

# 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 0305221F: Network-Centric Collaborative Targeting							
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	-	7.192	7.367	7.413	-	7.413	11.235	11.057	10.652	10.844	Continuing	Continuing
675197: NCCT Core Technology	-	7.192	7.367	7.413	-	7.413	11.235	11.057	10.652	10.844	Continuing	Continuing
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
<b>Note</b> Starting with FY 2014 and through the FYDP, RDT&E funding for Information Operations Battle Management/SUTER Program System software (IOBM/SPS) is embedded in the Network Centric Collaborative Targeting (NCCT) Core Technology project.												
<b>A. Mission Description and Budget Item Justification</b> Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies and sub-nodal analysis tools to horizontally and/or vertically integrate network collaborative intelligence, surveillance and reconnaissance (ISR) sensor systems within and across intelligence disciplines. Operational uses of core technologies would include, but are not be limited to, signals intelligence to signals intelligence (SIGINT-SIGINT) correllation, and ground moving target indicator to signals intelligence (GMTI-SIGINT) correllation. Operational uses of sub-nodal analysis tools would include, but are not be limited to, determining which nodes of the adversary's Command, Control, Communications, Computers, Intelligence (C4I) network to engage or protect to achieve desired effects, and modeling execution plans to determine the need to disrupt or monitor the required network aimpoints in order to redirect activities based on changing battlefield conditions. NCCT software applications employ machine-to-machine (M2M) interfaces and Internet Protocol (IP) connectivity to coordinate sensor cross-cues and collection activities. NCCT correlation and fusion services ingest collection data to produce a single, composite track (geo-location and identification) for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (Operations Interfaces, Network Controller, Fusion Engines, Data Guard, Interface to Command & Control, and Interface to Overhead Intelligence Operations), the migration of the NCCT technologies to emerging network centric technologies (Service Oriented Architectures (SOA) and web services), and satisfying DoD standards and Information Assurance requirements.  Core Technology develops the hardware and software to horizontally integrate Joint and Coalition dissimilar Battle Management, Command & Control (BMC2), and ISR assets and systems into integrated target tracks shared across networked platforms. Core Technology includes, but is not limited to, network management software, operator interfaces, standard network messages and formats, correlation software and data rules of interaction, NCCT multi-level security hardware and software items, and platform specific Platform Interface Modules (PIMs). Current NCCT-enabled systems include, but are not limited to, the RC-135V/W RIVET JOINT, EC-130H COMPASS CALL, Distributive Common Ground System (DCGS) SIGINT components, Falconer Aerospace Operations Centers (AOC), MC-12W Liberty Project Aircraft (LPA), Forward Processing/Exploitation/Dissemination (FPED), Gorgon Stare, Vehicle and Dismount Exploitation Radar (VADER), and Overhead Intelligence Operations (OIO). Prospective Coalition, Joint or Service systems are required to fund their respective integration, unique core technology improvements/upgrades to support system integration.												

