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**DEPARTMENT OF THE ARMY**

**JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1982**

**SUBMITTED TO CONGRESS**

**JANUARY 1981.**

*Part 4. Ammunition.*



PART 4 OF 5 PARTS  
(AMMUNITION)

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ELECTE**

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**PROCUREMENT**

**PROGRAMS**

<b>AIRCRAFT</b>	<b>MISSILES</b>
<b>WEAPONS &amp; TRACKED COMBAT VEHICLES</b>	<b>OTHER</b>
<b>AMMUNITION</b>	

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DEPARTMENT OF THE ARMY  
Office of the Deputy Chief of Staff  
For  
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January 1981

DEPARTMENT OF THE ARMY  
PROCUREMENT APPROPRIATIONS

Justification of Estimates for Fiscal Years 1982, 83 (Auth Only)

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Department of the Army  
Procurement of Ammunition, Army

Justification of Estimates for Fiscal Year 1982

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PROCUREMENT OF AMMUNITION, ARMY

Section 1

Budget Appendix Extract

Language

Program and Financing Schedule

Object Classification Schedule

APPROPRIATION LANGUAGE

For construction, procurement, production, and modification of ammunition, and accessories therefor; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities authorized in military construction authorization Acts or authorized by section 2673, title 10, United States Code, and the land necessary therefor, without regard to section 4774, title 10, United States Code, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title as required by section 355, Revised Statutes, as amended; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes; [\$1,531,000,000] \$1,816,200,000 to remain available for obligation until September 30, [1983] 1984.

(10 U.S.C. 2353, 3012, 4531, 4532; 31 U.S.C. 649c; Department of Defense Appropriation Act, 1979; additional authorizing legislation to be proposed.)

EXPLANATION OF LANGUAGE CHANGES

- (1) To change the amount of the appropriation requested for FY 1982.
- (2) To change the obligation expiration date for the FY 1982 program.

Program and Financing (in thousands of dollars)		Budget plan (amounts for procurement actions programmed)			Obligations		
Identification code	21-2034-0-1-051	1980 actual	1981 est.	1982 est.	1980 actual	1981 est.	1982 est.
<b>Program by activities:</b>							
<b>Direct:</b>							
1.	Ammunition	803,425	1,199,900	1,573,500	878,003	1,029,366	1,453,299
2.	Ammunition production base support	346,300	331,100	242,700	375,503	282,631	281,384
	Total direct	1,151,725	1,531,000	1,816,200	1,250,506	1,311,997	1,734,683
	Reimbursable program (total)	402,533	548,000	117,900	343,524	476,203	216,127
10.00	Total	1,554,258	2,079,000	1,934,100	1,594,030	1,790,200	1,952,790
<b>Financing:</b>							
Offsetting collections from:							
11.00	Federal funds	-315,628	-350,500	-106,500	-301,416	-349,000	-106,500
13.00	Trust funds	-86,725	-197,500	-11,400	-49,996	-190,700	-11,400
14.00	Non-federal sources	-180			-180		
17.00	Recovery of prior year obligations, obl plan				-8,539		
21.40	Unobligated balance available, start of year:						
21.40	For completion of prior year budget plans						
23.40	Reprogramming from or to prior year budget plan	-75,708			-479,382	-321,510	-602,010
23.40	Unobligated balance transferred to other accounts						
24.40	Unobligated balance available, end of year	17,058			17,058		
25.00	Unobligated balance lapsing	43,350			321,510	602,010	563,320
39.00	Budget authority	1,136,425	1,531,000	1,816,200	1,136,425	1,531,000	1,816,200
<b>Budget authority:</b>							
40.00	Appropriation	1,232,800	1,531,000	1,816,200	1,232,800	1,531,000	1,816,200
41.00	Appropriation rescinded	-16,300			-16,300		
42.00	Transferred to other accounts	-95,575			-95,575		
42.00	Transferred from other accounts	14,500			14,500		
43.00	Appropriation (adjusted)	1,136,425	1,531,000	1,816,200	1,136,425	1,531,000	1,816,200
<b>Relation of obligations to outlays:</b>							
71.00	Obligations incurred, net				1,242,426	1,250,500	1,834,890
72.40	Obligated balance, start of year				1,473,332	1,456,371	1,467,871
74.40	Obligated balance, end of year				-1,456,371	-1,467,871	-1,856,761
77.00	Adjustments in expired accounts				20,636		
78.00	Adjustments in unexpired accounts				-6,539		
90.00	Outlays	1,271,385	1,239,000	1,444,000	1,271,385	1,239,000	1,444,000

Army

Procurement of Ammunition, Army

15 JAN 81

Object Classification (in thousands of dollars)

Identification code 21-2034-0-1-051

1980 actual 1981 est. 1982 est.

Direct obligations:

25.0 Other services:  
26.0 Supplies and materials  
31.0 Equipment  
99.0 Total direct obligations

478,745 512,500 691,800  
771,536 733,696 1,042,503  
226 65,801 360  
1,250,506 1,311,997 1,734,663  
\*\*\*\*\*

Reimbursable obligations:

Other services:  
25.0 Other  
26.0 Supplies and materials  
31.0 Equipment  
99.0 Total reimbursable obligations  
99.9 Total obligations

133,394 207,800 93,400  
210,063 270,303 124,378  
67 100 352  
343,524 478,203 218,127  
\*\*\*\*\*  
1,694,030 1,790,200 1,952,790





Procurement of Ammunition, Army

Program and Financing (in thousands of dollars) 1980 Fiscal Year program Obligations

Identification code 21-2034-0-1-05) Budget plan (amounts for procurement actions programmed) 1980 actual 1981 est. 1982 est. 1980 actual 1981 est. 1982 est.

