

Office of the Secretary of Defense

Fiscal Year (FY) 2009 Budget Estimates

February 2008



Defense Production Act Purchases, Procurement

Exhibit P-1, Procurement Program

Department of Defense, Office of Secretary Defense

Appropriation: Defense Production Act Purchases, Procurement

Date: February 2008

Budget Activity: Major Equipment

P-1 Line <u>Item No</u>	Item <u>Nomenclature</u>	Ident <u>Code</u>	FY 2007		FY 2008		<u>TOA, \$ in Millions</u> FY 2009		FY 2010	
			<u>Qty</u>	<u>Cost</u>	<u>Qty</u>	<u>Cost</u>	<u>Qty</u>	<u>Cost</u>	<u>Qty</u>	<u>Cost</u>
1	Major Equipment	A	N/A	62.930	N/A	94.152	N/A	36.365	N/A	33.036
TOTAL - DIRECT				62.930		94.152		36.365		33.036

Exhibit P-40, Budget Item Justification Sheet

Date: February 2008

Appropriation / Budget Activity / Serial No: Procurement, Defense Wide / L / Acquisition Resources Analysis
 P-1 Item Nomenclature: Defense Production Act Purchases (0904903D8Z)

Program Elements for Code B Items: 0904903D8Z
 Code: 0360
 Other Related Program Elements: Defense Production Act Purchases

	Prior Years	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Prog
Proc Qty									Continuing	Continuing
Gross Cost	288.847	62.930	94.152	36.365	33.036	13.503	6.592	5.912	Continuing	Continuing
Less PY Adv Proc										
Plus CY Adv Proc										
Net Proc P1	288.847	62.930	94.152	36.365	33.036	13.503	6.592	5.912	Continuing	Continuing
Initial Spares										
Total Proc Cost	288.847	62.930	94.152	36.365	33.036	13.503	6.592	5.912	Continuing	Continuing
Flyaway U/C										
Weapon System Proc U/C									Continuing	Continuing

Description:
 The Defense Production Act (DPA) (50 U.S.C. App. § 2061 et seq.) authorizes the use of Federal funds to correct domestic industrial resource shortfalls and promote critical technology items and materials which are essential to the national defense. This budget includes essential transformational initiatives, using the authorities of Title III of the DPA, to establish, expand, modernize and/or maintain domestic production capabilities for technologies that have the potential for wide-ranging impact on the operational capabilities and technological superiority of U.S. defense systems. Title III of the DPA is a unique investment tool that strengthens domestic industry and establishes the industrial base capacity needed to transition essential technologies to defense systems. Requested funding will be used for continuation of the Beryllium Supply Industrial Base Project, Silicon Carbide Monolithic Microwave Integrated Circuits (MMIC) Device Production Project, the Traveling Wave Tube Amplifiers for Space Project, and the Power & Energy Initiative. The Advanced Structural and Armor Materials for Combat Vehicles Project will be initiated in FY2011. These are multi-year projects that will incentivize domestic sources to establish, strengthen, and expand domestic industrial base capabilities for key technologies that support transformational initiatives and maintain the technological superiority of U.S. defense systems. Brief descriptions of these projects are provided below.

The Beryllium Supply Industrial Base project will ensure the establishment of a domestic production capability for beryllium metal to meet essential national security requirements. Strategic programs such as the Ballistic Missile Defense System require infrared and optical sensors that can detect and track missile threats. The Space Tracking and Surveillance System and Space-Based Infrared System-High programs both employ space-based infrared and optical sensors that rely on beryllium. Beryllium is an essential material for this and other space and satellite applications for use in structures, electronic housings, heat sinks, sensors and sensor support. No other material can meet the performance characteristics provided by beryllium. Defense communications satellite programs such as MILSTAR, Advanced Extremely High Frequency, and the Wideband Global SATCOM are also highly dependent on the availability of beryllium. Department of Defense (DoD) also relies on beryllium for the NAVSTAR Global Positioning System, Defense Meteorological Satellite Program, Defense Support Program, UHF-Follow-On Satellite, and the Mobile User Objective System satellite. The budget for FY 2009-FY 2011 is increased to address a 27% increase for chemical plant construction and equipment associated with a 400%-500% increase in the cost of nickel, copper, and synthetic fibers, and the rapid rise in petroleum prices.

