



# Lone Star Army Ammunition Plant **BRAC Analysis**

103-06A – A20 – Community Input  
Army – Lone Star Army Ammunition Plant - TX  
**BRAC COMMISSION – FY 2005**  
COFF: \_\_\_\_\_ DISPOSITION: Permanent

Library Routing Slip 2005 BRAC Commission Materials  
Title of Item: Additional Material  
Installation or Community: Lone Star AAP  
Source: Operating Contractor  
Certified Material?  yes  no  
Analyst / Provider: George Delgado Date Received: 7/20/05

29-Jun-05

## ***The Case for privatization of the Lone Star Army Ammunition Plant...***

### ***Why should the Lone Star Army Ammunition Plant be privatized?***

#### **Because it benefits the DoD more than closure**

- Privatization reduces the organic base footprint while maintaining ammunition production capabilities and centers of expertise
- Privatization allows Lone Star to be operated at no-cost to the government
- Privatization retains competitive forces within the US industrial base without cost of ownership to insure the best value to DoD
- Privatization preserves DoD's continued access to D&Z intellectual property and surge capability at no-cost to the government
- Privatization retains jobs and on-going business
- Privatization allows the redevelopment of excess real estate by the Local Redevelopment Authority

### ***Why is privatization better than closure?***

#### **Privatization is more cost-effective for the government in the long run**

- Privatization reduces the Defense Department's industrial holdings as effectively as closure
- Privatization retains domestic competition in the munitions industry, thereby driving the unit cost of munitions down
- Privatization assigns responsibility for industrial management to industry, and lets industry make decisions about capacity and consolidation.
- Privatization of government owned ammunition bases has been successfully demonstrated in the UK, Australia, and Canada
- Privatization is no-risk. No loss of existing skill base and centers of expertise and no risk of start-up failures at new proposed sites impacting support to the warfighter
- Privatization reduces one-time cost to implement the recommendation by \$40.6M and provides the same net recurring savings as closure of \$17.3M\*

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***Privatization is the most cost-effective method of  
implementing the DoD recommendations***



**Lone Star Army Ammunition Plant**  
**BRAC Commission**  
**Review And Analysis**

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**Considerations for the BRAC Commission in evaluating OSD's recommendations concerning the Lone Star AAP...**

- There are inconsistencies in the Military Value and Capacity analysis
- Data calls for Lone Star AAP were inaccurately reported – *Lone Star's manpower and capabilities are misrepresented*
- Lone Star does have critical capabilities which if lost will significantly impact current DoD programs
- The most cost-effective method to implement OSD's recommendations for Lone Star AAP is privatization-in-place

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*Conclusion: OSD deviated substantially from the BRAC selection criteria therefore recommend privatization-in-place*

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OSD's analysis does not accurately represent Lone Star AAP  
Military Value...

- OSD used inappropriate attributes to form recommendations – e.g. How is soil resiliency relevant to ammunition plants?
- OSD rated Lone Star AAP and RRAD inconsistently – How could this be true for adjacent facilities?

	<u>LSAAP</u>	<u>RRAD</u>
Soil Resiliency (A-11)	0	4.50
Water Quantity (A-12)	.78	2.39
Environmental Elasticity (A-38)	.39	1.49

*Military Value is the number one BRAC selection criteria, however, it was inaccurately calculated for LSAAP*

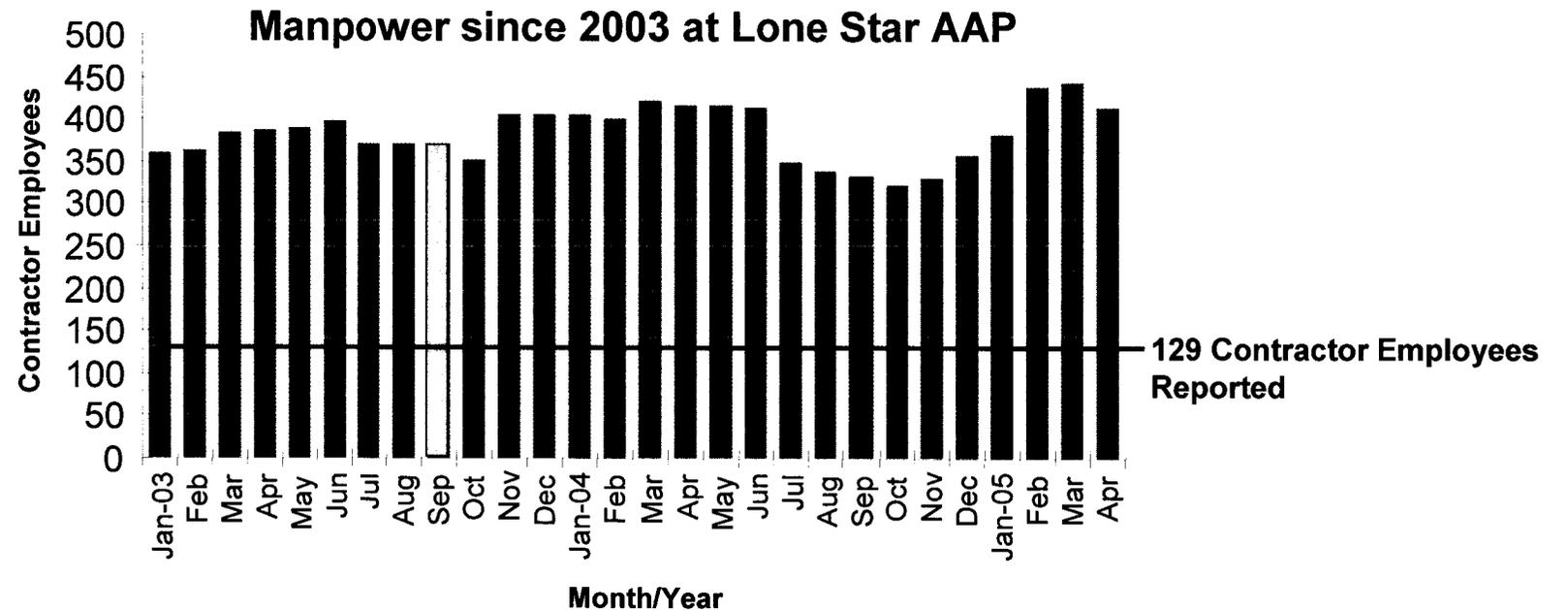
Reference: Appendix A - Military Value Reports: LS AAP Military Value summary report;  
Department of the Army BRAC 2005 Analysis and Recommendations, Volume  
III, May 2005, Appendix B Military Value Analysis





### Manpower for Lone Star AAP was inaccurately reported....

- OSD reported LSAAP manpower at only 229 (2 military, 18 civilian, 129 D&Z and 80 indirect)
- Actual manpower at plant in FY2005 is 423 (1 military, 19 civil service, and 403 D&Z)
- Army Stationing and Installation Plan (ASIP) submitted May 23, 2005 also verifies Lone Star AAP current manpower is in excess of 400
- Lone Star's manpower was understated by 242 employees on 30-Sep-03



*Data call does not accurately reflect the actual manpower at LSAAP as of 30-Sep-03 and present*

Reference: Appendix A - Manpower Reports: LSAAP Data Call Questions 2420, 2426, 2435 & 2442; Army Stationing and Installation Plan (ASIP) 23-May-05





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**Lone Star AAP has critical capabilities and intellectual property that will be lost...**

- Much of the intellectual property belongs to Day & Zimmermann
  - Designs for production equipment, processes, and tooling
  - SOPs, Detailed Inspection Plans, Maintenance Work Instructions, etc.
  - Process control programs developed for production of detonators, self-destruct fuzes, and other products
  - Patents on critical production equipment: Chamlee Loader (US #3426946), Cargile Scooper (US #3383020), and Cone & Explosive Extractor (US #6901835)
  
- Lone Star has critical capabilities
  - Produces, stores, maintains, upgrades, and demilitarizes munitions – *the full scope of activity*
  - Loaded Components (Primers, Detonators, Delays, etc.)
  - FASCAM Gator, Volcano, MOPMS
  - Artillery ICM 105mm, 155mm, MLRS (Grenades)
  - Hand Grenades (HE), Bursterns
  - M223/M239 fuze production
  - M53 Delay, M59 Detonator, M67 Hand Grenade, and M223/M239 Fuze Production – *Lone Star sole source items*

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**Closing Lone Star AAP is contrary to the interests of full and open competition...**

- PEO Ammo's long-term strategy is to move to more, not less, competitive contracting
- By directing workload to IOWA, Milan, McAlester, and Crane, OSD is acting contrary to the strategy
- Shutting down a contractor-operated facility (Lone Star) in favor of government-operated ones (McAlester and Crane) completely ignores the benefits of competitive contracting
- Lone Star's most formidable competitor is SNC of Canada
  - SNC is proficient in mortars, artillery, energetics and grenades
  - SNC is the most likely winner of any subsequent hand grenade competition if Lone Star is closed

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*OSD can direct work to IOWA and Milan, but if the next grenade contract is competitive, and SNC wins the work, then the cost of transferring the capability and recurring savings will never be recovered*

Reference: Appendix A - Case Study: *The case for privatizing the Army Ammunition Plants in the 2005 BRAC process*



OSD one-time other cost to relocate functions to gaining installations is understated...

<u>One-Time Other Cost</u>	<u>Cobra (\$k)</u>	<u>DZLS/Cobra (\$k)</u>
Lone Star		
Move ICM Equip	3,875	5,523
Equipment for Grenades	150	2,222
Milan (ICM, Hand Grenades, Mortars)		
Mod bldg & install truck loading dock	700	700
Equip upgrade & installation	3,009	3,009
Crane (Demo Charges)		
Facility upgrade	30	30
Equipment & tooling	40	1,242
Iowa (Mines, Detonators/Relays/Delays)		
Facilitize Iowa for detonators	5,000	9,761
Minor upgrade & bldg repair	525	525
Other Functions not considered (Supp Chrg, Primers and MCCM)	0	3,780
<b>Total One-Time Other Cost</b>	<b>13,329</b>	<b>27,492</b>

*OSD underestimated one-time other cost to relocate functions to gaining installations by \$14.16 million*

Reference: Appendix A - One-time Cost Reports: Cobra Input Data Report (Cobra v6.10), Pages 8-9; DZLS One-time Other Excluded Cost Detail and Summary



Privatization is the most cost effective method to implement OSD's recommendations....

One-Time Costs	Closure (\$k)	Privatization (\$k)
O&M		
Civ Salary	426	426
Civ Moving	142	142
Unemployment	31	31
Other	7,021	1,918
Mil Personnel		
Other	21	21
Other		
Environmental	5,350	0
1-Time Other	15,984	0
<b>Total One-Time Costs</b>	<b>28,975</b>	<b>2,538</b>
<b>Total One-Time Savings w/Privatization</b>		<b>26,437</b>

*With privatization the avoidance of relocating the capabilities results in a one-time savings to DoD of \$40.6M\* – Also the annual net recurring savings of \$17.3M will remain the same as closure*

Reference: Appendix A - One-time Cost Reports: Total Cobra Realignment Detail Report (Cobra v6.10) – Page 1 of 18

\* Source: \$26.4M on-time savings w/ privatization plus \$14.16M one-time other excluded costs

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**The best outcome is for the Commission to recommend that the Lone Star AAP be privatized-in-place**

- **Benefits to privatization-in-place include**
  - Reduces the organic base footprint while maintaining capabilities
  - Lone Star would be operated at no-cost to the government
  - Reduces one-time cost to implement the recommendation by \$40.6M and provides the same net recurring savings as closure of \$17.3M
  - Retains competitive forces within the US industrial base without cost of ownership
  - Preserves contracting operators intellectual property and surge capacity at no cost to the Government
  - Retains jobs and on-going business
  - Allows the redevelopment of excess real estate

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*A successful privatization-in-place will require specific language in the report:  
DoD must be directed to leave the production equipment on site*

Reference: Appendix A – BRAC Language: Suggested LSAAP BRAC language; Appendix A –  
Case Study: The case for privatizing the Army Ammunition Plants in the BRAC  
2005 process

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# Lone Star Army Ammunition Plant

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**Appendix A**  
***Supplemental Material***

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## LSAAP Military Value Summary Report

Department of the Army Analysis and Recommendations BRAC 2005, Volume III,  
May 2005, Appendix B Military Value Analysis

Attribute	Value	Weight	Model Inputs		Model Outputs	
			Lone Star	RRAD	Lone Star	RRAD
1 Direct Fire Capability	100	5.45%	Label 0	Label 0	0.00	0
2 Indirect Fire Capability	90	4.90%	Label 0	Label 0	0.00	0
3 MOUT Capability	10	0.54%	Label 0	Label 0	0.00	0
4 Heavy Maneuver Area	100	5.45%	Label 0	Label 0	0.00	0
5 Light Maneuver Area	90	4.90%	0	6,803	0.00	0.68
6 Airspace	90	4.90%	Label 0	Label 0	0.00	0
7 General Instructional Facilities	5	0.27%	0	48,846	0.00	0.93
8 Applied Instructional Facilities	5	0.27%	0	0	0.00	0
9 Air Quality	10	0.54%	0	0	10.00	10.00
10 Noise Contours	10	0.54%	Label 10	Label 10	10.00	10.00
11 Soil Resiliency	50	2.72%	0	17,273	0.00	4.50
12 Water Quantity	20	1.09%	719	2,414	0.78	2.39
13 Mobilization History	75	4.09%	0	0	0.00	0
14 Force Deployment	90	4.90%	180	16	0.00	8.81
15 Material Deployment	90	4.90%	365	20	0.00	9.55
16 Operations/Admin Facilities	10	0.54%	0	128,857	0.00	0.44
17 Accessibility	50	2.72%	Label 4	Label 4	3.01	3.01
18 Connectivity	20	1.09%	7	7	6.90	6.90
19 RDT&E Mission Diversity	20	1.09%	0	0	0.00	0
20 Test Range Capability	75	4.09%	Label 1	Label 1	0.54	0.54
21 Munitions Production	50	2.72%	9	0	6.92	0
22 Ammunition Storage Capacity	10	0.54%	947	1,950	1.25	2.57
23 Interservice & Partnering Workload	75	4.09%	93	12	0.22	0.03
24 Maintenance/Manufacturing	50	2.72%	93	1,849	0.24	4.88
25 Supply & Storage Index	10	0.54%	4,675	4,160,051	0.01	6.55
26 Crime Index	50	2.72%	4,847	4,847	3.27	3.27
27 Employment Opportunities	20	1.09%	Label 2	Label 2	1.14	1.14
28 Housing Availability	50	2.72%	Label 7	Label 7	1.11	1.11
29 Medical Care Availability	10	0.54%	0.0022	0.0022	3.14	3.14
30 In-State Tuition Policies	10	0.54%	Label 3	Label 3	10.00	10.00
31 Workforce Availability	20	1.09%	207,627	216,479	1.04	1.08
32 Joint Facilities	50	2.72%	Label 1	Label 2	0.02	0.79
33 Area Cost Factor	75	4.09%	0.89	1	8.85	8.85
34 C2 for Focus Facilities	5	0.27%	Label 0	Label 7	0.00	2.84
35 Installation Unit Cost Factor	20	1.09%	35,461	13,010	0.00	0
36 Buildable Acres	75	4.09%	3,786	413	6.28	8.75
37 Brigade Capacity	100	5.45%	0	0	7.31	1.34
38 Environmental Elasticity	20	1.09%	Label 4	Label 5	0.39	1.49
39 Urban Sprawl	50	2.72%	10,161	12,139	4.95	4.31
40 Critical Infrastructure Proximity	75	4.09%	8	9	3.48	3.91
	1,835	100.00%			1.73	2.61