Program by activities:		1980 actual	1981 est.	1982 est.	1980 actual	1981 est.	1982 est.
10.00	Direct:						
	1. Ammunition	803,428			718,376	17,130	67,919
	2. Ammunition production base support	348,300			338,467	5,233	4,600
	Total direct	1,151,728			1,056,843	22,363	72,519
	Reimbursable program (total)	402,533			284,281	38,551	79,701
	Total	1,554,261			1,341,124	60,914	152,220
11.00	Financing:						
	Offsetting collections from:						
	Federal funds	-315,628			-315,628		
	Trust funds	-86,728			-86,728		
	Non-federal sources	-160			-160		
	Unobligated balance available, start of year					-213,134	-152,220
	Unobligated balance available, end of year				213,134	152,220	
	Budget authority	1,151,728			1,151,728		
39.00	Budget authority	1,151,728			1,151,728		
40.00	Budget authority:						
	Appropriation	1,232,800			1,232,800		
41.00	Transferred to other accounts	-95,575			-95,575		
42.00	Transferred from other accounts	14,500			14,500		
43.00	Appropriation (adjusted)	1,151,728			1,151,728		

Army

Procurement of Ammunition, Army

15 JAN 81

Identification code	21-2034-0-1-051	Program and Financing (in thousands of dollars)		1981 Fiscal year program	
		Procurement actions programmed		Obligations	
		1980 actual	1981 est.	1980 actual	1981 est.
Program by activities:					
Direct:					
	1. Ammunition	1,199,900	974,576		101,594
	2. Ammunition production base support	331,100	271,023		53,104
	Total direct	1,531,000	1,245,599		154,698
	Reimbursable program (total)	548,000	383,611		55,696
10.00	Total	2,079,000	1,629,210		210,594
Financing:					
Offsetting collections from:					
11.00	Federal funds	-350,500	-350,500		
13.00	Trust funds	-197,500	-197,500		
21.40	Unobligated balance available, start of year				-449,790
24.40	Unobligated balance available, end of year				239,196
40.00	Budget authority	1,531,000	1,531,000		

Army

Procurement of Ammunition, Army

15 JAN 81

Program and Financing (in thousands of dollars)

1982 Fiscal Year Program

Obligations

Identification code 21-2034-0-1-051

Budget plan (amounts for procurement actions programmed)

	1980 actual	1981 est.	1982 est.	1980 actual	1981 est.	1982 est.
Program by activities:						
Direct:						
1. Ammunition			1,579,500			1,289,786
2. Ammunition production base support			242,700			223,660
Total direct			1,816,200			1,507,446
Reimbursable program (total)			117,900			82,630
Total			1,934,100			1,589,976
Financing:						
Offsetting collections from:						
Federal funds			-106,500			-106,500
Trust funds			-11,400			-11,400
Unobligated balance available, end of year						344,124
Budget authority			1,816,200			1,616,200

PROCUREMENT OF AMMUNITION, ARMY

Section 2

Introductory Statement

4-10 - 1/15/81

DEPARTMENT OF THE ARMY  
ANNUAL BUDGET ESTIMATES

Appropriation:

PROCUREMENT OF AMMUNITION, ARMY

FY 1982  
Budget

Section 2 - INTRODUCTORY STATEMENT

This appropriation finances the acquisition of ammunition, modification of inservice stock, and related production base support including the maintenance, expansion, and modernization of industrial facilities and equipment.

The 1982 program provides for worldwide training consumption and losses from inventory through the 1982 funded delivery period; procurement of modern hardware; and buildup of war reserve stocks to meet authorized acquisition objectives. This year's program includes funds for over 50 different types of ammunition and provides the 14th increment of a multi-year effort to rehabilitate and improve the Army's industrial base.

PROCUREMENT OF AMMUNITION, ARMY

Section 3

Summary of Requirements

4-12 - 1/15/81

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation:	FY 1980 Actual	FY 1981 Estimate	FY 1982 Estimate
PROCUREMENT OF AMMUNITION, ARMY			
Ammunition .....	803,425	1,199,900	1,573,500
Ammunition Production Base Support .....	348,300	331,100	242,700
Total Direct Program .....	1,151,725	1,531,000	1,816,200
Reimbursable Program .....	402,533	548,000	117,900
<b>TOTAL PROGRAM REQUIREMENTS .....</b>	<b>1,554,258</b>	<b>2,079,000</b>	<b>1,934,100</b>
Less: Portion of program to be obligated in subsequent fiscal years .....	213,134	449,790	344,124
Plus: Obligations incurred against prior year program funds .....	252,906	160,990	362,814
<b>TOTAL OBLIGATIONS .....</b>	<b>1,594,030</b>	<b>1,790,200</b>	<b>1,952,790</b>

PROCUREMENT OF AMMUNITION, ARMY

Section 4

Budget Activity Justification

Activity 1 - Ammunition

Activity 2 - Ammunition Production Base Support

4-14 - 1/15/81

Department of the Army Annual Budget Estimates JUSTIFICATION Budget Program or Budget Project Account ACTIVITY 1 - AMMUNITION Direct Obligations or Direct Budget Plan	Appropriation PROCUREMENT OF AMMUNITION, ARMY		FY 1982
	(In Thousands of Dollars)		Budget
	Actual Fiscal Year 1980	Estimate Fiscal Year 1981	Fiscal Year 1982
	\$ 803,425	\$ 1,199,900	\$ 1,573,500