Silicon Carbide (SiC) Monolithic Microwave Integrated Circuits (MMIC) Devices & Materials - This project will establish Silicon Carbide-based MMIC device production to enable a new generation of high frequency/high power radar, high temperature sensors, and power management devices. DPA Title III will also enable the qualification of these products and demonstrations for known and potential customers in the DOD, other government agencies and potentially commercial applications.

The Traveling Wave Tube Amplifiers (TWTA) for Space Project will strengthen a domestic producer of TWTAs for Department of Defense DoD satellite programs. TWTAs are a key component in most satellite-based communication systems for commercial, military, and reconnaissance satellites, and the lack of a domestic source puts at risk affordable components for critical space assets. High power 20 GHz TWTAs are used on many U.S. government communications satellites due to their inherent wide bandwidth and high data rate capability. Domestic sources have funded 20 GHz TWTA engineering development but without Title III action, the U.S. may lose competition, resulting in market prices climbing or withhold of product to influence policy. The project will invest in a robust manufacturing modernization program, where engineering model baseline TWTA designs will be upgraded for flight production. The output from this effort will be functional devices,

Exhibit P-40, Budget Item Justification Sheet

Date:

February 2008

Appropriation / Budget Activity / Serial No:

Procurement, Defense Wide / L / Acquisition Resources Analysis

P-1 Item Nomenclature

Defense Production Act Purchases (0904903D8Z)

Program Elements for Code B Items:

0904903D8Z

Code:

0360

Other Related Program Elements:

Defense Production Act Purchases

qualified for flight, and a competitive production base for military and commercial users.

The Power and Energy Systems Production Initiative will expand domestic source(s) for critical high power radar system antenna elements and power control systems for ground/sea vehicles and aircraft. The expansion will address at least two advanced technology elements critical to low cost, high power radar systems for Navy above water sensor program for the DD(X) Volume Search Radar (VSR) and other future shipboard radar systems. Unique authorities of the DPA Title III program will enable expansion of production capacity for Advanced DC-to-DC Converters and Gallium Nitride (GaN) on Silicon MMICs through production equipment installations or increased yield and throughput modifications in manufacturing processes. Power control systems are those used for generation, distribution, and safety systems (circuit breakers, load controls, etc.) DPA Title III will also enable the qualification of these products and demonstrations for known and potential customers in the DOD, other government agencies and potentially commercial applications.

The Blue Force Tracking Production Initiative will use the unique authorities of Title III of the DPA to establish, strengthen, and expand domestic sources for an advanced technology initiative to produce a near real-time two-way tracking capability to enable vital missions such as combat rescue through Blue Force Situational Awareness (BFSA). This Program will incentivize domestic companies for production scale-up and capacity expansion to address a broad array of emerging system production requirements and to meet key quality and affordability objectives for Blue Force Situational Awareness.

The Advanced Structural and Armor Materials for Combat Vehicles Project beginning in FY2011 is intended to correct industrial shortfalls arising as a result of increased defense and commercial demand for low cost, low weight, high strength materials. These materials are demanded for modifications or repair of equipment being used in the Global War on Terror, and they will be enabling technologies for the lighter, stronger, safer, lower cost vehicles demanded in the future.

This budget also includes specific Title III projects which were funded by Congress in the FY 2008 Department of Defense Appropriations Act (P.L. 110-116). These projects include: Domestic Armstrong Titanium Production, Global Personal Recovery System Single Card Solution, Life Cycle Support Center for Unmanned Systems, Lightweight Ammunition and Armor Initiative, Low Cost Military GPS, SWORDS Safety Confirmation Testing for Accelerated Fielding and Production, and Vacuum Induction Melting and Vacuum Arc Re-melting Furnace Capacity.

