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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS)</i>
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COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	89.867	120.670	76.315	-	76.315	82.727	43.034	17.337	18.117	Continuing	Continuing
675117: <i>Integration Development</i>	69.863	97.663	50.674	-	50.674	66.461	25.909	-	-	Continuing	Continuing
675218: <i>Applications Development</i>	13.809	15.894	18.547	-	18.547	8.948	9.667	9.822	10.138	Continuing	Continuing
675220: <i>Unit Level</i>	6.195	7.113	7.094	-	7.094	7.318	7.458	7.515	7.979	Continuing	Continuing

Note

AOC 10.2 is PRCP Program Number (PNO) N42.

A. Mission Description and Budget Item Justification

The Air and Space Operations Center Weapon System (AOC WS) program element provides development of Command and Control (C2) capabilities across the entire spectrum of air and space operations from the strategic to the tactical level. There are three funded projects within the AOC WS program element.

Integration Development supports the AOC WS, AN-USQ-163 Falconer, the senior element of the Theater Air Control System (TACS). AOC WS is the weapon system the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for planning, executing and assessing theater-wide air and space operations.

Applications Development provides worldwide operational capabilities, which include: air battle planning, management, and execution; operational level C2 of Integrated Air and Missile Defense (IAMD); as well as personnel recovery C2 in support of DoD, Coalition Partners, and other government agencies.

Unit Level (UL) supports two primary mission areas: UL Operations software systems provide both the scheduling and mission preparation activities at the wing and squadron level and the capabilities to report and track the success of each mission and influence decisions on future Air Battle Planning to refine future missions. UL Intel capabilities ensure detailed threat, target and imagery information readily available to mission commanders and aircrews planning current flight operations.

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.

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS)</i>
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B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	93.102	121.880	89.529	-	89.529
Current President's Budget	89.867	120.670	76.315	-	76.315
Total Adjustments	-3.235	-1.210	-13.214	-	-13.214
• Congressional General Reductions	-	-1.210			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-2.610	-			
• Other Adjustments	-0.625	-	-13.214	-	-13.214

Change Summary Explanation

FY11 Congressional General Reductions of 0.625M in Other Adjustments row.

FY12 Congressional General Reduction (FFRDC, Sec. 8023) of 0.011M.

FY13: Program rephased in accordance with USD AT&L Acquisition Decision Memorandum signed June 2010, which directed the Air Force to competitively award a contract for pre-EMD risk reduction efforts, and AOC 10.2 Acquisition Strategy signed in December 2010, which describes the acquisition, business, technical, and sustainment strategy for the AOC 10.2 modernization program. FY13 funding reduced in Integration Development, due to AOC 10.2 contract delays caused by award protests.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)				PROJECT 675117: Integration Development			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675117: Integration Development	69.863	97.663	50.674	-	50.674	66.461	25.909	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Air Operations Center Weapons System (AOC WS), AN/USQ-163 Falconer, the senior element of the Theater Air Control System (TACS), is the weapon system the Commander, Air Force Forces (COMAFFOR) provides the Combined/Joint Force Air Component Commander (C/JFACC) for planning, executing, and assessing theater-wide air and space operations. The C/JFACC provides air, space and cyber support to the Combined/Joint Forces Commander (C/JFC) by coordinating, deconflicting and assessing the progress of various weapon systems to advance the C/JFC's campaign. The AOC WS develops operations strategy and planning documents. The weapon system also disseminates tasking orders; executes day-to-day peacetime and combat air, space and cyber operations; and provides rapid reaction to immediate situations by exercising positive control of friendly forces.

