - Does the option conform or conflict with any finding(s) or proposal(s) of the Defense Science Board, Service Science Board, Tri-Service RDT&E Panel, or any other DoD/Federal board of scientific and engineering experts? (See note[5])
  - Does the option increase average intellectual capital? (See note[6])

- Decision criteria for feasibility are:
  - Does the installation proposed for a consolidated mission have sufficient FTEs to perform the work or can sufficient FTEs be obtained from local industry or academic partners?
  - Does the installation proposed for a consolidation mission provide all of the essential physical conditions (e.g., weather, geography) essential to the conduct of the new mission element?
  - Does the installation proposed for a consolidated mission possess sufficient physical space (i.e., available square footage) and/or buildable acres to accommodate the workload? If not, is leased space an option?

- The above decision criteria are not "go/no-go" litmus tests. Instead, they are intended to be an objective and uniform way for us to make informed judgments about which of the potentially many candidate recommendations become COBRA data calls. Further, the criteria will not require exact answers, just some preliminary thought and judgment. Some of the required data will be more accurately derived by the COBRA data calls.

(c) *The Decision Metrics and COBRA*

- Some will argue that many, if not all, of the above criteria are unnecessary because (1) military judgment (unbounded by objective criteria) is sufficient to select the best COBRA data calls, and (2) those data calls will provide much of the above information. There are three problems with this argument.

[5] The TJCSG does not have a monopoly on expert military judgment. It would therefore be difficult to explain why we chose not to address the findings and proposals of other high-level expert panels — *especially those that, unlike our study, actually examined and evaluated the work of the sites.*

[6] This criterion is particularly critical. Exceptional talent is an indicator of the other important parameters. For example, the best talent does not choose to work with lousy facilities. It does not choose to work for an organization with no record of success and no chance to make a difference. It does not choose to work with mediocre colleagues and poor leadership. And, it does not choose to work on yesterday's problems. If we can find exceptional talent, we will find state-of-the-art facilities, capable leadership, top colleagues, a record of impact on the nation's security, a powerful desire for success, and a staff working on tomorrow's challenges. *Find the best talent, and the rest falls into place.*

- Problem #1: COBRA calls are expensive. Based on the cost of one real-life BRAC-95 COBRA call, the estimated cost of the average BRAC-05 TJCSG COBRA call might be roughly $495,000.[7] That estimate is likely conservative. Assuming 20-40 COBRA data calls, which is the range most often mentioned, and the total price tag would range between 10 and 20 million dollars.

- Problem #2: COBRA calls are labor intensive. Based on the real-life BRAC-95 COBRA call, an average BRAC-05 TJCSG data call may well generate 375 pages of data.[8] Again, assuming 20-40 COBRA data calls, the sub-groups may be swamped with between 7,500 and 15,000 pages of data that will need to be *analyzed, addressed, and adjudicated* (see Issue Paper #07-16-04-05 titled "Scenario Conflict Adjudication"). Sorting through this information will take time that is in very short supply.

- Problem #3: Supportable BRAC actions require analytical rigor. A failure to show how we objectively selected the relatively few COBRA data calls, among all the various options possible, will place our efforts at risk during the review by the Commission and communities.

Conclusion: We do not have the luxury of abundant time — nor do the labs and centers have the massive level of resources necessary — to entertain an ineffective and inefficient "ready-fire-aim" approach to developing an optimal set of COBRA scenarios. We need to apply analytical rigor to a phase in scenario development that might otherwise become a "black box" without them.

Recommendation: Evaluate all options — LOM-generated, transformational, and any others — by the effectiveness and feasibility criteria identified above.

Army Position: _____
AF Position: _____
Navy Position: _____
Marine Corps Position: _____
JCS Position: _____

Final Resolution: *No Vote* / Superseded by Delphi
Session Held 9 September 2004

POC Signature: _____ Date: 11/11/04

CIT Chair: _____ Date: _____

[7] The BRAC-95 COBRA call expended 1-2 WYs of effort in 48 hours (plus a weekend) at the "losing" site. Assuming the level to be 1.5 WYs, at a fully-burdened compensation rate of a GS-13, and the "losing" site spent approximately $225K to respond. Then assume the "gaining" site expended 1/5 the effort, which is probably conservative, and the cost for that site was roughly $45 K, *making the total for the real-life COBRA data call approximately $270 K.* And that was a scenario that involved only 2 sites. Currently, our three "training" scenarios would affect 7, 9, and 9 sites respectively. Let us assume that our COBRA calls affect an average of 7 sites, with a conservative ratio of 1 "loser" and 6 "gainers" for each. By applying the response costs of $225 K for the "loser" and $45 K for each "gainer", *the estimated BRAC-05 cost for each scenario might be $495 K.*

[8] The BRAC-95 COBRA call generated 165 pages of data from the "losing" site. Again, assuming the "gaining" site expended 1/5 of the effort, about 35 pages may have been produced for a total data call response of 200 pages. Again, assuming the TJCSG data calls affect an average of 7 sites, with a ratio of 1 "loser" to 6 "gainers", and the total amount of information might be roughly 375 pages.

SCENARIO CONFLICT ADJUDICATION
Issue #07-16-04-05

Issue: Cost of Base Realignment Action (COBRA) data calls will produce inevitable conflicts over what capabilities (in terms of people and physical infrastructure) *must* be moved from a "losing site" to a "gaining site." An effective and objective means to resolve the probable inter-service stalemates is required.

Point of Contact: Don DeYoung, Capabilities Integration Team (Alternate), U.S. Navy

Issue Summary:

- Losing sites have a strong incentive to argue that more capability (i.e., people and physical infrastructure) than necessary must be moved to the gaining site. In BRAC-speak, this is called "busting COBRA", where excessively long Return-on-Investment (ROI) periods are achieved by feeding the model a large number of unnecessary and expensive-to-move items.

- Gaining sites have an equally strong incentive to argue that they already possess most, if not all, the required capability (i.e., "just send us the money"). By "gaming COBRA", artificially short ROI periods are achieved, thus increasing the odds that the scenario will be accepted by the DoD.

- Identifying those capabilities that *must* be moved is difficult without very strong leverage on the sites, as well as a detailed technical understanding of the scope and nature of the sites' capabilities. Such leverage and understanding is usually present when each Service performs its own internal closure actions. However, where will the leverage come from for inter-service COBRA disputes?

- Failure to adequately resolve the potential stalemates will bear high costs to the DoD and the country. Successfully "busting COBRA" places a potentially beneficial closure action at risk, and "gaming COBRA" potentially jeopardizes national security by giving critical work to a site unable to perform it with resident personnel and / or facilities.

Recommendation: CIT propose to the TJCSG principals that a formal arbitration board be established — ahead of time — to resolve any COBRA stalemate(s). The DDR&E and the Service Vice-Chiefs would be the principal voting members, with the TJCSG principals serving as action officers who provide certified technical information on the disputed items.

Army Position: _____
AF Position: _____
Navy Position: _____
Marine Corps Position: ____
JCS Position: _____

Final Resolution: *No Vote / No Action*

POC Signature: _____ Date: 11/11/04

CIT Chair: _____ Date: _____

DCN:11710

Date: 4 November 2004

To: Roger Florence, DoD IG

From: Don DeYoung, CIT Alternate

Subj: Decision to Abstain from Scenario Prioritization

Encl. (1) Scenario List and DEPSECDEF Policy Memo

1. On 3 November 2004, the Capabilities Integration Team (CIT) of the Technical Joint Cross-Service Group (TJCSG) met to prioritize 31 proposed scenarios.

