

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0207247F: AF TENCAP							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO <sup>##</sup>	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	20.727	63.853	89.816	-	89.816	22.282	22.164	18.074	18.345	Continuing	Continuing
670001: Air Force TENCAP	-	20.727	63.853	89.816	-	89.816	22.282	22.164	18.074	18.345	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Air Force TENCAP is executed by the Space Innovation and Development Center (SIDC) at Schriever Air Force Base, Colorado. Established by Congress in 1977 as one of a family of service Tactical Exploitation of National Capabilities (TENCAP) programs, AF TENCAP increases warfighter awareness of Space and National capabilities, and promotes cross-domain integration of these systems into military and intelligence, surveillance and reconnaissance (ISR) operations through:

- 1) Exploiting existing Space, National and global ISR, and Non-Traditional ISR (NTISR) for operational and tactical applications by rapidly prototyping projects and demonstrating resulting capabilities (for example Battlefield Airborne Command Node (BACN) Intra-Flight Data Link System (IFDL) project). Capabilities will be transitioned to warfighters and/or National Intelligence Agencies for operational use, and/or appropriate acquisition organizations for further development.
- 2) Influencing the design and operation of future Space, National and global ISR, and NTISR systems for tactical users.
- 3) Providing education and training to warfighters and National Intelligence agencies.

The AF TENCAP Director administers and executes the AF TENCAP program. The Director coordinates and funds AF TENCAP efforts to provide robust capabilities that enhance support of Joint operations at the tactical level.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force				DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0207247F: AF TENCAP				
B. Program Change Summary (\$ in Millions)		FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		20.727	63.853	60.995	-	60.995
Current President's Budget		20.727	63.853	89.816	-	89.816
Total Adjustments		0.000	0.000	28.821	-	28.821
• Congressional General Reductions		-	0.000			
• Congressional Directed Reductions		-	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		-	0.000			
• Congressional Directed Transfers		-	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	28.821	-	28.821
Change Summary Explanation						
FY14: +\$28.821M increase for enhancement to USPACOM's Battlefield Airborne Command Node (BACN) Intra-Flight Subsystem - Multi-Domain Integration (BIS-MDI) efforts to provide increased lethality in a contested environment.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2012	FY 2013	FY 2014
Title: Exploitation Applications				11.077	11.177	11.292
Description: Exploiting existing Space, National, and Global ISR, and NTISR for tactical applications by rapidly prototyping projects and demonstrating resulting capabilities and influencing the design and operation of future Space, National and global ISR, and NTISR systems for tactical users.						
FY 2012 Accomplishments: Rapidly prototyped projects, demonstrated resulting capabilities and influenced the design and operation of future Space, National and global ISR, and NTISR systems; successfully transitioned 12 projects. Supported four Joint Urgent Operational Needs Statements (JUONS) as well as longer term needs across not only the Air Force, but also the joint community. Capitalized on emerging technologies to link multiple, disparate data sources, and produced tailored, mission-specific applications for data fusing analysis and visualization. Served as operational manager for two Joint Concept Technology Demonstrations (JCTDs).						
FY 2013 Plans: Rapidly prototyping projects, demonstrating resulting capabilities and influencing the design and operation of future Space, National and global ISR, and NTISR systems for tactical users.						
FY 2014 Plans:						

# UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force		<b>DATE:</b> April 2013		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207247F: AF TENCAP		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
Rapidly prototype projects, demonstrate resulting capabilities and influence the design and operation of future Space, National and global ISR, and NTISR systems for tactical users.				
<b>Title:</b> BACN/IFDL <b>Description:</b> Support USPACOM counter Digital Radio Frequency Memory (DRFM) tactics development efforts. <b>FY 2012 Accomplishments:</b> Provided resources to USPACOM counter DRFM tactics development efforts with one BACN Intra-Flight Data Link Subsystem (BIS) equipped aircraft using existing BACN equipment. Supported VALIANT SHIELD exercise to develop Tactics, Techniques and Procedures (TTPs). Successfully demonstrated passing critical Air Force Intelligence data to retarget Navy asset for more effective sortie. <b>FY 2013 Plans:</b> Provide resources to USPACOM counter DRFM tactics development efforts with one BACN-BIS equipped aircraft using existing BACN equipment <b>FY 2014 Plans:</b> N/A		9.000	9.000	0.000
<b>Title:</b> BIS-MDI <b>Description:</b> BACN Intra-Flight Data Link Subsystem-Multi-Domain Integration (BIS-MDI) is a USPACOM effort to provide a means to broadcast multi-source information in a Link 16 compatible format. <b>FY 2012 Accomplishments:</b> N/A <b>FY 2013 Plans:</b> Develop, procure, install, and integrate four BIS-MDI communication pods on F-15s in support of PACOM need. Cost of all ancillary equipment including antennas is included. <b>FY 2014 Plans:</b> Continue the development, procurement, installation, and integration of four BIS-MDI communication pods on F-15s in support of PACOM need.		0.000	42.000	47.960
<b>Title:</b> Increased Lethality in a Contested Environment <b>Description:</b> Funds procurement of four advanced sensors and necessary components for integration onto BIS-MDI communication pods on F-15s.		0.000	0.000	28.821

## UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force		<b>DATE:</b> April 2013		
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0207247F: <i>AF TENCAP</i>		
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<b>FY 2012 Accomplishments:</b> N/A				
<b>FY 2013 Plans:</b> N/A				
<b>FY 2014 Plans:</b> Develop, procure, install, and integrate four advanced sensor packages onto the BIS-MDI communication pods for the F-15. Explore tactical concepts of operation and inform service programs of record. Cost of all sensor and ancillary equipment in support of PACOM need.				
<b>Title:</b> Program Support <b>Description:</b> Provide contracted program support to the AFTENCAP program.		0.650	0.676	0.703
<b>FY 2012 Accomplishments:</b> Advised and consulted on proper planning and programming essential to provide the necessary technical, management, and administrative expertise needed for developing projects. Delivered reliable, quantitative solutions that provided a defensible understanding of the costs to execute the mission and real-world insight into the risks associated with their approach.				
<b>FY 2013 Plans:</b> Provide contracted management services for the AFTENCAP program.				
<b>FY 2014 Plans:</b> Provide contractor program support to the AFTENCAP program.				
<b>Title:</b> BIS-MDI Program Support <b>Description:</b> Provide contracted program support for BIS-MDI.		0.000	1.000	1.040
<b>FY 2012 Accomplishments:</b> N/A				
<b>FY 2013 Plans:</b> Provide contracted management services specifically for the BIS-MDI effort.				
<b>FY 2014 Plans:</b> Provide contracted management services specifically for the BIS-MDI effort.				
<b>Accomplishments/Planned Programs Subtotals</b>		20.727	63.853	89.816

# UNCLASSIFIED

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2014 Air Force										<b>DATE:</b> April 2013	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>					<b>R-1 ITEM NOMENCLATURE</b> PE 0207247F: AF TENCAP						
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• Not applicable: N/A	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
<b>Remarks</b>											
<p><b>E. Acquisition Strategy</b></p> <p>Projects are selected for development based upon needs identified by the program's customers - DOD Departments, Combatant Commands, Components, MAJCOMs, and/or National Intelligence Agencies. AF TENCAP projects are approved by the AFTENCAP Director. Acquisition strategies for projects are chosen on a case-by-case basis for optimum results. Many projects are executed via existing contracts maintained by other agencies; others are executed via Air Force TENCAP contracts established with vendors responding to annual Broad Agency Announcements. The U.S. government organization sponsoring a project is responsible for assuming acquisition, deployment, logistics, and budgetary responsibilities for the developed capability after it has been successfully demonstrated by Air Force TENCAP.</p> <p>The Air Force is pursuing a spiral approach to the BIS-MDI segment to rapidly respond to a PACOM Joint Emerging Operational Need (JEON) capability requirements. Spiral Acquisition utilizes a disciplined systems engineering approach along with a build-test-build-test-deliver which focuses on mitigating cost and schedule risk through a lower risk incremental delivery of mature technologies.</p> <p>Contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. Program consists of multiple small projects.</p>											
<p><b>F. Performance Metrics</b></p> <p>Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.</p>											

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0207247F: AF TENCAP				PROJECT 670001: Air Force TENCAP					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Exploiting existing systems through rapid-prototyping projects; influencing future systems; educating and training	Various	Various:Various,	-	11.077	Dec 2011	11.177	Dec 2012	11.292	Dec 2013	-		11.292	Continuing	Continuing	TBD
BACN/IFDL	Various	Various:Various,	-	9.000	Jan 2012	9.000	Dec 2012	0.000		-		0.000	0.000	18.000	
BIS-MDI	Various	Various:Various,	-	0.000		42.000	Dec 2012	47.960	Dec 2013	-		47.960	Continuing	Continuing	
Increased Lethality in a Contested Environment	Various	Various:Various,	-	0.000		0.000		28.821	Dec 2013	-		28.821	Continuing	Continuing	
Subtotal			0.000	20.077		62.177		88.073		0.000		88.073			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Oversight (PMA)	Various	Various:Various,	-	0.650	Dec 2011	0.676	Dec 2012	0.703	Dec 2013	-		0.703	Continuing	Continuing	
Program Support - BIS	Various	Various:Various,	-	0.000		1.000	Dec 2012	1.040	Dec 2013	-		1.040	Continuing	Continuing	TBD
Subtotal			0.000	0.650		1.676		1.743		0.000		1.743			