In accordance with the provisions of Sec. 303(a) of the Defense Production Act of 1950, as amended (50 U.S.C. App. § 2061 et seq.), this budget submission provides notification to Congress of the intent of the Department of Defense to execute the above described initiatives/projects to correct domestic industrial base shortfalls for technologies and/or materials essential for the execution of the national security strategy of the United States.

Exhibit P-5, Cost Analysis		Appropriation/Budget Activity/Serial No: Procurement, Defense Wide / L / Acquisition Resources Analysis			P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)			Weapon System Type:		Date: February 2008	
WBS		ID	FY 07			FY 08			FY 09		
Cost Elements		CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Flexible Aerogel Material Supplier Initiative			2983		2983	5000		5000			
Read Out Integrated Circuit (ROIC) Manufacturing Improvement			2187		2187	2400		2400			
Hydrogen Ion Implantation Equipment			3878		3878						
Thermal Battery Industrial Base Infrastructure			4474		4474						
Polyhedral Oligomeric Silsesquioxane (POSS) Nanotechnology Scale-up Initiative			5567		5567	2400		2400			
Next Generation Radiation Hardened Microprocessors			3462		3462						
ALON and Spinel Optical Ceramics			1591		1591	2800		2800			
Advanced Metal Composite Process (Titanium Metal Matrix Composites for Aircraft)			7955		7955	8000		8000			
Reactive Plastic CO2 Absorbent Production Initiative			1989		1989	1600		1600			
Beryllium Supply Industrial Base Production Initiative			7500		7500	10700		10700	19500		19500
Silicon Carbide MMIC Device Production			3167		3167				4110		4110
Lithium Ion (Li Ion) Battery Production			2433		2433	2089		2089	4581		4581
Advanced Technologies Production Initiative			1922		1922						
Military Lens System Fabrication & Assembly			1442		1442						
Carbon Foam			1591		1591						
Photovoltaic Solar Cell Encapsulant Production			1342		1342	2400		2400			
Automated Composite Technologies Initiative			5469		5469	10000		10000			
Affordable Methanol Fuel Cells Components			1094		1094	1600		1600			
Armor and Structure Transformation Initiative, Steel to Titanium			2884		2884						
Blue Force Tracking Production Initiative						1360		1360	3000		3000
Power & Energy Systems Production Initiative						4000		4000	4000		4000
Rare Earth Magnets Production Initiative						1986		1986			
Traveling Wave Tube Amplifiers for Space						2017		2017	1174		1174
Microclimate Cooling Systems						1600		1600			
Productions of Miniature Compressors for						1000		1000			
Armstrong Titanium Production Process						5000		5000			
Global Personal Recovery System Singe Ca						1200		1200			
Life Cycle Support Center for Unmanned S						2400		2400			
Light-weight Ammunition & Armor Initiati						3000		3000			
Low Cost Military GPS						1600		1600			
SWORDS Safety Confirmation Testing for A						1600		1600			
Vacuum Induction Melting & Vacuum Arc Re						18400		18400			
Adv Structural & Armor Materials Combat											

Exhibit P-5, Cost Analysis		Appropriation/Budget Activity/Serial No: Procurement, Defense Wide / L / Acquisition Resources Analysis			P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)			Weapon System Type:		Date: February 2008	
WBS Cost Elements		ID CD	FY 07			FY 08			FY 09		
			Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
			\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Prior Year Funding											
Total:			62930			94152			36365		

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2008

Appropriation/Budget Activity/Serial No:
Procurement, Defense Wide/ L/ Acquisition Resources Analysis

Weapon System Type:

P-1 Line Item Nomenclature:
Defense Production Act Purchases (0904903D8Z)

WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Flexible Aerogel Material Supplier Initiative										
FY 2007	Aspen Aerogels Northborough MA	compete	WPAFB	Mar 07	na		2983	no	na	na
FY 2008	Aspen Aerogels Northborough MA	compete	WPAFB				5000	no	na	na
Read Out Integrated Circuit (ROIC) Manufacturing Improvement										
FY 2007	AMI Semiconductor Pocatello, ID	compete	WPAFB	Feb 07	na		2187	no	na	na
FY 2008	AMI Semiconductor Pocatello, ID	compete	WPAFB				2400	no	na	na
Hydrogen Ion Implantation Equipment										
FY 2007	MEMC Electronics Materials, Co St. Joseph MO	non compet	WPAFB	Sep 07	na		3878	no	na	na
Thermal Battery Industrial Base Infrastructure										
FY 2007	Enser Corp. Pinellas Park, FL	non compet	WPAFB	Mar 07	na		4474	no	na	na
Polyhedral Oligomeric Silsesquioxane (POSS) Nanotechnology Scale-up Initiative										
FY 2007	Hybrid Plastics Hattiesburg, MS	compete	WPAFB	Apr 07	na		5567	no	na	na
FY 2008	Hybrid Plastics Hattiesburg, MS	compete	WPAFB				2400	no	na	na
Next Generation Radiation Hardened Microprocessors										
FY 2007	Various Various	compete	WPAFB	TBD	na		3462	no	na	na
ALON and Spinel Optical Ceramics										
FY 2007	Surmet Corp Burlington< MA	non compet	WPAFB	Sep 07	na		1591	no	na	na
FY 2008	Surmet Corp Burlington< MA	non compet	WPAFB				2800	no	na	na
Advanced Metal Composite Process (Titanium Metal Matrix Composites for Aircraft)										
FY 2007	FMW Bridgeport, WV	non compet	WPAFB	Jun 07	na		7955	no	na	na
FY 2008	FMW Bridgeport, WV	non compet	WPAFB				8000	no	na	na

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2008

Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis		Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)								
WBS Cost Elements:	Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Reactive Plastic CO2 Absorbent Production Initiative											
FY 2007	Micropore, Inc Newark, DE		non compet	WPAFB	Jul 07	na		1989	no	na	na
FY 2008	Micropore, Inc Newark, DE		non compet	WPAFB				1600	no	na	na
Beryllium Supply Industrial Base Production Initiative											
FY 2007	Brush Wellman Inc. Cleveland, OH		non compet	WPAFB	Jul 07	na		7500	no	na	na
FY 2008	Brush Wellman Inc. Cleveland, OH		non compet	WPAFB		na		10700	no	na	na
FY 2009	Brush Wellman Inc. Cleveland, OH		non compet	WPAFB		na		19500	no	na	na
FY 2010	Brush Wellman Inc. Cleveland, OH		non compet	WPAFB				19500	no	na	na
FY 2011	Brush Wellman Inc. Cleveland, OH		non compet	WPAFB				7000	no	na	na
Silicon Carbide MMIC Device Production											
FY 2007	Cree, Inc. Durham, NC		compete	WPAFB	Jan 07	na		3167	no	na	na
FY 2009	Cree, Inc. Durham, NC		compete	WPAFB				4110	no	na	na
FY 2010	Cree, Inc. Durham, NC		compete	WPAFB				1160	no	na	na
Lithium Ion (Li Ion) Battery Production											
FY 2007	Quallion, Inc. Sylmar, CA		compete	WPAFB	Sep 07	na		2433	no	na	na
FY 2008	Quallion, Inc. Sylmar, CA		compete	WPAFB		na		2089	no	na	na
FY 2009	Quallion, Inc. Sylmar, CA		compete	WPAFB				4581	no	na	na
FY 2010	Quallion, Inc. Sylmar, CA		compete	WPAFB				770	no	na	na
FY 2011	Quallion, Inc. Sylmar, CA		compete	WPAFB				770	no	na	na
Advanced Technologies Production Initiative											
FY 2007	Various Various		compete	WPAFB	TBD	na		1922	no	na	na
Military Lens System Fabrication & Assembly											
FY 2007	Optical Systems Technology, In		compete	WPAFB	May 07	na		1442	no	na	na

