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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207605F: Wargaming and Simulation Centers							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	3.752	7.018	6.020	0.000	6.020	5.897	5.767	5.842	5.928	Continuing	Continuing
672888: Distributed Mission Operations Center (DMOC)	3.752	7.018	6.020	0.000	6.020	5.897	5.767	5.842	5.928	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>The United States Air Force (USAF) Distributed Mission Operations Center (DMOC) is an Air Combat Command, USAF Warfare Center, 505th Command and Control Wing (505th CCW) organization. It provides joint interoperability training and testing to geographically separated Live, Virtual, and Constructive (LVC) assets--real-world weapon systems, operator-in-the-loop (OITL), and computer-driven simulations. Responsibilities include: development and integration of Distributed Mission Operations (DMO) training and test events, networks, scenarios, and databases in support of service, joint, and coalition warfighters. Activities also include studies and analysis to support both current program planning and execution and future program planning. DMOC is the lead integrator for AF DMO and virtual contributions to the Joint National Training Capability (JNTC).</p> <p>Additionally, DMOC is the lead agency for Virtual Flag (VF) exercises and the DMO Multi-Level Security (MLS) / Cross-Domain Solution (CDS) testbed.</p> <p>This program is categorized as Budget Activity (BA) 7 because it provides for development of technology in support of Distributed Mission Operations.</p>											

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B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	3.860	7.018	0.000	0.000	0.000
Current President's Budget	3.752	7.018	6.020	0.000	6.020
Total Adjustments	-0.108	0.000	6.020	0.000	6.020
• 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	-0.108	0.000	6.020	0.000	6.020
Change Summary Explanation					
a. The FY 2010 budget of \$7.018M is a restoration in funding from a one-time FY09 reduction to pay for a higher Air Force priority (corporate Information Technology (IT) structure in another PE supporting Modeling and Simulation (M&S)). Historical R&D figures prior to FY09 were ~\$6.5M.					
b. The change between the FY 2011 President's previous and current budget is due to a reprogramming action to meet higher Air Force priorities.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0207605F: <i>Wargaming and Simulation Centers</i>				PROJECT 672888: <i>Distributed Mission Operations Center (DMOC)</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
672888: <i>Distributed Mission Operations Center (DMOC)</i>	3.752	7.018	6.020	0.000	6.020	5.897	5.767	5.842	5.928	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The Air Force's (AF) Distributed Mission Operations Center (DMOC), formerly known as the Theater Aerospace Command and Control Simulation Facility (TACCSF), develops and maintains a persistent tactical-level Joint Synthetic Battlespace-AF (JSB-AF) for training, mission rehearsal, testing and evaluation, range integration, experimentation and decision support for the Combat Aerospace Forces (CAF).</p> <p>The DMOC is responsible for integrating DMO events, scenarios, and databases. In partnership with Electronic Systems Command (ESC), DMOC develops or acquires technologies that permit the effective integration of, and scheduling for, resources that comprise the JSB-AF. These include, but are not limited to, high-fidelity aircraft simulators and sensors, realistic threat replications, detailed weapons and weather models, and data/voice connectivity to distributed resources. DMOC develops and archives realistic theater level scenarios, and makes them available to all Department of Defense (DoD) organizations. DMOC is the lead agent for developing Air Combat Command (ACC) inter-team Distributed Mission Training (DMT) into the over-arching inter-team DMO exercises or mission rehearsals. DMOC hosts a cadre of white force controllers trained in both friendly and adversary tactics, and makes their services available to other organizations. DMOC links the tactical-level JSB-AF to operational-level and strategic-level simulations to explore and exercise the full spectrum of conflict. DMOC makes its JSB-AF available to other commands, services, and nations seeking to improve programs or processes through the use of synthetic means.</p> <p>These programs are in Budget Activity 7 - Operations System Development, because they continue the development and upgrades of the Air Force's premier warfighter-in-the-loop simulation facility.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
MAJOR THRUST: Continue to maintain core structure to support users conducting RDT&E, mission rehearsal, and concepts of operation development						2.593	4.528	3.848	0.000	3.848	

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: In FY 2009: Further developed NGTS capabilities to facilitate LVC interoperability between Next Generation Threat System (NGTS), Experimental Common Immersive Theater Environment (XCITE) software, and live range assets. Developed Intelligence, Surveillance and Reconnaissance/Battle Damage Assessment (ISR/BDA) capabilities to enhance Virtual Flag (VF) realism. Developed other capabilities to refine integration of different weapons systems in VF.						
FY 2010 Plans: In FY 2010: Futher develop NGTS core architecture to improve system performance and create sustainable baseline. Develop Combat Air Force (CAF) DMO, Joint, and International (Modeling and Simulation) M&S standards. Develop Combat Survivor Evader Locator for integration into VF. Develop other capabilities to integrate systems into VF and monitor system performance.						
FY 2011 Base Plans: In FY 2011: Will develop Red and Blue Air simulations and integrate ISR and Combat Air Support (CAS) simulators.						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Continue to support requirements definition, test support, scenario development, analysis, systems engineering support, and Verification, Validation, and Accreditation (VV&A) of core...		0.500	1.530	1.220	0.000	1.220
FY 2009 Accomplishments: In FY 2009: Further developed NGTS capabilities to facilitate LVC interoperability between NGTS, XCITE, and live range assets. Developed ISR/BDA capabilities to enhance VF realism. Developed other capabilities to refine integration of different weapons systems in VF.						