7/6/2005

DEPARTMENT OF THE ARMY—BRAC 2005—ANALYSES AND RECOMMENDATIONS

Installations	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Lake City AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	2465	0	0	Label 10
Letterkenny AD	Label 0	Label 0	Label 0	Label 0	4815	Label 1	0	0	5	Label 10
Lima Tank Plant	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	8147	10	Label 10
Lone Star AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
McAlester AAP	Label 0	Label 0	Label 0	Label 0	923	Label 0	66778	0	0	Label 10
Milan AAP	Label 0	Label 0	Label 6	Label 1	0	Label 0	0	257	0	Label 2
Mississippi AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
MOT Sunny Point	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
Newport Chem Depot	Label 0	Label 0	Label 0	Label 0	6598	Label 0	0	0	0	Label 10
Picatinny Arsenal	Label 0	Label 0	Label 5	Label 0	46	Label 0	12669	1606	10	Label 10
Pine Buff Arsenal	Label 0	Label 0	Label 0	Label 0	0	Label 0	11694	3299	0	Label 10
Presidio Of Monterey	Label 0	Label 0	Label 0	Label 0	0	Label 0	232659	28434	5	Label 10
Pueblo Chem Depot	Label 0	Label 0	Label 0	Label 0	11000	Label 0	0	0	0	Label 10
Radford AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 3
Red River AD	Label 0	Label 0	Label 0	Label 0	6803	Label 0	48846	0	0	Label 10
Redstone Arsenal	Label 0	Label 2	Label 6	Label 0	7460	Label 6	191522	193338	0	Label 2
Riverbank AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	30	Label 10
Rock Island Arsenal	Label 0	Label 0	Label 0	Label 0	0	Label 0	10532	63571	0	Label 10
Schofield Barracks	Label 9	Label 2	Label 3	Label 2	20504	Label 9	17217	10079	0	Label 10
Scranton AAP	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	5	Label 10
Sierra AD	Label 1	Label 0	Label 1	Label 0	4013	Label 0	7303	221	0	Label 10
Soldier Systems Support Center	Label 0	Label 0	Label 0	Label 0	0	Label 0	2460	520	0	Label 10
Tobiyhanna AD	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
Tooele AD	Label 0	Label 0	Label 0	Label 0	5191	Label 2	0	0	0	Label 3
Tripler AMC	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
Umatilla Chem Depot	Label 0	Label 0	Label 0	Label 1	5133	Label 4	0	0	0	Label 10
USAG Selfridge	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 10
Walter Reed AMC	Label 0	Label 0	Label 0	Label 0	0	Label 0	55513	28770	10	Label 10
Watervliet Arsenal	Label 0	Label 0	Label 0	Label 0	0	Label 0	1525	176	5	Label 10
West Point	Label 2	Label 1	Label 1	Label 0	14101	Label 2	524332	18798	10	Label 3
White Sands MR	Label 9	Label 11	Label 9	Label 4	100000	Label 9	12222	0	0	Label 10
Yuma PG	Label 9	Label 11	Label 9	Label 9	100000	Label 9	37039	0	5	Label 10
Lease - ARPERCEN	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Army JAG Agency	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Army JAG School	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Army Research Office	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Bailey's Crossroads	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Crystal City Complex	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Hoffman Complex	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - HQ, ATEC	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - PEO STRICOM	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Lease - Rosslyn Complex	Label 0	Label 0	Label 0	Label 0	0	Label 0	0	0	0	Label 1
Ideal Installation	Label 9	Label 11	Label 9	Label 10	100000	Label 9	524332	596043	0	Label 10

DEPARTMENT OF THE ARMY—BRAC 2005—ANALYSES AND RECOMMENDATIONS

Installations	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20
Lima Tank Plant	0	4985	0	158	174	0	Label 8	7	10	Label 1
Lone Star AAP	0	719	0	180	365	0	Label 4	7	0	Label 1
Louisiana AAP	0	1138	0	180	49	107469	Label 10	7	0	Label 1
McAlester AAP	28858	172	0	35	30	118854	Label 8	5	0	Label 1
Milan AAP	2690	10714	0	158	132	0	Label 8	7	0	Label 1
Mississippi AAP	0	0	0	82	365	0	Label 12	7	0	Label 1
MOT Sunny Point	0	772	0	63	26	33283	Label 8	9	0	Label 1
Newport Chem Depot	0	4962	0	111	365	1600	Label 4	7	0	Label 1
Picatinny Arsenal	4731	4481	0	180	365	648748	Label 8	8	36	Label 1
Pine Buff Arsenal	12297	12192	0	149	250	174403	Label 11	9	24	Label 1
Presidio Of Monterey	0	1167	0	60	365	146064	Label 8	7	0	Label 1
Pueblo Chem Depot	22808	138	0	144	221	0	Label 12	7	0	Label 1
Radford AAP	0	25000	0	141	365	156332	Label 4	8	0	Label 1
Red River AD	17273	2414	0	16	20	128857	Label 4	7	0	Label 1
Redstone Arsenal	23299	25000	191	67	89	2146202	Label 4	9	60	Label 1
Riverbank AAP	0	5410	0	180	365	0	Label 8	7	0	Label 1
Rock Island Arsenal	0	0	0	30	44	1229752	Label 2	9	20	Label 1
Schofield Barracks	27990	409	0	48	37	928120	Label 12	7	0	Label 8
Scranton AAP	0	557	0	180	365	33000	Label 8	8	0	Label 1
Sierra AD	30557	4558	0	38	32	73879	Label 10	7	0	Label 1
Soldier Systems Support Center	0	652	0	112	87	181068	Label 8	9	0	Label 1
Toboyhanna AD	0	356	0	53	52	270135	Label 11	9	0	Label 1
Tooele AD	15979	1595	0	63	35	74598	Label 11	7	20	Label 1
Tripler AMC	0	224	0	104	365	0	Label 12	6	0	Label 1
Umatilla Chem Depot	105	3522	0	85	365	35975	Label 4	7	0	Label 1
USAG Selfridge	0	1024	0	101	365	79820	Label 10	8	0	Label 1
Walter Reed AMC	0	25000	1075	85	77	371142	Label 12	8	0	Label 1
Watervliet Arsenal	0	0	0	33	37	61108	Label 10	8	0	Label 1
West Point	2296	1001	0	180	365	574961	Label 8	9	0	Label 1
White Sands MR	1113928	25000	0	68	365	643251	Label 8	10	84	Label 9
Yuma PG	756231	8200	0	145	133	116707	Label 7	7	39	Label 9
Lease - ARPERCEN	0	0	0	180	365	0	Label 8	7	0	Label 0
Lease - Ballston Complex	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - Army JAG Agency	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - Army JAG School	0	0	0	180	365	0	Label 8	7	0	Label 0
Lease - Army Research Office	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - Bailey's Crossroads	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - Crystal City Complex	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - Hoffman Complex	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - HQ, ATEC	0	0	0	180	365	0	Label 12	7	0	Label 0
Lease - PEO STRICOM	0	0	0	180	365	0	Label 8	7	0	Label 0
Lease - Rosslyn Complex	0	0	0	180	365	0	Label 12	7	0	Label 0
Ideal Installation	1113928	25000	32471	10	15	2951971	Label 12	10	88	Label 9

DEPARTMENT OF THE ARMY—BRAC 2005—ANALYSES AND RECOMMENDATIONS

Installations	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30
Lima Tank Plant	0	0	586	656	10456	3662	Label 2	Label 7	0.0016	Label 3
Lone Star AAP	9	947	93	93	4675	4847	Label 2	Label 7	0.0022	Label 3
Louisiana AAP	1	0	0	0	418300	6136	Label 2	Label 8	0.0037	Label 3
McAlester AAP	6	7597	0	0	6253847	4743	Label 1	Label 7	0.0000	Label 3
Milan AAP	12	2564	0	0	134600	5019	Label 1	Label 7	0.0008	Label 2
Mississippi AAP	1	132	0	0	301184	4159	Label 2	Label 7	0.0006	Label 2
MOT Sunny Point	0	0	0	0	28485	6574	Label 1	Label 8	0.0028	Label 0
Newport Chem Depot	0	0	0	0	6800	3750	Label 2	Label 7	0.0004	Label 2
Picatunny Arsenal	0	43	0	0	367698	3024	Label 5	Label 3	0.0032	Label 3
Pine Buff Arsenal	6	4037	333	725	1751174	7046	Label 1	Label 7	0.0020	Label 2
Presidio Of Monterey	0	0	0	0	71047	3463	Label 4	Label 1	0.0017	Label 2
Pueblo Chem Depot	0	1804	0	0	4722600	4999	Label 2	Label 7	0.0025	Label 2
Radford AAP	5	496	0	0	457352	3140	Label 2	Label 7	0.0011	Label 0
Red River AD	0	1950	12	1849	4160051	4847	Label 2	Label 7	0.0022	Label 3
Redstone Arsenal	0	0	0	0	1922069	4244	Label 3	Label 8	0.0021	Label 2
Riverbank AAP	2	0	0	0	8880	6027	Label 1	Label 4	0.0016	Label 2
Rock Island Arsenal	0	0	281	980	969649	4016	Label 2	Label 7	0.0019	Label 2
Schofield Barracks	0	0	0	0	801068	6360	Label 5	Label 3	0.0029	Label 2
Scranton AAP	2	0	0	0	3300	2541	Label 1	Label 8	0.0021	Label 2
Sierra AD	0	5460	0	0	2867224	3944	Label 1	Label 7	0.0009	Label 2
Soldier Systems Support Center	0	0	0	0	46101	2920	Label 6	Label 3	0.0045	Label 0
Tobiyhanna AD	0	0	1313	3157	1398847	2957	Label 2	Label 8	0.0003	Label 2
Tooele AD	0	3568	1	118	2054998	4452	Label 5	Label 7	0.0000	Label 3
Tripler AMC	0	0	0	0	0	6360	Label 5	Label 3	0.0029	Label 2
Umatilla Chem Depot	0	0	0	0	47826	4868	Label 1	Label 7	0.0000	Label 3
USAG Selfridge	0	0	0	0	7403	4298	Label 5	Label 6	0.0028	Label 0
Walter Reed AMC	0	0	0	0	53760	4047	Label 9	Label 3	0.0020	Label 0
Watervliet Arsenal	0	0	63	326	110490	2804	Label 3	Label 5	0.0028	Label 2
West Point	0	0	0	0	99784	2804	Label 6	Label 1	0.0034	Label 2
White Sands MR	0	0	0	0	326994	5078	Label 1	Label 7	0.0014	Label 2
Yuma PG	0	0	0	7	182288	6386	Label 1	Label 7	0.0011	Label 3
Lease - ARPERCEN	0	0	0	0	0	4602	Label 9	Label 6	0.0029	Label 0
Lease - Ballston Complex	0	0	0	0	0	7046	Label 3	Label 3	0.0032	Label 2
Lease - Army JAG Agency	0	0	0	0	0	7046	Label 6	Label 3	0.0032	Label 0
Lease - Army JAG School	0	0	0	0	0	3140	Label 2	Label 4	0.0071	Label 0
Lease - Army Research Office	0	0	0	0	0	4721	Label 9	Label 6	0.0013	Label 0
Lease - Bailey's Crossroads	0	0	0	0	0	4047	Label 9	Label 3	0.0032	Label 3
Lease - Crystal City Complex	0	0	0	0	0	4047	Label 9	Label 3	0.0032	Label 0
Lease - Hoffman Complex	0	0	0	0	0	4047	Label 9	Label 3	0.0032	Label 0
Lease - HQ, ATEC	0	0	0	0	0	4047	Label 9	Label 3	0.0032	Label 0
Lease - PEO STRICOM	0	0	0	0	0	5710	Label 3	Label 6	0.0021	Label 0
Lease - Rosslyn Complex	0	0	0	0	0	4047	Label 9	Label 3	0.0032	Label 0
Ideal Installation	13	7597	1313	3786	6253847	320	Label 9	Label 9	0.0071	Label 3