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE				
3600: Research, Development, Test & Evaluation, Air Force		PE 0305221F: Network-Centric Collaborative Targeting				
BA 7: Operational Systems Development						
<p>Information Operations Battle Management (IOBM) and the SUTER Program System (SPS) develop concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing the capabilities of ISR and non-kinetic capabilities in a coordinated fashion with traditional kinetic weapons to prosecute targets connected together or dependent upon some form of communications network. SPS's planning, execution and assessment capability is implemented in a distributed operations architecture taking advantage of the military value added from the synergies of Joint composite ISR, non-kinetic, and/or kinetic strike packages operating against networked target sets. Impacting these target sets can be achieved by "attacking" or influencing/shaping links, nodes or end points in the network to include: RF and terrestrial links, switches, routers, hubs, servers, IP addresses, cell phones, antennas, radars, microwave relays, SATCOM receivers, transceivers, etc. The three main pieces of the SPS CONOPS include: first, the use of SPS's sub-nodal analysis software to determine which nodes of the adversary's C4I network to engage or protect to achieve desired effects; second, the SPS's distributed operations architecture to tie together relevant planning cells (e.g. AOCs, JIOWC, etc.) so they can collaborate in developing and modeling the execution plan(s) needed to disrupt or monitor the required network aimpoints; and third, via SPS's combined network Common Operating Picture (COP), all involved "players" monitor the plan's execution, provide near-real time (NRT) updates to the status of on-going activities, provide continuous assessment/updates of the execution of the plan, and, within authorities (Rules of Engagement/ROEs), re-direct activities based on changing battlefield conditions. SPS is the technology that assists COCOMs and Components to exercise synchronized dynamic Command and Control (C2) of ISR, kinetic and non-kinetic Joint operations against conventional and terrorist threat networks. SPS provides decision makers and operators supporting airborne, shipborne, cyber and landbased C2ISR platforms and at supporting locations continuous Predictive Battlespace Awareness (PBA) of the information superiority fight. It also incorporates the machine-to-machine capabilities that rapidly synchronize the employment of kinetic weapons, non-kinetic weapons and ISR assets to target challenging threat systems responsively. SPS depicts a dynamic, multi-security-level picture of current and predicted threat network status, capitalizing on data inputs from sources such as NCCT and Integrated Broadcast Service (IBS). SPS provides a COP that can be tailored to support the integration of ISR, kinetic, and non-kinetic composite target packages supporting COCOM and Component specified information superiority effects and objectives.</p> <p>The NCCT program is categorized as 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.</p>						
B. Program Change Summary (\$ in Millions)		FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		7.348	7.367	7.458	-	7.458
Current President's Budget		7.192	7.367	7.413	-	7.413
Total Adjustments		-0.156	0.000	-0.045	-	-0.045
• 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		-0.156	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	-0.045	-	-0.045

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Exhibit R-2A, RDT&E Project 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 0305221F: Network-Centric Collaborative Targeting				PROJECT 675197: NCCT Core Technology			
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
675197: NCCT Core Technology	-	7.192	7.367	7.413	-	7.413	11.235	11.057	10.652	10.844	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
The FY 2014 NCCT President's Budget Request includes funding intended for the SUTER Program System (SPS) development and program management efforts.												
A. Mission Description and Budget Item Justification												
Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies to horizontally and vertically integrate ISR sensor systems within and across intelligence disciplines, for example signals intelligence to signals intelligence (SIGINT-SIGINT) or ground moving target indicator to signals intelligence (GMTI-SIGINT). NCCT software applications employ machine-to-machine (M2M) interfaces and Internet Protocol (IP) communications to coordinate sensor cross-cues and collection activities. NCCT correlation and fusion services ingest collection data to produce a single, composite track (geo-location and identification) for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (Operations Interfaces, Network Controller, Fusion Engines, Data Guard, Interface to Command and Control, and the Interface to Overhead Intelligence Operations), the migration of the NCCT technologies to emerging network centric technologies (e.g. Service Oriented Architectures (SOA) and web services), and satisfying DoD standards and Information Assurance requirements. Current NCCT-enabled systems include RC-135V/W RIVET JOINT, C-130H SENIOR SCOUT, EC-130H COMPASS CALL, DCGS SIGINT components, Falconer AOCs, FPED, VADER, Gorgon Stare, MC-12W LPA, and OIO. Any prospective NCCT-enabled Coalition, Joint, or Service system is required to fund its respective integration, unique core technology improvements/upgrades to support system integration, and the infrastructure to support the system's NCCT operational employment.												
NCCT Program Manager will promote and facilitate the planning, demonstration and prototyping of capabilities, systems, and platforms in the approved Capabilities Production Document (CPD) or designated by the Requirments Review Board (RB) toward the objective of inclusion and full participation in NCCT. On-going support to U.S. Navy funded demonstrations to evalute the utility of NCCT to their maritime mission, potential Air-Sea Battle applications, and NATO Cooperative Electronic Support Measures Operations (CESMO) Gateway demonstrations are also focus efforts for the NCCT Program.												
FY 2014 baseline funding is dedicated to initial integration of GMTI-SIGINT correlation capability being demonstrated in FY 2013 with operational systems, completion and initial fielding of the NCCT global services architecture, improvements in core technology security and Information Assurance, development of an NCCT network simulation capability targeted to support operator training/Distributed Mission Training/Distributed Mission Operations, and preliminary evaluation of additional systems and data types.												