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY 2010: Futher develop NGTS core architecture to improve system performance and create sustainable baseline. Develop CAF DMO, Joint, and International M&S standards. Develop Combat Survivor Evader Locator for integration into VF. Develop other capabilities to integrate systems into VF and monitor system performance.								
FY 2011 Base Plans: In FY 2011: Will develop Red and Blue Air simulations and integrate ISR and CAS simulators.								
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.								
MAJOR THRUST: Communications connectivity between DMOC and various other operational and modeling & simulation (M&S) facilities				0.200	0.428	0.425	0.000	0.425
FY 2009 Accomplishments: In FY 2009: Further developed NGTS capabilities to facilitate LVC interoperability between NGTS, XCITE, and live range assets. Developed ISR/BDA capabilites to enhance VF realism. Developed other capabilities to refine integration of different weapons systems in VF.								
FY 2010 Plans: In FY 2010: Futher develop NGTS core architecture to improve system performance and create sustainable baseline. Develop CAF DMO, Joint, and International M&S standards. Develop Combat Survivor Evader Locator for integration into VF. Develop other capabilities to integrate systems into VF and monitor system performance.								
FY 2011 Base Plans: In FY 2011: Will develop Red and Blue Air simulations and integrate ISR and CAS simulators.								

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Program Management Office (PMO) support FY 2009 Accomplishments: In FY 2009: Provided PMO support in the development of NGTS capabilities to facilitate LVC interoperability between NGTS, XCITE, and live range assets. Developed ISR/BDA capabilities to enhance VF realism. FY 2010 Plans: In FY 2010: Provide PMO support in the development of NGTS core architecture to improve system performance and create sustainable baseline. FY 2011 Base Plans: In FY 2011: Will provide PMO support in the development of Red and Blue Air simulations and integrate ISR and CAS simulators. FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.459	0.532	0.527	0.000	0.527
Accomplishments/Planned Programs Subtotals		3.752	7.018	6.020	0.000	6.020

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C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (4906): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D. Acquisition Strategy

The Distributed Mission Operations Center supports AF DMO and the Joint National Training Capability (JNTC) by awarding full and open contracts that manage the acquisition, development, testing, and integration of DMO standards, training, model and simulation, multi-level security testbed, and exercises on Air Force and Joint DMO networks.

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-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
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Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mission Rehearsals/ Concept of Operations (Brief/Debrief and Mission Replay tools, Rapid Scenario Generation, Next Generation Threat System (NGTS) Dev, DMO "Flag" events)	C/CPFF	Lockheed Martin 705 Combat Training Squadron (CTS), Kirtland AF...	2.593	4.528	Oct 2009	3.100	Oct 2010	0.000		3.100	Continuing	Continuing	Continuing
Verify, Validate, and Accredit Core Systems (Common Battlespace Architecture, DMO Standards, MLS/CDS)	C/CPFF	Lockheed Martin 705 CTS, Kirtland AFB, NM	0.000	0.694	Oct 2009	1.215	Oct 2010	0.000		1.215	Continuing	Continuing	Continuing
Communications Connectivity (DMO Architecture, Joint National Training Capability (JNTC) Warfighter Capability, LVC and Information Operations (IO) Range Integration)	C/CPFF	Lockheed Martin 705 CTS, Kirtland AFB, NM	0.200	0.408	Oct 2009	0.428	Oct 2010	0.000		0.428	Continuing	Continuing	Continuing
Subtotal			2.793	5.630		4.743		0.000		4.743			
Remarks													

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical support for systems engineering and exercise operations	C/CPAF	Scientific Research 705 CTS, Kirtland AFB, NM	0.500	0.428	Apr 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
Technical support for systems engineering and exercise operations (1)	C/CPFF	L-3 Communications Government Services 705 CTS, Kirtland AFB, NM	0.000	0.428	Apr 2010	0.750	Apr 2011	0.000		0.750	Continuing	Continuing	Continuing
Subtotal			0.500	0.856		0.750		0.000		0.750			
Remarks													
Management Services (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Office Support	C/TBD	705 CTS Kirtland AFB, NM	0.459	0.532	Oct 2009	0.527	Oct 2010	0.000		0.527	Continuing	Continuing	Continuing
Subtotal			0.459	0.532		0.527		0.000		0.527			
Remarks													