The AOC Integration Development program keeps the AOC interoperable, certified, supportable, and compliant through the integration, testing and fielding of new capabilities and sustainment upgrades to the AOC WS baseline. The program supports mission requirements at Geographic and Functional AOCs, as well as Support and Manpower Augmentation units. To keep the AOC current and interoperable with the COCOMs, cyber requirements, and fifth generation weapon system/weapons, the AOC WS program plans to evolve the AOC through the integration and test of progressively improving capabilities. Integrated Air and Missile Defense (IAMD) establishes critical IAMD improvements in the AOC WS to maximize the allocation, planning, and execution of IAMD. With the completion of the Weapon System Integrator (WSI) contract in September 2011, the AOC Program Office established an organic team to conduct upgrade, integration and fielding activities as a bridge to transition AOC WSI activities to the Modernization contractor. These activities (as performed by the WSI, Government Organic Team and/or the Modernization contractor) ensure a system of systems engineering perspective, and include weapon system standardization activities as defined by AOC WS requirements documents. AOC WS 10.2 pre-Engineering and Manufacturing Development (EMD) activities, including a Systems Requirements Review (SRR) and a delta-Preliminary Design Review (delta-PDR), commences immediately after Modernization contract award. In accordance with AOC 10.2 Milestone Decision Authority (MDA) direction, the 10.2 Modernization program will conduct prototyping and Limited Early Install (LEI) activities prior to Milestone B (MS-B) to reduce integration risk and improve user feedback in the acquisition process. AOC WS 10.2 EMD activities include the design (i.e., Critical Design Review), development, integration of 3rd party capabilities, testing (Contractor in-plant system testing, DT&E, OT&E, Operational Assessment, Test Readiness Review, etc.) of the AOC 10.2 baseline, as well as build-up and fielding of the Help Desk (HD), Formal Training Unit (FTU) and Combined Air Operations Center-eXperimental (CAOC-X) suites.

Activities also include studies and analysis to support both current program planning and execution, as well as future program planning.

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

AOC 10.2 is PRCP Program Number (PNO) N42.

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force				DATE: February 2012				
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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: AOC 10.1				16.004	3.343	-	-	-
Description: AOC 10.1 continues development of currently fielded system to improve capabilities provided to C/JFACC. Improves interoperability with sister services and C/JFC, provides virtualization of systems and improves tasking order processing/dissemination.								
FY 2011 Accomplishments: The AOC 10.1 baseline was supported by both the AOC WS WSI (through end of FY2011) and the AOC WS program office organic team to ensure a system of systems engineering perspective and included weapon system standardization activities as defined by the AOC WS requirements documents, as well as system integration/test and C&A activities. Efforts (fielding of Recurring Events [RE] 9 & 10 and testing of RE-11) consisted of updating and adding capabilities, including virtualization to be used in the transition to 10.2. With the completion of the WSI contract in September 2011, the AOC Program Office ramped-up this organic team to conduct upgrade, integration, fielding, and sustainment activities as a bridge in the transition of AOC WSI activities to the modernization contractor. Conducted prototyping activities in order to reduce integration risks. This prototyping was focused on refining and demonstrating several critical design concepts to ensure technical feasibility and operational employment.								
FY 2012 Plans: The AOC 10.1 baseline is supported by the AOC WS Program Office organic team (transitioned from the AOC WS Weapon System Integrator September 2011), to ensure a system of systems engineering perspective, and include weapon system standardization activities as defined by the AOC WS requirements documents, as well as system integration/test and Certification & Accreditation (C&A) activities. Efforts (completion of RE-09 and RE-10 fielding and completion of integration and testing of RE-11, and fielding of RE-11) consist of updating and adding capabilities, including virtualization to be used in the transition to 10.2.								
FY 2013 Base Plans: N/A								
FY 2013 OCO Plans: N/A								
Title: Integrated Air and Missile Defense (IAMD)				-	17.762	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
<p>Description: C2 of IAMD improvements include dynamic planning/replanning and cross-Area of Responsibility (AOR) collaboration and coordination in the AOC WS to maximize the allocation, planning, and execution of IAMD.</p> <p>FY 2011 Accomplishments: N/A</p> <p>FY 2012 Plans: Establish critical C2 of IAMD improvements including dynamic planning/replanning and cross-AOR collaboration and coordination in the AOC WS to maximize the allocation, planning, and execution of IAMD. Additionally, includes but not limited to IAMD assessment of the Navy Maritime IAMD Planning System, Missile Defense Agency Command and Control Battle Management and Communications (C2BMC) or other systems that may be applicable to the improvement of IAMD within the AOC WS.</p> <p>FY 2013 Base Plans: N/A</p> <p>FY 2013 OCO Plans: N/A</p>								
<p>Title: AOC 10.2</p> <p>Description: AOC 10.2 WS infrastructure modernization and mission capability integration. Development of a robust, open, net-centric infrastructure with a services-oriented architecture.</p> <p>FY 2011 Accomplishments: Conducted full and open competition to select the AOC modernization contractor. Continued risk mitigation and prototype planning activities to support Milestone B decision in late FY12. Participated in joint service investments to demonstrate critical concepts to be adopted within the AOC modernization design.</p> <p>FY 2012 Plans: Perform pre-EMD contract activities in accordance with MDA direction, including a) System Requirement Review (SRR), b) contractor Integration and Test Lab (ITL) to support in-house risk reduction and prototyping, and c) design, prototyping, and Limited Early Install (LEI) activities to support risk reduction and operational feedback. Continue risk mitigation and prototype planning/execution activities to support Milestone B decision in FY13. These prototyping efforts focus on refining and demonstrating key AOC WS modernization design concepts to</p>				27.500	55.016	32.124	-	32.124