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Exhibit R-2A, RDT&E Project 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 0305221F: Network-Centric Collaborative Targeting	PROJECT 675197: NCCT Core Technology		
NCCT's Core Technology program is categorized as Budget Activity 7, Operational System Development, because this budget activity includes development efforts to integrate systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
<b>Title:</b> Core Technology  <b>Description:</b> Accomplishments and planned efforts include development and update of NCCT Core Technology; technical support to users, and management activities  <b>FY 2012 Accomplishments:</b> Completed development of NCCT Core Tech Version 4.3 with initial SOA implementation, successful demonstration of NCCT-CESMO Gateway in Unified Vision 12, and completed initial development of GMTI-SIGINT correlator  <b>FY 2013 Plans:</b> Continuing development efforts of NCCT Core Tech Version 5.0 increments, live-fly demonstration of GMTI-SIGINT correlator and application of NCCT Core Tech in Air-Sea Battle scenarios in the Trident Warrior 13 venue  <b>FY 2014 Plans:</b> Will begin initial integration of GMTI-SIGINT correlation capability with operational systems, completion and intial fielding of the NCCT global services architecture, improvements in core technology security/Information Assurance, development of an NCCT network simulation capability targeted to support operator training/Distributed Mission Training/Distributed Mission Operations, and preliminary evaluation of additional systems and data types. Support NATO's Unified Vision 14 demonstration if funded		6.000	6.326	4.078
<b>Title:</b> PMA  <b>Description:</b> Accomplishes the System Program Office (SPO) management services and related activities associated with the development and enhancement/upgrading of NCCT Core Tech and technical support to users  <b>FY 2012 Accomplishments:</b> Continued SPO management services and activities associated with the develoment of NCCT Core Tech Version 4.3  <b>FY 2013 Plans:</b> Continues SPO management services and activities in the development of NCCT Core Tech Version 5.0  <b>FY 2014 Plans:</b> Will continue SPO efforts in management services and activities in the development of NCCT Core Tech Version 5.1		1.192	1.041	1.100
<b>Title:</b> SPS Software Development  <b>Description:</b> Planned efforts include development and fielding of of Suter Program software development		0.000	0.000	2.235

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0305221F: Network-Centric Collaborative Targeting				PROJECT 675197: NCCT Core Technology																					
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2012		FY 2013		FY 2014																	
FY 2014 Plans: Will develop latest Suter software versions with machine to machine interface capability, reducing time to pull information from other database sources, along with improved security management.																													
Accomplishments/Planned Programs Subtotals								7.192		7.367		7.413																	
C. Other Program Funding Summary (\$ in Millions)																													
Line Item		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total		FY 2015		FY 2016		FY 2017		FY 2018		Cost To Complete		Total Cost							
• OPAF: BA03: 832070: Intelligence Comm Equipment		0.000		0.000		2.900				2.900		3.000		3.000		3.100		3.100		Continuing		Continuing							
Remarks																													
FY 2014 reflects the increase in funding provided for operational support of Suter Program System (SPS) software, a cross-domain planning and execution capability providing a dynamic Near Real Time capability for planning, execution and assessment of networked targets within the Information Operations Battle Management (IOBM) realm.																													
D. Acquisition Strategy																													
The NCCT Core Technology capability is developed, maintained and sustained with baseline/incremental upgrades plus any quick reaction capabilities (QRC) developments acquired through the 645th Aeronautical System Group (BIG SAFARI System Program Office/SPO) in accordance with the BIG SAFARI Program Management Directive (PMD) and the BIG SAFARI Class Justification and Authorization (J&A) documents for acquisition of supplies and services. The procured supplies and services are supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management -- developmental engineering to system retirement ("cradle to grave" support concept). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging/evolving Combatant Commander requirements.																													
645th AESG, Wright Patterson AFB OH, manages the Cost Plus Fixed Fee (CPFF) contracts used to develop the NCCT Core Technology. 645 AESG will develop NCCT Core Tech software and common hardware for systems and platforms designated to field this ISR capability. Individual program management offices may contract directly with their prime contractors or through the 645 AESG for integration of this ISR capability on their respective systems and platforms. Current NCCT-enabled and programmed development systems include, but are not limited to, RC-135V/W RIVET JOINT, C-130H SENIOR SCOUT, EC-130H COMPASS CALL, MC-12W Liberty Project Aircraft, DCGS SIGINT components, FPED, AOCs, Gorgon Stare, VADER, P-3C, and OIO.																													
E. Performance Metrics																													
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.																													