Section 1 - PURPOSE AND SCOPE

Ammunition. This request provides for annual peacetime training needs and the acquisition of U.S. war reserve stocks for use during war time. Family of munitions included in the request are artillery, mortar and small arms ammunition, fuzes, mines, and demolitions, grenades, pyrotechnic signals, and other ammunition items. The major portion of the funds being requested are identified to newly developed tank rounds, artillery dual purpose improved conventional munitions, and artillery delivered mine systems.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The fiscal year 1982 program provides for worldwide training consumption and losses to inventory through the FY82 funded delivery period; increases US Army readiness in support of the FY86 authorized acquisition objective and maintains an active ammunition production base in FY82 for modernization and training type munitions. The FY82 program includes over 50 different types of ammunition with the following category breakout: tank ammunition, \$251.2 million; fuzes, \$74.0 million; artillery ammunition, \$483.0 million; propelling charges, \$110.8 million; small arms ammunition, \$322.7 million; mortar ammunition, \$115.2 million; atomic materiel, \$25.7 million; rockets, \$80.6 million; and other ammunition, spares and components for tests, renovation and proveout, \$110.3 million. Of the \$1573.5 million total, \$919.0 million is allocated to tank gun and artillery munitions with related fuzes and propelling charges.

Army Ammunition Working Capital Fund. To increase the economy and efficiency of the ammunition acquisition process, a working capital fund for the procurement of all conventional ammunition will be established beginning in fiscal year 1982. In accordance with the currently governing ammunition revolving fund charter, the cost of first destination transportation of munitions during fiscal year 1982 is included as a surcharge in the fiscal year 1982 ammunition item unit prices. The total amount for this purpose included in the Procurement of Ammunition, Army Activity 1 program is \$37.8 million.

FORMAT

Department of the Army Annual Budget Estimate JUSTIFICATION Budget Program or Budget Project Account	Appropriation Procurement of Ammunition, Army		FY 1982 Budget
	(Thousands of Dollars)		Estimate
	Actual	Estimate	
Activity 2 - Production Base Support	FY 1980	FY 1981	FY 1982
Direct Obligation or Direct Budget Plan	\$ 348,300	\$ 331,100	\$ 242,700

Section 1 - PURPOSE AND SCOPE

Provides for the support of plants in active production and the modernization and expansion of the Army's production capability for ammunition; layaway of industrial plants and equipment; and the manufacturing technology to facilitate and improve the production of ammunition.

Section 2 - JUSTIFICATION OF FUNDS REQUESTED

The major effort for the ammunition production base in FY 1982 is the modernization and expansion program. The modernization and expansion program seeks to modernize existing World War II facilities which are deteriorated, obsolete, and inefficient, and to expand the base, where required, to provide the production capability to produce new modernized ammunition items. The FY 1982 modernization and expansion program of \$125.5 million (including construction) is the fourteenth year increment of a long range, multi-billion dollar capital investment program. The principal thrust of the program in FY 1982 is the establishment of production base capability to produce the new and more effective modernized ammunition items. New production capability is being established or expanded for anti-armor cluster munitions (\$21.0 million) and tactical munitions dispensers (\$6.8 million), both for Air Force use. These projects are needed to permit the introduction of these Modernized ammunition items into the DoD inventory with the resultant increase in the readiness and effectiveness of our combat forces. A detailed breakout of individual projects is provided in Section 6.

Another part of the FY82 program is the continuation of and balance with prior year initiatives. A total of \$10.5 million is requested to complete the Mississippi Army Ammunition Plant at Bay St. Louis, MS. This provides additional funding to accommodate unforeseen cost increases, changes and inflation in the project. Mississippi AAP when complete will be capable of producing 120,000 rounds per month of the 155mm, M483 Improved Conventional Munition (ICM). In the area of new initiatives the anti-armor cluster munitions (ACM) project provides capability for metal parts (in the private sector); Load, Assemble and Pack, and the modernization of associated melt pour facilities (both at Kansas AAP). The tactical munitions dispenser facility provides capability at Honeywell (Twin Cities AAP) for manufacture of the dispenser for the ACM. These projects are required to meet planned out-year procurements for these items.

Department of the Army Annual Budget Estimates		FY 1982
JUSTIFICATION		Budget
Appropriation	Budget Program or Budget Project Account	
Procurement of Ammunition, Army	Activity 2 - Production Base Support	

FORMAT A

Other major efforts are an \$18.1 million project to rehabilitate the main heating plant at Iowa AAP; a \$9.5 million project to provide steam from a second steam powerhouse at Radford AAP; a \$7.6 million project to upgrade the Composition B explosive line to original design rates with acceptable safety; a \$7.0 million project to modernize the production facility for Navy 5 inch Shell Metal Parts at Lansdowne Steel which was destroyed by fire; a \$5.6 million project to improve the Ammonia Oxidation Plant at Radford AAP; a \$2.8 million project to provide automated tape stiffener assembly operations for grenades used in ICM munitions (M483 and M509) at Lone Star and Kansas AAP; a \$1.5 million project to modernize the Grenade HC Smoke manufacturing and assembly facility at Pine Bluff Arsenal in accordance with latest pollution standards; a \$1.3 million project to provide spare parts for one SCAMP (Small Caliber Ammunition Modernization Program) line at Lake City AAP; a \$1.2 million project to provide in process storage igloos at Kansas AAP for grenades utilized in ICM munitions; a \$2.6 million containerization facility at Lone Star AAP for containerized shipment of ammunition; and a \$23.0 million design effort for out-year projects.

