

Defense Production Act Purchases

Fiscal Year (FY) 2011 Budget Estimates

February 2010



Procurement, Defense-Wide

Page Intentionally Blank

Exhibit P-1, Procurement Program

Department of Defense, Office of Secretary Defense

Date: February 2010

Appropriation: Defense Production Act Purchases, Procurement

Budget Activity: Major Equipment

P-1 Line <u>Item No</u>	Item <u>Nomenclature</u>	Ident <u>Code</u>	<u>TOA, \$ in Millions</u>					
			FY 2009		FY 2010		FY 2011	
			<u>Qty</u>	<u>Cost</u>	<u>Qty</u>	<u>Cost</u>	<u>Qty</u>	<u>Cost</u>
1	Major Equipment	A	N/A	100.268	N/A	150.281	N/A	28.746
TOTAL - DIRECT				100.268		150.281		28.746

Exhibit P-40, Budget Item Justification Sheet

Date: February 2010

Appropriation / Budget Activity / Serial No: Procurement, Defense Wide / L / Acquisition Resources Analysis						P-1 Item Nomenclature Defense Production Act Purchases (0902199D8Z)					
Program Elements for Code B Items: 0902199D8Z			Code: 0360		Other Related Program Elements: Defense Production Act Purchases						
	Prior Years		FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Prog
Proc Qty										Continuing	Continuing
Gross Cost	440.466		100.268	150.281	28.746	19.992	19.375	14.511	14.623	Continuing	Continuing
Less PY Adv Proc											
Plus CY Adv Proc											
Net Proc P1	440.466		100.268	150.281	28.746	19.992	19.375	14.511	14.623	Continuing	Continuing
Initial Spares											
Total Proc Cost	440.466		100.268	150.281	28.746	19.992	19.375	14.511	14.623	Continuing	Continuing
Flyaway U/C											
Weapon System Proc U/C										Continuing	Continuing

Description:
 Title III of the Defense Production Act (DPA) provides the DoD with a powerful tool to ensure the timely creation and availability of 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 is unique in that it is the sole DoD program focused on establishing, expanding, maintaining, or modernizing domestic production capacity to strengthen domestic industry and to establish the industrial base capacity for essential national defense capabilities.

The Defense Production Act (DPA) is authorized by 50 U.S.C. App. 2061 et seq. This budget includes essential transformational initiatives, using the authorities of Title III of the DPA. Requested funding will be used for continuation of five projects: Beryllium Supply Industrial Base, Lithium Ion Battery for Space, Gallium Nitride (GaN) X-band Monolithic Microwave Integrated Circuits (MMICs), GaN S-Band MMICs, and GaN Electronic Warfare (EW) MMICs. 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 Military Strategic, Tactical & Relay (MILSTAR), Advanced Extremely High Frequency, and the Wideband Global Satellite Communications (SATCOM) are also highly dependent on the availability of beryllium. DoD also relies on beryllium for the Navigation Satellite Timing & Ranging (NAVSTAR) Global Positioning System, Defense Meteorological Satellite Program, Defense Support Program, UHF-Follow-On