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2014 Air Force</b>												<b>DATE:</b> April 2013			
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development						<b>R-1 ITEM NOMENCLATURE</b> PE 0305221F: Network-Centric Collaborative Targeting						<b>PROJECT</b> 675197: NCCT Core Technology			
<b>Product Development (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Core Technology	SS/CPFF	L-3ComCept:Rockwall, TX	-	5.567	Dec 2011	5.847	Dec 2012	3.788	Dec 2013	-		3.788	Continuing	Continuing	TBD
Suter Software Development	SS/CPFF	L-3ComCept:Rockwall, TX	-	0.000		0.000		2.235	Dec 2013	-		2.235	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	5.567		5.847		6.023		0.000		6.023			
<b>Support (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Security Certification/ Technical Engineering	SS/CPFF	Riverside Research Institute:Dayton, OH	-	0.433	Dec 2011	0.200	Dec 2012	0.290	Dec 2013	-		0.290	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	0.433		0.200		0.290		0.000		0.290			
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Subtotal</b>			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
<b>Management Services (\$ in Millions)</b>				<b>FY 2012</b>		<b>FY 2013</b>		<b>FY 2014 Base</b>		<b>FY 2014 OCO</b>		<b>FY 2014 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>All Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
PMA	C/FFP	Riverside Research Institute:Dayton, OH	-	1.192	Dec 2011	1.320	Dec 2012	1.100	Dec 2013	-		1.100	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	1.192		1.320		1.100		0.000		1.100			

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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 0305221F: Network-Centric Collaborative Targeting				PROJECT 675197: NCCT Core Technology				
	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	7.192		7.367		7.413		0.000		7.413			