2. I abstained from the CIT's voting for the reason noted on enclosure (1).

vr/

Don DeYoung

CIT Alternate, U.S. Navy
Technical Joint Cross-Service Group

DCN:11710

DEPUTY SECRETARY OF DEFENSE

1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

SEP 3 2004

MEMORANDUM FOR INFRASTRUCTURE EXECUTIVE COUNCIL MEMBERS
INFRASTRUCTURE STEERING GROUP MEMBERS
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE

SUBJECT: BRAC 2005 Military Value Principles

The Department has determined that the most appropriate way to ensure that military value is the primary consideration in making closure and realignment recommendations is to determine military value through the exercise of military judgment built upon a quantitative analytical foundation. By applying the BRAC selection criteria to rank the facilities for which they have responsibility, the Joint Cross-Service Groups and the Military Departments build the quantitative analytical foundation. The exercise of military judgment occurs through the application of the attached principles. Limited in number and written broadly, the principles enumerate the essential elements of military judgment to be applied in the BRAC process. The Military Departments and the Joint Cross-Service Groups shall use the principles when applying military judgment in their deliberative processes.

Paul Wolfowitz

Attachment:
As Stated

OSD 13369-04

Per DEPSECDEF memo, subj: "BRAC 2005 Military Value Principles" (3 Sep 04), which states:
"the most appropriate way to ensure that military value is the primary consideration in making closure and realignment recommendations is to determine military value through the exercise of military judgment built upon a quantitative analytic foundation."

And given that all 31 scenarios were generated by judgment alone, without the required foundation of quantitative analysis — I therefore recuse myself from what I believe constitutes a material violation of the BRAC process' integrity.

3 Nov 04

CIT Alternate, U.S. Navy

TJCSG Scenarios

001 - Establish Joint Centers for Air Platforms Centers
002 - Relocate W&A RDAT&E to 3 Primary & 4 Specialty Sites + Imperative
003 - Relocate DoD Directed Energy Research to One Location (Kirtland)
004 - Relocate DoD Directed Energy T&E and Selected Weapon T&E to One Location – WSMR
005 - Consolidate Rotary Wing RDAT&E into 2 Core Sites
006 - Establish Joint Centers for Fixed Wing Platform RDAT&E
007 - Relocate Ground Vehicle RDAT&E at Detroit Arsenal to Selfridge ANG Base
008 - C4ISR Cross DTAP & Function
009 - Defense Research Service Led Laboratories
010 - Consolidate Extramural Research Program Managers
011 - Joint Training Systems RD&A from AFRL-Mesa, ARI- Ft. Rucker, SPAWAR – San Diego, NAVAIR – PMA 205, WPAFB AFN-ASC/YW, Hill AFB – ASC/YW, PM-Joint National Training Center (JNTC) Suffolk, VA
012 - Deleted
013 - Consolidate Ground Platform RDAT&E into 2 Core Sites
014 - Establish Joint Centers for Space RDAT&E
015 - Establish a Joint Center for Space Research into One Core Site
016 - Establish a Joint Center(s) for Space D&A into One Core Site
017 - Relocate Guns & Ammo RD&A at One Location (Picatinny)
018 - Relocate W&A RDAT&E to 3 Primary & 4 Specialty; Retain/Relocate Energetics at Indian Head
019 - Relocate RD&A Energetic Capability from Crane, Aberdeen, and Yorktown to Indian Head
020 - Co-locate Battlespace Environments R, D&A, T&E to a single military installation (NRL Detachment Stennis Space Center)
021 - Co-locate "Medical" Chem-Defense Research and "Non-Medical" Chem and Bio-Defense RD&A to One Military Installation (Aberdeen, Edgewood Area MD)
022 - Co-locate Human Systems Training RD&A to a Single Military Installation (Joint Forces Command – Bridgeway, Suffolk VA (co-locate with JFCOM – Joint Training Analysis and Simulation Center)
023 - Co-locate All Medical Bio Defense RD&A to One Military Installation (Ft. Detrick, Frederick, MD)
024 - Co-locate All Chem-Bio Defense T&E to One Military Installation (Dugway Proving Ground, UT)
025 - Co-locate All Biomedical D&A to One Military Installation (Ft. Detrick, MD)
026 - Co-locate All Biomedical Research at 7 Military Installations (Ft. Detrick, Ft. Sam Houston, Walter Reed Army Medical Center_Forest Glenn Anex, Naval Health Research Center_San Diego, Soldier Systems Center, Navy Experimental Diving Unit_Panama City, FL)
027 - Combine Shipboard Integration at Dahlgren
028 - Combine Underwater Weapons Integration at Newport
029 - Establish Joint Land Network C4ISR Center
030 – Establish Joint Land Warfare Center (Remanded to Army for analysis)
031 – Combine Air Force Human Effectiveness R with Air Platforms R (Remanded to Air Force for Analysis)

SCENARIO INCONSISTENCIES
Issue # 12-28-04-01

Issue: In late-November, Military Value (MV) scores became available for assessing the judgment-driven scenarios of the Technical Joint Cross-Service Group (TJCSG). On 24 November, the TJCSG's Chair of the Capabilities Integration Team (CIT) requested identification of any scenario found to be "inconsistent with the Mil value scores," (i.e., where an action realigns workload from a site with a higher score to a lower one).[1] Instances of inconsistencies were subsequently reviewed by the Sub-Groups and declared justified because they were found to be congruent with underpinning strategies. However, while the MV scoring inconsistencies were judged to be justified by strategy, a number of the strategies themselves appear to contradict each other within one of the more important scenarios, TECH-0008.

Point of Contact: Don DeYoung, Capabilities Integration Team (Alternate), U.S. Navy

Issue Summary

1. *Four Categories of Scenarios*

For each scenario, there are four possible categories of outcomes: (A) *Data-Driven / Judgment-Validated* (no TJCSG scenario qualifies for this category for reasons explained in Issue Paper #11-15-04-01), (B) *Judgment-Driven / Data-Validated*, (C) *Judgment-Driven / Strategy-Validated*, and (D) *Judgment-Driven / Strategy-Rationalized*. The definition for rationalized is a "rational but specious explanation" [Oxford Dictionary], so Category D would not portend viable scenarios.

2. *Very Few Scenarios Are Inconsistent*

The great majority of the TJCSG's scenarios were validated by the MV scores, which means they belong in Category B: Judgment-Driven / Data-Validated. A strong correlation between the selected "gainers" and their higher MV scores is not surprising given that the scenario "gainers" and "losers" were, with few exceptions, chosen by workload, and because MV scores are strongly determined by that workload (i.e., gross numbers of people and dollars).

The few actions that do, in fact, move workload from a site with a higher MV score to one with a lower score will receive close attention by the Commission and communities. Therefore, to be viable, these *must* fall into Category C: Judgment-Driven / Strategy-Validated. The Sub-Groups reviewed the MV inconsistencies and declared the proposed actions to be consistent with strategies formulated by their expert judgment. Unfortunately, strategies within scenario TECH-0008 contradict each other; one is built upon a false premise; and the overarching strategy is applied inconsistently across sites.

3. *Analysis of the Strategies in TECH-0008*

- *Strategy #1:* Consolidate Missions at Sites with Higher Military Value: The C4ISR Sub-Group's overarching strategy for the 40 individual actions within TECH-0008, is "mission consolidation," where improved synergies are gained by greater masses of workload at the gaining sites.[2] Of those 40 actions, three are "inconsistent" by realigning work from higher ranked sites to lower ranked sites. The following discussions analyze each action and its enabling strategy.

[1] Al Shaffer, Subj. "Mil Value Posting", 24 November 2004.
[2] The strategy was explained at the 8 December CIT session when scenarios were filtered and scored by the "decision factors."

- *Strategy #2*: Sensors Research Outweighs Info-Systems Research: Action 19 would realign both Ground *Sensors* and *Information Systems* (IS) *Research* from the Communications-Electronics Command (CECOM) Ft. Monmouth to the Army Research Laboratory (ARL) Adelphi.

Data: Ft. Monmouth (Loser) has a higher score than ARL Adelphi (Gainer) in *IS Research* (**0.4582** vs. **0.2563**). In addition to its higher MV score, Ft. Monmouth has a substantially greater workload as measured by FTEs and dollars (**380** FTE vs. **114** FTE, and **$96,000 K** vs. **$36,000 K**). ARL, on the other hand, has a higher MV score in *Sensors Research* (**0.5018** vs. **0.3397**) and a larger workload (**446** FTE vs. **238** FTE, **$147,000 K** vs. **$65,000 K**).