Also included in the FY 1982 request are funds for the necessary production support and equipment replacement for plants in active production (\$48.0 million); the layaway of industrial plant equipment and facilities needed to meet mobilization requirements (\$30.6 million); and a manufacturing technology program to incorporate the latest state-of-the-art in technology into the production of ammunition (\$28.6 million). It is expected that sixteen ammunition plants will require FY 82 production support and equipment replacement funds. These facilities include the three former Navy facilities transferred to the Army under the Single Manager for Conventional Ammunition role on 1 October 1977, plus three production-related facilities. The \$30.6 million requested for layaway is for the protection and preservation of equipment and facilities no longer required for active production but which must be retained for future peacetime or mobilization production. This request coupled with the additional funds provided by Congress in FY 81 will permit the Army to satisfy current requirements and eliminate the prior year layaway requirements backlog. The \$28.6 million for manufacturing methods and technology (MM&T) is associated with the modernization and expansion program. This program improves on-going production processes to achieve cost reductions and enhanced health, safety, and energy conservation characteristics. Additionally, this program develops production processes incorporating the latest state-of-the-art technology from private industry to mass produce the new, more sophisticated munitions. A breakout of associated costs for the total production base program is reflected on the next page.

Department of the Army Annual Budget Estimates JUSTIFICATION		FY 1982
Appropriation	Budget Program or Budget Project Account	Budget
Procurement of Ammunition, Army	Activity 2 - Production Base Support	

The separate budget line item for the construction effort in support of the ammunition production base was deleted from the PI procurement exhibit beginning with the President's FY 80 Budget. This action eliminated the confusion that was caused by splitting projects with both equipment and construction between two budget lines. A detailed breakout of the projects with construction is contained on page 4-21. The construction portions of the individual projects are shown in parenthesis in Section 6, pages 4-30 to 4-34. Included in this year's ammunition procurement request is \$45.7 million of construction which will require authorization in this year's Military Construction Authorization Bill. This authorization total does not contain any authorization for the new Mississippi Army Ammunition Plant since construction of this plant was authorized by Congress in FY 78.

Included is a budget line item for Depot Maintenance Plant Equipment requesting \$10.0 million. Depot Maintenance Plant Equipment provides for the procurement of capital equipment required in support of maintenance, renovation and demilitarization of ammunition in depots worldwide. This effort was funded previously by the Operations and Maintenance, Army account.

FORMAT A

Department of the Army Annual Budget Estimate		FY 1982 Budget
JUSTIFICATION		
Appropriation		
Procurement of Ammunition, Army		
Budget Program or Budget Project Account		
Activity 2 - Production Base Support		

	FY 80 (Millions)	FY 81 (Millions)	FY 82 (Millions)
<u>Provision of Industrial Facilities (PIF)</u>	292.3	283.2	(173.5)
Production Support and Equipment Replacement (PS&ER)	(29.5)	(32.0)	(48.0)
Initial Production Facilities (IPF)	(19.1)	(17.3)	(27.8)
Modernization (MOD)	(0)	(16.6)	(63.8)
Expansion (EXP)	(243.7)	(217.3)	(33.9)
<u>Layaway of Industrial Facilities</u>	24.7	16.8	30.6
<u>Quick Return on Investment Program</u>	-	-	-
<u>Manufacturing Technology Program</u>	22.4	21.5	28.6
<u>Military Adaptation of Commercial Items</u>	-	.3	-
<u>Depot Maintenance Plant Equipment</u>	8.9	9.3	10.0
TOTAL PBS AMMUNITION	348.3	331.1	242.7

Department of the Army		FY 1982
Annual Budget Estimates		Budget
JUSTIFICATION		Account
Appropriation		Budget Program or Budget Project Account
Procurement of Ammunition, Army		Activity 2 - Production Base Support

Authorization of construction required to support ammunition production base projects in the FY 1982 program is valued at \$45.7 million. Starting in FY 77 this military construction is authorized in the Military Construction Authorization Bill and appropriated in the Ammunition Procurement Appropriation. The Congress authorized \$82.6 million of military construction in FY 80 and \$13.7 million in FY 81. Military Construction Project Data (DD Form 1391), which provide detailed project information, is published under separate cover. A listing of FY 1982 construction projects is as follows:

Army Ammunition Plants (AAP)	Project No.	Project Title	PIF Const Cost		PIF Equipment Cost (Millions)	Total Project Cost (Millions)
			Estimate (Millions) PS&ER	MOD/EXP		
Holston TN, AAP	5822052	Comp Line 1 Improvements	.2	1.2	6.4	7.6
	5825328-17	Sensitivity Test Facility				.2
	5825328-18	Overfire Air Steam Plant Areas A&B	1.0			1.0
Indiana AAP	5825328-20	Replace Bridges	.1			.1
	5825328-51c	Energy Conservation and Management (ECAM)	.1			.1
Iowa AAP	5825330-15	Convert Boilers from #2 to #6 oil	.3			.3
	5825330-51	ECAM	2.2			2.2
	5825393	Rehab Main Heating Plant		17.6	.5	18.1
Kansas AAP	5825333-51	ECAM	1.0			1.0
	5822138	Grenade In-Process Storage Igloos		.9	.3	1.2
Lake City Mo, AAP	5825329-51	ECAM	.1			.1
	5825332-29	Replace Bldg 90A	.2			.2
	5825332-51	ECAM	.4			.4

Department of the Army		FY 1982
Annual Budget Estimates		Budget
JUSTIFICATION		
<b>Appropriation</b>	<b>Budget Program or Budget Project Account</b>	
Procurement of Ammunition, Army	Activity 2 - Production Base Support	