Exhibit P-40, Budget Item Justification Sheet		Date: February 2010
Appropriation / Budget Activity / Serial No: Procurement, Defense Wide / L / Acquisition Resources Analysis		P-1 Item Nomenclature Defense Production Act Purchases (0902199D8Z)
Program Elements for Code B Items: 0902199D8Z	Code: 0360	Other Related Program Elements: Defense Production Act Purchases
<p>Satellite, and the Mobile User Objective System satellite.</p> <p>Lithium Ion Battery for Space project is establishing a viable domestic source of spacecraft quality rechargeable Lithium Ion (Li Ion) cells and the critical materials required to produce these cells. The project is structured to create a supplier that is responsive to DoD requirements and capable of producing these extremely long-life cells and an assured supply of critical component materials. The contractor will develop and install the capability of manufacturing important components of these batteries – a lithium cobalt oxide (LCO, cathode), meso carbon micro beads (MCMB, anode), and anode precursor materials – to assure their availability over the long period of time during which the DoD will depend on them for these advanced batteries.</p> <p>The three GaN projects are expanding domestic source(s) for critical high power radar system antenna elements and EW systems. The expansion will address at least three advanced technology elements. Unique authorities of the DPA Title III program will enable expansion of production capacity for low cost, high power electronic circuit elements critical to Missile Defense Agency and Service radar, electronic warfare, and missile systems.</p> <p>FY 2010 funds (\$9.086 million) budgeted for the Power and Energy Systems Production Initiative were reprogrammed into the GaN S-band and GaN EW projects to address pressing Service needs for affordable production of those technologies.</p> <p>FY 2012-FY 2013 funds for the Advanced Structural & Armor Materials (\$6.534 million) and Electronic Materials and Device Production (\$5.628 million) projects were reprogrammed into the GaN S-band and GaN EW projects to address pressing Service needs for affordable production of those technologies</p> <p>The National Security Space (NSS) Industrial & Supply Base (ISB) Risk Mitigation Program was developed by the DoD to formulate a systematic process to fund mitigation efforts to rectify shortcomings in the space industrial and supply base (SISB). The objective is to ensure access to critical technologies and capabilities in the quality, quantity, and timeframes required to support U.S. Government space programs. Projects in this Program will address cross-platform, multi-agency/service requirements using the authorities of Title III of the Defense Production Act. FY 2011 - FY 2015 funding has been identified for this program.</p> <p>This budget also includes specific Title III projects which were funded by Congress in the FY 2010 Defense Appropriations Act, (P.L. 111-118). Funding was provided for the on-going DPA Title III projects of: ALON and Spinel Optical Ceramics, Armor and Structures Transformation Initiative--Steel to Titanium , Automated Composite Technologies and Manufacturing Center , Flexible High Temperature Aerogels, High Performance Thermal Battery Infrastructure Project, Lightweight Small Caliber Ammunition Production Initiative, Lithium Ion Battery for Space, Low Cost Military Global Positioning System (GPS) Receiver, Military Lens Fabrication and Assembly, Production of Miniature Compressors for Electronics and Personal Cooling , Read Out Integrated Circuit Manufacturing Improvement , Titanium Metal Matrix Composite and Nano Enhanced Titanium Development, Extremely Large Domestic Expendable and Reusable Structures Manufacturing Center (ELDERS), VIM-VAR Inventory For Defense, and High Homogeneity Optical Glass. Funding was provided for new start projects: Navy Production Capacity Improvement Project at Lehigh Heavy Forge, Conductive Composites Nano-Materials Scale-Up Initiative, Metal Injection Molding Technological Improvements, Bio-synthetic Paraffinic Kerosene Production, Advanced Carbon Nanotube Volume Production Facility, Goodrich Terahertz Spectrometer, and Lithium Ion Batteries for Military Applications.</p>		

Exhibit P-40, Budget Item Justification Sheet

Date: February 2010

Appropriation / Budget Activity / Serial No:

Procurement, Defense Wide / L / Acquisition Resources Analysis

P-1 Item Nomenclature

Defense Production Act Purchases (0902199D8Z)

Program Elements for Code B Items:

0902199D8Z

Code:

0360

Other Related Program Elements:

Defense Production Act Purchases

In accordance with the provisions of the Defense Production Act of 1950, as amended (50 U.S.C. App. 2061 et seq.), notification to Congress of the intent of the Department of Defense to execute the above described 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 will be provided via letter notification before the referenced projects are initiated.

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 (0902199D8Z)			Weapon System Type:			Date: February 2010		
WBS Cost Elements	ID	FY 09			FY 10			FY 11			FY 12		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Polyhedral Oligomeric Silsesquioxane (POSS) Nanotechnology Scale-up Initiative		2986		2986									
Reactive Plastic CO2 Absorbent Production Initiative		1593		1593									
Carbon Foam		9556		9556									
Silicon Carbide Powder and Armor Manufacturing		1991		1991									
Traveling Wave Tube Amplifiers for Space		1174		1174									
Transparent Polycrystalline Laser Gain Material		5176		5176									
Flexible Aerogel Material Supplier Initiative					2400		2400						
Vacuum Induction Melting and Vacuum Arc Remelting Furnace Capacity/Inventory for Defense					10000		10000						
Read Out Integrated Circuit (ROIC) Manufacturing Improvement		1593		1593	1600		1600						
Thermal Battery Industrial Base Infrastructure		2986		2986	3000		3000						
Aluminum Oxy-Nitride (ALON) and Spinel Optical Ceramics		3981		3981	2400		2400						
Advanced Metal Composite Process (Titanium Metal Matrix Composites for Aircraft)		3185		3185	6400		6400						
Military Lens Sys Fabrication & Assembly		2389		2389	3200		3200						
Automated Composite Technologies Initiative		4977		4977	9600		9600						

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 (0902199D8Z)			Weapon System Type:			Date: February 2010		
WBS Cost Elements	ID CD	FY 09			FY 10			FY 11			FY 12		
		Total Cost \$000	Qty Units	Unit Cost \$000	Total Cost \$000	Qty Units	Unit Cost \$000	Total Cost \$000	Qty Units	Unit Cost \$000	Total Cost \$000	Qty Units	Unit Cost \$000
Production of Miniature Compressors for Electronics and Personal Cooling		995		995	3600		3600						
Light-weight Ammunition & Armor Initiative		4181		4181	3760		3760						
Low Cost Military GPS Receiver		3981		3981	3200		3200						
Armor & Structure Tran Steel to Titanium		3185		3185	8100		8100						
Extremely Large, Domestic Expendable and Reusable Structures Manufacturing Center (ELDERS)		7963		7963	7840		7840						
High Homogeneity Optical Glass		3185		3185	3200		3200						
Navy Production Capacity Improvement Project at Lehigh Heavy Forge					3200		3200						
Conductive Composites Nano-Materials Scale-Up Initiative					2800		2800						
Metal Injection Molding Technological Improvements					800		800						
Bio-synthetic Paraffinic Kerosene Production					4000		4000						
Advanced Carbon Nanotube Volume Production Facility					2400		2400						
Goodrich Terahertz Spectrometer					4000		4000						
Lithium Ion (Li Ion) Battery Production for Military Applications					26535		26535						
Gallium Nitride X-Band MMICs		500		500	2500		2500	2000		2000			
Gallium Nitride Radar & EW MMICs		8000		8000	6137		6137	8579		8579	8401		8401
Gallium Nitride Advanced EW MMICs		2610		2610	3069		3069	2000		2000	2321		2321

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 (0902199D8Z)			Weapon System Type:			Date: February 2010		
WBS Cost Elements	ID	FY 09			FY 10			FY 11			FY 12		
	CD	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost	Total Cost	Qty	Unit Cost
		\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000	\$000	Units	\$000
Traveling Wave Tube Amplifiers for Space Beryllium Supply Industrial Base Production Initiative		1174		1174	19500		19500	6897		6897			
Lithium Ion (Li Ion) Battery Production for Space		4581		4581	4040		4040	770		770	770		770
Radiation Hardened Microelectronics Mode National Security Space (NSS) Industrial & Supply Base (ISB) Risk Mitigation Program					3000		3000	8500		8500	8500		8500
Adv Structural & Armor Materials Electronic Materials and Device Production													
Total:		100268			150281			28746			19992		

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010		
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)								
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 2010		Aspen Aerogels Northborough MA		non-competitive	Wright Patterson Air Force Base (WPAFB), Dayton, OH	Jul 10			2400	no	na	na
Vacuum Induction Melting and Vacuum Arc Remelting Furnace Capacity/Inventory for Defense FY 2010		Latrobe Specialty Steel Latrobe, PA		non-competitive	WPAFB, Dayton, OH	Jul 10			10000	no	N/A	N/A
Read Out Integrated Circuit (ROIC) Manufacturing Improvement FY 2010		ON Semiconductor Pocatello, ID		non-competitive	WPAFB, Dayton, OH	Jul 10			1600	no	N/A	N/A
Thermal Battery Industrial Base Infrastructure FY 2010		Enser Corp. Pinellas Park, FL		non-competitive	WPAFB, Dayton, OH	Jul 10			3000	no	N/A	N/A
ALON and Spinel Optical Ceramics FY 2010		Surmet Corp Burlington< MA		non-competitive	WPAFB, Dayton, OH	Jul 10			2400	no	N/A	N/A
Advanced Metal Composite Process (Titanium Metal Matrix Composites for Aircraft) FY 2010		FMW		non-	WPAFB, Dayton,	Jul 10			6400	no	N/A	N/A

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010		
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:		P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)							
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
Military Lens Sys Fabrication & Assembly FY 2010		Bridgeport, WV Optical Systems Technology, In Freeport , PA		competiti ve non- competiti ve	OH WPAFB, Dayton, OH	Jul 10			3200	no	N/A	N/A
Automated Composite Technologies Initiative FY 2010		ATK Space Systems Clearfield, UT		non - competiti ve	WPAFB, Dayton, OH	Jul 10			9600	no	N/A	N/A
Production of Miniature Compressors for FY 2010		Aspen Compressor, LLC Marlborough, MA		non- competiti ve	WPAFB, Dayton, OH	Jul 10			3600	no	N/A	N/A
Light-weight Ammunition & Armor Initiative FY 2010		MAC, LLC Bay St. Louis, MS		non- competiti ve	WPAFB, Dayton, OH	Jul 10			3760	no	N/A	N/A
Low Cost Military GPS FY 2010		Rockwell Collins Cedar Rapids, IA		non- competiti ve	WPAFB, Dayton, OH	Jul 10			3200	no	N/A	N/A
Armor & Structure Tran Steel to Titanium FY 2010		Gautier Steel Ltd. Johnstown, PA		non- competiti ve	WPAFB, Dayton, OH	Jul 10			8100	no	N/A	N/A

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010		
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:	P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)								
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
Extremely Large, Domestic Expendable and Reusable Structures Manufacturing Center (ELDERS) FY 2010		ATK Space Systems Iuka, MS		non-competitive	WPAFB, Dayton, OH	Jul 10			7840	no	N/A	N/A
High Homogeneity Optical Glass FY 2010		Various		non-competitive	WPAFB, Dayton, OH	Jul 10			3200	no	N/A	N/A
Navy Production Capacity Improvement Project at Lehigh Heavy Forge FY 2010		Various		C	WPAFB, Dayton, OH	Sep 10			3200	no	N/A	N/A
Conductive Composites Nano-Materials Scale-Up Initiative FY 2010		Various		C	WPAFB, Dayton, OH	Sep 10			2800	no	N/A	N/A
Metal Injection Molding Technological Improvements FY 2010		Various		C	WPAFB, Dayton, OH	Sep 10			800	no	N/A	N/A
Bio-synthetic Paraffinic Kerosene Production FY 2010		Various		C	WPAFB, Dayton, OH	Sep 10			4000	no	N/A	N/A
Advanced Carbon Nanotube Volume Production												