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B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
ensure their technical feasibility and operational employment. Participate in joint service investments to support the overall AOC modernization design. FY 2013 Base Plans: Will complete pre-EMD activities on the modernization contract to obtain MDA approved MS-B, including prototyping and LEI activities to support risk reduction and operational feedback. Will perform EMD contract activities (upon achievement of Milestone B), including the following: a) Critical Design Review, establishing the AOC 10.2 baseline, b) AOC 10.2 development and corresponding documentation, c) capability provider engagement, d) build-up and field the Help Desk (HD) and e) Integration and Test Lab (ITL) operation and management. Will continue risk mitigation and development/test execution activities to support upcoming Milestone C decision in FY15. Will participate in joint service investments to support the overall AOC modernization design and development. FY 2013 OCO Plans: N/A						
Title: Prototyping Description: Prototyping to support Modernization effort to reduce integration risk FY 2011 Accomplishments: Prototyping focused on refining and demonstrating several critical modernization design concepts to ensure their technical feasibility and operational employment. FY 2012 Plans: In support of the Modernization effort to reduce integration risk, multiple prototyping activities are still on-going. FY 2013 Base Plans: In support of the Modernization effort to reduce integration risk, multiple prototyping activities are still on-going. FY 2013 OCO Plans: N/A		6.897	2.700	0.500	-	0.500
Title: Training Description: Training FY 2011 Accomplishments:		4.362	3.559	2.900	-	2.900

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Training included, but not limited to: Type 1, Part Task Trainer, Distributed Mission Operations, Logistics Management Support and Conversion of Courseware to Computer Based Training. FY 2012 Plans: Training to include, but not limited to: Type 1, Part Task Trainer, Distributed Mission Operations, Logistics Management Support and Conversion of Courseware to Computer Based Training. N/A FY 2013 Base Plans: Training will include, but will not limited to: Type 1, Part Task Trainer, Distributed Mission Operations, Logistics Management Support and Conversion of Courseware to Computer Based Training. FY 2013 OCO Plans: N/A								
Title: Test and Evaluation Description: Test and Evaluation FY 2011 Accomplishments: Conducted Developmental Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E) on the AOC WS baseline through the Responsible Test Organization (RTO) and Operational Test Organization (OTO). Procured needed HW/SW for test articles. Provided operational testing through manpower and/or external operational feeds. Provided test training for operators and ensure Joint Interoperability Command (JITC) interoperability. FY 2012 Plans: Plan and implement comprehensive AOC WS modernization test strategy and corresponding documentation to support future contractor testing, DT&E, and OT&E on the AOC 10.2 baseline. FY 2013 Base Plans: Will implement and perform comprehensive modernization contractor testing (functional testing, security testing, etc.), DT&E, and OT&E on the AOC 10.2 baseline. Efforts will include test planning, conducting tests, documentation review and ensuring coordination with the Integrated Test Team (ITT), Responsible Test Organization (RTO) and the Operational Test Agency (OTA). FY 2013 OCO Plans:				2.800	3.433	3.800	-	3.800