In explaining its enabling strategy, the C4ISR Sub-Group stated that:

> "preference was given to the more infrastructure intensive Sensors work…hence the Activity with the highest Military Value in Ground Sensors (Adelphi) was selected to host the consolidated activity."[3]

By applying a preference to *Sensors*, Ft. Monmouth's lower score in *Sensors Research* (**0.3397** vs. **0.5018**) causes it to lose *both* its *IS* and *Sensors Research*. When asked about the significant disparity in IS MV scores (where Ft. Monmouth has the higher score), the Sub-Group pointed out that it used a "cross-binning" technique where ARL's *Sensors Research* score, not its *IS Research* score, is the decisive metric based on the infrastructure intensive nature of Sensors work.[4]

The Sub-Group's use of a cross-binning technique for MV scoring — across two technical capabilities — is significant. Up to this point in the TJCSG's deliberations, the very idea of aggregating and / or weighting scores across functions (i.e., Research, D&A, T&E), or across capability areas (i.e., IS and Sensors), has been a "third-rail" issue. In fact, it was difficult to reach agreement on "rolling-up" the scores by zip code (i.e., where individual respondents, from the *same Service*, at the *same installation*, and within the *same bin*, are combined into one score).[5]

In summary, this proposed action realigns *IS Research* from higher-ranked Ft. Monmouth to lower-ranked ARL Adelphi based upon an underpinning strategy that *Sensors Research* is of higher value due to its more infrastructure intensive. Therefore, both *IS* and *Sensors Research* are realigned from Ft. Monmouth to ARL Adelphi.

It should be noted that the cross-binning technique is used again in Action 40, which realigns both Air *IS* and *Sensors T&E* from NAWC-Pax River to Edwards AFB. The Sub-Group again states that "preference was given to the more infrastructure intensive Sensors work."[6] But, it also claims Edwards has the higher Sensors T&E MV score, which the MV data does not show. In fact, Pax River has a significantly higher MV score in *both* IS and Sensors T&E. This apparent discrepancy needs to be resolved, or the strategy statement needs to be better articulated.

- *Strategy #3*: Info-Systems Acquisition Outweighs Sensors Research: Action 29 would realign Rome's *Sensors Research* to Wright-Patterson AFB (WPAFB). Action 32 would realign Air *IS Research* from Rome Laboratory to Hanscom AFB.

[3] C4ISR Sub-Group, "Scenario Description & Rationale," 14 December 2004 [DRAFT].
[4] CIT Meeting, 8 December 2004.
[5] MV "roll-up" by zip code, an analytically sound and common-sense approach took until 9 December to be approved.
[6] C4ISR Sub-Group, "Scenario Description & Rationale.".

Data: In Action 32, Rome (Loser) has a far higher score than Hanscom AFB (Gainer) in *IS Research* (**0.6053** vs. **0.0421**). In addition, Rome's workload as measured by both FTEs and dollars shows a huge difference (**1,119** FTE vs. **0 FTE**, and **$535,000 K** vs. **$3,000 K**). In Action 29, Rome has a lower score in *Sensors Research* than WPAFB (**0.2345** vs. **0.5405**).

These two actions are identical to the Ft. Monmouth proposal in the sense that together they remove both *Sensors* and *IS Research* from the "loser", which in this case is Rome Laboratory. Given the Sub-Group's expert judgment in the previous action (i.e., Strategy #2) that the Sensors MV score is decisive, one would think that Rome's *IS Research* program would be realigned along with its *Sensors Research* to WPAFB, which has the #2-ranked Sensors Research program. But, that is not the Sub-Group's proposal.

Recall that ARL Adelphi received *both* Ft. Monmouth's *Sensors* and *IS Research* programs. ARL had a higher score in Sensors and a lower one in IS, just as WPAFB has with regards to Rome. However, in the case of Rome Laboratory, the Sub-Group does not invoke Strategy #2's "cross-binning" technique to realign Rome's higher-ranked *IS Research* work to WPAFB. Instead, the Sub-Group would send it to Hanscom AFB. Essentially, Action 32 sends work from a site that does Research, and no D&A, to a site that does D&A, and almost no Research. In explaining its proposal, the Sub-Group states that:

> "...preference was given to the significantly larger Development & Acquisition workload; hence the activity with the highest Military Value in Air Information Systems Development & Acquisition (Hanscom AFB) was selected to host the consolidated activity."[7]

Apparently, the synergistic gains that may accrue to Air Force C4ISR by realigning Rome's #2-ranked *IS Research* to the #2-ranked *Sensors Research* site at WPAFB are not judged to be as valuable as those that might accrue from collocation with Hanscom's D&A expertise. So, in this action, the expert judgment behind Strategy #3 is that Info-Systems Acquisition outweighs Sensors Research. But, Strategy #3 contradicts Strategy #2.

If Strategy #3 was used in the previous case, then Ft. Monmouth would have kept its *IS Research* because ARL Adelphi has no D&A and Ft. Monmouth has the highest MV score for Army *IS D&A*. But the Sub-Group found it more important to instead break Ft. Monmouth's *IS Research* away from high ranked IS D&A work, and consolidate it with ARL Adelphi's *Sensors Research*.

The Rome realignment to Hanscom may be founded on a desire to move the *IS Research* closer to Rt. 128, a center of commercial IS expertise. However, in the case of Ft. Monmouth, the Northern New Jersey area is not an IS backwater with local firms like Lucent and Honeywell / AlliedSignal. So, despite the similar circumstances, the Sub-Group proposes that Ft. Monmouth's work be moved away from that center of expertise and from the Army's highest ranked site for IS D&A.

To highlight the contradiction further, use of Strategy #3 would reverse the outcome in the previous case by sending *ARL Adelphi's IS Research program to Ft. Monmouth* where the Army's IS D&A function is located *and* there is a center of industrial IS expertise. This also has the advantage of being consistent with the MV scores for Ft. Monmouth and ARL Adelphi (**0.4582** vs. **0.2563**).

- *Strategy #4*: Coastal Sensors Integration Outweighs Inland Sensors Development: Action 1 would realign NRL's Maritime Sensors D&A to NSWC Dahlgren.

[7] C4ISR Sub-Group, "Scenario Description & Rationale."

Data: NRL (Loser) has a higher score than NSWC Dahlgren (Gainer) in *Sensors D&A* (**0.3633** vs. **0.3007**). In addition to a higher MV score, NRL has a greater workload measured both by FTEs and dollars (**280** vs. **245**, and **$79,000 K** vs. **$60,000 K**).

The C4ISR Sub-Group explains the strategy that underpins Action 1 in the following way:

> "...preference was given to where the Maritime Sensors, Electronic Warfare and Electronics were integrated with their host maritime platforms; hence the surface warfare center located near the coast with the Highest Military value (NSWC Dahlgren) was selected..."[8]

Strategy #4 gives preference to coastal proximity and sensors integration over MV scores. The Sub-Group asserts that NRL's mission is Research, therefore its "non-mission" Sensors D&A should be consolidated at a *"surface warfare center."*[9] This premise, upon which Strategy #4 is built, is false. NRL's mission is, in fact, broader in some technology areas than that of the Air Force and Army corporate laboratories, which focus on 6.1 through 6.3, and 6.1 through 6.2, respectively. This is why NRL has a sizeable workload in Sensors D&A and a substantial MV score — one that ranks higher than the selected warfare center, NSWC Dahlgren. The following evidence is provided to show that the strategic premise is false.

NRL has performed sensors development from its pioneering of the first U.S. radar, more than 80 years ago, to its development of Dragon Eye, a portable, hand-launched sensor system based on expendable countermeasures technology. Dragon Eye was mentioned in a *New York Times* front-page article about the U.S. Marines' fight for Falluja.[10] Another recent example is Specific Emitter Identification technology, which identifies any radar by its unique characteristics with accuracy enough to "fingerprint" it. The National Security Agency selected it as the national standard.[11] With the Coast Guard, naval warships, and aircraft using it to monitor the movement of materials used in weapons of mass destruction, its value to the nation's war on terrorism is obvious.