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force											DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0207247F: AF TENCAP				PROJECT 670001: Air Force TENCAP				
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	20.727		63.853		89.816		0.000		89.816			

Remarks

# UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

## APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force  
BA 7: Operational Systems Development

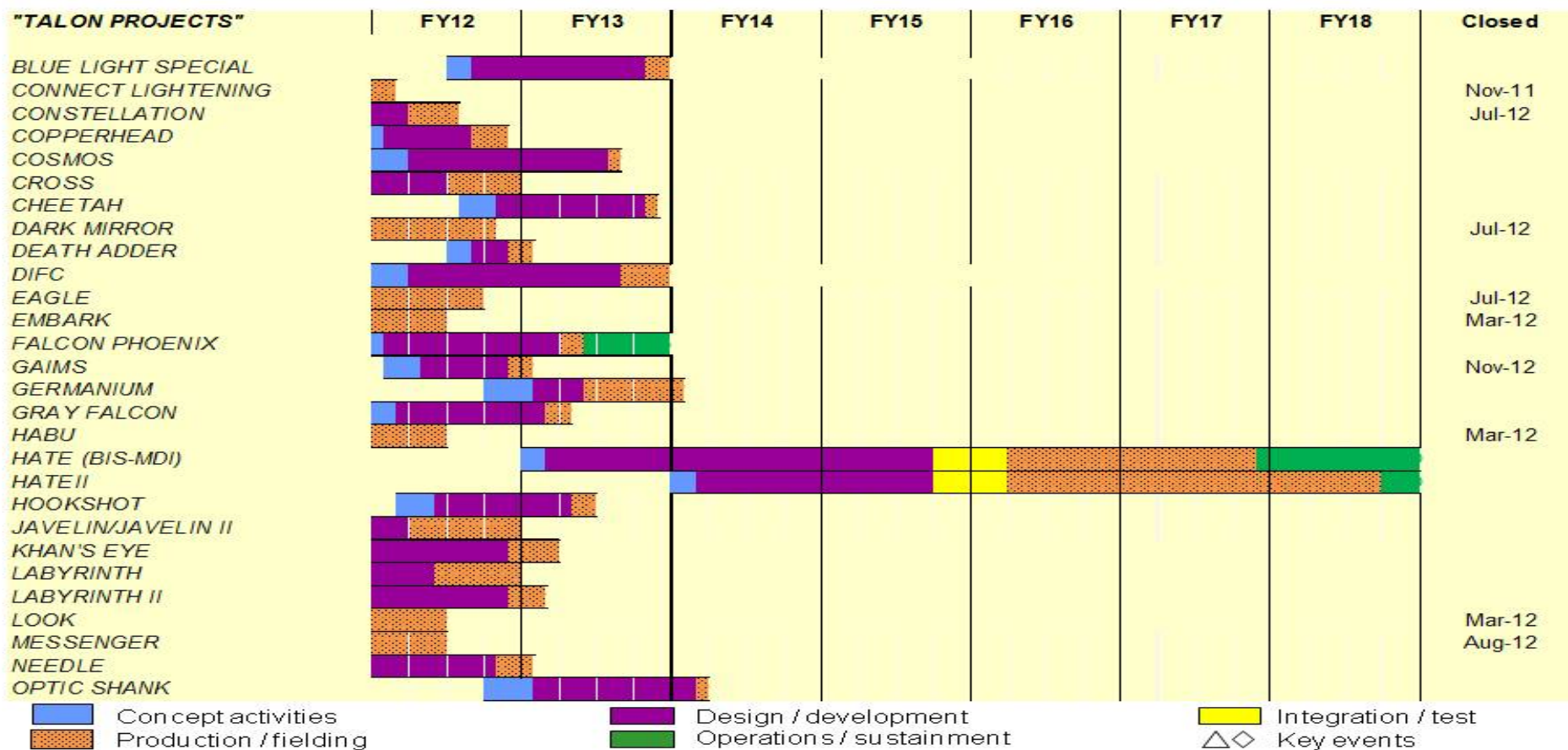
## R-1 ITEM NOMENCLATURE

PE 0207247F: AF TENCAP

## PROJECT

670001: Air Force TENCAP

## Air Force TENCAP Schedule



1



# UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

## APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force  
BA 7: Operational Systems Development

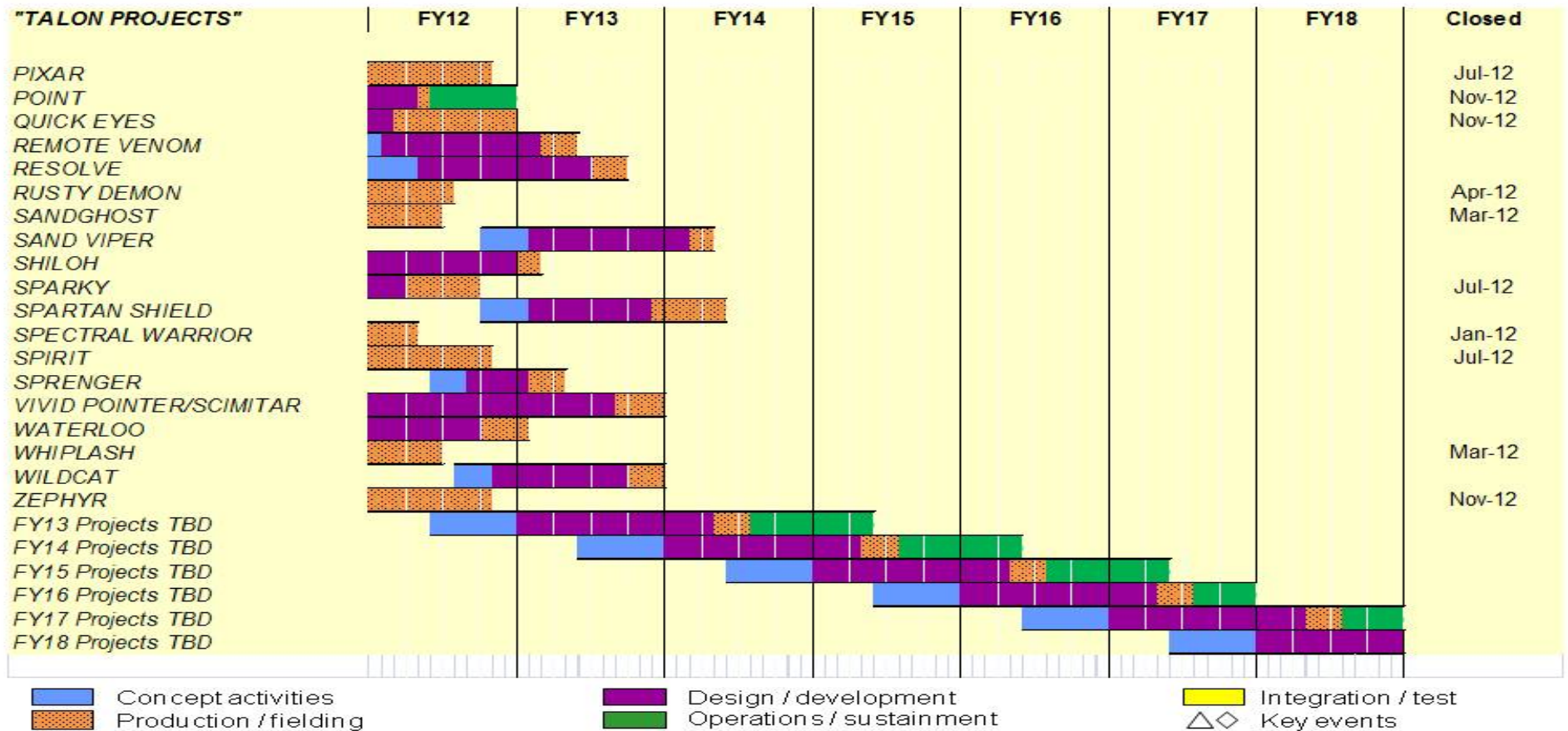
## R-1 ITEM NOMENCLATURE

PE 0207247F: AF TENCAP

## PROJECT

670001: Air Force TENCAP

## Air Force TENCAP Schedule



**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force			<b>DATE:</b> April 2013
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0207247F: <i>AF TENCAP</i>	<b>PROJECT</b> 670001: <i>Air Force TENCAP</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY 2012 projects approved for implementation	1	2012	1	2012
FY 2012 projects contracted	1	2012	3	2012
TALON HATE (BIS-MDI)	1	2013	4	2017
FY 2013 project concepts identified and approved	3	2012	4	2012
FY 2013 project contractor proposals requested/reviewed	3	2012	1	2013
FY 2013 projects approved for implementation	1	2013	1	2013
FY 2013 projects contracted	1	2013	3	2013
FY 2014 project concepts identified and approved	3	2013	4	2013
FY 2014 project contractor proposals requested/reviewed	3	2013	1	2014
FY 2014 projects approved for implementation	1	2014	1	2014
TALON HATE II (Increased Lethality in a Contested Environment)	1	2014	4	2018
FY 2014 projects contracted	1	2014	3	2014
FY2015 projects concepts identified and approved	3	2014	4	2014