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
N/A						
<p>Title: Systems Engineering</p> <p>Description: Systems Engineering</p> <p>FY 2011 Accomplishments: Systems engineering activities, included: requirements analysis, C2 integration studies, system development support and performance evaluation.</p> <p>FY 2012 Plans: System engineering activities include requirements analyses, C2 integration and architecture studies, risk reduction assessments, review of technical documentation (frame architectures, system/subsystem design documents, etc.), prototyping activities and feedback assessments (to include LEI), system design/development, integration & test, performance evaluation (10.2 System Requirements Review, 10.2 Intermediate Design Review, etc.), and technical expertise to support MS B. This effort ensures collaboration between the new modernization contractor and multiple AF, DoD, and commercial providers to allow for successful integration and out-year sustainment.</p> <p>FY 2013 Base Plans: System engineering activities will include requirements analyses, C2 integration and architecture studies, risk reduction assessments, review of technical documentation, prototyping activities and feedback assessments (to include LEI), system development, integration & test (System Test and Evaluation, etc.), performance evaluation (10.2 Critical Design Review, etc.), buildup and fielding of the HD, and technical expertise to support MS C. This effort will ensure collaboration between the new modernization contractor and multiple AF, DoD, and commercial providers to allow for successful integration and out-year sustainment.</p> <p>FY 2013 OCO Plans: N/A</p>		4.600	4.200	4.000	-	4.000
<p>Title: Program Management Support</p> <p>Description: Program Management Support</p> <p>FY 2011 Accomplishments:</p>		7.700	7.650	7.350	-	7.350

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS)</i>			PROJECT 675117: <i>Integration Development</i>					
B. Accomplishments/Planned Programs (\$ in Millions)											
						FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	
Program Support: Government contract oversight, technical expertise and program management office support associated with AOC WS activities. FY 2012 Plans: Program Support: Government contract oversight, technical expertise and program management office support associated with AOC WS activities. FY 2013 Base Plans: Program Support: Government contract oversight, technical expertise and program management office support associated with AOC WS activities. FY 2013 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals						69.863	97.663	50.674	-	50.674	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPAF, PE 0207410F, WSC 834530: <i>Air & Space Operations CTR-WPN SYS</i>	38.321	15.431	33.907	0.000	33.907	38.354	77.735	70.891	70.254	Continuing	Continuing
D. Acquisition Strategy											
AOC modernization contract was competitively awarded on 25 Oct 2011, but was delayed due to contract protests. The modernization contractor will continue to ensure system of systems perspective and systems engineering rigor to evolve AOC to a Net-Centric environment, compliant with DoD Services Oriented Architecture (SOA) standards. The acquisition strategy builds on existing capabilities using evolutionary acquisition to standardize, modernize and sustain the AOC.											
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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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)	PROJECT 675117: Integration Development

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations</i> <i>Center Weapon System (AOC WS)</i>	PROJECT 675117: <i>Integration Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Increment 10.1 Fielding	1	2011	4	2014
Increment 10.1 Tech Refresh	1	2011	4	2017
Increment 10.1 Engineering/Integration	1	2011	4	2012
IAMD Assessment	1	2011	1	2012
IAMD Procurement	2	2012	2	2012
IAMD Fielding	2	2012	4	2012
Increment 10.2 Prototyping	3	2012	4	2013
Increment 10.2 Limited Early Installation	3	2012	1	2014
Increment 10.2 System Requirement Review (SRR)	3	2012	3	2012
Increment 10.2 Delta Preliminary Design Review (PDR)	2	2013	2	2013
Increment 10.2 Milestone B	2	2013	2	2013
Increment 10.2 Critical Design Review (CDR)	4	2013	4	2013
Increment 10.2 Developmental Test/Operational Assessment (DT/OA)	2	2014	3	2014
Increment 10.2 IOT&E Sites 1 and 2	3	2014	2	2015
Increment 10.2 Milestone C	2	2015	2	2015
Increment 10.2 Initial Operational Capability (IOC)	3	2015	3	2015
Increment 10.2 Full Deployment Decision Review (FDDR)	4	2015	4	2015
Increment 10.2 Fielding	1	2016	4	2017