Finally, expert judgment from ADM Hal Gehman (ret.) also refutes the Sub-Group's premise. ADM Gehman was appointed Chair of the Columbia Accident Investigation Board shortly after he made this comment about NRL's sensors program, which he and other defense experts reviewed in September 2001.

> "What we saw was a Category A+ laboratory... its forté is sensors. What they showed us was impressive, relevant, and capable of being turned into fielded products... *nearly everything they develop they build a prototype on site and test it* (emphasis added), sometimes in an operational environment, sometimes not...they see the path to turning basic research into useful products."[12]

The harmful result of the Sub-Group's false premise is a proposed action that would sever the connectivity within an acknowledged center of excellence in sensors R&D. NRL's record of success is the product of the synergy achieved between its sensors systems development and its sensors research, which *ranks #1 in MV.*

[8] C4ISR Sub-Group, "Scenario Description & Rationale," 14 December 2004 [DRAFT].
[9] CIT Meeting, 8 December 2004.
[10] Dexter Filkins, "In Falluja, Young Marines Saw the Savagery of an Urban War", *New York Times*, 21 November 2004, p.1.
[11] "Accordingly, NSA has selected the Naval Research Laboratory processor (L-MISPE) to be the standard for conducting SEI/UMOP collection operations..." [NSA Message DTG 011440Z, June 1995]
[12] Section 913 Report #1: *Sensors Science and Technology and the Department of Defense Laboratories*, (National Defense University: March 2002), p. 31.

4. *Strategy #1 is Applied Inconsistently*

As mentioned earlier, the C4ISR Sub-Group's overarching approach for the actions within the TECH-0008 scenario is "mission consolidation," where improved synergies are gained by creating greater masses of workload at the gaining sites. For example, while Ft. Monmouth loses Research workload in Action 19 to ARL Adelphi under Strategy #2, it gains D&A workload by virtue of its top-ranked Army D&A score in Actions 21, 22, 23, 24, and 25.

The problem is that Strategy #1 is applied inconsistently. For example, while NRL's *Sensors D&A* is to be realigned to NSWC Dahlgren — Dahlgren's *Sensors Research* is not being sent to NRL, which has the #1-ranked *Sensors Research* program out of all sites evaluated by the TJCSG (66 sites). NRL's MV score in relation to NSWC Dahlgren is **0.8037** vs. **0.3009**. Even if one were to accept the false premise that NRL's mission is confined to Research, why is the *Sensors Research* mission not being consolidated at NRL?

Furthermore, in Action 8, NRL's *IS D&A* is being realigned to the SPAWAR Systems Center (SSC), the site selected as the location for Maritime *IS D&A* consolidation. However, SSC's *IS Research* is not being realigned to NRL, whose Research program has a much higher MV score than SSC's (**0.6059** vs. **0.3671**). Like its *Sensors Research* program, NRL's *IS Research* is also *rated #1 out of all sites evaluated by the TJCSG (68 sites).*

When asked about this inconsistency, a Sub-Group member responded that TECH-0008 defers Research consolidation to TECH-0009, "Defense Research Service-Led Laboratories." But the explanation does not hold up under scrutiny. As seen earlier, AFRL-Wright-Patterson and ARL Adelphi gain Research workload — and both are part of TECH-0009.

Since NRL is ranked #1 in both *Sensors* and *IS Research*, these inconsistencies can be readily fixed. Actions can be added where NRL gains NSWC Dahlgren's lower-ranked *Sensors* (ranked #10) and *IS* (#10) Research programs (78 FTEs and $18 M), as well as SSC's lower-ranked *Sensors* (#21) and *IS* (#6) Research programs (436 FTEs, and $170 M).

Conclusion: TECH-0008 contains: several actions whose enabling strategies contradict each other; one action based on a false premise; and an overarching strategy that is applied inconsistently. These problems require resolution. Correcting problems and errors and before going "prime-time" with our proposals will serve us, and the country, well.

Recommendations: Ensure that all actions within TECH-0008 qualify for Category (C) *Judgment-Driven / Strategy-Validated* by resolving identified problems, or by canceling the proposed actions if they cannot be validated by sound strategy.

Army Position: _____
AF Position: _____
Navy Position: _____
Marine Corps Position: _____
JCS Position: _____

Final Resolution: CIT Chair required that all approved TJCSG proposals be reviewed by an independent team

POC Signature: _____ Date: 3/1/05

CIT Chair: _____ Date: _____

Comments on Issue Paper # 12-28-04-01
(Scenario Inconsistencies

Contrary to the assertion in the issue paper, scenario TECH-0008 is internally consistent.

The TJCSG directed the C4ISR subgroup to cross-bin activities so as to minimize the number of installations. In order to do that, the C4ISR subgroup adopted a minimum set of cross-bin guidelines, such as giving preference to Sensors work when combining Sensors and Information Systems Research (cross-DTAP, same Function) or giving preference to D&A when combining Information Systems Research and D&A (cross-Function, same DTAP). Military Value (or early on, its surrogate – quantity of professional FTEs) was used to rank the Technical facilities in a "bin" and then the cross-bin guidelines were applied consistently. So in the issue paper, *Strategy #2* (Issue Paper terminology) is an application of the cross-DTAP, same Function guideline. Similarly, Strategy #3 is an application of the cross-Function, same DTAP guideline. Strategy #2 and #3 are not at odds with each other – they simply apply to different cross-bin situations.

Regarding the Issue Paper assertion that a corporate Laboratory should continue to work outside the Research area because of its track record, numerous organizations have and will continue to field great products. The single greatest challenge in the C4ISR world today is delivery of non-interoperable systems to the warfighter. Consolidating maritime C4ISR D&A under one Center provides the opportunity to address that #1 problem, and hence the C4ISR subgroup scenario proposes consolidation to achieve Jointness, economy and efficiency (the BRAC objectives). Status quo just perpetuates the problem of multiple "hobby shops".

Regarding the Issue Paper assertion that Applied Research activities should go to Corporate Laboratories, that is not what the TJCSG set about to achieve. The Framework is constructed to consolidate Basic Research into a DOD managed activity, but Applied Research is to be linked more closely with its D&A counterpart in Centers to the degree possible. This is especially true in C4ISR where one can go from Applied Research to D&A, T&E and electronic fielding in a matter of days, not years. Recognition of this reality is reflected in the C4ISR scenarios approved by the TJCSG.

As the C4ISR subgroup performs scenario analysis, we will revalidate the underlying assumptions before we offer draft Candidate Recommendations for TJCSG consideration. The TJCSG will have that additional opportunity to review the proposed actions with the insight gained from the analysis of the Scenario Data Call responses.

Date: 3 January 2005

To: Matt Mleziva (Lead, C4ISR Sub-Group),

I have read your comments on Issue Paper #12-28-04-01, "Scenario Inconsistencies," and remain concerned that the strategies in question (i.e., those that drive TECH-0008's realignment of work from sites with higher military value scores to sites with a lower scores) are not analytically sound. Some key questions remain for me regarding the reasons why, and when, different strategies are applied to proposed actions that have very similar circumstances. The success of TECH-0008 relies on the credibility of these strategies, especially when our process is not data-driven and the subject actions at issue here ignore the Military Value (MV) scores that we derived for these sites. There is no rule that prevents lower scoring sites from becoming "gainers" at the expense of higher scoring sites, but at a minimum, I believe the Sub-Group's strategies need a much more thorough justification and greater clarity in their supporting rationale.

In paragraph #2 of your response to the issue paper, you mention that the Sub-Group developed:

> "cross-bin guidelines, such as giving preference to Sensors work when combining Sensors and Information Systems Research or giving preference to D&A when combining Information Systems Research & D&A."