FORMAT A

Army Ammunition Plants (AAP)	Project No.	Project Title	PIF Const Cost		PIF Equipment Cost (Millions)	Total Project Cost (Millions)	
			Estimate (Millions)	MOD/EXP			
Longhorn TX, AAP	5825327-16	Herbicide Mix and Pesticide Facility	.3			.3	
Milan TN, AAP	5825317-15	Replace Wells and Houses	1.4			1.4	
Newport IN, AAP	5825317-17	On-line Storage Facility	.6			.6	
Radford VA, AAP	5825201-1	ECAM	.7			.7	
	5822134	Steam Tie Line - Horseshoe Area		9.2	.3	9.5	
	5822317	Weatherly AOP MOD		5.4	.2	5.6	
	5825326-14	Replace Barricades	2.8			2.8	
		TOTAL	11.4	34.3	7.7	53.4	
		GRAND TOTAL	\$45.7 Million				
		(CONSTRUCTION)					

Department of the Army Annual Budget Estimates		FY 1982
JUSTIFICATION		Budget
Appropriation	Budget Program or Budget Project Account	
Procurement of Ammunition, Army	Activity 2 - Production Base Support	

FORM 1 A

End Item Capability: In order to produce an ammunition end item, the individual components have to be produced and have to be balanced with the desired end item capability. These components include metal parts, fuzes, propellants, explosives detonators, etc. These components are loaded with explosives, assembled, and packed (LAP) into the final end item. The principal end item capabilities, which will be established with the FY 82 projects, are as follows:

<u>Project Number</u>	<u>Item</u>	<u>Individual Projects</u> (\$ in Millions)	<u>Production Capability</u>
5820048	Anti-Armor Cluster Munition	\$21.0	400 CBU/mo LAP 20,000 BLU/mo MPTS
5820050	Tactical Munition Dispenser	6.8	500/mo

PROCUREMENT OF AMMUNITION, ARMY

Section 5

Comparison of Program Requirements and Financing

Comparison of FY1981 program requirements as reflected in FY1981 budget with FY1981 program requirements as shown in FY1982 budget.

Comparison of FY1981 financing as reflected in FY1981 budget with FY1981 financing as shown in FY1982 budget.

Comparison of FY1980 program requirements as reflected in FY1981 budget with FY1980 program requirements as shown in FY1982 budget.

Comparison of FY1980 financing as reflected in FY1981 budget with FY1980 financing as shown in FY1982 budget.

COMPARISON OF FY 1981 PROGRAM REQUIREMENTS  
AS REFLECTED IN FY 1981 BUDGET WITH  
FY 1981 PROGRAM REQUIREMENTS AS SHOWN IN FY 1982 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation:	Total Program		Program Requirements Per FY 1982 Budget	Increase (+) or Decrease (-)
	Requirements Per FY 81 Budget	Requirements Per FY 82 Budget		
Procurement of Ammunition, Army				
Activity 1 - Ammunition	1,190,600	1,199,900		+ 9,300
Activity 2 - Ammunition Production Base Support	<u>324,500</u>	<u>331,100</u>		+ 6,600
Total	1,515,100	1,531,000		+15,900

Explanation by Activity

Activity 1 - Ammunition. The \$ 9.3 million increase is the net result of Congressional actions.

Activity 2 - Ammunition Production Base Support. The \$ 6.6 million increase is the result of Congressional actions.

COMPARISON OF FY 1981 FINANCING AS REFLECTED  
IN THE FY 1981 BUDGET WITH FY 1981 FINANCING  
AS SHOWN IN FY 1982 BUDGET

	(In Thousands of Dollars)		
	Financing Per FY 1981 Budget	Financing Per FY 1982 Budget	Increase (+) or Decrease (-)
<b>Appropriation:</b>			
Procurement of Ammunition, Army			
Program Requirements, (Total)	1,965,100	2,079,000	+113,900
Program Requirements (Service Account)	(1,515,100)	(1,531,000)	(+15,900)
Program Requirements (Reimbursable)	(450,000)	(548,000)	(+98,000)
Less:			
Anticipated reimbursements	450,000	548,000	+98,000
Reprogramming from prior year budget plans	-0-	-0-	
Unobligated balance available from prior year to finance new budget plans	-0-	-0-	
Unobligated balance transferred from other accounts	-0-	-0-	
Add:			
Unobligated balance transferred to other accounts	-0-	-0-	
Unobligated balance available to finance subsequent year budget plans	-0-	-0-	
<b>BUDGET AUTHORITY</b>	1,515,100	1,531,000	+15,900
<b>BUDGET AUTHORITY</b>			
Appropriation	1,515,100	1,531,000	+15,900

EXPLANATION OF CHANGES IN FINANCING

The fiscal year 1981 program has increased by \$113,900 thousand since the FY 1981 budget request was presented to the Congress. This increase is due to the following:

Anticipated Reimbursements: Estimated sales of ammunition to customers, including foreign countries, is increased by \$98,000 thousand to reflect current program execution plans.

Budget Authority is increased by \$15,900 thousand due to Congressional program increases of a like amount.