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)				PROJECT 675218: Applications Development			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675218: Applications Development	13.809	15.894	18.547	-	18.547	8.948	9.667	9.822	10.138	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This budget activity funds operational development necessary to acquire, modify, and sustain segments of Air Force's Command and Control (C2) capabilities and services. Applications Development provides worldwide operational capabilities for AF C2 in support of DoD, Coalition Partners, and other government agencies. These efforts focus on, but are not limited to, support of the Combined/Joint Force Air Component Commander (C/JFACC) that provides air, space and cyber support as presented to the Air Operations Center (AOC) and to other C2 systems. Applications Development activities include but are not limited to the following: 1) Command and Control Air Operations Suite (C2AOS) which develops, matures, fields, and maintains modular net-centric C2 applications for air battle planning, execution, and management functions; 2) Personnel Recovery Command and Control (PRC2) program which develops and delivers tools and services for planning and managing search and rescue efforts, and disseminating related information; and 3) Command and Control Information Services (C2IS) which creates web-enabled information services to expose air operations data using standardized schemas, such as those developed by the Air Operations Community of Interest (AO COI). The AO COI defines and develops air operations vocabulary and data models upon which net centric information services are built. Core activities include but are not limited to: 1) maintaining operational viability of the current Joint System of Record (TBMCS 1.1.3); 2) developing capabilities to support planning and replanning of the Air Battle Plan; generation and dissemination of the Air Tasking Order; defense planning and execution; targeting; weaponeering; personnel recovery tasks; other applications and services supporting C2 in the joint environment; 3) providing support to and participating in the AO COI to improve air operations information interoperability among all joint and coalition systems within the AO domain; 4) developing and assessing C2 air, space, intelligence, surveillance, reconnaissance, and cyber technologies that will improve joint and coalition warfighter interoperability, including participation in NATO and Coalition interoperability exercises, demonstrations, trials, and activities; 5) transitioning existing C2 capabilities to a net-centric environment; and 6) improving operational level C2 of Integrated Air and Missile Defense (IAMD). Applications Development efforts include evaluation and maturation of future air, space, and cyber C2 concepts identified through research, risk reduction, prototyping, current operations, exercises, and demonstrations.

Activities also include studies and analysis to support both current program planning and execution, as well as future program planning.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems currently 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 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: NATO	0.587	0.300	0.300	-	0.300

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B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
<p>Description: NATO and International Cooperation Research and Development. Efforts to develop air, space, intelligence, surveillance, reconnaissance and cyber Information Exchange Requirements and capabilities between U.S. and NATO / Coalition systems to promote interoperability.</p> <p>FY 2011 Accomplishments: Developed technologies to improve joint and coalition warfighter capability.</p> <p>FY 2012 Plans: Development of technologies to improve joint and coalition warfighter capability.</p> <p>FY 2013 Base Plans: Will continue development of technologies that will improve joint and coalition warfighter capability.</p> <p>FY 2013 OCO Plans: N/A</p>						
<p>Title: C2IS</p> <p>Description: Command and Control Information Services (C2IS) creates web-enabled information services to expose air operations data in TBMCS applications and systems using standardized schemas.</p> <p>FY 2011 Accomplishments: Continued Risk Reduction Efforts (RREs) for Airspace, Air Mission, and Air Request which support the development and refinement of program acquisition strategy.</p> <p>FY 2012 Plans: Continuing development of Airspace prototype; working toward limited fielding in FY13. Competing contract for Air Mission Management capabilities to include but not limited to dynamic planning and replanning, planning for network enabled weapons, and integrated air and missile defense and counter air operations.</p> <p>FY 2013 Base Plans: Will award contract for Air Mission Management capabilities. Will compete and award follow-on contract for the full development of Airspace capability. Will continue with follow-on development and releases of Air Mission Management capabilities, to include but not limited to dynamic planning and replanning (Capability Package</p>		8.071	10.434	8.368	-	8.368

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
-1), planning for network enabled weapons, and integrated air and missile defense (Capability Package -2) and counter air operations. FY 2013 OCO Plans: N/A							
Title: PRC2 Description: Personnel Recovery Command and Control (PRC2) develops and delivers tools and services for planning and managing search and rescue efforts, and disseminating related information. FY 2011 Accomplishments: Began development of Personnel Recovery Mission Software (PRMS) version 2.2 which provides mission management capabilities, captures data regarding events, and automates collection of information for incident reports. FY 2012 Plans: Continuing development and testing of PRMS version 2.2 which provides mission management capabilities, captures data regarding events, and automates collection of information for incident reports. Planning for development of PRMS version 2.3 which will provide improved mission management capabilities. FY 2013 Base Plans: Will complete testing of, and support fielding decision for, PRMS version 2.2 which provides mission management capabilities, captures data regarding events, and automates collection of information for incident reports. Will begin development of PRMS version 2.3 which will provide improved mission management capabilities. FY 2013 OCO Plans: N/A			1.116	2.068	2.170	-	2.170
Title: C2AOS Description: Command and Control Air Operations Suite (C2AOS) develops modular net-centric C2 applications for air battle planning, execution and management functions. FY 2011 Accomplishments:			4.035	3.092	7.709	-	7.709