As you know, the above guidelines are called Strategy #2 and #3, respectively, by the issue paper. That paper may not have made its point clearly, so in the interests of clarity, its key question stated a different way is: "What is the rationale for the Sub-Group's decision to invoke Strategy #2 in one case, and to invoke #3 in another?" Just saying that the rationale was to optimize Sensors Research for one, and to optimize IS D&A for the other, and that these "guidelines were applied consistently," does not reveal *why* IS Research is realigned by different strategies in two actions with very similar circumstances.

Specifically, the first two actions analyzed in the issue paper involve realigning IS Research; one action realigns Ground IS Research, and the other realigns Air IS Research — and the strategies dictate where the realigned work is sent. In the Ground case, Strategy #2 sends the work from a site that performs both IS Research and D&A, to a site with a higher score in Sensors Research. But, if #3 was invoked to optimize IS D&A, the "loser" would instead become the "gainer" by gaining IS Research — *from the "gainer" under Strategy #2, who becomes the "loser" under Strategy #3.* In other words, the direction of the realigned work actually reverses by virtue of the strategy selected. Similarly, the destination of the Air IS Research is determined by the strategy selected. So, the key issue is *why*, in two cases involving IS Research, the C4ISR Sub-Group gives preference to optimizing D&A in the Air Force case, while in the Army case, it gives preference to optimizing Sensors work? Why was Strategy #2 not used in both cases? Or, why was Strategy #3 not used in both?

In paragraph #3 of your response, you raise the third case analyzed by the issue paper, where Maritime Sensors Research is realigned from a site with a higher MV score to a warfare center closer to the shore in order to optimize systems integration. You mention that the Sub-Group makes this proposal to:

> "achieve Jointness, economy and efficiency (the BRAC objectives)."

These are indeed BRAC objectives, but they do not support your case. TECH-0008 has 40 individual actions, of which 16 are Navy-to-Navy, 10 are Army-to-Army, and 9 are Air Force-to-Air Force. It is hard to defend this scenario as one that forges a significant degree of "jointness." Moreover, *none of the actions analyzed by the issue paper involve the few, and rather minor, "joint actions."* And, as far as the objectives of "economy and efficiency" are concerned, it is more likely that the proposed Maritime Sensors action will range anywhere from cost-neutral to very costly. By optimizing D&A (for systems integration purposes) at one site, we are sub-optimizing R&D at the losing site. The case for savings would be stronger if the losing site was being closed by the action.

In the end, the only relevant BRAC objective for this scenario — especially with our nation at war — is *mission effectiveness*, as measured by military value. In fact, the law is clear on the point that "military value is the primary consideration in the making of recommendations for the closure or realignment of military installations" [Public Law 101-510]. The primacy of mission effectiveness is why the track record of the "losing" site was addressed in the issue paper. The expert judgment of ADM Gehman that the site is a "Category A+ laboratory... its forté is sensors" was reported to show compelling, documented evidence for the high military value of the sensors development work at that site. Other experts on the panel with ADM Gehman included a former DDR&E and Secretary of the Air Force, a former CINC for Central Command who was later selected by the President as a diplomatic envoy to the Middle East, and a former NSC advisor to the President. The Sub-Group's expert judgment is at stark odds with that panel's assessment when it places the "losing" site, as you do in paragraph #3, in the class of a "hobby shop."

On the other hand, as a technical expert from Hanscom AFB, you and your Service-lead colleagues from ARL Adelphi and SPAWAR San Diego, possess expert judgment that is significant and valid in its own right. But your expert judgment that the site's sensors development program is a "hobby shop" must nonetheless be documented and justified in some manner. That justification should also account for the fact that the purported "hobby shop" has a higher MV score and a larger workload than the "gainer."

Finally, paragraph #4 of your response makes a point of differentiating "Basic Research" and "Applied Research" in order to explain an apparent inconsistency in mission consolidation (i.e., Strategy #1) that the issue paper describes as a "one-way street" with regard to the Navy's corporate laboratory. Your response is that the TJCSG's intent has been to realign Applied Research to "its D&A counterpart in Centers" instead of Corporate Laboratories. There are two problems with this explanation.

First, our analytical convention does not distinguish Basic (6.1) from Applied Research (6.2), and there is therefore *no data to make such distinctions.* In fact, both are combined with Advanced Technology Development (6.3) under our Technical Function called "Research." Second, the corporate laboratories in the Air Force and Army gain Sensors and IS Research (6.1-6.3), *which means they gain Applied Research.* This appears to contradict your assertion regarding the TJCSG's intent. The point made in the issue paper is that the Navy's corporate laboratory, despite being ranked by MV as #1 in IS Research *and* #1 in Sensors Research, does not gain any Research — even though it qualifies as a "gainer" under Strategy #1 (Mission Consolidation of IS and Sensors) and Strategy #2 (Optimize Sensors).

I offer these observations and arguments to help ensure that our product is ready for the close scrutiny it will receive in a matter of months. I hope my response to your comments, as well as the clarifications of issue paper #12-28-04-01, are helpful.

vr/

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Comments on DeYoung 3 Jan 2005 Paper

A facility's Military Value (MV) is a function of the other facilities in the bin the way we developed the MV scoring; hence MV is only a relative goodness within a bin and cannot be used across bins. The C4ISR subgroup used MV within the bins and when asked by the TJCSG to consolidate cross bins, used professional military judgment to determine the receiving facility from amongst the leaders in the bins.

The objective was to develop scenarios that implemented the TJCSG adopted Framework. The Air and Ground domain scenarios do involve more than one MILDEP, hence are Joint. The Maritime domain scenarios only involve the Navy as they were the only MILDEP known to be reporting maritime C4ISR RDAT&E. The strategies were selected to achieve the BRAC objectives of Jointness, Efficiency and Effectiveness.

In the C4ISR world, the potentially short timelines from applied research to operational capability led to the Warfare/Product Center construct. With respect to NRL, its high MV, the DRL concept, and its not being a Warfare center led to no recommended change to its Basic Research activities. Also, no C4ISR Maritime Basic Research activities outside of NRL were identified to realign to NRL. NRL is one of the organizations that has demonstrated the ability to rapidly field combat capability. Feedback from the field is that capability deployed by non-acquisition organizations tends not to interoperate with the rest of their equipment (provided by the traditional acquisition organizations) and tends not to have a supportability tail. The C4ISR subgroup developed scenarios which consolidated the Maritime C4ISR Applied Research and D&A activities in a domain (per the Framework) to address these issues rather than let them persist.

Date: 13 January 2005

To: Matt Mleziva (Lead, C4ISR Sub-Group)

In its 4 January meeting, the TJCSG decided that each candidate recommendation must have a thorough justification and sufficient clarity in its supporting rationale, especially those that realign workload from sites with a higher military value (MV) score to sites with lower scores (i.e., an "inconsistent scenario"). In issue paper #12-28-04-01, "Scenario Inconsistencies," I identified several inconsistent scenario actions, but missed one that needs to be marked for attention in the event it becomes a candidate recommendation.

Scenario TECH-0008 (Action 7) realigns Maritime (surface and above work only) Sensors RDAT&E from NUWC Newport to NSWC Dahlgren. NUWC Newport has a substantially higher MV score than NSWC Dahlgren *in all three technical functions*. Newport's across-the-board superiority to the gaining site in MV scores, from Research to T&E, makes this action unique among the other "inconsistent scenarios" identified in the issue paper.

Like Action 1, where NRL loses its higher-ranked Sensors D&A work to NSWC Dahlgren, Newport's higher-ranked RDAT&E work is also realigned to Dahlgren based on Strategy #4 where:

> "...preference was given to where the Maritime (surface and above) Sensors, Electronic Warfare and Electronics were integrated with their host maritime platforms; hence the surface warfare center located near the coast with the Highest Military value (NSWC Dahlgren) was selected..."[1]

Action 7, like Action 1, will almost certainly degrade the synergy of the site with the higher MV score. Parsing out Newport's "surface and above" sensors work from its undersea sensors work will likely shred innovative connectivity within a Sensors program that is integrated (with indistinct demarcations between "surface and above" work and "undersea" work) and holistic (where the whole is greater than the sum of its parts). Therefore, the rationale we provide must make a convincing statement as to why, and how, the risks are outweighed by the benefits perceived by the Sub-Group.