COMPARISON OF FY 1980 PROGRAM REQUIREMENTS  
AS REFLECTED IN FY 1981 BUDGET WITH  
FY 1980 PROGRAM REQUIREMENTS AS SHOWN IN FY 1982 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

Appropriation:	Program Requirements		Increase (+) or Decrease (-)
	Per FY 81 Budget	Per FY 1982 Budget	
Procurement of Ammunition, Army			
Activity 1 - Ammunition	879,000	803,425	-75,575
Activity 2 - Ammunition Production Base Support	<u>353,800</u>	<u>348,300</u>	- 5,500
	1,232,800	1,151,725	-81,075

EXPLANATION BY ACTIVITY

Activity 1 - Ammunition. The net change is the result of a supplemental appropriation (PL96-304) of \$14.5 million; and transfers to other Department of Defense appropriation accounts of \$90.075 million as follows:

Operation and Maintenance, Army 1980	\$14.094 million
Other Procurement, Army 1980/1982	18.100 million
Reserve Personnel, Army 1980	24.000 million
Claims, Defense 1980	.200 million
Military Personnel, Army 1980	33.681 million

Activity 2 - Ammunition Production Base Support. This program was decreased by \$5.5 million, transferred to other Department of Defense appropriation accounts as follows:

Claims, Defense 1980	\$5.000 million
Other Procurement, Army 1980/1982	.500 million

COMPARISON OF FY 1980 FINANCING AS REFLECTED  
IN THE FY 1981 BUDGET WITH FY 1980 FINANCING  
AS SHOWN IN FY 1982 BUDGET

Appropriation:	(In Thousands of Dollars)		Increase (+) or Decrease (-)
	Financing Per FY 1981 Budget	Financing Per FY 1982 Budget	
Procurement of Ammunition, Army			
Program Requirements, (Total)	1,632,800	1,554,258	-78,542
Program Requirements (Service Account)	(1,232,800)	(1,151,725)	(-81,075)
Program Requirements (Reimbursable)	(400,000)	(402,533)	(+2,533)
Less:			
Anticipated reimbursements	400,000	402,533	+2,533
Reprogramming from prior year budget plans	-0-	-0-	-0-
Unobligated balance available from prior year to finance new budget plans	-0-	-0-	-0-
Unobligated balance transferred from other accounts	-0-	-0-	-0-
Add: Unobligated balance transferred to other accounts	-0-	-0-	-0-
Unobligated balance available to finance subsequent year budget plans	-0-	-0-	-0-
BUDGET AUTHORITY	1,232,800	1,151,725	-81,075
Appropriation	1,232,800	1,232,800	-0-
Transfer to Other Accounts	-0-	-95,575	-95,575
Transfer from Other Accounts	-0-	14,500	14,500
Appropriation (adjusted)	1,232,800	1,151,725	-81,075

EXPLANATION OF CHANGES IN FINANCING

The total program for fiscal year 1980 has decreased by 78,542 thousand since the FY 1981 budget presentation to the Congress. This decrease is attributed to the following:

EXPLANATION OF CHANGES IN FINANCING (Continued)

Anticipated Reimbursements: \$2,533 thousand increase reflects actual sales of munitions to foreign countries and other non-U.S. Army customers.

Budget Authority: The decrease in budget authority of \$81,075 thousand is due to transfers to other Defense appropriation accounts of \$95,575 thousand and transfers from other Defense appropriation accounts of \$14,500 thousand (Amended Supplemental Appropriations Act, FY 1980, P.L. 96-304).

PROCUREMENT OF AMMUNITION, ARMY

Section 6

Selected Data Sheets

4-29 - 1/15/81

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
(\$ in Millions)

Service: Army

P-1 Line Item:

Projects

<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
348.3	331.1	242.7

Provision of Industrial Facilities

Annual Support

5805345 - Crane AAA: SPT - Pdn Spt & Equip Replacement	1.0		
5820252 - Pine Bluff Ars: SPT - Pdn Spt & Equip Replacement	1.5	1.5	1.8
5824806 - ARRADCOM: SPT - Pdn Spt & Equip Replacement	1.0		1.3
5825060 - Jefferson Prvg Grd: SPT - Pdn Spt & Equip Replacement	1.8	1.9	3.4
5825314 - Louisiana AAP: SPT - Pdn Spt & Equip Replacement	2.5(.7)	1.0(.4)	.9
5825316 - Lone Star AAP: SPT - Pdn Spt & Equip Replacement	2.3(1.0)	2.7(.5)	1.9
5825317 - Milan AAP: SPT - Pdn Spt & Equip Replacement	1.9(.4)	1.5(.2)	3.7(2.0)
5825326 - Radford AAP: SPT - Pdn Spt & Equip Replacement	3.0(1.4)	6.0(3.5)	6.8(2.8)
5825327 - Longhorn AAP: SPT - Pdn Spt & Equip Replacement	1.9(.2)	1.8(.3)	1.5(.3)

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
(\$ in Millions)

<u>Projects</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Provision of Industrial Facilities, Continued</u>			
5825328 - Holston AAP: SPT - Pdn Spt & Equip Replacement	2.3(.8)	1.5(.3)	4.8(1.4)
5825329 - Kansas AAP: SPT - Pdn Spt & Equip Replacement	1.8	1.8	3.1(.1)
5825330 - Indiana AAP: SPT - Pdn Spt & Equip Replacement	2.3(.6)	3.0(.9)	6.1(2.5)
5825332 - Lake City AAP: SPT - Pdn Spt & Equip Replacement	1.7(.1)	2.0(.2)	3.5(.6)
5825333 - Iowa AAP: SPT - Pdn Spt & Equip Replacement	1.8	1.8	3.0(1.0)
5825342 - Scranton AAP: SPT - Pdn Spt & Equip Replacement	2.4(.7)	2.0	2.2
5825347 - McAlester AAP: SPT - Pdn Spt & Equip Replacement	2.1(.3)	1.1	1.0
PROJECTS UNDER \$900,000 EACH	29.5(6.2)	32.0(6.3)	48.0(11.4)
<u>Initial Production Facilities</u>			
5803004 - X-Facility: Comm - M549/XM650 - RA Projectile Combined MPTS Production Line (Warhead and Motor Body)	19.1		
5810045 - Indiana AAP: IPF - 155mm XM211 Prop Charge LAP		4.9(1.8)	
5812855 - X-Facility: Comm - 25mm Bushmaster Production Equipment		11.6	
5820048 - Kansas AAP: Comm - IPF - Anti Armor Cluster Munition LAP/Metal Parts			21.0