DEPARTMENT OF THE ARMY—BRAC 2005—ANALYSES AND RECOMMENDATIONS

Installations	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40
Lima Tank Plant	512152	Label 2	0.98	Label 0	20413	156	0	Label 5	142375	10
Lone Star AAP	207627	Label 1	0.89	Label 0	35461	3786	0	Label 4	10161	8
Louisiana AAP	342826	Label 7	0.89	Label 0	43445	63	0	Label 7	17354	8
McAlester AAP	122634	Label 5	0.84	Label 7	21870	28347	0	Label 8	2277	10
Milan AAP	320023	Label 4	0.87	Label 0	37893	1848	0	Label 7	20255	5
Mississippi AAP	799660	Label 7	0.84	Label 0	92709	1558	0	Label 7	9824	13
MOT Sunny Point	270718	Label 0	0.87	Label 7	26169	2000	0	Label 2	15090	8
Newport Chem Depot	457384	Label 2	0.98	Label 0	10457	6095	0	Label 7	1447	8
Picatinny Arsenal	2000000	Label 6	1.20	Label 1	12845	2800	0	Label 2	10702	21
Pine Buff Arsenal	458424	Label 5	0.90	Label 7	13678	27	0	Label 5	17677	9
Presidio Of Monterey	285978	Label 0	1.21	Label 1	5554	114	0	Label 8	132119	9
Pueblo Chem Depot	377339	Label 1	0.96	Label 0	49067	14122	0	Label 7	1821	0
Radford AAP	534834	Label 0	0.94	Label 0	21289	343	0	Label 7	6259	6
Red River AD	216479	Label 2	0.89	Label 7	13010	413	0	Label 5	12139	9
Redstone Arsenal	573111	Label 9	0.85	Label 1	3452	3335	0	Label 3	18577	5
Riverbank AAP	1021362	Label 4	1.17	Label 0	27138	25	0	Label 7	126689	10
Rock Island Arsenal	447085	Label 6	1.02	Label 7	7698	306	0	Label 5	27982	9
Schofield Barracks	580558	Label 2	1.67	Label 2	7655	107	2	Label 3	3271	1
Scranton AAP	852591	Label 0	1.05	Label 0	41241	1	0	Label 4	46275	17
Sierra AD	174846	Label 1	1.29	Label 7	43804	5668	0	Label 5	821	4
Soldier Systems Support Center	2000000	Label 6	1.12	Label 0	6701	46	0	Label 7	87130	11
Tobyhanna AD	1380275	Label 8	1.07	Label 4	11774	721	0	Label 5	20185	1
Tooele AD	858514	Label 4	1.05	Label 7	20045	12503	0	Label 5	10133	1
Tripler AMC	580558	Label 7	1.69	Label 0	9587	43	0	Label 5	20588	1
Umatilla Chem Depot	187242	Label 0	1.19	Label 0	26393	0	0	Label 7	1282	2
USAG Selfridge	2000000	Label 4	1.12	Label 7	15301	110	0	Label 5	78283	10
Walter Reed AMC	2000000	Label 5	1.02	Label 7	4013	3	0	Label 5	19397	16
Watervliet Arsenal	900707	Label 5	1.02	Label 7	16639	6	0	Label 2	67454	20
West Point	2000000	Label 0	1.40	Label 2	12064	24	0	Label 2	7387	22
White Sands MR	50251	Label 5	1.00	Label 4	10458	9369	1	Label 2	8078	2
Yuma PG	10535	Label 5	1.30	Label 4	12289	24871	1	Label 8	985	3
Lease - ARPERCEN	0	Label 0	1.09	Label 0	92709	0	0	Label 1	379425	0
Lease - Ballston Complex	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - Army JAG Agency	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - Army JAG School	0	Label 0	0.92	Label 0	92709	0	0	Label 1	379425	0
Lease - Army Research Office	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - Bailey's Crossroads	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - Crystal City Complex	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - Hoffman Complex	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	0
Lease - HQ, ATEC	0	Label 0	0.85	Label 0	92709	0	0	Label 1	379425	6
Lease - PEO STRICOM	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	3
Lease - Rosslyn Complex	0	Label 0	1.02	Label 0	92709	0	0	Label 1	379425	5
Ideal Installation	2000000	Label 9	0.74	Label 9	1585	50000	5	Label 9	0	23

Lake City AAP	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
Letterkenny AD	2.69	0.00	0.00	0.00	0.00	0.48	0.26	0.00	0.00
Lima Tank Plant	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Lone Star AAP	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Louisiana AAP	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
McAlester AAP	3.10	0.00	0.00	0.00	0.00	0.09	0.00	1.27	0.00
Milan AAP	1.92	0.00	0.00	5.80	0.08	0.00	0.00	0.00	0.00
Mississippi AAP	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MOT Sunny Point	2.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Newport Chem Depot	1.85	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00
Picatinny Arsenal	2.33	0.00	0.00	2.77	0.00	0.01	0.00	0.24	0.03
Pine Buff Arsenal	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.06
Presidio Of Monterey	1.35	0.00	0.00	0.00	0.00	0.00	0.00	4.44	0.48
Pueblo Chem Depot	2.03	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00
Radford AAP	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Red River AD	2.61	0.00	0.00	0.00	0.00	0.68	0.00	0.93	0.00
Redstone Arsenal	2.99	0.00	1.00	5.80	0.00	0.75	5.30	3.65	3.24
Riverbank AAP	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rock Island Arsenal	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.20	1.07
Schofield Barracks	3.95	10.00	1.00	2.12	0.23	2.05	10.00	0.33	0.17
Scranton AAP	1.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sierra AD	2.49	0.30	0.00	0.23	0.00	0.40	0.00	0.14	0.00
Soldier Systems Support Center	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01
Tobyhanna AD	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tooele AD	2.48	0.00	0.00	0.00	0.00	0.52	1.01	0.00	0.00
Tripler AMC	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Umatilla Chem Depot	1.31	0.00	0.00	0.00	0.08	0.51	1.00	0.00	0.00
USAG Selfridge	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Walter Reed AMC	2.33	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.48
Watervliet Arsenal	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
West Point	1.88	1.03	0.08	0.23	0.00	1.41	1.01	10.00	0.32
White Sands MR	5.16	10.00	10.00	10.00	1.95	10.00	10.00	0.23	0.00
Yuma PG	5.31	10.00	10.00	10.00	7.57	10.00	10.00	0.71	0.00
Lease - ARPERCEN	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Ballston Complex	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG Agency	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG School	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army Research Office	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Bailey's Crossroads	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Crystal City Complex	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Hoffman Complex	1.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - HQ, ATEC	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - PEO STRICOM	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Rosslyn Complex	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Iowa AAP	1.78	10.00	10.00	3.38	0.00	0.00	0.00	0.21	0.00
Kansas AAP	1.80	10.00	10.00	3.59	1.58	0.00	0.00	0.00	0.00
Lake City AAP	1.78	10.00	10.00	0.00	8.82	0.00	0.01	0.00	0.00
Letterkenny AD	2.69	8.33	10.00	3.68	0.00	0.00	3.55	7.38	0.71
Lima Tank Plant	1.60	6.67	10.00	0.00	4.36	0.00	0.14	1.73	0.00
Lone Star AAP	1.73	10.00	10.00	0.00	0.78	0.00	0.00	0.00	0.00
Louisiana AAP	1.79	10.00	10.00	0.00	1.20	0.00	0.00	7.02	0.36
McAlester AAP	3.10	10.00	10.00	6.32	0.19	0.00	5.61	8.56	0.40
Milan AAP	1.92	10.00	1.50	0.89	7.24	0.00	0.14	2.80	0.00
Mississippi AAP	1.91	10.00	10.00	0.00	0.00	0.00	1.79	0.00	0.00
MOT Sunny Point	2.09	10.00	10.00	0.00	0.83	0.00	2.88	8.87	0.11
Newport Chem Depot	1.85	10.00	10.00	0.00	4.34	0.00	0.83	0.00	0.01
Picatinny Arsenal	2.33	6.67	10.00	1.51	4.01	0.00	0.00	0.00	2.20
Pine Buff Arsenal	1.84	10.00	10.00	3.47	7.75	0.00	0.22	0.64	0.59
Presidio Of Monterey	1.33	8.33	10.00	0.00	1.23	0.00	3.09	0.00	0.50
Pueblo Chem Depot	2.03	10.00	10.00	5.46	0.15	0.00	0.28	0.95	0.00
Radford AAP	1.51	10.00	3.39	0.00	10.00	0.00	0.31	0.00	0.53
Red River AD	2.61	10.00	10.00	4.50	2.39	0.00	8.81	9.55	0.44
Redstone Arsenal	2.99	10.00	1.50	5.54	10.00	0.06	2.61	4.52	7.27
Riverbank AAP	1.18	0.00	10.00	0.00	4.63	0.00	0.00	0.00	0.00
Rock Island Arsenal	2.14	10.00	10.00	0.00	0.00	0.00	6.29	7.40	4.17
Schofield Barracks	3.95	10.00	10.00	6.21	0.45	0.00	4.16	7.96	3.14
Scranton AAP	1.55	8.33	10.00	0.00	0.61	0.00	0.00	0.00	0.11
Sierra AD	2.49	10.00	10.00	6.53	4.07	0.00	5.24	8.39	0.25
Soldier Systems Support Center	1.96	10.00	10.00	0.00	0.71	0.00	0.81	4.63	0.61
Tobyhanna AD	2.79	10.00	10.00	0.00	0.39	0.00	3.70	6.79	0.92
Tooele AD	2.48	10.00	3.39	4.25	1.64	0.00	2.90	8.08	0.25
Tripler AMC	1.26	10.00	10.00	0.00	0.25	0.00	1.02	0.00	0.00
Umatilla Chem Depot	1.31	10.00	10.00	0.04	3.30	0.00	1.68	0.00	0.12
USAG Selfridge	1.51	10.00	10.00	0.00	1.09	0.00	1.09	0.00	0.27
Walter Reed AMC	2.33	6.67	10.00	0.00	10.00	0.33	1.68	5.18	1.26
Watervliet Arsenal	2.25	8.33	10.00	0.00	0.00	0.00	5.88	7.93	0.21
West Point	1.88	6.67	3.39	0.77	1.06	0.00	0.00	0.00	1.95
White Sands MR	5.16	10.00	10.00	10.00	10.00	0.00	2.59	0.00	2.18
Yuma PG	5.31	8.33	10.00	10.00	6.18	0.00	0.26	2.77	0.40
Lease - ARPERCEN	1.06	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Ballston Complex	0.93	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG Agency	0.94	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG School	0.91	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army Research Office	1.15	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Bailey's Crossroads	1.16	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Crystal City Complex	1.11	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Hoffman Complex	1.11	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - HQ, ATEC	1.27	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - PEO STRICOM	1.01	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Rosslyn Complex	1.20	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Lake City AAP	1.78	3.30	6.90	0.00	0.54	2.31	1.24	0.00	0.00
Letterkenny AD	2.69	7.18	8.10	0.00	0.54	0.00	3.39	0.50	3.74
Lima Tank Plant	1.60	7.18	6.90	1.12	0.54	0.00	0.00	2.14	1.73
Lone Star AAP	1.73	3.01	6.90	0.00	0.54	6.92	1.25	0.22	0.24
Louisiana AAP	1.79	3.30	6.90	0.00	0.54	0.77	0.00	0.00	0.00
McAlester AAP	3.10	7.18	4.80	0.00	0.54	4.62	10.00	0.00	0.00
Milan AAP	1.92	7.18	6.90	0.00	0.54	9.23	3.38	0.00	0.00
Mississippi AAP	1.91	10.00	6.90	0.00	0.54	0.77	0.17	0.00	0.00
MOT Sunny Point	2.09	7.18	8.50	0.00	0.54	0.00	0.00	0.00	0.00
Newport Chem Depot	1.85	3.01	6.90	0.00	0.54	0.00	0.00	0.00	0.00
Picatinny Arsenal	2.33	7.18	8.10	4.02	0.54	0.00	0.06	0.00	0.00
Pine Buff Arsenal	1.84	6.74	9.00	2.72	0.54	4.62	5.31	0.97	1.92
Presidio Of Monterey	1.35	7.18	6.90	0.00	0.54	0.00	0.00	0.00	0.00
Pueblo Chem Depot	2.03	10.00	6.90	0.00	0.54	0.00	2.37	0.00	0.00
Radford AAP	1.51	3.01	7.80	0.00	0.54	3.85	0.65	0.00	0.00
Red River AD	2.61	3.01	6.90	0.00	0.54	0.00	2.57	0.03	4.88
Redstone Arsenal	2.99	3.01	9.20	6.74	0.54	0.00	0.00	0.00	0.00
Riverbank AAP	1.18	7.18	6.90	0.00	0.54	1.54	0.00	0.00	0.00
Rock Island Arsenal	2.14	0.43	9.10	2.25	0.54	0.00	0.00	0.78	2.59
Schofield Barracks	3.95	10.00	7.00	0.00	6.86	0.00	0.00	0.00	0.00
Scranton AAP	1.55	7.18	8.10	0.00	0.54	1.54	0.00	0.00	0.00
Sierra AD	2.49	3.30	6.90	0.00	0.54	0.00	7.19	0.00	0.00
Soldier Systems Support Center	1.96	7.18	9.00	0.00	0.54	0.00	0.00	0.00	0.00
Tobyhanna AD	2.79	6.74	8.80	0.00	0.54	0.00	0.00	10.00	8.34
Tooele AD	2.48	6.74	6.90	2.25	0.54	0.00	4.70	0.00	0.31
Tripler AMC	1.26	10.00	6.00	0.00	0.54	0.00	0.00	0.00	0.00
Umatilla Chem Depot	1.31	3.01	6.90	0.00	0.54	0.00	0.00	0.00	0.00
USAG Selfridge	1.51	3.30	8.10	0.00	0.54	0.00	0.00	0.00	0.00
Walter Reed AMC	2.33	10.00	8.10	0.00	0.54	0.00	0.00	0.00	0.00
Watervliet Arsenal	2.25	3.30	8.10	0.00	0.54	0.00	0.00	0.15	0.86
West Point	1.88	7.18	9.10	0.00	0.54	0.00	0.00	0.00	0.00
White Sands MR	5.16	7.18	10.00	9.53	10.00	0.00	0.00	0.00	0.00
Yuma PG	5.31	4.48	7.10	4.38	10.00	0.00	0.00	0.00	0.02
Lease - ARPERCEN	1.06	7.18	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Ballston Complex	0.93	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG Agency	0.94	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG School	0.91	7.18	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army Research Office	1.15	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Bailey's Crossroads	1.16	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Crystal City Complex	1.11	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Hoffman Complex	1.11	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - HQ, ATEC	1.27	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - PEO STRICOM	1.01	7.18	7.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Rosslyn Complex	1.20	10.00	7.00	0.00	0.00	0.00	0.00	0.00	0.00