Exhibit P-5a, Budget Procurement History and Planning

Date:
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Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis		Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)								
WBS Cost Elements:	Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
Carbon Foam	Freeport , PA										
FY 2007	Touchstone Research Laboratory Triadelphia, WV		compete	WPAFB	Sep 07	na	1591	no	na	na	
Photovoltaic Solar Cell Encapsulant Production											
FY 2008	Specialized Technology Resourc Enfield, CT		compete	WPAFB			2400	no	na	na	
FY 2007	Specialized Technology Resourc Enfield, CT		compete	WPAFB	Sep 07	na	1342	no	na	na	
Automated Composite Technologies Initiative											
FY 2008	ATK Space Systems Clearfield, UT		compete	WPAFB			10000	no	na	na	
FY 2007	ATK Space Systems Clearfield, UT		compete	WPAFB	Oct 07	na	5469	no	na	na	
Affordable Methanol Fuel Cells Components											
FY 2008	DuPont Fuel Cells Wilmington, DE		compete	WPAFB			1600	no	na	na	
FY 2007	DuPont Fuel Cells Wilmington, DE		compete	WPAFB	May 07	na	1094	no	na	na	
Armor and Structure Transformation Initiative, Steel to Titanium											
FY 2007	Various Various		compete	WPAFB	TBD	na	2884	no	na	na	
Blue Force Tracking Production Initiative											
FY 2008	Various Various		compete	WPAFB	TBD	na	1360	no	na	na	
FY 2009	Various Various		compete	WPAFB	TBD	na	3000	no	na	na	
Power & Energy Systems Production Initiative											
FY 2008	Various Various		compete	WPAFB	TBD	na	4000	no	na	na	
FY 2009	Various Various		compete	WPAFB	TBD	na	4000	no	na	na	
FY 2010	Various Various		compete	WPAFB			8336	no	na	na	
FY 2011	Various Various		compete	WPAFB			2394	no	na	na	
Rare Earth Magnets Production Initiative											

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2008

Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis		Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)							
WBS Cost Elements:	Contractor and Location	Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 2008	Various Various	compete	WPAFB	TBD	na		1986	no	na	na
Traveling Wave Tube Amplifiers for Space										
FY 2008	L-3 Comm Electron Tech Torrance, CA	compete	WPAFB	TBD	na		2017	no	na	na
FY 2009	Various Various	compete	WPAFB	TBD	na		1174	no	na	na
Microclimate Cooling Systems										
FY 2008	Various Various	compete	WPAFB				1600	no	na	na
Productions of Miniature Compressors for										
FY 2008	Various Various	compete	WPAFB				1000	no	na	na
Armstrong Titanium Production Process										
FY 2008	Various Various	compete	WPAFB				5000	no	na	na
Global Personal Recovery System Singe Ca										
FY 2008	Various Various	compete	WPAFB				1200	no	na	na
Life Cycle Support Center for Unmanned S										
FY 2008	Various Various	compete	WPAFB				2400	no	na	na
Light-weight Ammunition & Armor Initiati										
FY 2008	Various Various	compete	WPAFB				3000	no	na	na
Low Cost Military GPS										
FY 2008	Various Various	compete	WPAFB				1600	no	na	na
SWORDS Safety Confirmation Testing for A										
FY 2008	Various Various	compete	WPAFB				1600	no	na	na
Vacuum Induction Melting & Vacuum Arc Re										
FY 2008	Various Various	compete	WPAFB				18400	no	na	na
Adv Structural & Armor Materials Combat										
FY 2011	Various Various	compete	WPAFB				339	no	na	na
FY 2012	Various	compete	WPAFB				2822	no	na	na

Exhibit P-5a, Budget Procurement History and Planning

Date:
February 2008

Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis		Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0904903D8Z)								
WBS Cost Elements:	Contractor and Location		Contract Method and Type	Location of PCO	Award Date	Date of First Delivery	QTY Units	Unit Cost \$000	Specs Avail Now?	Date Revsn Avail	RFP Issue Date
FY 2013	Various Various Various		compete	WPAFB				2912	no	na	na
Prior Year Funding											

REMARKS: