# Department of Defense Fiscal Year (FY) 2016 President's Budget Submission

February 2015



# Office of the Secretary Of Defense

Defense Wide Justification Book Volume 1 of 1

**Defense Production Act Purchases** 

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Office of the Secretary Of Defense • President's Budget Submission FY 2016 • Procurement

# **Table of Volumes**

Chemical and Biological Defense Program	Volume 1
Defense Contract Audit Agency	Volume 1
Defense Contract Management Agency	Volume 1
DoD Human Resources Activity	Volume 1
Defense Information Systems Agency	
Defense Logistics Agency	Volume 1
Defense Media Activity	
Defense Production Act Purchases	Volume 1
Defense Security Cooperation Agency	
Defense Security Service	
Defense Threat Reduction Agency	Volume 1
Department of Defense Education Activity	
Office of the Secretary Of Defense	Volume 1
The Joint Staff	
United States Special Operations Command	Volume 1
Washington Headquarters Service	

Office of the Secretary Of Defense • President's Budget Submission FY 2016 • Procurement

Joint Urgent Operational Needs Fund	Volume
Missile Defense Agency	. Volume :

Office of the Secretary Of Defense • President's Budget Submission FY 2016 • Procurement

# **Volume 1 Table of Contents**

Comptroller Exhibit P-1	Volume 1 -	٠ ١
Line Item Table of Contents (by Appropriation then Line Number)	Volume 1 -	X
Line Item Table of Contents (Alphabetically by Line Item Title)	Volume 1 - x	ζij
Exhibit P-40s	Volume 1 -	. 1



### Defense-Wide FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

23 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted
Defense Production Act Purchases	105,135	51,638		51,638
Total Defense-Wide	105,135	51,638		51,638

## Defense-Wide FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

23 Jan 2015

Appropriation	FY 2016 Base	FY 2016 OCO	FY 2016 Total
	**********		
Defense Production Act Purchases	46,680		46,680
Total Defense-Wide	46,680		46,680

### Defense-Wide FY 2016 President's Budget

## Exhibit P-1 FY 2016 President's Budget

Total Obligational Authority (Dollars in Thousands)

Appropriation: Defense Production Act Purchases

Budget Activity	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted
01. Defense Production Act Purchases	105,135	51,638		51,638
Total Defense Production Act Purchases	105,135	51,638		51,638

P-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 23, 2015 at 12:41:15

23 Jan 2015

### Defense-Wide FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority (Dollars in Thousands)

23 Jan 2015

Appropriation: Defense Production Act Purchases

	FY 2016	FY 2016	FY 2016
Budget Activity	Base	oco	Total
01. Defense Production Act Purchases	46,680		46,680
Total Defense Production Act Purchases	46,680		46,680

## Defense-Wide

### FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget

## Total Obligational Authority

(Dollars in Thousands)

23 Jan 2015

Appropriation: 0360D Defe	ense Production	Act	Purchases
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		FY 20	014	FY 2	2015	FY 20	15	FY 2	015	S
Line	Ident	(Base	& OCO)	Base E	Enacted	OCO Ena	cted	Total E	nacted	e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	C
										_
Budget Activity 01: Defense Production Act Purchases										
Defense Production Act Purchases										
1 Defense Production Act Purchases	A		105,135		51,638				51,638	U
Total Defense Production Act Purchases			105,135	10.5x	51,638	Westers	NI-1CE TO A STOCK COLOUR TEAT SHIP	1 Address	51,638	
Total Defense Production Act Purchases			105,135		51,638				51,638	

## Defense-Wide

### FY 2016 President's Budget Exhibit P-1 FY 2016 President's Budget Total Obligational Authority

(Dollars in Thousands)

23 Jan 2015

Appropriation: 0360D Defense Production Act Purchases

Line	Ident	FY 20 Bas		FY 20 OCO	550500	FY 20 Tota		S e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	C
								2
Budget Activity 01: Defense Production Act Purchases								
Defense Production Act Purchases								
1 Defense Production Act Purchases	A		46,680	550			46,680	U
Total Defense Production Act Purchases			46,680				46,680	
Total Defense Production Act Purchases			46,680			(A) A	46,680	5

Office of the Secretary Of Defense • President's Budget Submission FY 2016 • Procurement

# **Line Item Table of Contents (by Appropriation then Line Number)**

## Appropriation 0360D: Defense Production Act Purchases

Line #	ВА	BSA	Line Item Number	Line Item Title	Page
1	01	10	TitleIII	Defense Production Act PurchasesV	olume 1 - 1



Office of the Secretary Of Defense • President's Budget Submission FY 2016 • Procurement

# **Line Item Table of Contents (Alphabetically by Line Item Title)**

Line Item Title	Line Item Number	Line #	ВА	BSA Page
Defense Production Act Purchases	TitleIII	1	01	10Volume 1 - 1



Exhibit P-40, Budget Line Item Justification: PB 2016 Office of the Secretary Of Defense

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

0360D: Defense Production Act Purchases / BA 01: Defense Production Act Purchases / BSA 10: Defense Production Act Purchases

P-1 Line Item Number / Title:

TitleIII / Defense Production Act Purchases

$\textbf{ID Code} \; (\texttt{A=Service Ready},  \texttt{B=Not Service Ready}):$			Program Ele	ments for Co	de B Items: 09	902199D8Z		Other Relate	d Program El	ements:		
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,396.975	105.135	51.638	46.680	-	46.680	20.209	19.260	20.821	21.105	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,396.975	105.135	51.638	46.680	-	46.680	20.209	19.260	20.821	21.105	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,396.975	105.135	51.638	46.680	-	46.680	20.209	19.260	20.821	21.105	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)	N .	*		Year of the second seco
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

Title III of the Defense Production Act (DPA) provides the Department of Defense (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. DPA Title III is unique in that it is the sole DoD program focused on creating, maintaining, protecting, expanding or restoring domestic production capacity to strengthen domestic industry and to establish the industrial base capacity for essential national defense capabilities.

The Defense Production Act 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. FY 2016 requested funding will be used for continuation of four projects and two new projects. 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.

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 DoD to execute any of the projects described in this exhibit 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-40, Budget Line Item Justification: PB 2016 Office of the Secretary Of Defense

**Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity:

0360D: Defense Production Act Purchases / BA 01: Defense Production Act

Purchases / BSA 10: Defense Production Act Purchases

P-1 Line Item Number / Title:

TitleIII / Defense Production Act Purchases

ID Code (A=Service Ready, B=Not Service Ready) :		Progran	n Elements for Code	<b>B Items:</b> 0902199D82	Z Ot	Other Related Program Elements:						
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total				
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)							
1 / Defense Production Act Purchases	P-5		- / 1,396.975	- / 105.135	- / 51.638	- /46.680	- / -	- /46.680				
Total Gross/Weapon System Cost			- / 1,396.975	- / 105.135	- / 51.638	- / 46.680	- 1 -	- / 46.680				
Exhibits Schedule			FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total				
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)	Quantity / Total Cost (Each) / (\$ M)							
1 / Defense Production Act Purchases	P-5		- / 20.209	- / 19.260	- /20.821	- / 21.105	Continuing	Continuing				
Total Gross/Weapon System Cost			- / 20.209	- / 19.260	- / 20.821	- / 21.105	Continuing	Continuing				

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

#### Justification:

FY 2016 resources (\$M):

The projects to be executed within FY 2016 resources are identified below. The multi-year cost phasing of each of these projects is addressed in the P5 exhibit. The first three projects listed are part of the National Security Space (NSS) Industrial and Supply Base (ISB) Risk Mitigation Program described below.

- (1) NSS ISB: Next Generation Star Tracker System \$12.05
- (2) NSS ISB: Cadmium Zinc Telluride Substrates \$0.452
- (3) NSS ISB: Space Electronics and Materials Investments \$21.0 (new project in FY 2016)
- (4) Submarine Valve-Regulated Lead Acid Batteries \$3.0
- (5) 3D Microelectronics for Anti-Tamper \$2.911
- (6) Secure Composite Shipping Containers \$7.267

(new project in FY 2016)

The NSS 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. 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 are addressing cross-platform, multi-agency/Service requirements using the authorities of DPA Title III. Seven NSS ISB multi-year project technologies have been identified for funding, with execution profiles as displayed in the P5 from prior years through FY 2016. The Space Electronics and Materials Investments project is a new NSS ISB project programmed to begin in FY 2016.

FY 2015 resources (\$M):

FY 2015 adjustments:

\$ 21.638 FY 2015 request

+ 30.000 Congressional increase

\$ 51.638 Appropriated

FY 2015 Congressional Add projects:

(1) NSS ISB: Next Generation Star Tracker System \$2.075, supplemented with baseline funding for a project total of \$6.380 FY 2015

LI TitleIII - Defense Production Act Purchases
Office of the Secretary Of Defense

UNCLASSIFIED
Page 2 of 7

P-1 Line #1

**Volume 1 - 2** 

Exhibit P-40, Budget Line Item Justification: PB 2016 Office of the Secretary Of Defense

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

0360D: Defense Production Act Purchases / BA 01: Defense Production Act

Purchases / BSA 10: Defense Production Act Purchases

TitleIII / Defense Production Act Purchases

P-1 Line Item Number / Title:

ID Code (A=Service Ready, B=Not Service Ready) :

Program Elements for Code B Items: 0902199D8Z

Other Related Program Elements:

- (2) Activated Carbon Capacity Expansion \$5.652, supplemented with baseline funding for a project total of \$10.865 in FY 2015
- (3) 3D Microelectronics for Anti-Tamper \$4.0
- (4) Thin Wall Castings for Military Applications \$18.273

Seven additional projects to be executed within FY 2015 resources are identified below. The multi-year cost phasing of each of these projects is addressed in the P5 exhibit. The first five of these projects, continuing from prior years, are part of the National Security Space (NSS) Industrial and Supply Base (ISB) Risk Mitigation Program described above.

- (1) NSS ISB: Read Out Integrated Circuit (ROIC) Foundry Improvement and Sustainability \$2.639
- (2) NSS ISB: Space Qualified Solar Cell Supply Chain \$1.5
- (3) NSS ISB: Complementary Metal Oxide Semiconductor (CMOS) Focal Plane Arrays (FPA) for Visible Sensors for Star Trackers \$1.69
- (4) NSS ISB: Cadmium Zinc Telluride Substrates \$1.591
- (5) NSS ISB: Additive Manufacturing for Liquid Rocket Engines \$0.7
- (6) Modernization of Steel Plate Production \$2.0
- (7) Scale Up of Green Energetics \$2.0

The Transparent Ceramics Initiative project previously planned for FY 2015 execution was cancelled and no budgeted funding was obligated. Extensive market research, coupled with review of government requirements, did not support project execution.

FY 2014 resources (\$M):

FY 2014 adjustments:

- \$ 25.135 FY 2014 request
- + 35.000 Congressional increase
- + 45.000 Transfer from Department of Energy for the Advanced Drop-In Biofuel Production Project

\$105.135 Appropriated

FY 2014 Congressional Add projects:

- (1) Modernization of Steel Plate Production \$18.0
- (2) Activated Carbon Capacity Expansion \$15.5, supplemented with baseline funding for a project total of \$24.135 in FY 2014
- (3) Advanced Carbon Nanotube Volume Production Facility \$1.5

FY 2014 other projects are identified below. The multi-year cost phasing of each of these projects is addressed in the P5 exhibit. Four of these projects, continuing from prior years, are part of the National Security Space (NSS) and Industrial Supply Base (ISB) Risk Mitigation Program.

- (1) NSS ISB: Next Generation Star Tracker System \$4.22
- (2) NSS ISB: Space Qualified Solar Cell Supply Chain \$0.947
- (3) NSS ISB: Cadmium Zinc Telluride Substrates \$4.633
- (4) NSS ISB: Additive Manufacturing for Liquid Rocket Engines \$4.7
- (5) Advanced Carbon Nanotube Volume Production Facility \$1.5
- (6) Modernization of Steel Plate Production \$18.0
- (7) Activated Carbon Capacity Expansion \$24.135
- (8) Scale Up of Green Energetics \$2.0
- (9) Advanced Drop-In Biofuel Production Project \$45.0

UNCLASSIFIED Page 3 of 7

LI TitleIII - Defense Production Act Purchases Office of the Secretary Of Defense

P-1 Line #1

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Exhibit P-5, Cost	oit P-5, Cost Analysis: PB 2016 Office of the Secretary Of Defense opriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title:															015		
						P-1					ases							chases
ID Code (A=Service Read	dy, B=Not Serv	rice Ready) :							M	DAP/MAI	S Code:							
	Resource Summary Prior Years FY 2014						FY 2016 Base	FY 20		/ 2016 Fotal	FY 2017	FY 20	)18 F	Y 2019	FY 2020	1		Total
Procurement Quantity (Uni					-	-			-	-	_		-	_	_	•	-	
Gross/Weapon System Co		ns)	1,396.975	105.	135	51.638	46.680		-	46.680	20.209	1	9.260	20.821	21.1	05 Continui	ing	Continuing
Less PY Advance Procure	ement (\$ in Mi	illions)	-		-	-	-		-	-	-		-	-	-		-	-
Net Procurement (P1) (\$ ir	n Millions)	,	1,396.975	105.	135	51.638	46.680		-	46.680	20.209	1	9.260	20.821	21.1	05 Continui	ing	Continuing
Plus CY Advance Procure		llions)			-	-	_		-	-	_		-	-	-		-	
Total Obligation Authori	ty (\$ in Millions	s)	1,396.975	105.	135	51.638	46.680	)	-	46.680	20.209	1	9.260	20.821	21.1	05 Continu	uing	Continuing
	(The	e following	Resource Sun	nmary rows a	re for info	ormational pu	rposes only. 7	he correspo	onding bud	get requests	s are document	ed elsewhe	ere.)					
Initial Spares (\$ in Millions)			_		-	-	-		-	-	-		-	-	-		-	
Gross/Weapon System Ur	nit Cost (\$ in I	Millions)	-		-	-	-		-	-	-		-	-	-		-	-
Note: Subtotals or Totals i	in this Exhibit	t P-5 may r	ot be exact or	add, due to	rounding.	l-		-1				<del></del>				-1		
	F	Prior Year	rs	I	FY 2014	4		FY 2015		F	Y 2016 Base		I	FY 2016 OC				Total
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cos	t Qty	Cost			
Hardware - National Security					· /	1 ' '	(+)	(====)	(+)	(+)	(===-/	(+)	(+)	(===-/	(+)	(+)	(=====	(+)
Non Recurring Cost				-														
NSS ISB: Next Generation Star Trackers	-	-	0.500	-	-	4.220	-	-	6.380	-	-	12.050	-	-	-	-		- 12.050
NSS ISB: Read Out Integrated Circuit (ROIC) Foundry Improvement and Sustainability	-	-	7.564	-	-	-	_	-	2.639	-	-	-	-	-	-	-		
NSS ISB: Space Qualified Solar Cell Supply Chain	-	-	6.180	-	-	0.947	-	-	1.500	-	-	-	-	-	-	-		
NSS ISB: Comp Metal Oxide Semiconductor Focal Plane Arrays for Visible Sensors for Star Trackers	-	-	9.416	-	-	-	_	-	1.690	-	-	-	-	-	-	-		
NSS ISB: Additive Manufacturing for Liquid Rocket Engines	-	-	1.300	-	_	4.700	-	-	0.700	-	-	-	-	-	-	-		
NSS ISB: Cadmium Zinc Telluride Substrates	-	-	-	-	-	4.633	-	-	1.591	-	-	0.452	-	-	-	-		- 0.452
NSS ISB: Space Electronics and Materials Investments	-	-	-	-	-	-	-	-	-	-	-	21.000	-	-	-	-		- 21.000

LI TitleIII - Defense Production Act Purchases Office of the Secretary Of Defense UNCLASSIFIED Page 4 of 7

P-1 Line #1

Volume 1 - 4

Exhibit P-5, Cost Analysis: PB 2016 Office of the Secretary Of Defense

Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

Item Number / Title [DODIC]:

0360D / 01 / 10

TitleIII / Defense Production Act Purchases

1 / Defense Production Act Purchases

ID Code (A=Service Ready, B=Not Service Ready) :

MDAP/MAIS Code:

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

	F	rior Years	S		FY 2014		FY 2015			F۱	′ 2016 Ba	se	FY 2016 OCO			FY 2016 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Subtotal: Non Recurring Cost	-	_	24.960	-	-	14.500	-	-	14.500	-	-	33.502	-	-	-	-	-	33.50
Subtotal: Hardware - National Security Space (NSS) Industrial & Supply Base (ISB) Risk Mitigation Program Cost	-	-	24.960	-	ı	14.500	-		14.500	-	-	33.502	-	-	-	-	-	33.5
Hardware - Other Cost																		
Non Recurring Cost																		
Activated Carbon Capacity Expansion	-	-	5.000	-	-	24.135	-	-	10.865	-	-	-	-	-	-	-	-	-
Modernization of Steel Plate Production	-	-	-	-	-	18.000	-	-	2.000	-	-	-	-	-	-	-	-	-
Scale Up of Green Energetics	-	-	-	-	-	2.000	-	-	2.000	-	-	-	-	-	-	-	-	-
Submarine Valve- Regulated Lead Acid Batteries	-	-	22.000	-	-	-	-	-	-	-	-	3.000	-	-	-	-	-	3.0
Secure Composite Shipping Containers	-	-	-	-	-	-	-	-	-	-	-	7.267	-	-	-	-	-	7.2
High Temperature Material	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-Metal Structural Materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3D Microelectronics for Anti-Tamper	-	-	15.000	-	-	-	-	-	4.000	-	-	2.911	-	-	-	-	-	2.9
Advanced Carbon Nanotube Volume Production Facility	-	-	21.000	-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-
Advanced Drop-In Biofuel Production	-	_	160.000	-	-	45.000	-	-	-	-	_	-	-	_	-	-	-	-
Thin Wall Castings for Military Applications	-	_	-	-	-	-	-	-	18.273	-	-	-	-	_	-	-	-	-
Subtotal: Non Recurring Cost	-	-	223.000	-	-	90.635	-	-	37.138	-	-	13.178	-	-	-	-	-	13.17
Subtotal: Hardware - Other Cost	-	_	223.000	-	-	90.635	-	-	37.138	-	-	13.178	-	-	-	-	-	13.17
Gross/Weapon System Cost	-	_	1,396.975	-	-	105.135	_	_	51.638	-	_	46.680	-	_	-	_	_	46.68

Exhibit P-5, Cost Analysis: PB 2016 Office of the Secretary Of Defense

Appropriation / Budget Activity / Budget Sub Activity:

0360D / 01 / 10

Date: February 2015

Item Number / Title [DODIC]:

1 / Defense Production Act Purchases

0360D / 01 / 10						Title	III / Defen	se Prod	uction A		1 / Defense Production Act Purchases							
D Code (A=Service Rea	dy, B=Not Serv	rice Ready) :							М	DAP/MAIS	Code:							
		FY 2017			FY 2018			FY 2019	'	FY 2020			Т	To Complete		-	Total Cost	
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware - National Security	Space (NSS) I	Industrial & Su	ipply Base (IS	B) Risk Mitigati	on Program C	Cost												
Non Recurring Cost																		
NSS ISB: Next Generation Star Trackers	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	23.1
NSS ISB: Read Out Integrated Circuit (ROIC) Foundry Improvement and Sustainability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2
NSS ISB: Space Qualified Solar Cell Supply Chain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.6
NSS ISB: Comp Metal Oxide Semiconductor Focal Plane Arrays for Visible Sensors for Star Trackers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.1
NSS ISB: Additive Manufacturing for Liquid Rocket Engines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7
NSS ISB: Cadmium Zinc Telluride Substrates	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6
NSS ISB: Space Electronics and Materials Investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.0
Subtotal: Non Recurring Cost	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	-	_	87.4
Subtotal: Hardware - National Security Space (NSS) Industrial & Supply Base (ISB) Risk Mitigation Program Cost	-	-	-	-	_	-	-	_	-	_	_	-	_	-	-	-	_	87.4
Hardware - Other Cost												·				·		
Non Recurring Cost																		
Activated Carbon Capacity Expansion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.0
Modernization of Steel Plate Production	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_	20.0
Scale Up of Green Energetics	_	_	_	-	_	-	_	_	-	_	_	-	_	-	_	-	_	4.0
Submarine Valve- Regulated Lead Acid Batteries	-	-	2.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.00

LI TitleIII - Defense Production Act Purchases Office of the Secretary Of Defense UNCLASSIFIED
Page 6 of 7

P-1 Line #1 Volume 1 - 6

**Exhibit P-5, Cost Analysis:** PB 2016 Office of the Secretary Of Defense **Date:** February 2015

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]:

0360D / 01 / 10 TitleIII / Defense Production Act Purchases 1 / Defense Production Act Purchases

MDAP/MAIS Code:

ID Code (A=Service Read	dy, B=Not Serv	ice Ready) :							IVII	JAP/WAI	S Code:							
		FY 2017			FY 2018			FY 2019			FY 2020		Т	o Comple	te		Total Cost	
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Secure Composite Shipping Containers	-	-	8.445	-	-	1.090	-	-	-	-	-	-	-	-	-	-	-	16.80
High Temperature Material	-	-	1.402	-	-	7.931	-	-	9.916	-	-	8.713		Continuing	,		Continuing	
Non-Metal Structural Materials	-	-	-	-	-	5.512	-	-	10.905	-	-	12.392		Continuing			Continuing	
3D Microelectronics for Anti-Tamper	-	-	8.362	-	-	4.727	-	-	-	-	-	-	-	-	-	-	-	35.00
Advanced Carbon Nanotube Volume Production Facility	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.50
Advanced Drop-In Biofuel Production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205.00
Thin Wall Castings for Military Applications	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.27
Subtotal: Non Recurring Cost	-	-	20.209	-	-	19.260	-	-	20.821	-	-	21.105		Continuing			Continuing	
Subtotal: Hardware - Other Cost	-	-	20.209	-	-	19.260	-	-	20.821	-	-	21.105		Continuing			Continuing	
Gross/Weapon System Cost	-	-	20.209	-	-	19.260	-	-	20.821	-	-	21.105		Continuing			Continuing	

ID Code (A=Sentine Boody, B=Net Sentine Boody):

P-1 Line #1