Lake City AAP	1.78	0.01	3.64	0.00	10.00	3.76	4.33	6.02	0.79
Letterkenny AD	2.69	2.82	6.08	2.22	1.11	2.06	10.00	4.87	0.79
Lima Tank Plant	1.60	0.02	5.03	1.14	1.11	2.20	10.00	2.56	0.79
Lone Star AAP	1.73	0.01	3.27	1.14	1.11	3.14	10.00	1.04	0.02
Louisiana AAP	1.79	0.67	1.36	1.14	4.81	5.26	10.00	1.71	5.90
McAlester AAP	3.10	10.00	3.43	0.00	1.11	0.00	10.00	0.61	3.65
Milan AAP	1.92	0.22	3.02	0.00	1.11	1.14	4.33	1.60	2.23
Mississippi AAP	1.91	0.48	4.30	1.14	1.11	0.84	4.33	4.00	5.90
MOT Sunny Point	2.09	0.05	0.71	0.00	4.81	3.95	0.00	1.35	0.00
Newport Chem Depot	1.85	0.01	4.90	1.14	1.11	0.57	4.33	2.29	0.79
Picatinny Arsenal	2.33	0.59	5.98	2.22	4.72	4.53	10.00	10.00	5.42
Pine Buff Arsenal	1.84	2.80	0.01	0.00	1.11	2.75	4.33	2.29	3.65
Presidio Of Monterey	1.35	0.11	5.33	0.35	0.00	2.39	4.33	1.43	0.00
Pueblo Chem Depot	2.03	7.55	3.05	1.14	1.11	3.51	4.33	1.89	0.02
Radford AAP	1.51	0.73	5.81	1.14	1.11	1.57	0.00	2.67	0.00
Red River AD	2.61	6.65	3.27	1.14	1.11	3.14	10.00	1.08	0.79
Redstone Arsenal	2.99	3.07	4.17	2.58	4.81	2.89	4.33	2.87	10.00
Riverbank AAP	1.18	0.01	1.52	0.00	0.32	2.29	4.33	5.11	2.23
Rock Island Arsenal	2.14	1.55	4.51	1.14	1.11	2.66	4.33	2.24	5.42
Schofield Barracks	3.95	1.28	1.03	2.22	4.72	4.12	4.33	2.90	0.79
Scranton AAP	1.55	0.01	6.70	0.00	4.81	2.99	4.33	4.26	0.00
Sierra AD	2.49	4.59	4.62	0.00	1.11	1.25	4.33	0.87	0.02
Soldier Systems Support Center	1.96	0.07	6.14	5.81	4.72	6.27	0.00	10.00	5.42
Tobyhanna AD	2.79	2.24	6.08	1.14	4.81	0.48	4.33	6.90	7.19
Tooele AD	2.48	3.29	3.86	2.22	1.11	0.00	10.00	4.29	2.23
Tripler AMC	1.26	0.00	1.03	2.22	4.72	4.12	4.33	2.90	5.90
Umatilla Chem Depot	1.31	0.08	3.24	0.00	1.11	0.00	10.00	0.94	0.00
USAG Selfridge	1.51	0.01	4.09	2.22	7.66	3.94	0.00	10.00	2.23
Walter Reed AMC	2.33	0.09	4.46	10.00	4.72	2.87	0.00	10.00	3.65
Watervliet Arsenal	2.25	0.18	6.31	2.58	2.52	3.88	4.33	4.50	3.65
West Point	1.88	0.16	6.31	5.81	0.00	4.74	4.33	10.00	0.00
White Sands MR	5.16	0.52	2.93	0.00	1.11	1.96	4.33	0.25	3.65
Yuma PG	5.31	0.29	0.99	0.00	1.11	1.49	10.00	0.05	3.65
Lease - ARPERCEN	1.06	0.00	3.64	10.00	7.66	4.05	0.00	0.00	0.00
Lease - Ballston Complex	0.93	0.00	0.01	2.58	4.72	4.43	4.33	0.00	0.00
Lease - Army JAG Agency	0.94	0.00	0.01	5.81	4.72	4.43	0.00	0.00	0.00
Lease - Army JAG School	0.91	0.00	5.81	1.14	0.32	10.00	0.00	0.00	0.00
Lease - Army Research Office	1.15	0.00	3.46	10.00	7.66	1.89	0.00	0.00	0.00
Lease - Bailey's Crossroads	1.16	0.00	4.46	10.00	4.72	4.43	10.00	0.00	0.00
Lease - Crystal City Complex	1.11	0.00	4.46	10.00	4.72	4.43	0.00	0.00	0.00
Lease - Hoffman Complex	1.11	0.00	4.46	10.00	4.72	4.43	0.00	0.00	0.00
Lease - HQ, ATEC	1.27	0.00	4.46	10.00	4.72	4.43	0.00	0.00	0.00
Lease - PEO STRICOM	1.01	0.00	1.99	2.58	7.66	2.90	0.00	0.00	0.00
Lease - Rosslyn Complex	1.20	0.00	4.46	10.00	4.72	4.43	0.00	0.00	0.00

Lake City AAP	1.78	7.77	0.00	0.00	8.46	0.81	1.49	7.17	3.91
Letterkenny AD	2.69	8.08	0.00	0.00	8.24	5.31	1.49	6.36	6.52
Lima Tank Plant	1.60	8.15	0.00	0.00	7.93	0.53	1.49	0.00	4.35
Lone Star AAP	1.73	8.85	0.00	0.00	6.28	7.31	0.39	4.95	3.48
Louisiana AAP	1.79	8.85	0.00	0.00	5.41	0.22	0.80	3.00	3.48
McAlester AAP	3.10	9.23	2.84	0.00	7.77	10.00	3.45	8.54	4.35
Milan AAP	1.92	9.00	0.00	0.00	6.02	4.73	0.80	2.46	2.17
Mississippi AAP	1.91	9.23	0.00	0.00	0.00	4.17	0.80	5.06	5.65
MOT Sunny Point	2.09	9.00	2.84	0.00	7.30	5.00	0.35	3.51	3.48
Newport Chem Depot	1.85	8.15	0.00	0.00	9.03	8.79	0.80	9.05	3.48
Picatinny Arsenal	2.33	6.46	0.07	0.00	8.76	6.21	0.35	4.76	9.13
Pine Buff Arsenal	1.84	8.77	2.84	0.00	8.67	0.09	1.49	2.94	3.91
Presidio Of Monterey	1.35	6.39	0.07	0.00	9.56	0.39	3.45	0.00	3.91
Pueblo Chem Depot	2.03	8.31	0.00	0.00	4.79	9.93	0.80	8.81	0.00
Radford AAP	1.51	8.46	0.00	0.00	7.84	1.12	0.80	6.48	2.61
Red River AD	2.61	8.85	2.84	0.00	8.75	1.34	1.49	4.31	3.91
Redstone Arsenal	2.99	9.15	0.07	0.00	9.80	6.85	3.63	2.76	2.17
Riverbank AAP	1.18	6.69	0.00	0.00	7.20	0.09	0.80	0.00	4.35
Rock Island Arsenal	2.14	7.85	2.84	0.00	9.33	1.01	1.49	1.44	3.91
Schofield Barracks	3.95	2.85	0.95	7.59	9.33	0.36	3.63	7.97	0.44
Scranton AAP	1.55	7.62	0.00	0.00	5.65	0.00	0.39	0.41	7.39
Sierra AD	2.49	5.77	2.84	0.00	5.37	8.60	1.49	9.45	1.74
Soldier Systems Support Center	1.96	7.08	0.00	0.00	9.44	0.16	0.80	0.02	4.78
Toboyhanna AD	2.79	7.46	0.95	0.00	8.88	2.21	1.49	2.47	0.44
Tooele AD	2.48	7.62	2.84	0.00	7.97	9.87	1.49	4.95	0.44
Tripler AMC	1.26	2.69	0.00	0.00	9.12	0.15	1.49	2.40	0.44
Umatilla Chem Depot	1.31	6.54	0.00	0.00	7.28	0.00	0.80	9.15	0.87
USAG Selfridge	1.51	7.08	2.84	0.00	8.50	0.37	1.49	0.04	4.35
Walter Reed AMC	2.33	7.85	2.84	0.00	9.73	0.01	1.49	2.61	6.96
Watervliet Arsenal	2.25	7.85	2.84	0.00	8.35	0.02	0.35	0.09	8.70
West Point	1.88	4.92	0.95	0.00	8.85	0.08	0.35	5.99	9.57
White Sands MR	5.16	8.00	0.95	5.00	9.03	9.61	0.35	5.71	0.87
Yuma PG	5.31	5.69	0.95	5.00	8.83	10.00	3.45	9.34	1.30
Lease - ARPERCEN	1.06	7.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Ballston Complex	0.93	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG Agency	0.94	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army JAG School	0.91	8.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Army Research Office	1.15	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Bailey's Crossroads	1.16	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Crystal City Complex	1.11	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - Hoffman Complex	1.11	7.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease - HQ, ATEC	1.27	9.15	0.00	0.00	0.00	0.00	0.00	0.00	2.61
Lease - PEO STRICOM	1.01	7.85	0.00	0.00	0.00	0.00	0.00	0.00	1.30
Lease - Rosslyn Complex	1.20	7.85	0.00	0.00	0.00	0.00	0.00	0.00	2.17

## *IJCSG Summary Military Value Report for Munitions*

<i>Activity:</i>	<i>Score:</i>
<i>Munitions Production</i>	
MCALESTER AAP	0.5967
MILAN AAP	0.5708
LONE STAR AAP	0.5319
CRANE ARMY AMMUNITION ACTIVITY	0.4836
NAVSURFWARCENDIV_INDIAN_HEAD_MD	0.4592
IOWA AAP	0.3144
LAKE CITY AAP	0.2992
KANSAS ARMY AMMUNITION PLANT	0.2781
RADFORD AAP	0.2735
SCRANTON AAP	0.2450
NSWC_INDIAN_HEAD_DET_YORKTOWN	0.2042
PINE BLUFF ARSENAL	0.1911
HOLSTON AAP	0.1493

*Database Date: 4/18/2005*

*Page 1 of 2*

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Do Not Release Under FOIA

***IJCSG Summary Military Value Report for  
Munitions***

<b><i>Activity:</i></b>	<b><i>Score:</i></b>
RIVERBANK AAP	0.1075
MISSISSIPPI AAP	0.0765
LOUISIANA AAP	0.0343

## *IJCSG - Munitions/Armaments Capacity Report - Capacity By Site*

<i>Site</i>	<i>Function</i>	<i>Category</i>	<i>Current Capacity*</i>	<i>Current Usage*</i>	<i>Maximum Capacity*</i>	<i>Capacity in Excess of Current Usage*</i>
USA	LONE STAR AAP					
	MUNITIONS DEMILITARIZATION					
		DEPLETED URANIUM AMMO	482.1	363.0	872.4	119.1 -- 509.4
		HE ICM/BU & SUBMUNITIONS	121.3	7.7	242.7	113.7 -- 235.0
		HIGH EXPLOSIVE MUNITIONS	544.5	387.6	997.4	157.0 -- 609.8
		PROPELLENTS	28.4	0.0	28.4	28.4 -- 28.4
		PYROTECHNICS/INCENDIARY AMMO	1.6	0.0	1.6	1.6 -- 1.6
		<b>Site Total</b>	<b>1,178.0</b>	<b>758.3</b>	<b>2,142.6</b>	<b>419.7 -- 1,384.3</b>
		<b>Percent of Capacity Not Utilized</b>				<b>35.6% -- 64.6%</b>
	Munitions Production					
		Artillery	38,569.0	0.0	38,569.0	38,569.0 -- 38,569.0
		Cluster Bombs	3,912.0	0.0	3,912.0	3,912.0 -- 3,912.0
		Mines	57,996.0	0.0	57,996.0	57,996.0 -- 57,996.0
		Mortar	10,000.0	0.0	10,000.0	10,000.0 -- 10,000.0
		Pyro/Demo	22,752,222.0	589,901.0	22,752,222.0	22,162,321.0 -- 22,162,321.0
		Rockets	1,281,297.0	75,000.0	1,281,297.0	1,206,297.0 -- 1,206,297.0
		<b>Site Total</b>	<b>24,143,996.0</b>	<b>664,901.0</b>	<b>24,143,996.0</b>	<b>23,479,095.0 -- 23,479,095.0</b>
		<b>Percent of Capacity Not Utilized</b>				<b>97.2% -- 97.2%</b>

\* Capacity is measured in dlh(k) for Armaments Production/Manufacturing and Munitions Maintenance functions; short tons for Munitions Demilitarization; ksf for Munitions Storage; and lbs or each(s) as applicable for Munitions Production.

### LSAAP Data Call Questions & Answers

DODNUM	DODNUM	ROWNUM	QUESTIONNAME	QUESTIONTEXT	ANSWERTYPE	COLCOUNT	PHASE
2420	2420	Z	<b>Number of Contractor Employees and Size of Payroll in Support of Munitions Manufacturing Facility</b>	What are the number of contractor employees supporting munitions production (numeric in Persons (Pers)) and the size of payroll (in thousands of dollars (\$K))? (Note: Use data as of 30 Sep 03)	Fixed Grid	3	2_phase_II
2420	orgcode	rownum	Munitions Manufacturing Facility	Number of Employees (numeric in Pers) Number of personnel	Size of Payroll (\$K) Thousands of Dollars	changedate	Answersource
2420	2420	1	<b>Contractor Support</b>	129	3414.1	02-Nov-04	
2426	2426	Z	<b>Number of Contractors and Size of Payroll for Munitions Maintenance facility</b>	What are the number of contractor employees supporting munitions maintenance (numeric in Persons (Pers)) and size of payroll (in thousands of dollars (\$K))? (Note: Use data as of 30 Sep 03).	Fixed Grid	3	2_phase_II
2426	orgcode	rownum	Munitions Maintenance Facility	Number of Employees (numeric in Pers) Number of personnel	Size of Payroll (numeric In \$K) Thousands of Dollars	changedate	Answersource
2426	2426	1	<b>Contractor Support</b>	0	0	02-Nov-04	
2435	2435	Z	<b>Number of Contractors and Size of Payroll for Munitions Storage facility</b>	What are the number of contractor employees supporting storage and distribution (numeric in Persons (Pers)) and size of payroll (in thousands of dollars (\$K))? (Note: Use data as of 30 Sep 03).	Fixed Grid	3	2_phase_II
2435	orgcode	rownum	Munitions Storage and Distribution Facility	Number of Employees (numeric in Pers) Number of personnel	Size of Payroll (In \$K) Thousands of Dollars	changedate	Answersource
2435	2435	1				11-Aug-04	
2442	2442	Z	<b>Number of Contractors and size of payroll for Munitions Demilitarization Facility</b>	What are the number of contractor employees supporting munitions demilitarization (numeric in Persons (Pers)) and size of payroll (\$K)? (Note: Use data as of 30 Sep 03).	Fixed Grid	3	2_phase_II
2442	orgcode	rownum	Demilitarization Facility	Number of Employees (numeric in Pers) Number of personnel	Size of Payroll (in \$K) Thousands of Dollars	changedate	Answersource
2442	2442	1	<b>Contractor Support</b>	0	0	02-Nov-04	

**US ARMY**  
**ARMY FIELD SUPPORT COMMAND**  
**FORCE MANAGEMENT DIVISION**  
**AMSFS-HRF**  
**ROCK ISLAND, IL 61299**

**FAX DSN: 793-6711 COM: 309-782-6711**

**FAX Cover Sheet**

DATE: 20 May 2005

TO: Betty Culpepper, Lone Star AAP

TELEPHONE: DSN 829-1302

FAX: DSN 829-1381

**FROM: Brenda Seyller and Jennifer Shinbori**  
**AMSFS-HRF AMSFS-HRF**  
**DSN 793-1669 DSN 793-4681**  
**309-782-1669 309-782-4681**  
**sevlerb@afsc.army.mil Jennifer.shinbori@us.army.mil**

Number of pages including cover sheet: 3

REMARKS:

Time for the annual update of the Army Stationing and Installation Plan (ASIP). Please perform a thorough review of all data, make any necessary changes (pen/ink) and datafax back to me (see above). If you have any questions about the data provided give me a call. I would like to have all updates returned **NLT 25 May**.