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
( \$ in Millions )

<u>Projects</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Provision of Industrial Facilities, Continued</u>			
5820050 - Honeywell Inc: IPF - Tactical Munitions Dispenser			6.8
PROJECTS UNDER \$900,000 EACH		.8	
SUBTOTAL INITIAL PRODUCTION FACILITIES (IPF)	19.1	17.3(1.8)	27.8
<u>Modernization</u>			
5810280 - Pine Bluff Ars: MOD - Automate M18 Grenade Fill and Press Facility		1.0	
5810283 - Pine Bluff Ars: MOD - Modernization of Smoke Mix Facility		1.6	
5812049 - Radford AAP: MOD - 155mm RAP Extruded Grain Production Facility		4.2(1.6)	
5812117 - Indiana AAP: MOD - Prop Charge Igniter Preparation		2.4(.9)	
5812160 - Radford AAP: MOD - Restore "C" Line Nitrocellulose		2.6(.7)	
5813180 - Iowa AAP: MOD/SPT - Container Distribution Facility		2.3(2.3)	
5815093 - Jefferson Pvg Grd: MOD - Application of Radar to Ballistic Acceptance Testing of Ammunition (ARBAT)		2.5	
5820285 - Pine Bluff Ars: MOD - Grenade Hexachloroethane (HC) Smoke M8 LAP			1.5

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
(\$ in Millions)

	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Projects</u>			
Provision of Industrial Facilities, Continued			
5822052 - Holston AAP: MOD - Comp B Line 1 Improvements			7.6(1.2)
5822134 - Radford AAP: MOD - Steam Tie Line to Horseshoe Area			9.5(9.2)
5822138 - Kansas AAP: MOD - M42/M46 Grenade In-Process Storage Igloos			1.2(.9)
5822144 - Lone Star/Kansas AAP: MOD - Tape Stiffener Assy Machine for M42/M46 Grenade			2.8
5822146 - Lake City AAP: MOD - SCAMP (Small Caliber Ammunition Modernization Program) Line 1 Spare Parts			1.3
5822317 - Radford AAP: MOD - Ammonia Oxidation Plant Modifications			5.6(5.4)
5823089 - Lansdowne: Comm - 5 inch/54 Navy Projectile Manufacturing Facility (Ph II)			7.0
5823106 - Lone Star AAP: MOD - Container Distribution Facility			2.6
5823186 - Commercial: MOD - Active Munitions Metal Parts Facilities (Ph I)			5.8
5823593 - Iowa AAP: MOD - Rehabilitate Main Heating Plant			18.1(17.6)
PROJECTS UNDER \$900,000 EACH			.8
SUBTOTAL MODERNIZATION		16.6(5.5)	63.8(34.3)
<u>Expansions</u>			
5802003 - Longhorn AAP: SLUFAE Rocket Motor Facility	4.2		
5802007 - Milan AAP: LAP of 60/81mm Propellant Charge Assembly	2.0		

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
( \$ in Millions)

	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Projects</u>			
<u>Provision of Industrial Facilities, Continued</u>			
5802694 - Indiana AAP: 155mm/8 inch Center Core LAP Facility	21.4(9.9)		
5802875 - Radford AAP: Continuous Automated Multi Base Line (CAMBL)	98.8(66.0)		
5803106 - Lone Star AAP: Centralized Ammunition Container Facility	.9(.9)		
5813175 - X-Facility: Comm - 105/120mm APFSDS-TP Production Facility		13.7	
5823142 - Mississippi AAP: Fourth Phase Construction at 155mm ICM Complex	102.3	185.8	10.5
Omnibus Engineer-Process Equipment Design	8.9	11.2	13.5
Construction Design	5.0	6.2	9.5
PROJECTS UNDER \$900,000 EACH		.4	.4
SUBTOTAL EXPANSION	243.7(76.8)	217.3	33.9
<u>Layaway of Industrial Facilities</u>			
5828450 - ARRCOM: Layaway and/or Redistribution of Govt-owned Equip in Govt-owned Plants (Omnibus)	22.7	14.8	26.1
5829589 - ARRCOM: Layaway and/or Redistribution of Govt-owned Equip in Privately-owned Plants (Omnibus)	2.0	2.0	4.5
SUBTOTAL LAYAWAY OF INDUSTRIAL FACILITIES	24.7	16.8	30.6

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
(\$ in Millions)

<u>Projects</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Manufacturing Methods and Technology</u>			
5804137 - MM&T: Automated Loading of Center Core Igniters	1.0		
5804189 - MM&T: High Fragmentation Steel Production Process	1.5		
5804281 - MM&T: Conservation of Energy at Army Ammunition Plants	1.2		
5804341 - MM&T: Improved Nitrocellulose Purification Process	1.0		
5804454 - MM&T: Auto Insp Device Explos Charge Shell	1.3		
5814059 - MM&T: NQ Crystallization for Continuous Propellant Liner		.9	
5814454 - MM&T: Auto Insp Device Explosive Charge Shell (AIDECS)		1.8	
5824061 - MM&T: Nitroguanidine Process Optimization		.9	1.0
5824062 - MM&T: Auto Mfg Sys f/Mortar Increment Containers			1.4
5824189 - MM&T: Hi-Frag Steel Prod Process		1.2	1.4
5824251 - MM&T: Auto Mfg of Delay Assy f/M549			1.0
5824281 - MM&T: Energy Conservation		1.2	1.7
5824309 - MM&T: Process Development for 120mm Tank Ammo		3.9	4.0