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)				PROJECT 675218: Applications Development			
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	
Continued Risk Reduction Efforts (RREs) for Airspace, Air Mission, and Air Request which support the development and refinement of program acquisition strategy.											
FY 2012 Plans: Continuing development of Airspace prototype; working toward limited fielding in FY13. Competing contract for Air Mission Management capabilities to include but not limited to dynamic planning and replanning, planning for network enabled weapons, and integrated air and missile defense and counter air operations.											
FY 2013 Base Plans: Will award contract for Air Mission Management capabilities. Will compete and award follow-on contract for the full development of Airspace capability. Will continue with follow-on development and releases of Air Mission Management capabilities, to include dynamic planning and replanning (Capability Package -1), planning for network enabled weapons, and integrated air and missile defense (Capability Package -2) and counter air operations.											
FY 2013 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals						13.809	15.894	18.547	-	18.547	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPAF, PE 0207410F, WSC 834520: Theater Battle Management C2 System	1.118	1.113	1.206	0.000	1.206	1.240	1.261	1.270	1.279	Continuing	Continuing
D. Acquisition Strategy Projects will be awarded following full and open competition and will use an evolutionary acquisition strategy based on incremental development.											
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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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)	PROJECT 675218: Applications Development

PE 0207410F: Air and Space Operations Center Weapon System
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DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0207410F: *Air and Space Operations Center Weapon System (AOC WS)*

PROJECT

675218: *Applications Development*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
PRMS 2.2 Concept Development and Risk Reduction Activities	2	2011	4	2011
PRMS 2.2 Modification Decision	1	2012	1	2012
PRMS 2.2 Development	1	2012	3	2012
PRMS 2.2 Testing	3	2012	1	2013
PRMS 2.2 Deployment Decision	2	2013	2	2013
PRMS 2.2 Fielding	2	2013	3	2013
PRMS 2.3 Concept Development and Risk Reduction Activities	4	2012	3	2013
PRMS 2.3 Modification Decision	3	2013	3	2013
PRMS 2.3 Development	3	2013	1	2014
PRMS 2.3 Testing	1	2014	4	2014
PRMS 2.3 Deployment Decision	4	2014	4	2014
PRMS 2.3 Fielding	4	2014	2	2015
PRMS 2.4 Concept Development and Risk Reduction Activities	4	2014	3	2015
PRMS 2.4 Modification Decision	3	2015	3	2015
PRMS 2.4 Development	3	2015	1	2016
PRMS 2.4 Testing	1	2016	4	2016
PRMS 2.4 Deployment Decision	4	2016	4	2016
PRMS 2.4 Fielding	4	2016	2	2017
Airspace Concept Development and Risk Reduction Activities	1	2011	1	2012
Airspace Development	1	2012	3	2012
Airspace Testing	3	2012	1	2013
Airspace Ready for Integration into Host Environments	1	2013	1	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)		PROJECT 675218: Applications Development	
	Start		End	
Events	Quarter	Year	Quarter	Year
Airspace Integration into Host Environments	1	2013	3	2013
Airspace Fielding	3	2013	4	2013
C2AOS and C2IS Concept Development and Risk Reduction Activities	1	2011	1	2013
C2AOS and C2IS Milestone B	1	2013	1	2013
Air Mission Capability Package (CP) 1 Release (Rel) 1 Development	1	2013	3	2013
Air Mission CP 1 Rel 1 Testing	3	2013	4	2013
Air Mission CP 1 Rel 1 Ready for Integration into Host Environments	4	2013	4	2013
Air Mission CP 1 Rel 1 Integration into Host Environments	1	2014	2	2014
Air Mission CP 1 Rel 1 Fielding	3	2014	4	2014
Air Mission CP 1 Rel 2 Development	2	2013	1	2014
Air Mission CP 1 Rel 2 Testing	1	2014	2	2014
Air Mission CP 1 Rel 2 Ready for Integration into Host Environments	2	2014	2	2014
Air Mission CP 1 Rel 2 Integration into Host Environments	3	2014	1	2015
Air Mission CP 1 Rel 2 Fielding	1	2015	2	2015
Air Mission CP 1 Rel 3 Development	1	2014	2	2014
Air Mission CP 1 Rel 3 Testing	3	2014	4	2014
Air Mission CP 1 Rel 3 Ready for Integration into Host Environments	4	2014	4	2014
Air Mission CP 1 Rel 3 Integration into Host Environments	1	2015	3	2015
Air Mission CP 1 Rel 3 Fielding	3	2015	4	2015
Air Mission CP 1 Rel 4 Development	3	2014	1	2015
Air Mission CP 1 Rel 4 Testing	1	2015	2	2015
Air Mission CP 1 Rel 4 Ready for Integration into Host Environments	2	2015	2	2015
Air Mission CP 1 Rel 4 Integration into Host Environments	3	2015	1	2016
Air Mission CP 1 Rel 4 Fielding	1	2016	2	2016
Air Mission CP 2 Concept Development and Risk Reduction Activities	1	2012	1	2013