P.S. – Would also appreciate e-mail confirmation of receipt of this datafax.

Appreciate your help.

The Army Stationing and Installation Plan (ASIP) is the official Department of the Army database that reflects the authorized planning population for Army Installations. ASIP data is used by HQDA as a basis for all planning and resource development systems and is used to indicate ownership or occupation of facilities in the Integrated Facilities System, develop population based service requirements in Installation Status Report / Service Based Costing (ISR/SBC), develop facilities allowances in the Real Property Planning and Analysis System (RPLANS), and to describe installation population in the DD1390 Military Construction (MILCON) request system. Accuracy of the ASIP data is important because it feeds into the processes and the decision-making tools we are using to make important decisions.

Executive Correspondence  
DCN 5434

**FOR OFFICIAL USE ONLY  
FOR EDITING ONLY**

ASIP Station Report  
Units in Base  
No Current Filters

SOUTHWEST

Army Base: LONE STAR ARMY AMMUNITION PLANT  
Station Code: 48513  
Station: LONE STAR ARMY AMMUNITION PLANT  
TEXARKANA, TX, 75505-9101

INSNO: 48305

Facility ID:

Congressional District: TX-04

Phone: 903-334-1207

GELOC: NPMM

UIC	CARS	Unbr	Br	Description	SRC	ACTCO	FY						
Undes	TPSN	Source	Compo		EDATE	CCNUM	2005	2006	2007	2008	2009	2010	2011
Asgmt													
<b>Type unit: TDA</b>													
WOLHAA	WOLH	PLN		LONE STAR ARMY AM	X	OFF	1	1	1	1	1	1	1
					20061001	WOF	0	0	0	0	0	0	0
						ENL	0	0	0	0	0	0	0
XQ	46203	SMS	1			USD	18	18	18	18	18	18	18
						OTH	0	0	0	0	0	0	0
<b>TDA</b>							<b>FY</b>						
							<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Total Officer</b>							1	1	1	1	1	1	1
<b>Total Warrant</b>							0	0	0	0	0	0	0
<b>Total Enlisted</b>							0	0	0	0	0	0	0
<b>Total USD</b>							18	18	18	18	18	18	18
<b>Total Other</b>							0	0	0	0	0	0	0

**Type unit: CONTRACTORS**

@OLH01	CONTRACTORS					OFF	0	0	0	0	0	0	0
	DAY & ZIMMERMANN				20031001	WOF	0	0	0	0	0	0	0
	CM	DAI	Z			ENL	0	0	0	0	0	0	0
						USD	0	0	0	0	0	0	0
						OTH	<del>400</del>						
							404	404	404	404	404	404	404
@OLH02	CONTRACTORS					OFF	0	0	0	0	0	0	0
	TEXAS RAILCAR STORAGE CO.				20031001	WOF	0	0	0	0	0	0	0
	CM	DAI	Z			ENL	0	0	0	0	0	0	0
						USD	0	0	0	0	0	0	0
						OTH	5	5	5	5	5	5	5
@OLH03	CONTRACTORS					OFF	0	0	0	0	0	0	0
	TEC LINENS INC				20031001	WOF	0	0	0	0	0	0	0
	CM	DAI	Z			ENL	0	0	0	0	0	0	0
						USD	0	0	0	0	0	0	0
						OTH	<del>22</del>						
							30	30	30	30	30	30	30
@OLH04	CONTRACTORS					OFF	0	0	0	0	0	0	0
	AMERICAN DEHYD FOODS				20031001	WOF	0	0	0	0	0	0	0
	CM	DAI	Z			ENL	0	0	0	0	0	0	0
						USD	0	0	0	0	0	0	0
						OTH	<del>25</del>						
							17	17	17	17	17	17	17
@OLH05	CONTRACTORS					OFF	0	0	0	0	0	0	0
	MUNITIONS TECHNOLOGIES DIVISION, DZI				20031001	WOF	0	0	0	0	0	0	0
	CM	DAI	Z			ENL	0	0	0	0	0	0	0
						USD	0	0	0	0	0	0	0
						OTH	<del>5</del>						
							2	2	2	2	2	2	2

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FOR EDITING ONLY**

ASIP Station Report  
Units In Base  
No Current Filters

SOUTHWEST

Army Base: LONE STAR ARMY AMMUNITION PLANT  
Station Code: 48513      INSNO: 48305      Facility ID:      Congressional District: TX-04  
Station: LONE STAR ARMY AMMUNITION PLANT      Phone: 903-334-1207      GELOC: NPMM  
TEXARKANA, TX, 75505-9101

UIC	CARS	Unbr	Br	Description	SRC	ACTCO	FY						
Undes	TPSN	Source	Compo		EDATE	CCNUM	2005	2006	2007	2008	2009	2010	2011
Asgmt													

Type unit: **CONTRACTORS**

CONTRACTORS		FY						
		2005	2006	2007	2008	2009	2010	2011
Total Officer		0	0	0	0	0	0	0
Total Warrant		0	0	0	0	0	0	0
Total Enlisted		0	0	0	0	0	0	0
Total USD		0	0	0	0	0	0	0
Total Other		<del>AST</del> 458	<del>AST</del> 457	<del>AST</del> 458	<del>AST</del> 457	<del>AST</del> 457	<del>AST</del> 458	<del>AST</del> 458

LONE STAR ARMY AMMUNITION PLANT		FY						
		2005	2006	2007	2008	2009	2010	2011
Station Total	Total Officer	1	1	1	1	1	1	1
	Total Warrant	0	0	0	0	0	0	0
	Total Enlisted	0	0	0	0	0	0	0
	Total USD	18	18	18	18	18	18	18
	Total Other	<del>AST</del> 458	<del>AST</del> 457	<del>AST</del> 458	<del>AST</del> 457	<del>AST</del> 457	<del>AST</del> 458	<del>AST</del> 458

Executive Correspondence  
DCN 5434

COBRA INPUT DATA REPORT (COBRA v6.10) - Page 8  
Data As Of 5/2/2005 2:20:07 PM, Report Created 5/2/2005 2:20:09 PM

Department : Industrial  
Scenario File : Z:\Cobra\Munitions&Armaments\IND 0122 Close Lone Star AAP\IND0122 Lone Star AAP \_Alt  
05022005.CBR  
Option Pkg Name: Close Lone Star AAP - Alt (mcve selected workload to Iowa)  
Std Fctrs File : C:\Documents and Settings\Desktop\COBRA 6.10\BRAC2005.SFF

FOOTNOTES FOR SCREEN ONE

Close Lone Star Army Ammunition Plant, TX. Relocate the Storage and Demilitarization functions to McAlester, OK. Relocate the 105MM and 155MM ICM Artillery, MLRS Artillery, hand Grenades, 60MM and 81MM Mortars functions to Milan AAP, TN. Relocate Mines and Detonators/Relays/Delays functions to Iowa AAP, IA. Relocate Demolition Charges functions to Crane AAA, IN.

FOOTNOTES FOR SCREEN FIVE

LONE STAR:

FY 07 \$4,025k: \$3,875k is cost to move equipment, tooling for ICM (MA-4 Action 1)  
\$150k is for equipment for grenades (MA-9 Action 4)

FY 08 \$2,722k: Cost to move stock to McAlester (MA-2 Action 3)

FY 09 \$2,600k: \$1,200k Disconnect utilities (MA-9-Action 2)  
\$300k Cost to placed in modified caretaker (MA-4 Action 1)  
\$300k Cost to place in modified caretaker (MA-9 Action 3)  
\$300k Cost to place in Modified caretaker (MA-6 Action 1)  
\$500k Cost to decontaminate, disconnect utilities, and close building (MA-9 Action 4)

FY 11 \$1,300k: From page 12 of criteria 8, Summary of Scenario Environmental Impacts, "COBRA costs"; EBS plus disposal EIS. FY 11 was selected because the shipment of serviceable stock occurs in FY 08 and demil occurs until FY 11. Military Departments wants to make sure permits, waivers, and restrictions are in place by FY 08 and decommissioning is complete by the end of FY 11.

3,494KSF: Fac ShDn is derived from Screen Four - static base information for "Starting Facilities"

FY 06, 07, 08, 09, 10, and 11: \$8,461k in each of these years represents miscellaneous cost that cancels out recurring savings generated by recap cost. Memorandum dated 31 Mar 2005, subject: Recapitalization Savings for Army Ammunition Plants, directs the removal of recap savings from 4 ammunition plants (Kansas AAP, Riverbank AAP, Lone Star AAP, and Mississippi AAP).

MILAN:

FY 07 \$3,759k: \$700k Cost to modify building and install truck loading dock (MA-4 Action 1)  
\$50k Cost for training and travel (MA-4 Action 1)  
\$3,009k Cost for equipment upgrade and installation (MA-9 Action 4)

FY 07 \$1,000k: From page 12 of criteria 8, Summary of Scenario Environmental Impacts, "COBRA costs"; EIS. FY 07 was selected because the shipment of serviceable stock occurs in FY 08 and demil occurs until FY 11. Military Departments wants to make sure permits, waivers, and restrictions are in place by FY 08 and decommissioning is complete by the end of FY 11.

CRANE:

FY 07 \$75k: \$30k for facility upgrade (MA-9 Action 3)  
\$5k for training and travel (MA-9 Action 3)  
\$40k for equipment and tooling (MA-9 Action 3)

FY 07 \$1,050k: From page 12 of criteria 8, Summary of Scenario Environmental Impacts, "COBRA costs"; Air Conformity Analysis and EIS. FY 07 was selected because the Military Departments wants to make sure permits, waivers, and restrictions are in place by FY 08 and decommissioning is complete by the end of FY 11.

IOWA:

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COBRA INPUT DATA REPORT (COBRA v6.10) - Page 9  
Data As Of 5/2/2005 2:20:07 PM, Report Created 5/2/2005 2:20:09 PM

Department : Industrial  
Scenario File : Z:\Cobra\Munitions&Armaments\IND 0122 Close Lone Star AAP\IND0122 Lone Star AAP \_Alt  
05022005.CBR  
Option Pkg Name: Close Lone Star AAP - Alt (mcve selected workload to Iowa)  
Std Fctrs File : C:\Documents and Settings\Desktop\COBRA 6.10\BRAC2005.SFF

FY 07 \$5,525k: \$5,000k to facilitize Iowa for detonators (MA-9 Action 2 (alt 2)  
\$525k for minor upgrade and building repair (MA-6 Action 1)

FY 07 \$1,000k: From page 12 of criteria 8, Summary of Scenario Environmental Impacts, "COBRA costs";  
EIS. FY 07 was selected because the Military Departments wants to make sure permits, waivers, and  
restrictions are in place by FY 08 and decommissioning is complete by the end of FY 11.

McAlester:

FY 07 \$1,000k: From page 12 of criteria 8, Summary of Scenario Environmental Impacts, "COBRA costs";  
EIS. FY 07 was selected because the Military Departments wants to make sure permits, waivers, and  
restrictions are in place by FY 08 and decommissioning is complete by the end of FY 11.

FY 08 \$1,752k: Cost to receipt stock from Lone Star. (MA-2 Action 3)

FOOTNOTES FOR SCREEN SIX  
=====

Lone Star:

OFF/ENL/CIV Scenario Change numbers are derived from Screen Four - Total Officers (2) and Total Civilian  
Employees (18).

Personnel are not needed at gaining site. Sufficient personnel and capability already exist.

<b>DZLS One-time Other Excluded Cost Summary</b>							
<i>One-time Other Cost Break Out (Equipment &amp; Facilities)</i>							
<b>Installation</b>	<b>Functions to Receive</b>	<b>Description (One-time Other )</b>	<b>Cobra (\$k)</b>	<b>Subtotals</b>	<b>DZLS /Cobra (\$k)</b>	<b>Notes</b>	<b>Subtotals</b>
<b>Lone Star</b>		Move ICM equipment	\$ 3,875		\$ 5,523	1	
		Equip for grenades	\$ 150	\$ 4,025	\$ 2,222	2	\$ 7,745
<b>Milan</b>	M105MM/155MM ICM Artillery Hand Grenades 60MM & 81MM Mortars	Mod bldg & install truck loading dock	\$ 700		\$ 700		
		Equip upgrade & installation	\$ 3,009	\$ 3,709	\$ 3,709		\$ 4,409
<b>Iowa</b>	Mines Detonators/Relays/Delays	Facilitize Iowa for detonators	\$ 5,000		\$ 9,761	4	
		Minor upgrade & bldg repair	\$ 525	\$ 5,525	\$ 525		\$ 10,286
<b>Crane</b>	Demolition Charges	Facility upgrade	\$ 30		\$ 30		
		Equipment & tooling	\$ 40	\$ 70	\$ 1,242	3	\$ 1,272
<b>McAlester</b>	Storage & Demil		\$ -		\$ -		
					\$ 23,712		
<b>Other Functions Excluded</b>							
		R-Line Primers			\$ 2,502		
		Supp Charge			\$ 1,105		
		MCCM			\$ 173		\$ 3,780
		<b>Total (One-time Other)</b>	<b>\$ 13,329</b>		<b>\$ 27,492</b>		
<b>Notes</b>							
	1	Fuze production (SDF & M223), B-46 D&Z Press Design, MLRS Download & Retrofit equipment					
	2	Hand Grenade assy and pack equipment					
	3	B-2, B-46 sub-munition loading equipment					
	4	10 loaders (M55 (4), M53 (4), M76 (2)), powder processing and Cartrac transfer					
<b>Not considered</b>							
		Learning Curve to reestablish capability					
		Worker skill base and knowledge (\$55k for training & travel is underestimated)					
		Not have access to DZLS Intellectual property					
		No 105MM w/ SDF capability at Milan					
		Lone Star Detonator powder prep & transfer is more modern/safer facility than Milan					
		Vector presses @ Milan not successful in running IM explosives (DZLS press deisgn)					
		MLRS - cone & explosive extractor (DZLS patented process) part of MLRS IM plan forward and waiver					



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TOTAL COBRA REALIGNMENT DETAIL REPORT (COBRA v6.10) - Page 1/18  
Data As Of 5/2/2005 2:20:07 PM, Report Created 5/2/2005 2:20:10 PM

Department : Industrial  
Scenario File : Z:\Cobra\Munitions&Armaments\IND 0122 Close Lone Star AAP\IND0122 Lone Star AAP\_Alt  
05022005.CBR  
Option Pkg Name: Close Lone Star AAP - Alt (move selected workload to Iowa)  
Std Fctrs File : C:\Documents and Settings\Desktop\COBRA 6.10\BRAC2005.SFF

ONE-TIME COSTS ---- (\$K) ----	2006 ----	2007 ----	2008 ----	2009 ----	2010 ----	2011 ----	Total -----
CONSTRUCTION							
MILCON	0	0	0	0	0	0	0
O&M							
CIV SALARY							
Civ RIF	0	0	0	115	0	287	402
Civ Retire	0	0	0	12	0	12	24
CIV MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
Home Purch	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
House Hunt	0	0	0	0	0	0	0
PPP	0	0	0	71	0	71	142
RITA	0	0	0	0	0	0	0
FREIGHT							
Packing	0	0	0	0	0	0	0
Freight	0	0	0	0	0	0	0
Vehicles	0	0	0	0	0	0	0
Unemployment	0	0	0	9	0	22	31
OTHER							
Info Tech	0	0	0	0	0	0	0
Prog Manage	583	437	328	246	184	138	1,918
Supt Contrac	0	0	0	0	0	0	0
Mothball	0	0	0	251	0	377	629
1-Time Move	0	0	4,474	0	0	0	4,474
MIL PERSONNEL							
MIL MOVING							
Per Diem	0	0	0	0	0	0	0
POV Miles	0	0	0	0	0	0	0
HHG	0	0	0	0	0	0	0
Misc	0	0	0	0	0	0	0
OTHER							
Elim PCS	0	0	0	10	0	10	21
OTHER							
HAP / RSE	0	0	0	0	0	0	0
Environmental	0	4,050	0	0	0	1,300	5,350
Misc Contract	0	0	0	0	0	0	0
1-Time Other	0	13,384	0	2,600	0	0	15,984
TOTAL ONE-TIME	583	17,871	4,802	3,315	184	2,218	28,975

INFORMATION PAPER

SFAE-AMO-CAS-MS

22 JUN 05

**SUBJECT:** Impact to M915 105mm Dual Purpose Improved Conventional Munition (DPICM) cartridge due to recently released BRAC list.

**PURPOSE:** To relate the impact of the potential BRAC actions on the M915 program.

**FACTS:**

The Load Assemble and Pack (LAP) facility that supports the M915 program, Lone Star Army Ammunition Plant (LSAAP, operated by Day and Zimmerman Inc. (DZI)), is slated for closure under the 2005 BRAC.

LSAAP supports the M915 program with specialized equipment and personnel that cannot be easily moved or duplicated, including:

- Lone Star is currently facilitated and in production for manufacturing and assembling critical components for the M234 Self Destruct Fuze (SDF). This technology is being leveraged into other programs (M864 155mm artillery, MLRS) to address the politically sensitive unexploded ordnance issue with DPICM submunitions. Any interruption of this capability would jeopardize the fielding of SDF for the M915 and other artillery DPICM munitions.
- LSAAP provides a SYSTEM LAP and self-contained production solution for multiple DPICM artillery projectiles and rocket systems, including the M915. Its capability to manufacture and assemble components for the M915 in a single facility provides a significant technical advantage and cost savings when compared to a distributed fabrication, shipping, and assembly model.
- DZI-LSAAP possesses unique engineering expertise and equipment which enabled the implementation of PAX-2A, a Type 2 Insensitive Munition (IM) compliant explosive fill, into M80 grenade submunitions. The IM fill provides increased survivability to the warfighter and his resources in compliance with current DOD policy. The corporate knowledge base residing at the Lone Star plant was crucial to providing the engineering expertise to transition this technology to an automated the high speed loading process. This technology was also leveraged for use in the larger caliber M42/46/77 submunitions used in 155mm and MLRS systems.
- The industrial base for DPICM grenade bodies is currently non-existent. DZI Lone Star has developed a prototype capability to cost effectively recapitalize grenades from stockpiled DPICM artillery shells by removing the conventional CompA5 explosive and replacing it with IM compliant fills. This is an essential resource for retrofitting and upgrading the existing DPICM ammunition stockpile to meet war reserve and operational requirements.
- The \$8.9M manufacturing technology investment made by JMC over the past 3 years at LSAAP in support of the M915 program will be lost if the facility is closed.

Executive Correspondence  
DCN 5434

SUMMARY:

Closure of LSAAP would have significant cost and producibility impacts on the M915 program and on other programs as well.

William Vogt  
M915/XM916  
Project Officer  
973-724-8430  
OPM CAS

Released by: Mr. Bill Vogt  
Project Officer, M915 Program  
PM CAS  
973-724-9430

INFORMATION PAPER  
29-Jun-05

DEFENSE REUTILIZATION MARKETING SERVICE (DRMS) AT LSAAP  
POSITIVE AREAS

- A. DEDICATED DEMIL WORKFORCE
  - a. The contractor personnel are a well-trained and motivated group.
  - b. Demil/Mutilation are the only functions of the personnel, there is little down time.
- B. ABILITY TO PROCESS PROPERTY
  - a. The CDC at Texarkana dispositions totaled 77,633 L/I in Fy04.
  - b. The CDC at Texarkana performed Demil for 28,705 L/I in Fy04.
  - c. The CDC at Texarkana scrap proceeds totaled \$4,341,207.53 in Fy04.
  - d. The CDC at Texarkana processed in excess of 7,000,000 lbs of property in Fy04.
- C. ACCOUNTABILITY OF PROPERTY AND DEMIL COST DATA
  - a. The contractor work orders are based on the DRMS consolidated inquiry.
  - b. This provides a double check on any Document number demilled by the contractor.
  - c. Cost data is maintained for all work orders. The document number, quantity, hours expended and the total cost of the work order are listed on the report.
  - d. Cost data per MIPR is available so tracking of funding is possible.
- D. EXPANSION OF FACILITIES
  - a. We have expanded our facilities from 20,000 sq ft of covered storage area to 60,000 sq ft.
  - b. We have the go ahead to move our Center to a central location with 10 20,000 sq ft warehouse and a 10,000 sq ft office space if needed.

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*Suggested LSAAP BRAC Language...*

### **Lone Star Army Ammunition Plant, Texarkana, Texas**

*Category: Industrial Joint Cross-Service Group*

*Mission: Munitions and Armaments*

*One-time Cost: \$28.98 million*

*Savings: 20 yr NPV: \$164.2 million*

*Annual: \$17.3 million (after implementation)*

*Return on Investment: 2012 (1 year)*

***Requested Final Action: Close (with Privatization-in-place)***

#### *Secretary of Defense Recommendation*

Close Lone Star Army Ammunition Plant (AAP), TX. Relocate the Storage and Demilitarization functions to McAlester AAP, IL. Relocate the 105MM and 155MM ICM Artillery, MLRS Artillery, Hand Grenades, 60MM and 81MM Mortars functions to Milan AAP, TN. Relocate Mines and Detonators/Relays/Delays functions to Iowa AAP, IA. Relocate Demolition Charges functions to Crane Army Ammunition Activity (AAA), IN.

#### *Secretary of Defense Justification*

Capacity and capability for Artillery, Mortars, Missiles, Pyro/Demo, and Storage exists at numerous munitions sites. There are 8 sites producing Artillery, 5 producing Mortars, 9 producing Pyro-Demo, 15 performing storage, and 13 performing Demilitarization. To reduce redundancy and remove excess from the Industrial Base, the closure allows DoD to create centers of excellence, avoid single point failure, and generate efficiencies. Goal is to establish multi-functional sites performing Demilitarization, Production, Maintenance, and Storage. Lone Star primarily performs only one of the 4 functions.

#### *Community Concerns*

The Texarkana community believes that the military value calculation performed by OSD for integrated capabilities does not accurately reflect the integrated value of the installation. Lone Star AAP was given credit for performing primarily one of the four function areas used to make up a center of excellence. In reality, Lone Star AAP is a multifunctional site, which performs the full scope of functions; demilitarization, production, maintenance, and storage. The community is also concerned with the capacity analysis which did not take into consideration the size and complexity of munitions or the fact that current capacity and max capacity were reported as equal. Also, the community is concerned that portions of the data call information provided to the OSD are inaccurate since the total manpower for Lone Star AAP was understated by 242 people, which prevented Lone Star AAP from acquiring a site visit. Finally, the community is concerned that all one-time costs were not considered when calculating savings and implementation of the recommendations. The Texarkana community has proposed a public-private partnership as an alternative reuse of the installation if the recommendation to close is approved. The community is concerned that a recommendation not interfere with its proposal.

### *Community Findings*

The community found that OSD excluded \$14.16 million in costs for duplicative and closure related moving costs for system capabilities such as 105MM and 155MM ICM Artillery, MLRS Artillery, Hand Grenades, Detonators/Relays/Delays, and Demolition Charges that will jeopardize warfighter support during the estimated moving time to Milan AAP, TN, Iowa AAP, IA and Crane Army Ammunition Activity (AAA). For example, concerning Detonators, the state of the art initiating explosive processing and transfer system capability located at Lone Star AAP is not present at the gaining installation; however, these costs were not included to upgrade this facility to the same efficiency and safety standards which exist at Lone Star AAP. Cost of preparing and processing special delay mixes used in unique items appear to also be excluded. Other functions which seem to be excluded include; Supplementary Charge, Percussion Primers and Non-Lethal Munitions (MCCM). The community found that OSD failed to consider the value of proprietary data of the incumbent contractor gained from 54 years of operating the Lone Star AAP. The community believes that these exclusions will raise the one-time closure cost to \$43.14 million, which does not include the value of proprietary data of the incumbent contractor. The community found that OSD undervalued the military value and capacity analysis for the integrated capabilities that currently exist at the Lone Star AAP. The OSD used inappropriate attributes to form recommendations and those recommendations were inconsistently reported when compared to neighboring installations. Also, OSD did not account for the size and complexity of the munitions when calculating capacity; Detonators were given the same weight as MLRS rockets. Lone Star AAP is not currently producing at maximum capacity although OSD's capacity analysis indicated current capacity and maximum capacity were equal. This misrepresents the current utilization of Lone Star AAP. However, with the proposed alternative of privatization-in-place, the DoD will realize a one-time cost savings of \$40.6 million and the same net recurring savings as closure of \$17.3 million annually. These findings lead the community to conclude the most cost-effective method to implement OSD recommendations for the Lone Star AAP is privatization. The community strongly urges the Department of Defense to allow privatization of these assets.

### *Community Recommendations*

The community finds the Secretary of Defense deviated substantially from final criteria 1, 4 and 5. Therefore, the community recommends the following: close the Lone Star Army Ammunition Plant, Texarkana, Texas. Transfer workload, equipment and facilities to the private sector or local jurisdiction as appropriate since the private sector can accommodate the workload onsite. To the extent that workload is moved to the private sector, such personnel as are necessary should remain in place to assist with transfer to the private sector; to perform functions compatible with private sector workload, and to carry out any transition activities. The community finds this recommendation is consistent with the force-structure plan and final criteria.



INTERNATIONAL

# **The case for privatizing the Army Ammunition Plants in the 2005 BRAC process**

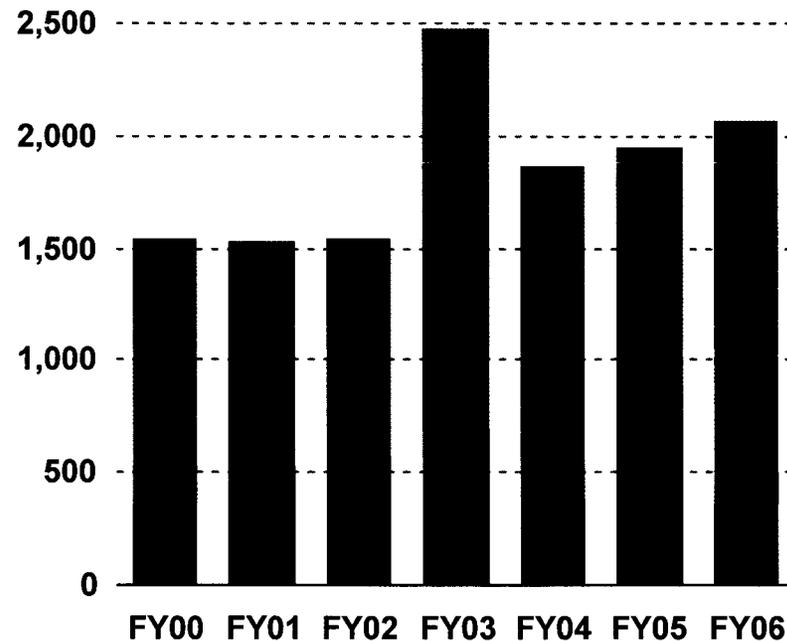
**Initial Assessment — 8 June 2005**

# Where does the Defense Department get its munitions today?

## In part, from the Army's own portfolio of industrial facilities

- The Defense Department spends over \$2 billion annually on munitions. The Army is the single executive manager and main customer
- Army spending has been increasing with the counterinsurgency campaign in Iraq
- About 30% of this spending is with eleven government-owned, but contractor-operated (GOCO) Army Ammunition Plants (AAPs)
- About 5% of the spending is with three government-owned, government-operated (GOGO) facilities
- The Army also maintains a wide range of facilities for ammunition storage and demilitarization, including chemical weapons disposal. Some of these are GOGOs and some are GOCOs
- However, about 65% of the Army's munitions spending is with 70 privately-owned plants in the US and a variety of privately-owned international sources
- With so much private ownership, the case for maintaining government ownership is unclear
- The Army has shown little leadership in this matter; the BRAC Commission has the opportunity to do otherwise

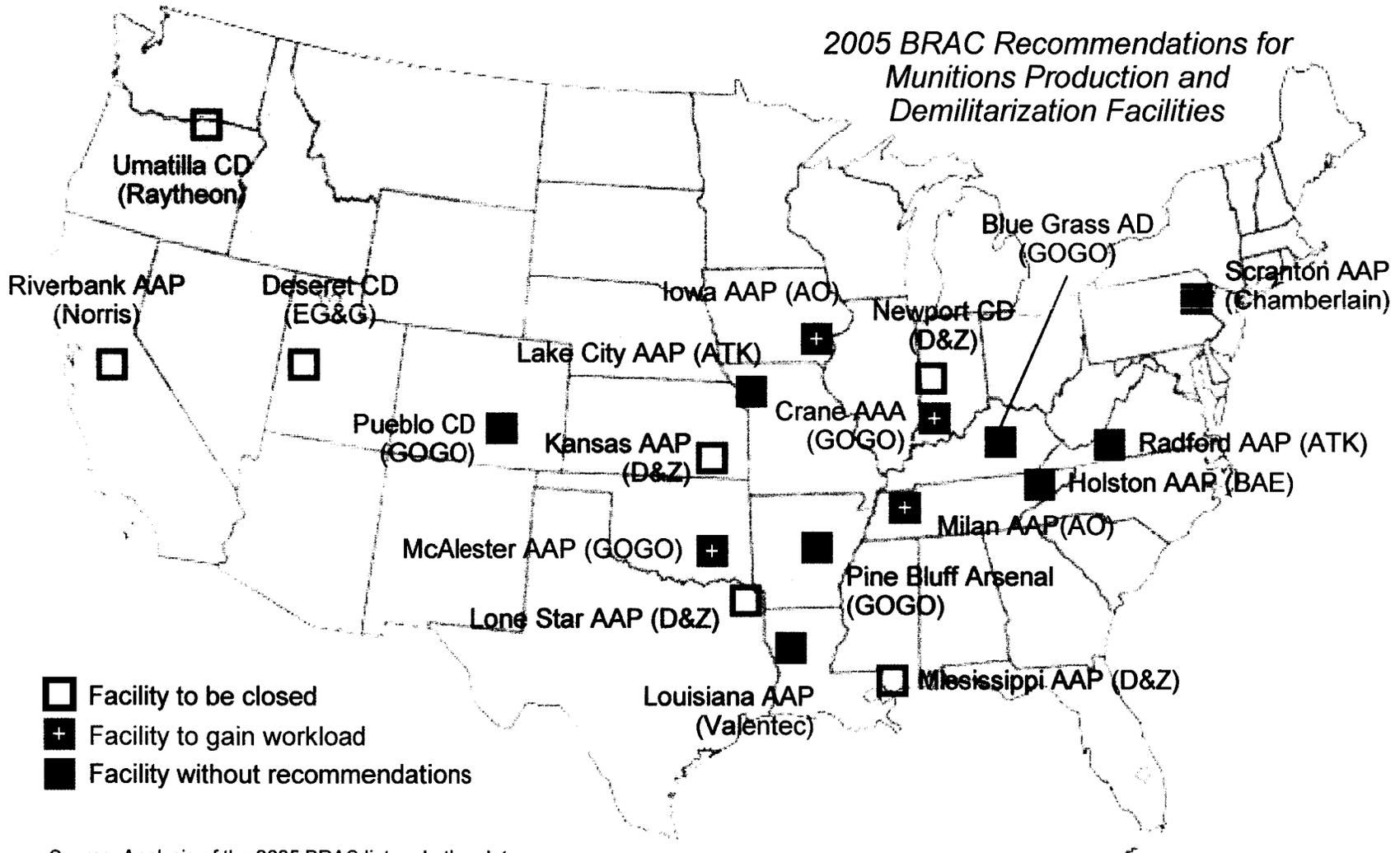
Army Ammunition Spending  
FY2000-FY2006  
(US \$ MM)



- Ammunition Procurement
- Production Base Support
- Operations & Maintenance

Source: W. Michael Hix, et. al., *Rethinking Governance of the Army's Arsenal and Ammunition Plants*, MR-1651 (Santa Monica: RAND, 2003); and CRA's analysis of Pentagon budget documents

# What does the Secretary recommend for the Army's munitions facilities? Closing seven of the nineteen main sites, but none of the GOGOs



Source: Analysis of the 2005 BRAC list and other data.

CD = Chemical Depot, AD = Army Depot, AAP = Army Ammunition Plant, AAA = Army Ammunition Activity; D&Z = Day & Zimmermann, AO = American Ordnance, ATK = Alliant Techsystems, BAE = BAE Systems. The Umatilla, Deseret, Pueblo, Newport and Blue Grass depots are primarily demilitarization facilities; the rest are primarily production facilities, whether active or in layaway

## What does the Secretary expect to save with these closures?

In net present terms, over \$1.8 billion—but mostly at chemical weapons depots

### *Savings and Direct Job Losses in the Recommendations for Munitions Facilities*

<i>Facility to close</i>	<i>Operator</i>	<i>Activities to be moved to</i>	<i>20-year NPV (US\$ MM)*</i>	<i>Direct job losses*</i>
Umatilla CD	Raytheon	“no further use”	681.1	512
Newport CD	D&Z	“no further use”	436.2	571
Deseret CD	EG&G	“no further use”	356.4	248
Lone Star AAP	D&Z	McAlester, Iowa, Milan AAPs; Crane AAA	164.2	149
Kansas AAP	D&Z	McAlester, Iowa, Milan AAPs; Crane AAA	101.4	167
Riverbank AAP	Norris	Rock Island Arsenal	53.3	89
Mississippi AAP	D&Z	Rock Island Arsenal	38.6	54
			<u>\$1,831.2</u>	<u>1,790</u>

- Closing the chemical depots is an obvious move, as they will have finished destroying their stocks by 2008
- Closing the Riverbank and Mississippi AAPs is understandable, as the facilities are in layaway
- *Closing the Kansas and Lone Star AAPs, however, is difficult to understand. An analysis of these decisions reveals problems with OSD’s data, methods, and understanding of business economics...*

Source: CRA’s analysis of the 2005 BRAC list. Savings and job losses consider all activities at the base.

\*Note that OSD’s employment figures for several of the plants are disputed by the operating contractors

# How does the Secretary justify the recommendations?

By stating they would “reduce redundancy and remove excess” from the industry

	<i>Recommendation</i>	<i>Justification</i>
<b>Kansas AAP</b>	Close Kansas AAP. Relocate Sensor Fuzed Weapon/cluster bomb function and missile warhead production to McAlester AAP; 155mm ICM Artillery and 60mm, 81mm, and 120mm mortar functions to Milan AAP; 105mm HE, 155mm HE, and missile warhead functions to Iowa AAP; and detonators, relays, and delays to Crane AAA	Capacity and capability for artillery, mortars, missiles, and pyro/demo exists at numerous munitions sites. There are 8 sites producing artillery rounds, 5 producing mortar rounds, 9 producing pyro/demo, and 13 performing demilitarization. To reduce redundancy and remove excess from the industrial base, the closure allows centers of excellence, avoids single point failure, and generates efficiencies
<b>Lone Star AAP</b>	Close Lone Star Army AAP. Relocate the storage and demilitarization functions to McAlester AAP. Relocate the 105mm and 155mm ICM Artillery, MLRS Artillery, Hand Grenades, 60mm and 81mm mortars functions to Milan AAP. Relocate mines and detonator, relay, and delay functions to Iowa AAP. Relocate demolition charge functions to Crane AAA	Capacity and capability for artillery, mortars, missiles, pyro/demo, and storage exists at numerous munitions sites. There are 8 sites producing artillery rounds, 5 producing mortar rounds, 9 producing pyro-demo, 15 performing storage, and 13 performing demilitarization. To reduce redundancy and remove excess from the industrial base, the closure allows DoD to create centers of excellence, avoid single point failure, and generate efficiencies. Goal is to establish multi-functional sites performing demilitarization, production, maintenance, and storage. Lone Star primarily performs only one of the four functions

*Removing excess capacity may not have the effect that OSD intends.  
Centers of Excellence are a long way off—in new locations with new workforces*

Source: *Industrial Joint Cross Service Group Final Report*, 10 May 2005, pp. 42 & 59. The text has been edited slightly for readability



# Why not accept the recommendation for the Kansas AAP?

## In the first place, because OSD's analysis was seriously flawed

- Kansas employs 314 people, not the 167 that OSD reported
- Artillery shells, mortar shells, and missile warheads are in production, but not in OSD's figures
- Kansas has won future production for precision-guided mortar munitions and spider smart mines
- The utilization calculation did not account for the size of the munition: 1-gram detonators and 1-ton cluster bombs were each considered "units." This made Kansas appear to be in layaway, since the capacity for pyrotechnics production is (by units) so high. The Kansas AAP, however, has several serious production programs underway

*Industrial Joint Cross Service Group's analysis of munitions production at the Kansas AAP*

	Current Capacity	Current Usage	Maximum Capacity	Excess Capacity	
				In Excess of Current Usage	In Excess of Max. Usage
Artillery	22,580	—	35,380	22,580	35,380
Cluster bombs	112	116	3,112	-4	2,996
Missiles	1,300	130	1,336	1,170	1,206
Mortars	—	—	30,000	0	30,000
Pyro/demo	—	—	3,000,000	0	3,000,000
Rockets	512,000	—	512,000	512,000	512,000
Site total	535,992	246	3,581,828	535,746	3,581,582
<b>% capacity not utilized</b>				<b>100%</b>	<b>100%</b>

Source: CRA's analysis of the 2005 BRAC data release and information provided by D&Z



## Why not accept the recommendation for the Lone Star AAP?

### Again, in the first place, because OSD's analysis was seriously flawed

- Lone Star employs 423 people, not the 229 that OSD reported
- OSD again did not account for all production lines: Lone Star's production of hand grenades seems to have been completely ignored
- At Lone Star, the utilization calculation also did not account for the size of the munition: 1-gram detonators and MLRS rockets were each considered "units." This also made Lone Star appear to be in layaway, again because its capacity for pyrotechnics production is so high. Today, however, the Lone Star AAP is also quite active

*Industrial Joint Cross Service Group's analysis of munitions production at the Lone Star AAP*

	Current Capacity	Current Usage	Maximum Capacity	Excess Capacity	
				In Excess of Current Usage	In Excess of Max. Usage
Artillery	38,569	---	38,569	38,569	38,569
Cluster Bombs	3,912	---	3,912	3,912	3,912
Mines	57,996	---	57,996	57,996	57,996
Mortars	10,000	---	10,000	10,000	10,000
Pyro/Demo	22,752,222	589,901	22,752,222	22,162,321	22,162,321
Rockets	1,281,297	75,000	1,281,297	1,206,297	1,206,297
Site Total	24,143,996	664,901	24,143,996	23,479,095	23,479,095
% capacity not utilized				97.2%	97.2%

Source: CRA's analysis of the 2005 BRAC data release and information provided by D&Z

## What else is wrong with the Secretary's recommendation?

### Closing the GOCO plants administratively is not the sure way to save money

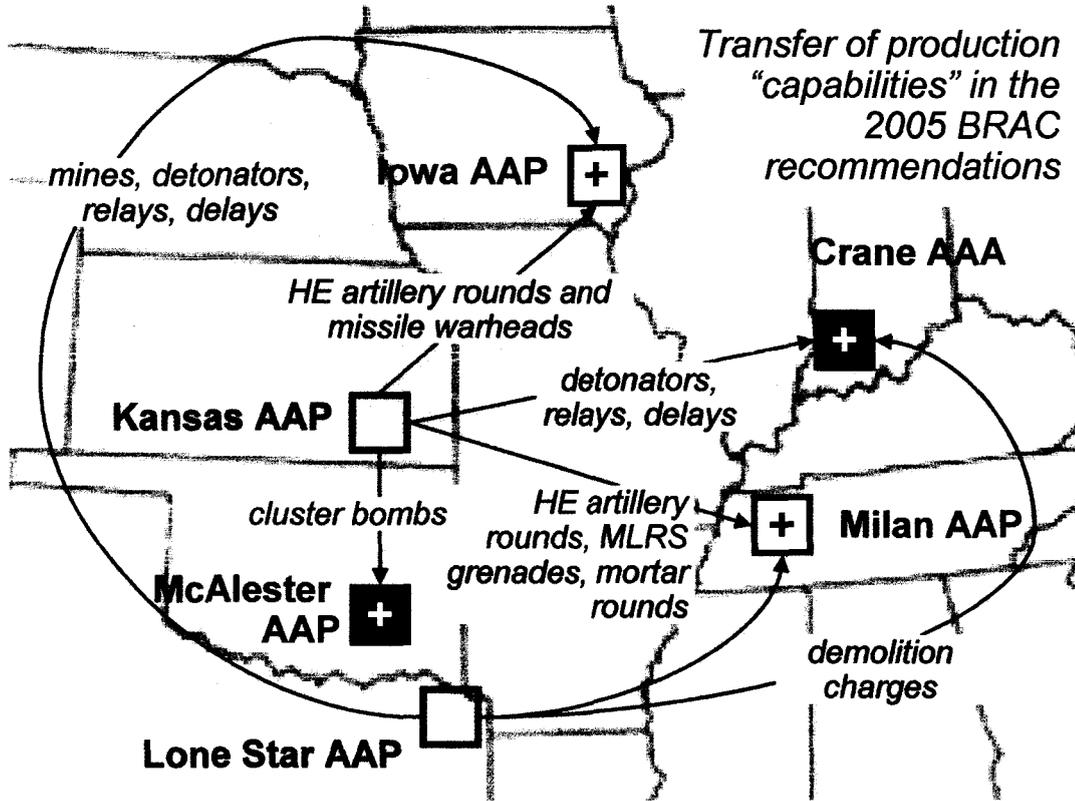
- Closing plants administratively will reduce the problem of redundant capacity but at a cost
- The government may make mistakes in deciding which plants to close
  - The government is only looking at a subset of the plants that produce munitions (GOGOs and GOCOs)
  - Determining the efficiency of a plant is a difficult task
  - Closing the wrong plant could have long-run implications for the customer
- Privatization accomplishes the same goal as administrative closure but with added benefits
  - Privatization eliminates redundant capacity from the government's budget
  - Market forces will ensure survival of the most efficient plants
  - Privatization creates stronger incentives for plants to innovate to reduce costs and bring greater value to the customer in the long-run