Remarks

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

**DATE:** April 2013

**APPROPRIATION/BUDGET ACTIVITY**

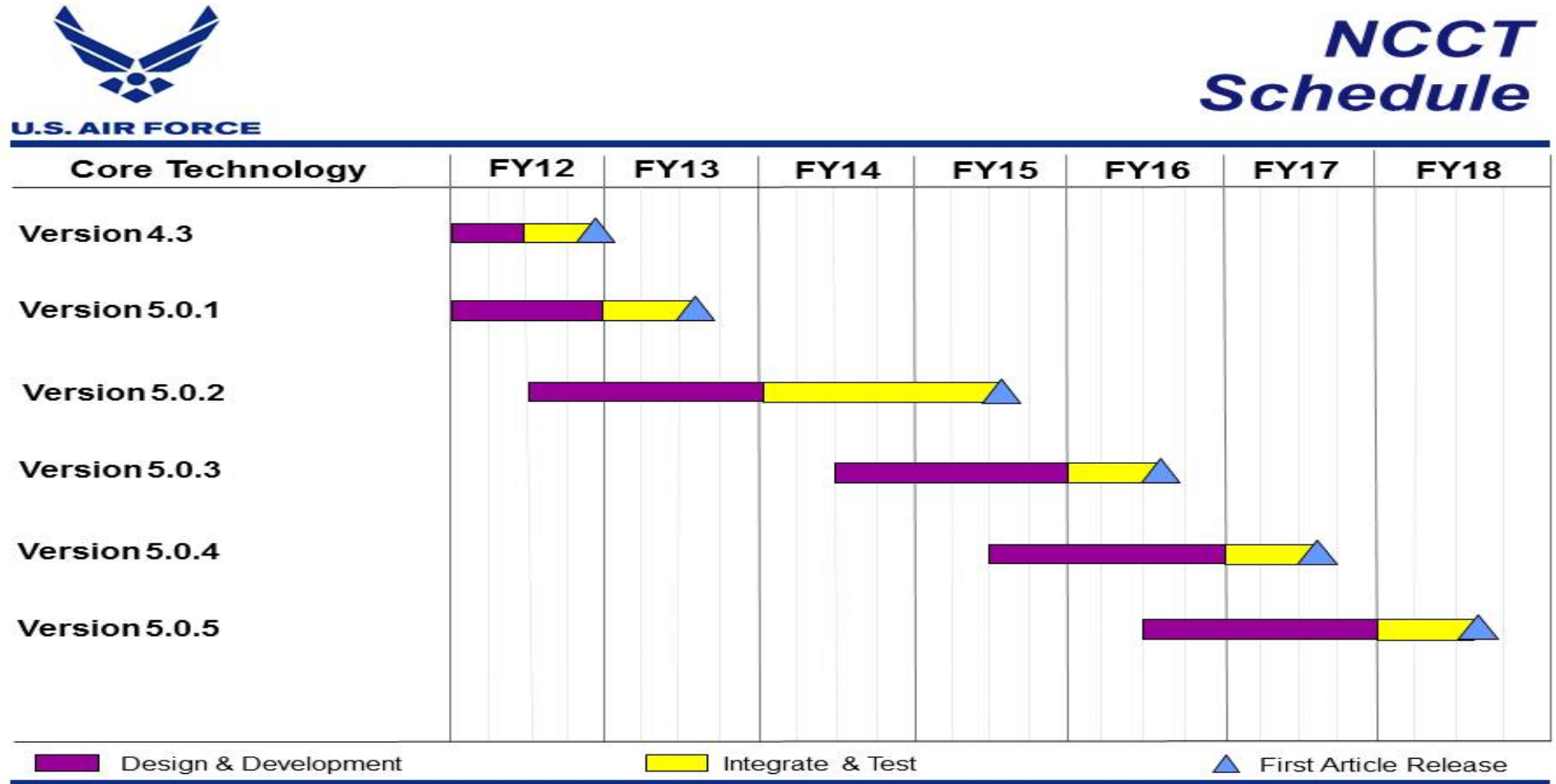
3600: *Research, Development, Test & Evaluation, Air Force*  
BA 7: *Operational Systems Development*

**R-1 ITEM NOMENCLATURE**

PE 0305221F: *Network-Centric Collaborative Targeting*

**PROJECT**

675197: *NCCT Core Technology*





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<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 0305221F: <i>Network-Centric Collaborative Targeting</i>	<b>PROJECT</b> 675197: <i>NCCT Core Technology</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Core Tech Version 4.3 Development, Integration & Test	1	2012	4	2012
Core Tech Version 5.0.1 Development, Integration & Test	1	2012	3	2013
Core Tech Version 5.0.2 Development, Integration & Test	3	2012	3	2015
Core Tech Version 5.0.3 Development, Integration & Test	3	2014	3	2016
Core Tech Version 5.0.4 Development, Integration & Test	3	2015	3	2017
Core Tech Version 5.0.5 Development, Integration & Test	3	2016	3	2018