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations</i> <i>Center Weapon System (AOC WS)</i>	PROJECT 675218: <i>Applications Development</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
Air Mission CP 2 Development	2	2013	1	2014
Air Mission CP 2 Testing	1	2014	3	2014
Air Mission CP 2 Ready for Integration into Host Environments	3	2014	3	2014
Air Mission CP 2 Integration into Host Environments	3	2014	1	2015
Air Mission CP 2 Fielding	1	2015	2	2015
Air Mission CP 3 Concept Development and Risk Reduction Activities	4	2012	1	2014
Air Mission CP 3 Development	1	2014	1	2015
Air Mission CP 3 Testing	1	2015	2	2015
Air Mission CP 3 Ready for Integration into Host Environments	3	2015	3	2015
Air Mission CP 3 Integration into Host Environments	3	2015	4	2015
Air Mission CP 3 Fielding	1	2016	2	2016
Air Mission CP 4 Concept Development and Risk Reduction Activities	2	2013	3	2014
Air Mission CP 4 Development	3	2014	2	2015
Air Mission CP 4 Testing	3	2015	4	2015
Air Mission CP 4 Ready for Integration into Host Environments	1	2016	1	2016
Air Mission CP 4 Integration into Host Environments	1	2016	2	2016
Air Mission CP 4 Fielding	3	2016	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)				PROJECT 675220: Unit Level			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675220: Unit Level	6.195	7.113	7.094	-	7.094	7.318	7.458	7.515	7.979	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Unit Level / Unit Command and Control (UL/UC2) program develops, integrates, fields, and maintains an evolving sequence of increasing software capabilities that support the execution of the air battle plan and the air tasking order message received from the Air Operations Center (AOC). UL/UC2 operations software systems provide both the scheduling and mission preparation activities at the wing, group and squadron level, and the capabilities to report and track the success of each mission and influence decisions on future air battle planning. UL/UC2 intelligence capabilities ensure detailed threat, target and imagery information are made available to mission commanders and aircrews planning current flight operations. At many bases, UL/UC2 is fielded to the Wing Operations Center (WOC), the Maintenance Operations Center (MOC), the Squadron Operations Center (SOC), and many other work-centers.

Activities also include studies and analysis to support both current program planning and execution, as well as future program planning.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems currently 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 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: Software Development	3.731	4.466	4.320	-	4.320
Description: UL/UC2 operations and intelligence capabilities development/integration.					
FY 2011 Accomplishments: Tested UL/UC2 Ops Increment 1. Developed UL/UC2 Ops Increment 2 which provides new emergency response and incident management capabilities; new external interfaces to eliminate duplicate data entry; expanded situation awareness portlets; and improved tasking, management, and execution monitoring. Modernized the host hardware and operating system facilitates hosting the UL/UC2 in a regional virtual server environment.					
FY 2012 Plans: Completing development and starting testing of UL/UC2 Ops Increment 2. Planning UC2 Version 1.0 which provides migration of UL/UC2 into a service oriented infrastructure capable of meeting the Net-Ready key performance parameter; implements elements of the Installation Control Center (ICC) Enabling Concept,					