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010	
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:		P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)						
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
Facility FY 2010	Various		C	WPAFB, Dayton, OH	Sep 10			2400	no	N/A	N/A
Goodrich Terahertz Spectrometer FY 2010	Various		C	WPAFB, Dayton, OH	Sep 10			4000	no	N/A	N/A
Lithium Ion (Li Ion) Battery Production for Military Applications FY 2010	Various		C	WPAFB, Dayton, OH	Sep 10			26535	no	N/A	N/A
Gallium Nitride X-Band MMIC FY 2010	Various		non-competitive	WPAFB, Dayton, OH	Jan 10			2500	no	N/A	N/A
FY 2011	Various		non-competitive	WPAFB, Dayton, OH	Jan 11			2000	no	N/A	N/A
Gallium Nitride Radar & EW MMIC FY 2010	Various		C	WPAFB, Dayton, OH	Jan 10			6137	no	N/A	N/A
FY 2011	Various		C	WPAFB, Dayton, OH	Jan 11			8579	no	N/A	N/A
FY 2012	Various		C	WPAFB, Dayton, OH	Jan 12			8401	no	N/A	N/A
FY 2013	Various		C	WPAFB, Dayton,	Jan 13			10875	no	N/A	N/A

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010	
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:		P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)						
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
Gallium Nitride Advanced Electronic Warfare MMIC				OH							
FY 2010	Various		C	WPAFB, Dayton, OH	Mar 10		3069	no	N/A	N/A	
FY 2011	Various		C	WPAFB, Dayton, OH	Jan 11		2000	no	N/A	N/A	
FY 2012	Various		C	WPAFB, Dayton, OH	Jan 12		2321	no	N/A	N/A	
Beryllium Supply Industrial Base Production Initiative											
FY 2010	Brush Wellman Inc. Cleveland, OH		non - competitive	WPAFB, Dayton, OH	Jan 10		19500	no	N/A	N/A	
FY 2011	Brush Wellman Inc. Cleveland, OH		non - competitive	WPAFB, Dayton, OH	Jan 11		6897	no	N/A	N/A	
Lithium Ion (Li Ion) Space Battery Production											
FY 2010	Quallion, Inc. Sylmar, CA		non-competitive	WPAFB, Dayton, OH	Jan 10		4040	no	N/A	N/A	
FY 2010	Navy Crane		MIPR	WPAFB, Dayton, OH	Jan 10		840	no	N/A	N/A	
FY 2011	Navy Crane		MIPR	WPAFB, Dayton, OH	Jan 11		770	no	N/A	N/A	
FY 2012	Navy Crane		MIPR	WPAFB, Dayton,	Jan 12		770	no	N/A	N/A	

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010	
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:		P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)						
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
Radiation Hardened Microelectronics Mode FY 2010	Various		C	OH WPAFB, Dayton, OH	Sep 10			3000	no	N/A	N/A
National Security Space (NSS) Industrial & Supply Base (ISB) Risk Mitigation Program FY 2011	Various		C	WPAFB, Dayton, OH	Jan 11			8500	no	N/A	N/A
FY 2012	Various		C	WPAFB, Dayton, OH	Jan 12			8500	no	N/A	N/A
FY 2013	Various		C	WPAFB, Dayton, OH	Jan 13			8500	no	N/A	N/A
FY 2014	Various		C	WPAFB, Dayton, OH	Jan 14			8500	no	N/A	N/A
FY 2015	Various		C	WPAFB, Dayton, OH	Jan 15			8500	no	N/A	N/A
Adv Structural & Armor Materials FY 2014	Various		C	WPAFB, Dayton, OH	Sep 14			1017	no	N/A	N/A
FY 2015	Various		C	WPAFB, Dayton, OH	Sep 15			377	no	N/A	N/A
Electronic Materials and Device Production FY 2014	Various		C	WPAFB, Dayton, OH	Sep 14			4994	no	N/A	N/A
FY 2015	Various		C	WPAFB, Dayton, OH	Sep 15			5746	no	N/A	N/A

Exhibit P-5a, Budget Procurement History and Planning										Date: February 2010	
Appropriation/Budget Activity/Serial No: Procurement, Defense Wide/ L/ Acquisition Resources Analysis			Weapon System Type:		P-1 Line Item Nomenclature: Defense Production Act Purchases (0902199D8Z)						
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
				OH							
REMARKS:											