Also, your last paper (dated 4 January) discusses the DoD's problem getting interoperable C4ISR capabilities into service quickly, and it states that "NRL is one of the organizations that has demonstrated the ability to rapidly field combat capability." While this comment resolves an issue raised in my previous response, it also now begs a question. How will the Sub-Group defend two actions affecting NRL (i.e., Action 1 for Sensors, and Action 8 for Information Systems), which would sever innovative R&D connectivity at a site that is not part of the problem your Sub-Group is trying to solve? More to the point, what will be the justification for risking damage to a site that *is* rapidly fielding new C4ISR capabilities for the warfighter?

Almost a year ago, in a paper that Al Shaffer distributed among the TJCSG's Sub-Groups, I expressed some concern that our 39-bin (or 39-"technical facility") analytical approach would result in damaged synergies. The paper observed that,

> "While past closure rounds are not the focus here, there is an important feature that our process shares with BRAC-95 — pushing highly interconnected work through technical and functional stovepipes... *This will sever the connectivity of critical multidisciplinary projects and vertically integrated programs, as well as decapitate top talent from any realigned work.*

[1] C4ISR Sub-Group, "Scenario Description & Rationale," 14 December 2004 [DRAFT].

And, the paper proposed a solution that called for:

> *... "assigning Military Value at a higher level, such as at the command / installation level, and not to the Rubik's Cube "facilities."* [2]

The proposal that MV be assigned at a meaningful level of aggregation was made again in issue paper #11-15-04-01, "Military Judgment: *Necessary — But Not Sufficient*" (14 November 2004).

Now that the C4ISR Sub-Group is at the point of evaluating the monetary costs for actions that will, in all likelihood, sever innovative connectivity at the "losing sites" (some with higher military value than the "gaining sites"), the development of sound justifications become more than a requirement of the TJCSG. They become critical to the goals of BRAC-05 and an obligation to national security.

vr/

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[2] D.J. DeYoung, "Shadows on the Wall: The Problem with Military Value Metrics," 17 February 2004, p. 12-13 (Version 1).

BRAC 2005 Infrastructure Executive Council (IEC)
Meeting Minutes of April 6, 2005

The Deputy Secretary of Defense chaired this meeting. The list of attendees is attached.

Mr. Philip Grone, Deputy Under Secretary of Defense (I&E), opened the meeting by highlighting the Process Overview (timeline), a Summary of the Candidate Recommendations and pending IEC deliverables (MCLB Barstow). He mentioned that the IEC meeting, scheduled for Saturday, April 16, 2005, was cancelled with additional meeting time added to the meeting scheduled on April 18, 2005.

After Mr. Grone reviewed the 13 candidate recommendations presented for approval, IEC discussion focused on TECH-0004R, which co-locates extramural research program managers to the Anacostia Annex. Mr. Al Shaffer, representing the Technical Joint Cross Service Group (JCSG) was then asked to provide details on this recommendation. Using the attached backup slides (46-48), Mr. Shaffer mentioned several factors favoring this move, which include Force Protection and professional synergies created by moving program managers to one location. After Mr. Shaffer concluded his brief on TECH-0040R, Dr. Tony Tether, Director of the Defense Advanced Research Projects Agency (DARPA) presented his argument on why DARPA (one of the extramural research programs affected by TECH-0040R) should not relocate to Anacostia. Highlights of his presentation (briefing attached) were:

- DARPA needs an easily accessible environment
- DARPA requires a closely located and immediately available large cadre of non-government technical support staff experts and facilities, which is not available at Anacostia
- Moving to Anacostia will adversely affect recruiting due to its inaccessibility.
- Force Protection issues should not be solved by BRAC

The IEC did not reach consensus on whether TECH-0004A should go forward as a final recommendation. Mr. Wynne asked Mr. Don Tison, Chairman of the Headquarters and Service (H&SA) JCSG, and Mr. Shaffer to work with Mr. Tether to explore if there were viable alternative locations.

Although it is not yet final and therefore not presented for approval, Mr. Wynne then briefed a Navy Candidate Recommendation (DON-0165A), which would close MCLB Barstow and relocate functions to MCLB Albany and various other depots. [This recommendation incorporated IND-0127A, which relocates all the depot maintenance functions, and smaller pieces of other candidate recommendations.] The Department of the Navy opposed the closure of Barstow for the following reasons:

- The ground depot requirements are understated.
- There is no ability to recover or reconstitute the force, i.e. surge has not been addressed properly.
- Such a closure adversely affects the Marine Corps Expeditionary Mission; there is a readiness issue

The Assistant Commandant of the Marine Corps, General Nyland, questioned the closure of this West Coast facility when two thirds of all Marines are currently operating in the Pacific theater. He stated that in his military judgment, closing Barstow would negatively impact the operation of the Marine Corps.

Mr. Gary Motsek, Chairman of the Armaments and Munitions subgroup in the Industrial JCSG, responded to the Marine Corps concerns using the attached backup slides (51-54). Highlights of the presentation were:

- The Industrial JCSG analyzed surge requirements, and determined that DoD will retain sufficient capacity to meet and exceed all known or anticipated requirements.
- Transportation concerns are not a readiness issue because current workloads now shift between coasts.
- Workloads will be moved to locations with the highest military value for that specific commodity.

The IEC did not reach consensus on the closure of MCLB Barstow, asking that the final package address whether there would be any time loss to shipping or transit vulnerabilities.

Mr. H. T. Johnson, Chairman of the Red Team, discussed its findings to date. Significant, overarching issues discussed were:

- Consistency among DoD, Military Departments and Joint Cross Service Group approaches.
- DoD's integration of candidate recommendations and report development of the individual MilDep and JCSG efforts
- The utility of using Plant Replacement Value (PRV) as a quantifying metric
- Arraying previous estimates of 20-25 percent excess capacity against the candidate recommendations currently under review.

Approved: _____
Michael W. Wynne
Executive Secretary
Infrastructure Executive Council

Attachments:
1. List of Attendees
2. Briefing slides entitled "Base Realignment and Closure 2005, Infrastructure Executive Council" dated April 6, 2005
3. DARPA brief entitled "Bridging the Gap, Powered by Ideas" dated February 2005

Infrastructure Executive Council Meeting
April 6, 2005

Attendees

Members:

- Mr. Paul Wolfowitz, Deputy Secretary of Defense
- Mr. Michael W. Wynne, Under Secretary of Defense (AT&L)
- GEN Peter J. Schoomaker, Chief of Staff of the Army
- Hon Francis J. Harvey, Secretary of the Army
- Gen Richard B. Myers, Joint Chiefs of Staff
- Mr. Michael L. Dominguez, Acting Under Secretary of the Air Force

Alternates:

- ADM Robert F. Willard, Vice Chief of Naval Operations for ADM Vern Clark, Chief of Naval Operations
- General Michael Moseley, Vice Chief of Staff for the Air Force for Gen John P. Jumper, Chief of Staff of the Air Force
- Mr. Dionel M. Aviles, Under Secretary of the Navy for Hon Gordon R. England, Secretary of the Navy
- Gen William Nyland, Assistant Commandant of the Marine Corps for Gen Michael Hagee, Commandant of the Marine Corps

Others:

- Hon William Haynes, DoD General Counsel
- Mr. Raymond DuBois, Director, Administration & Management
- Mr. Philip Grone, Deputy Under Secretary of Defense (Installations & Environment)
- Mr. Pete Potochney, Director, OSD BRAC
- Dr. Craig College, Deputy Assistant Secretary of the Army
- Ms. Anne R. Davis, Special Assistant to the Secretary of the Navy for BRAC
- Maj Gen Gary Heckman, Assistant Deputy Chief of Staff of the Air Force
- Mr. Fred Pease, Deputy Under Secretary of the Air Force (B&IA)
- Mrs. Nicole D. Bayert, Associate General Counsel, Environment and Installations
- VADM Keith Lippert, Chairman, Supply and Storage JCSG
- Lt Gen George Taylor, Chairman, Medical JCSG
- Mr. Alan Shaffer, Director, Plans and Systems, Office of the Director, Defense Research and Engineering for the Dr. Ron Sega, Chairman, Technical JCSG
- Mr. Nelson Gibbs, Assistant Secretary of the Air Force for Installations, Environment and Logistics
- Mr. Dick McGraw, Special Assistant to the Secretary of the Defense

- Mr. H. T. Johnson, Chairman of the Red Team
- Mr. Gary Motsek, Chairman, Armaments and Munitions, Industrial JCSG
- Dr. Tony Tether, Director, DARPA
- Mr. Donald Tison, Chairman, Headquarters and Service Activities JCSG

BRAC 2005

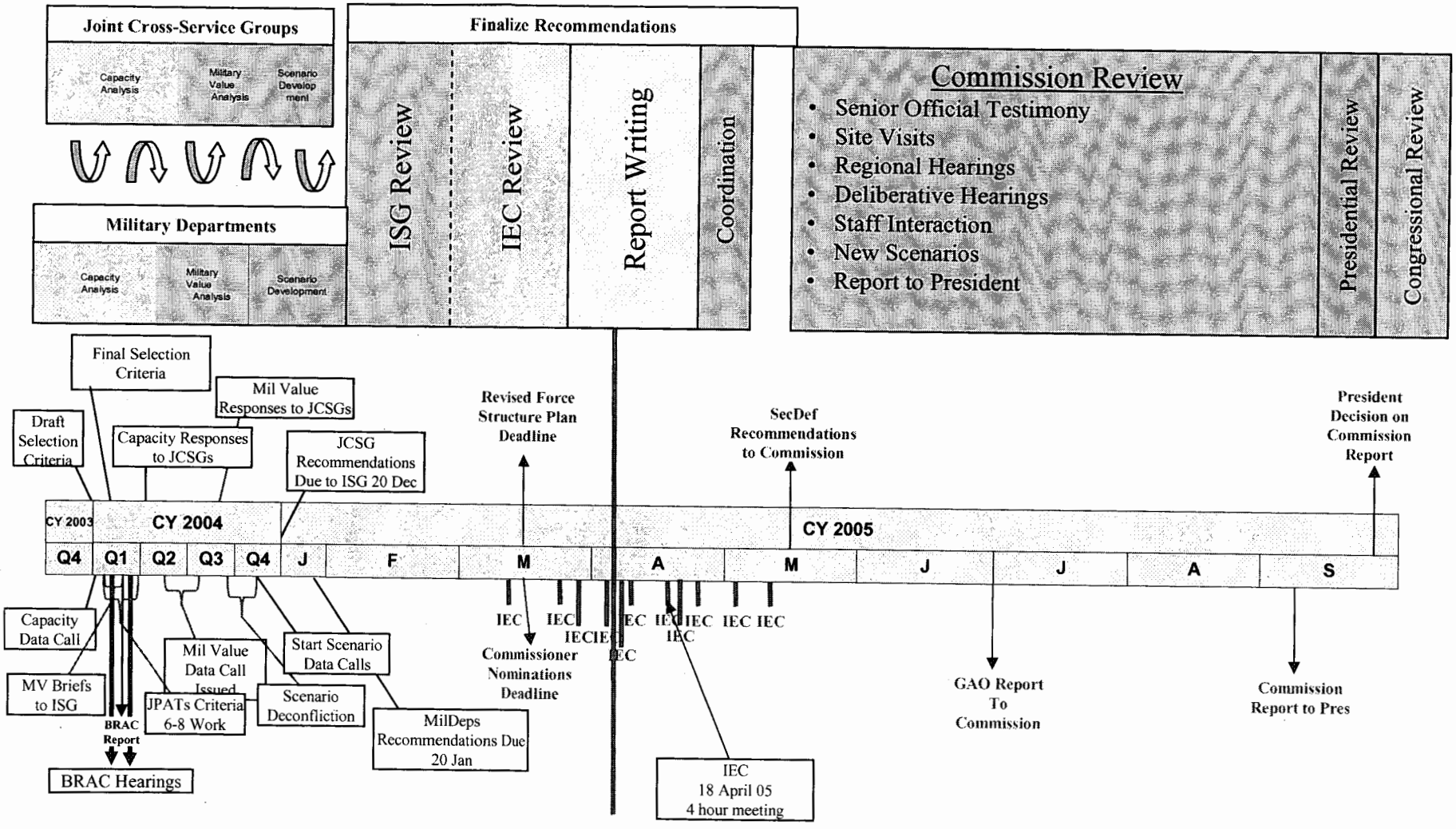
Briefing to the
Infrastructure Executive Council

April 6, 2005

Purpose

- Process Overview
- Summary of Candidate Recommendations
- Pending IEC Deliverables
  - MCLB Barstow
- Financial Summary
- BRAC Red Team

Process Overview



Summary of Candidate Recommendations

- Total of 13 candidate recommendations (CR) presented for approval:
  - Co-locate National Guard Headquarters
  - Relocate Air Force Real Property Agency and Air Force Center for Environmental Excellence
  - Close National Geospatial-Intelligence Agency
  - Realign the Counterintelligence Field Activity
  - Create Tri-Service Biomedical Research Center of Excellence
  - Realign Walter Reed – Armed Forces Institute of Pathology
  - Relocate the Naval Health Research Center Electro-Magnetic Energy Detachment
  - Consolidate Army Land C4ISR
  - Co-locate Extramural Research Program Managers
  - Close Natick Soldier Systems Center
  - Realign Eielson AFB
  - Establish F-15 Avionics Centralized Intermediate Repair Facility
  - Establish F-100 Centralized Intermediate Repair Facility
- IEC members raised issues with the following:
  - Depot Level Reparables (DLRs)
    - Under revision – to be presented at next meeting

All 13 deemed tentatively approved

Pending IEC Deliverables

Resubmissions:

- Consolidate Civilian Personnel Offices – resubmit using HSA-0031
- Joint Center for Rotary Wing RDAT&E
- Joint Center for Fixed Wing RDAT&E
- Joint Center for Weapons & Armaments RDAT&E
- C4ISR RDAT&E Consolidation (Air Force)
- C4ISR RDAT&E Consolidation (Navy)
- Defense Research Service Led Laboratories
- Joint Weather Center at Stennis MS
- Consolidate Undergraduate Flight Trng

Integrated packages:

- Closure of Red River
- Closure of MCLB Barstow

Department of the Navy
Infrastructure Evaluation Group

Pending Final Data

MCLB Barstow DON-0165A

Close Marine Corps Logistics Base Barstow. Relocate Fleet Support Division to MCLB Albany. Relocate DRMO to San Diego. Enclave railhead and family housing and transfer to Army. Relocate depot maintenance functions (IND-0127A) to FRC Jacksonville, FL; Anniston Army Depot, AL; Tobyhannah Army Depot, PA; Hill AFB, UT; Letterkenny Army Depot, PA; and MCLB Albany, GA. Relocate Distribution Depot functions to DD San Joaquin (S&S-0051).

Justification

✓Reduces Depot Maintenance Sites & Excess Capacity using 1.5 shifts.

✓Facilitates Interservicing of Depot maintenance.

✓Saves $$ by closing entire installation.

Military Value

✓For all Depot Maintenance commodities except two Starters / Alternators / Generators & Radar, average military value increases.

✓ For Western/Pacific Distribution Depot Region, ranked 5 of 5.

Payback

✓One Time Cost:	$184.85M
✓Net Implementation Cost:	$183.97M
✓Annual Recurring Savings:	$145.30M
✓Payback:	Immediate
✓NPV Savings:	$1.714B

Impacts

✓Criteria 6: -1506 jobs; 0.11% job loss

✓Criteria 7: Fire/medical emergency mutual aid agreements; provides city's CNG refueling; MOA for CHP & County Sheriff to train at small arms range.

✓Criteria 8: The closure of small arms range and the remediation of any munitions contaminants. The costs and time required to remediate the ranges is uncertain.

❑ Strategy
✓ COBRA
✓Capacity Analysis/Data Verification
❑ Military Value Analysis/Data Verification
❑ JCSG/MilDep Recommended
❑ Criteria 6-8 Analysis
❑ De-conflicted w/JCSGs
❑ De-conflicted w/MilDeps

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MCLB Barstow Discussion

- Close Marine Corps Logistics Base Barstow. Realign Fleet Support Division to MCLB Albany. Transfer railhead and family housing to Army. Relocate depot maintenance functions to FRC Jacksonville, FL; Anniston Army Depot, AL; Tobyhannah Army Depot, PA; Hill AFB, UT; Letterkenny Army Depot, PA; and MCLB Albany, GA.

Scenario	One Time Cost ($M)	Net Cost ($M)	Net Recurring Savings ($M)	NPV ($M)	ROI - Years	Move/Elim
CR IND-0127A (798 People)	42.67	41.91	-19.675	-215	1	629/169
SDC S&S-0051 – DON-0165 enabler	4.77	4.77	-46.33	-616.5	1	0/10
DON-0165A (Railhead enclave, family housing not shut down)	137.41	137.29	-79.30	-882.5		120/578
Combined	184.851	183.969	-145.303	-1,714	Immediate	749/757*

***Note: Personnel figures are based on preliminary data**

All Dollars shown in Millions

- DON objects to relocation of depot maintenance

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DON Objections to Barstow CRs

- Ground depot requirements understated
  - Peacetime data not reflective of current or future contingencies/operations
    - Peacetime Depot Budget ($114M) vice GWOT Supplemental ($319M)
    - Peacetime Workload (1.8M DLH) vice GWOT workload (3.8M DLH)
    - Increase Requirement recognized in FYDP (FY06 $127M – FY11 $238M)
- Ability to recover/reconstitute the force a major concern
  - Availability of weapons systems for concurrent/future contingencies in question
  - Requires Reduced Repair Cycle Times
  - Bow wave increases risk and demand on depot output
    - Vehicle Hardening
    - Desert Damage
    - Increased Reserve Forces
- Marine Corps Expeditionary Mission
  - 92% of Weapons Systems and Marines assigned to DPG/JCS scenarios
  - 2/3 of ground equipment located in Western US/WestPac
    - DoD increasing presence in Pacific
  - Rail Transit time increase turn around/customer wait time by 10-30+ days

Logistics flexibility, adaptability, & C2 are key for an expeditionary force

Candidate Recommendations – Cost and Savings ($M)

(As of 30 Mar 05)

	Gross Savings*	One-Time (Costs)	Net Implementation Savings/(Costs)	Annual Recurring Savings/(Costs)	NPV Savings/(Costs)
Army BRAC	4,903.1	(9,746.6)	(8,500.1)	351.4	(4,843.5)
Overseas	15,958.9	(348.5)	4,360.2	1,248.5	15,610.4
BRAC + Overseas	20,861.9	(10,095.1)	(4,139.9)	1,599.9	10,766.8
Navy	7,545.6	(1,304.9)	621.2	607.0	6,240.7
Air Force	8,964.0	(2,303.8)	(282.8)	747.4	6,660.2
JCSGs	50,962.2	(14,644.3)	(84.8)	3,921.2	36,317.9
E&T	7,215.8	(2,945.9)	(824.6)	550.5	4,269.9
H&SA	12,908.3	(3,005.1)	667.0	998.7	9,903.2
Industrial	13,386.2	(1,600.3)	2,658.1	1,002.4	11,785.9
Intelligence	1,996.5	(1,723.9)	(1,326.8)	154.3	272.6
Medical	4,041.2	(2,025.2)	(1,047.3)	322.8	2,016.0
S&S	4,968.2	(331.9)	1,169.7	382.1	4,636.3
Technical	6,446.0	(3,012.0)	(1,381.0)	510.5	3,434.0
Total	72,374.7	(27,999.5)	(8,246.5)	5,626.9	44,375.2
Total W/Overseas	88,333.7	(28,348.1)	(3,886.3)	6,875.4	59,985.6

* Gross savings is the sum of Net Present Value and the 1-time costs

DCN:11710

Registered Closure Scenarios

Annotated to Indicate Withdrawals (as of 4 Apr 05)

Army	Dept of the Navy	Air Force	JCSG Potential Closures
~~Ft Hamilton, NY~~	NS Pascagoula, MS ✓	Cannon AFB, NM ✓	~~Fort Huachuca, AZ~~
Selfridge Army Activities, MI ✓	NS Ingleside, TX ✓	Grand Forks AFB, ND ✓	~~*National NavMed Ctr Bethesda, MD*~~
Pueblo Chem Depot, CO ✓	~~NS Everett, WA~~	~~Scott AFB, IL~~	~~NAS Meridian, MS~~
Newport Chem Depot, IN ✓	~~SUBASE San Diego, CA~~	Ellsworth AFB, SD ✓	~~NAS Corpus Christi, TX~~
Umatilla Chem Depot, OR ✓	SUBASE New London, CT ✓	~~Holloman AFB, NM~~	NAES Lakehurst, NJ
Deseret Chem Depot, UT ✓	NAS Atlanta, GA ✓	Onizuka AFS, CA ✓	~~Presido of Monterey, CA~~
Ft Gillem, GA ✓	~~NAS JRB Fort Worth, TX~~	~~Los Angeles AFB, CA~~	~~*MCLB Albany, GA*~~
~~Ft Shafter, HI~~	NAS Brunswick, ME ✓	~~Moody AFB, GA~~	Brooks City Base, TX
Ft Monroe, VA ✓	~~NAS Oceana, VA~~	Pope AFB, NC ✓	
Ft McPherson, GA ✓	~~MCRD San Diego, CA~~	Rome Lab, NY ✓	
~~Watervliet Arsenal, NY~~	~~MCAS Beaufort, SC~~	Mesa AFRL, AZ ✓	
Rock Island Arsenal, IL	NAS JRB Willow Grove, PA ✓	ANG / Reserve Stations (22 sites)	
~~Detroit Arsenal, MI~~	~~CBC Gulfport, MS~~		
~~Sierra Army Depot, CA~~	NAS Whiting Field, FL		
Hawthorne Army Depot, NV ✓	MCSA Kansas, MO ✓		
~~Louisiana AAP, LA~~	NSA New Orleans, LA ✓		
Lone Star AAP, TX ✓	Naval Postgraduate School, CA ✓		
Mississippi AAP, MS ✓	~~NDW DC (Potomac Annex), DC~~		
Kansas AAP, KS ✓	Navy Supply Corps School, GA ✓		
River Bank AAP, CA ✓	~~*NAV Shipyd Norfolk, VA*~~		
Carlisle Barracks, PA ✓	NAV Shipyd Portsmouth, ME ✓		
Red River Army Depot, TX ✓	NSA Corona, CA ✓		
Ft Monmouth, NJ ✓	~~NAS Point Mugu, CA~~		
Walter Reed, DC ✓ 6	~~Arlington Service Center, VA~~		
Soldier System Ctr Natick, MA ✓	~~NS Newport, RI~~		
NG / Reserve Centers (~ 424 sites)	MCLB Barstow, CA ✓ 6		
	NWSC Crane, IN		
	NSA Philadelphia, PA	~~NSWC Indian Head, MD~~	
	Reserve Centers (~ 40 sites)	NSWC Philadelphia, PA	

Notes:
1. Yellow represents JCSG/MilDep cooperative effort.
2. Italics represent options, only one of which would be recommended
3. Strike through indicates deliberate decision to eliminate scenarios, or render it inactive
4. Expect a significant number of realignments in addition to these closures
5. ✓ indicates candidate recommendation submitted
6. Awaits Service enabling scenario

BRAC Red Team

Next Steps

- Next IEC meeting – 11 Apr 05
- Continue to review and approve candidate recommendations

Dr. Tony Tether
Director

April 2005

DARPA Role in Science and Technology