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<div style="display: flex; justify-content: space-between;"> <div style="width: 25%;"></div> <div style="width: 20%; text-align: center;"> Total Prior Years Cost </div> <div style="width: 10%; text-align: center;"> FY 2010 </div> <div style="width: 10%; text-align: center;"> FY 2011 Base </div> <div style="width: 10%; text-align: center;"> FY 2011 OCO </div> <div style="width: 10%; text-align: center;"> FY 2011 Total </div> <div style="width: 10%; text-align: center;"> Cost To Complete </div> <div style="width: 10%; text-align: center;"> Total Cost </div> <div style="width: 10%; text-align: center;"> Target Value of Contract </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 25%;">Project Cost Totals</div> <div style="width: 20%; text-align: center;">3.752</div> <div style="width: 10%; text-align: center;">7.018</div> <div style="width: 10%; text-align: center;"></div> <div style="width: 10%; text-align: center;">6.020</div> <div style="width: 10%; text-align: center;">0.000</div> <div style="width: 10%; text-align: center;">6.020</div> <div style="width: 10%; text-align: center;"></div> <div style="width: 10%; text-align: center;"></div> </div>									
Remarks Total Prior Years Cost may include only FY 2009 data.									

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

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

R-1 ITEM NOMENCLATURE

PE 0207605F: Wargaming and Simulation Centers

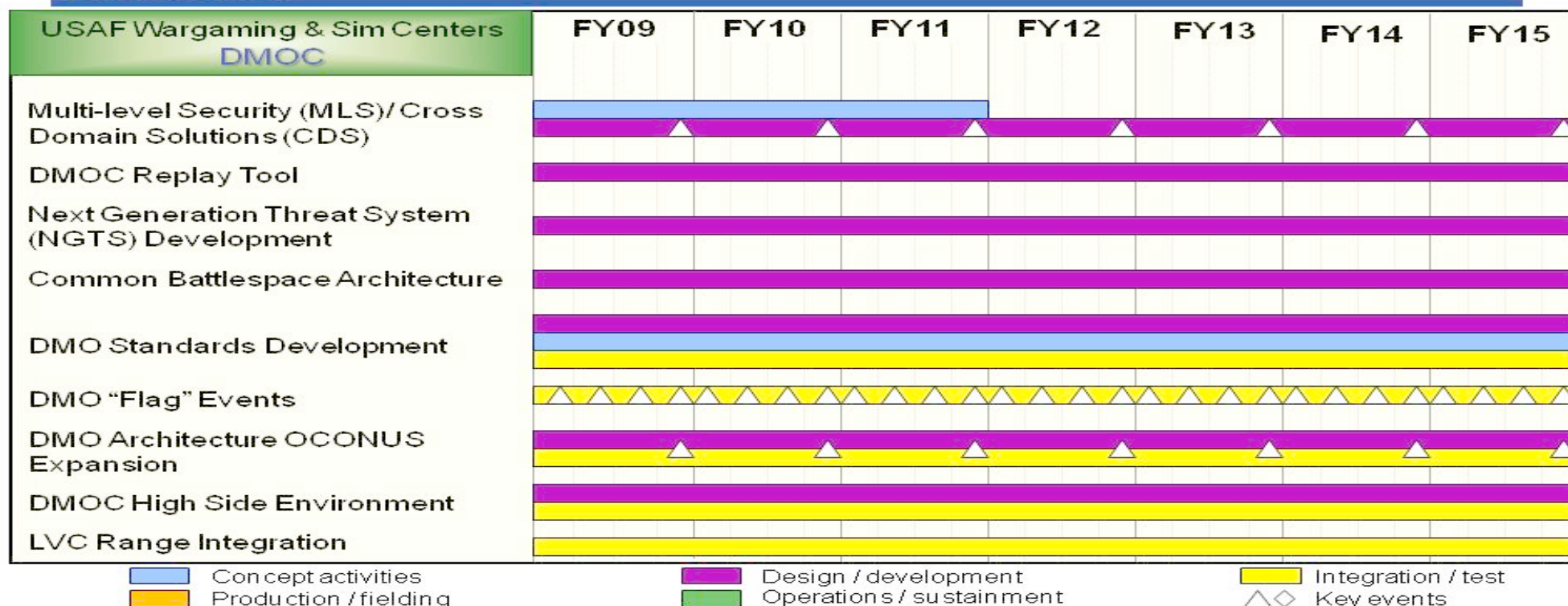
PROJECT

672888: Distributed Mission Operations Center (DMOC)



PE 27605 – Wargaming & Sim Centers Distributed Mission Operations Center(672888) Schedule

U.S. AIR FORCE



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Cross-Domain Solutions (CDS)/Multi-Level Security (MLS)	1	2009	4	2011
DMOC Replay Tool	1	2009	4	2011
Next Generation Threat System Dev	1	2009	4	2011
Common Battlespace Architecture	1	2009	4	2011
DMO Standards Development	1	2009	4	2011
DMO "Flag" Events	1	2009	4	2011
DMO Architecture OCONUS Expansion	1	2009	4	2011
DMOC High Side Environment	1	2009	4	2011
LVC Range Integration	1	2009	4	2011

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