PROCUREMENT OF AMMUNITION, ARMY  
PRODUCTION BASE SUPPORT  
(\$ in Millions)

	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>
<u>Projects</u>			
Manufacturing Methods and Technology, Continued			
5824489 - MM&T: Adv Pollution Abatement Tech for DARCOM Fac			1.8
PROJECTS UNDER \$900,000 EACH	16.5	11.6	18.1
SUBTOTAL MANUFACTURING METHODS AND TECHNOLOGY	22.4	21.5	28.6(30.4)
<u>Military Adaptation of Commercial Items</u>			
PROJECTS UNDER \$900,000 EACH	.3		
SUBTOTAL MILITARY ADAPTATION OF COMMERCIAL ITEMS		.3	
<u>Depot Maintenance Plant Equipment</u>			
Ammunition Peculiar Equipment in Support of Worldwide	8.9	9.3	10.0
Depot Ammunition Operations	8.9	9.3	10.0
SUBTOTAL DEPOT MAINTENANCE PLANT EQUIPMENT	348.3	331.1	242.7
TOTAL AMMUNITION PRODUCTION BASE			

PROCUREMENT OF AMMUNITION, ARMY

Section 7

Analysis of Unobligated Balances

4-37 - 1/15/81

PROCUREMENT OF AMMUNITION, ARMY

Analysis of Unobligated Balance - FY 1982 Program \*

Summary by Category

Category	Estimated Unobligated	
	Dollars (Millions)	% of Total Unobligated
1. Reserved to support contracts	393.7	67.5
2. Engineering changes	82.8	14.2
3. Other	106.8	18.3
	<u>583.3</u>	<u>100.0%</u>
Total Unobligated FY 1982		

Explanation by Category

It is predicted that the above amounts will remain unobligated at the end of FY 1982. Reasons for the unobligated balances here have been grouped into three general categories and are detailed below. These unobligated amounts will therefore be required in subsequent fiscal years to complete the procurement of the FY 1982 program.

1. Reserved to Support Contracts:
  - a. Hold pending award of firm contracts as opposed to letter orders.
  - b. Amounts reserved for incentive contract payments.
  - c. Amounts held to support Product and Component Improvement programs; modification for retrofit during production; modifications ordered by customers.
  - d. Contractor claims, reserves to cover potential liabilities for contracts containing escalation clauses for labor or material cost increases and price redeterminations.
  - e. Contract close-out costs; packing, crating, handling and packaging and loading charges.
  - f. Government-furnished equipment breakout procurements; federal excise tax and sales tax payments; preparation of manuals and technical data; and reserve for completion of construction elements of production base support facilities projects.
  - g. Delay due to design or testing difficulties.
  - h. Award protests.
  - i. Insufficient procurement detail involving reimbursable orders.
  - j. Develop adequate competitive procurement or technical data package.

PROCUREMENT OF AMMUNITION, ARMY (Continued)

- k. Items released to Army by other customers too late to permit obligation in FY 1982
- 2. Engineering Changes:
  - a. Engineering costs in support of production (obligated only as expenses are incurred).
  - b. Validated engineering change orders to be incorporated into the current manufacturing process.
  - c. Engineering changes as a result of acceptance testing, destructive and proving ground tests.
  - d. Amounts reserved to support engineering change proposals and value engineering proposals.
- 3. Other:
  - a. Changes to the previously planned method of procurement (i.e., competitive in lieu of sole source).
  - b. Extension to bid opening dates.
  - c. Additional time required to complete audits of cost data and to obtain contractor cost data.
  - d. Unfavorable pre-award surveys and extended negotiations.
  - e. Held pending validation of production capability of low bidder.
  - f. Attaining a satisfactory production rate prior to awarding additional work.

\* Includes estimated FY1981 carry-over and other customer reimbursable programs.

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4. TITLE (and Subtitle) (in 5 parts) Department of the Army Justification of Estimates for Fiscal Year 1982, Submitted to Congress January 1981, Procurement Programs, Aircraft, Missiles, Wpns and Tracked Cbt Veh, Ammunition and Other Proc, Army		5. TYPE OF REPORT & PERIOD COVERED Army Procurement Budget Justification, FY 1982
7. AUTHOR(s) Department of the Army		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS HQDA, Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DAMA-PPP-B) Washington, DC 20310		8. CONTRACT OR GRANT NUMBER(s)
11. CONTROLLING OFFICE NAME AND ADDRESS HQDA, Office of the Deputy Chief of Staff for Research, Development, and Acquisition (DAMA-AOA-S) Washington, DC 20310		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE January 1981
		13. NUMBER OF PAGES 407 (includes all 5 parts)
		15. SECURITY CLASS. (of this report) UNCLASSIFIED
		18a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Army Procurement Programs Budget Justification Book covering Aircraft, Missiles, Weapons and Tracked Combat Vehicles, Ammunition and Other Procurement, Army Appropriations programs submitted by the Army to Congress January 1981 for Fiscal Year 1982.		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) In justification of programs requested, this document, in separate volume for each of the five Procurement Appropriations, provides backup data for the Army Budget submission for FY 1982. Included are Summaries of Requirements, Program and Financing Statements and Selected Data Sheets. (This document has been declassified for NTIS distribution).		

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