---

*Privatization also reduces government owned capacity, but with added benefits*

# How would these recommendations affect competition in the industry?

## They would attempt to strengthen AO and the GOGOs at the expense of D&Z



- ⊕ American Ordnance facility
- ⊖ D&Z facility to be closed
- ⊕ GOGO facility
- Relocation of function

- The Pentagon's report recommends the transfer of capabilities, but it is unclear that it will move production equipment
- Neither D&Z's staff nor intellectual property will be moved, so the receiving plants will face steep learning curves
- The Pentagon's recommendations have omitted the higher costs of procuring munitions from less efficient producers from its calculations
- Today, five entities in the US produce heavy munitions: D&Z, General Dynamics - Ordnance and Tactical Systems (GD-OTS), American Ordnance (AO), Alliant Techsystems, and the Army itself
- AO is a 50-50 joint venture between D&Z and GDOS, but it is managed as an entirely separate entity
- Thus, the net effect of the recommendations is to reduce the number of entities in the US with heavy munitions capacity from five to four—but with less capable facilities

Source: *The 2005 BRAC list; Industrial Joint Cross Service Group Final Report, 10 May 2005, pp. 42 & 59; interviews with D&Z managers; and other research by CRA. NB: AAP = Army Ammunition Plant, AAA = Army Ammunition Activity. Note that the five main firms in the industry today actually experience a less competitive regime than would be expected in another market—governmental allocations have been reducing competitive pressures*

## Why should the Army Ammunition Plants be privatized?

### Because private industry runs industry more efficiently than the Army

- Manufacturing is not a core competency of the Army. No other military service in NATO runs its own internal production operations. The Navy stopped building its own ships in the 1960s, and the government has not built its own aircraft since the 1920s. Manufacturing management is a distraction for the Army, keeping its attention on a non-core function. The PEO for Ammunition should be concerned with inventories, logistics, pricing, *etc.*, but not the actual manufacturing of the product

*Transferring functions to the McAlester AAP and Crane AAA is thus a particularly bad idea, as these are government-operated plants whose workload is mostly allocated by the PEO for Ammunition, their primary customer*

- Owning real estate and production equipment is an unnecessary economic activity for the Army. With two million tons of munitions in the stockpile and plants in layaway, the Army derives no particular advantage from owning ammunition plants. On the contrary, ownership creates an expectation of usage, which skews the contracting regime towards allocation
- Privatization exposes the plants to the rigors of market competition, which forces continual increases in efficiency. This has been particularly beneficial in Canada (see page 12)
- Closure would mean that the Army would incur front-loaded relocation and construction costs. Privatization would require private firms to make investment and recapitalization decisions, which more efficiently allocate capital than the Army's internal budgeting process. This has been particularly important in the UK and Australia (see page 11)

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*BRAC Commissions are a more efficient mechanism for industrial restructuring than legislative puts-and-takes.*

*Corporate decision-making under market pressures, however, is even better*

## Where has munitions production privatization been successful? In the UK: Royal Ordnance was privatized in 1987

- Founded in 1560 as the Royal Gunpowder Factory (GOGO)
- Incorporated in 1984 as a Crown Corporation controlling 17 plants and employing some 19,000 staff
- Considered initially for an IPO in the Thatcher government's privatization drive, but the cabinet subsequently sought a strategic buyer
- Privatized to British Aerospace (now BAE Systems)
- Down to ten sites (8 in UK, 1 in US, 1 in France) and just 2,500 staff in 2004 when merged with Alvis to form BAE Land Systems
- Securely in British control: a "golden share" held by the government requires that
  - No foreign shareholder may hold more than 15% of the company
  - The majority of the board must be British subjects
  - The CEO and Chairman must be British
- In the middle of a ten-year, £1 billion "Framework Partnering Agreement" with the Ministry of Defence for the supply of munitions

*BAE is now effectively 'Royal Swedish Ordnance' as well—*

- Acquiring Sweden's Bofors through BAE's acquisition of United Defense. Bofors has recently become a global leader in smart weapons development
- Major shareholder in Saab, which owns Saab Bofors Dynamics, the primary source of munitions in Sweden and owner of the only large proving ground in the country

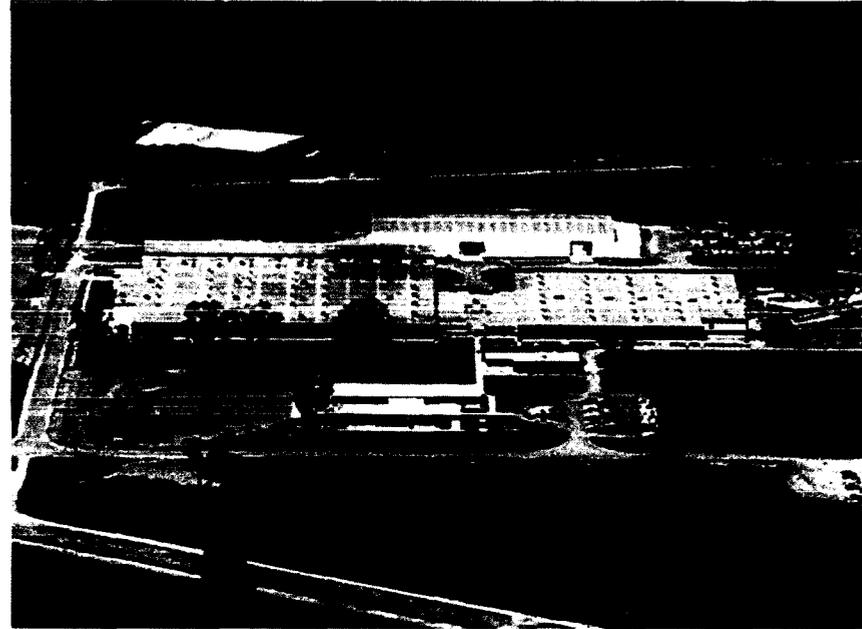
Sources: CRA's review of financial statements, analysts' reports, and press releases



Bofors' main facility in Karlskoga, Sweden. Roughly half of Bofors 500 staff now work in R&D, as most production has been transferred to Saab Bofors Dynamics

## Where has munitions production privatization been successful? In Australia—Australian Defence Industries (ADI) was privatized in 1999

- Originated in 1888 as the Colonial Ammunition Company
- Purchased and converted into a GOGO in 1927
- Incorporated in 1989 as a Crown Corporation with four wholly-owned munitions plants. The firm promptly consolidated production from these four into the Benalla greenfield site (at right). The government retained ownership of the Mulwala explosives and propellants factory
- Privatized to Transfield Holdings (50%) and Thomson-CSF (50%, now Thales) as part of the Howard (Liberal) government's privatization drive. Assets transferred included aerospace, electronic, and shipbuilding facilities as well as munitions factories
- Produces aircraft bombs, 5.56 mm, 12.7 mm, 20 mm, 25 mm, 105 mm, 127 mm, detonators, grenades, flares, and rocket motors
- Has a "long-term strategic agreement for munitions" with the Australian Department of Defence
- Still operates Mulwala as a GOCO; committed through a long-term agreement with the government to modernize the plant



ADI's munitions manufacturing facility at Benalla in northeastern Victoria

*Munitions plants thus share a trait with military housing:  
effective recapitalization virtually requires privatization*

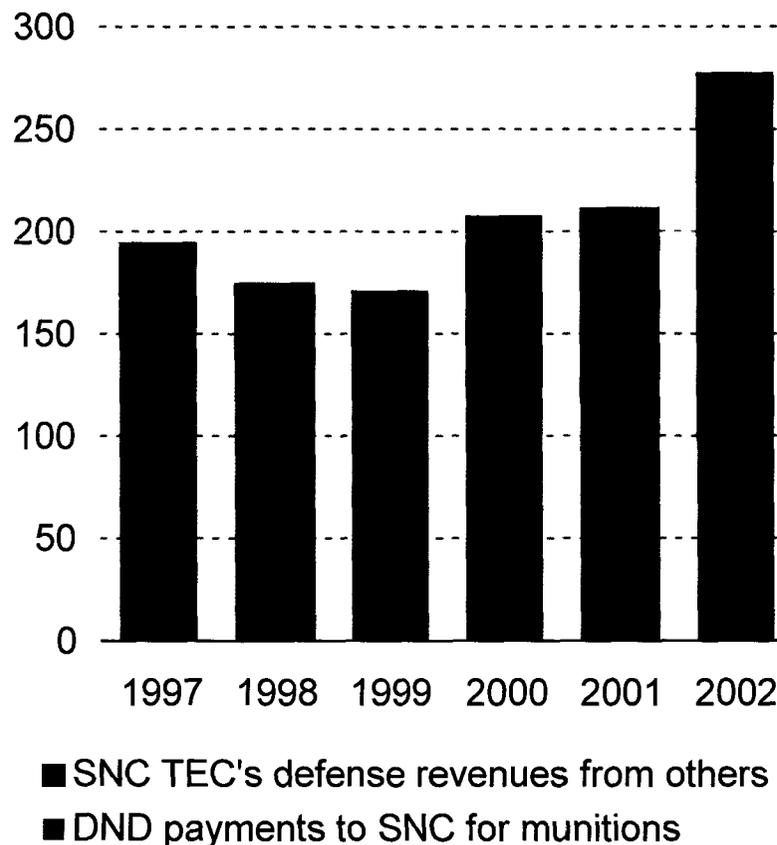
*The military (whether in the US, the UK, or Australia) is  
not likely to front modernization funds in the face of  
competing budget priorities, but it will provide the cash  
flow to the contractor over the long haul*

Sources: ADI Annual Activities Reports; David A. Mayne, *Australian Military Small Arms Ammunition Production 1888–2003*, (September 2004); and CRA's review of operating statements and press releases

# Where has munitions production privatization been successful? In Canada—Canadian Arsenals Ltd was privatized in 1986

- Founded in 1881 as the Government Cartridge Factory
  - Established as a Crown Corporation in 1947
  - Some privatizations carried out in the 1960s
  - Privatized in 1986 to SNC (now SNC Lavalin) as part of the Mulroney (Tory) government's privatization drive
  - Long-term preferred supplier to the Department of National Defence (DND)
  - Armaments subsidiary SNC TEC has since become a leading competitor in the international munitions market
    1. Despite the DND's progressive decreases in munitions spending, and
    2. Partly as a result of the DND's shift to fixed-price contracting in 1997
- Fixed-price, arms-length contracting provided the incentive to drive down costs—and thus made SNC TEC internationally competitive*
- Now a leading supplier to the US ground forces of 105 mm, 120 mm, and 155 mm howitzer and mortar ammunition

SNC TEC's munitions revenues  
1997 to 2002 (C\$ MM)



Source: W. Michael Hix, et. al., *Lessons from the North: Canada's Privatization of Military Ammunition Production*, MG-169 (Santa Monica: RAND, 2004). Data provided by the Government of Canada, Maurice Boileau (DND), and Brian Berger (SNC TEC). Analysis and financial conversions provided by CRA. More recent figures were not immediately available. SNC TEC's defense revenues include some monies from the sale of fire protection equipment, but this only furthers the case for privatization

## Why is privatization better than closure?

### Privatization is more cost-effective for the government in the long run

- Privatization reduces the Defense Department's industrial holdings at least as effectively as closure. At worst, the privatized plant will fail, and the military will not have paid for the closure

*As an example, consider SNC TEC of Quebec. SNC is D&Z's most effective competitor in hand grenade production, and a formidable competitor in general. If OSD moves hand grenade production equipment to a GOGO or AO facility, but SNC wins the next contract, then closure will certainly prove to have been less cost-effective for the government than privatization*

- Privatization retains domestic competition in the munitions industry. SNC TEC is an excellent firm, and it is the most likely strategic beneficiary of OSD's recommendations should they pass into law
- Privatization assigns responsibility for industrial management to industry, and lets industry make the decisions about capacity and consolidation. There may be overcapacity in the munitions business, but privatization lets the market decide who will win. In the process, the least efficient producers are driven out. The government cannot be assured that it will correctly pick the most cost-effective firms.

*Witness OSD's gross misunderstanding of the production economics at the Kansas and Lone Star AAPs: OSD cannot be expected to manage the industry effectively at the plant level. This is why, in the long run, closure by market forces is much more cost-effective than closure by administrative fiat*

- Privatization has been successfully demonstrated in the UK, Australia, and Canada. The British and Australian governments are satisfied with BAE and ADI's management of munitions, and SNC TEC in particular has been very effective at reducing its prices by spreading its overheads across export contracts as well. *This has been very cost-effective for the Canadian government*
- Privatization is low-risk. If the privatized Kansas and Lone Star munitions businesses fail, then nothing will have changed—the plants will close all the same

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***Private industry should be afforded the opportunity to try to make the business successful***

## About CRA

CRA International is a global consultancy focused on matters of law, regulation, and business strategy. Our projects involve the application of economics and finance to large, complex, high-stakes cases. Our commitment to quality assurance and our blue chip reputation are long-established



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