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APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)		PROJECT 675220: Unit Level				
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
combining unit level intelligence, operations and other functional areas into a single installation wide C2 capability; and continues to add external interfaces to eliminate duplicate data entry. FY 2013 Base Plans: Will complete testing of UL/UC2 Ops Increment 2. Will continue planning activities for UC2 Version 1.0 which will provide migration of UL/UC2 into a service oriented infrastructure capable of meeting the Net-Ready key performance parameter, will implement elements of the Installation Control Center (ICC) Enabling Concept, combining unit level intelligence, operations and other functional areas into a single installation wide C2 capability. Will write the UC2 Version 1.0 System Requirements Document and program office cost estimate. FY 2013 OCO Plans: N/A								
Title: Testing and Test Support Description: Testing and test support activities FY 2011 Accomplishments: Conducted testing and test support activities for UL/UC2 Ops Increments 1 and 2. FY 2012 Plans: Testing and test support activities for UL/UC2 Ops Increment 2. FY 2013 Base Plans: Will complete testing and test support activities for UL/UC2 Ops Increment 2. FY 2013 OCO Plans: N/A				0.740	0.776	0.714	-	0.714
Title: System Engineering Description: System Engineering FY 2011 Accomplishments: Conducted system engineering and technical support, including requirements analysis, for UL/UC2 Ops Increments 2. FY 2012 Plans:				0.640	0.710	0.885	-	0.885

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS)</i>			PROJECT 675220: <i>Unit Level</i>					
B. Accomplishments/Planned Programs (\$ in Millions)											
			FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total				
System engineering and technical support, including requirements analysis, for UL/UC2 Ops Increment 2 and UC2 Version 1.0. FY 2013 Base Plans: Will perform system engineering and technical support, including requirements analysis, for UC2 Version 1.0. FY 2013 OCO Plans: N/A											
Title: Program Support and Travel Description: Program support and travel FY 2011 Accomplishments: Conducted program support and travel for UL/UC2 Ops efforts. FY 2012 Plans: Program support and travel for UL/UC2 Ops and UC2 efforts. FY 2013 Base Plans: Will perform program support and travel for UL/UC2 Ops and UC2 efforts. FY 2013 OCO Plans: N/A			1.084	1.161	1.175	-	1.175				
Accomplishments/Planned Programs Subtotals			6.195	7.113	7.094	-	7.094				
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPAF, PE 0207410F, WSC 834520: <i>Theater Battle Management C2 System</i>	4.753	4.031	3.878	0.000	3.878	3.874	3.894	4.023	4.217	Continuing	Continuing
D. Acquisition Strategy Projects will be awarded following full and open competition and will use an evolutionary acquisition strategy based on incremental development.											

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations Center Weapon System (AOC WS)</i>	PROJECT 675220: <i>Unit Level</i>

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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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0207410F: Air and Space Operations Center Weapon System (AOC WS)	PROJECT 675220: Unit Level

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207410F: <i>Air and Space Operations</i> <i>Center Weapon System (AOC WS)</i>	PROJECT 675220: <i>Unit Level</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
UL/UC2 Ops Increment 1 Testing	1	2011	2	2011
UL/UC2 Ops Increment 1 Fielding Decision	2	2011	2	2011
UL/UC2 Ops Increment 1 Fielding	2	2011	2	2012
UL/UC2 Ops Increment 2 Development	1	2011	3	2012
UL/UC2 Ops Increment 2 Testing	3	2012	1	2013
UL/UC2 Ops Increment 2 Fielding Decision	2	2013	2	2013
UL/UC2 Ops Increment 2 Fielding	2	2013	4	2013
UC2 Version 1.0 Planning	4	2012	2	2014
UC2 Version 1.0 Development	2	2014	2	2015
UC2 Version 1.0 Testing	3	2015	4	2015
UC2 Version 1.0 Fielding Decision	1	2016	1	2016
UC2 Version 1.0 Fielding	1	2016	3	2016
UC2 Version 2.0 Planning	2	2015	1	2016
UC2 Version 2.0 Development	1	2016	1	2017
UC2 Version 2.0 Testing	1	2017	2	2017
UC2 Version 2.0 Fielding Decision	3	2017	3	2017
UC2 Version 2.0 Fielding	3	2017	4	2017