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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2017 Air Force **Date:** February 2016

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0207412F <i>I Control and Reporting Center (CRC)</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.557	13.292	0.000	13.292	2.443	0.010	9.480	9.649	Continuing	Continuing
67485L: <i>Theater Air Control System Imp (TACSI)</i>	-	0.000	0.557	13.292	0.000	13.292	2.443	0.010	9.480	9.649	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**  
This program, BA 07 PE 0207412F, project 67485L, OM Mod Increment 1, is a new start.

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

The Control and Reporting Center (CRC) program element provides for development and integration of new capabilities, upgrades, and modifications including those required to maintain capability due to replacement of diminishing manufacturing sources. The CRC is a mobile, ground-based theater air control system (TACS) surveillance and battle management command and control (BMC2) element. It consists of facilities, equipment, and people. It is a customizable, modular, transportable, and persistent weapon system employed at the tactical level to support air and surface operations. The CRC projects include development of Theater Air Control Systems Improvement (TACSI) capabilities. These efforts include, but are not limited to, the development and modification of the AN/TYQ-23A(V)1 Operations Module (OM), the AN/TRC-213/214 Remote Radio Secure Voice System (RRSVS) and the Joint Tactical Information Distribution System (JTIDS) Module (JM) Link 16 Upgrade.

AN/TYQ-23A(V)1 OM is a low density/high demand (LD/HD), rapidly deployable, ground-based C2 asset. This automated, computer-based information system provides operators the real-time battlespace picture necessary to plan, direct, and control tactical air operations and airspace management tasks. In order to meet warfighter requirements, incremental updates are required. For example, these improvements will add Secret Internet Protocol Router Network (SIPRnet), Mode 5 integration, improved data links, and Multiple Source Correlator Tracker upgrades. Modifications will be required to integrate with the Three Dimensional Expeditionary Long Range Radar (3DELRR). AN/TRC-213/214 RRSVS is a voice radio and OM-interface unit. The RRSVS allows real-time, secure voice communications between aircraft and battle management C2 operators in the CRC. Everything over Internet Protocol (EoIP), which is used for external communications, Mobile User Objective System (MUOS) and Integrated Waveform will also be integrated into a future RRSVS upgrade. JM Link 16 Upgrade will provide crypto modernization and will meet the FAA mandated frequency re-mapping requirement.

Activities also include studies and analysis supporting current and future program planning and future development of open system architecture requirements.

This program is in Budget Activity 7, Operational System Development. 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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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>
Previous President's Budget	0.000	0.559	5.433	0.000	5.433
Current President's Budget	0.000	0.557	13.292	0.000	13.292
Total Adjustments	0.000	-0.002	7.859	0.000	7.859
• Congressional General Reductions	0.000	-0.002			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	7.859	0.000	7.859

**Change Summary Explanation**

This program, BA 07 PE 0207412F, project 67485L, OM Mod Increment 1, is a new start. Increased funding in FY17 is for OM Mod Increment 1 to cover the new start.

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>FY 2017</b>
<p><b>Title:</b> JM Link 16 Upgrade</p> <p><b>Description:</b> JM Link 16 Upgrade will provide for crypto modernization and will meet the DoD mandated frequency re-mapping requirement.</p> <p><b>FY 2015 Accomplishments:</b> N/A</p> <p><b>FY 2016 Plans:</b> Develop and support efforts of the Joint Tactical Information Distribution System (JTIDS) upgrade.</p> <p><b>FY 2017 Plans:</b> Will continue to develop and support efforts of the JM Link 16 Upgrade</p>	0.000	0.557	5.433
<p><b>Title:</b> OM Mod Increment 1</p> <p><b>Description:</b> OM Mod Increment 1 upgrades will meet user requirements to replace the Battle Control Three (BC3) CRC system in the AOR which will require Secret Internet Protocol Router Network (SIPRnet)</p> <p><b>FY 2015 Accomplishments:</b></p>	0.000	0.000	7.859

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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0207412F I <i>Control and Reporting Center (CRC)</i>
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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2015	FY 2016	FY 2017
N/A			
<b>FY 2016 Plans:</b> N/A			
<b>FY 2017 Plans:</b> Will integrate and test CRC future baseline organic radar (3DELRR).			
<b>Accomplishments/Planned Programs Subtotals</b>	0.000	0.557	13.292

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• OPAF: BA03: Line Item # 833040: <i>Theater Air Control Sys Improvements</i>	50.033	22.710	1.163	0.000	1.163	14.413	12.134	2.872	2.922	Continuing	Continuing

**Remarks**

**E. Acquisition Strategy**

The CRC program is utilizing evolutionary development to modernize and further advance current and future battlespace awareness and tactical battle management command and control capabilities. A variety of contract types will be utilized depending on type of effort. Management strategy relies on Air Force Program Executive Officer for Battle Management (AFPEO BM) as the PEO; and Air Force Life Cycle Management Center (AFLCMC) as the Contracting Authority. In 4th quarter of FY 2016 the entire program including SPM responsibilities transitions to HBZ at Hill AFB, Utah.

**F. 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 2017 Air Force												Date: February 2016			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 7				PE 0207412F / Control and Reporting Center (CRC)				67485L / Theater Air Control System Imp (TACSI)							
Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JM Link 16 Upgrade	TBD	TBD : TBD	-	0.000	Mar 2016	0.208		5.433	Jan 2017	0.000		5.433	Continuing	Continuing	-
OM Mod Increment 1	TBD	TBD : TBD	-	0.000		0.000		7.071	Jan 2017	0.000		7.071	Continuing	Continuing	-
<b>Subtotal</b>			-	0.000		0.208		12.504		0.000		12.504	-	-	-
Support (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
<b>Subtotal</b>			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Various : Various, MA	-	0.000		0.150	May 2016	0.488	Jun 2017	0.000		0.488	Continuing	Continuing	-
<b>Subtotal</b>			-	0.000		0.150		0.488		0.000		0.488	-	-	-
Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 Management Administration	Various	Various : Hanscom, MA	-	0.000		0.199	Feb 2016	0.000		0.000		0.000	Continuing	Continuing	-
Program Management Administration - Hill AFB	TBD	TBD : Hill AFB, UT	-	0.000		0.000		0.300	Jan 2017	0.000		0.300	Continuing	Continuing	-
<b>Subtotal</b>			-	0.000		0.199		0.300		0.000		0.300	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2017 Air Force								<b>Date:</b> February 2016			
<b>Appropriation/Budget Activity</b> 3600 / 7			<b>R-1 Program Element (Number/Name)</b> PE 0207412F / <i>Control and Reporting Center (CRC)</i>				<b>Project (Number/Name)</b> 67485L / <i>Theater Air Control System Imp (TACSI)</i>				
	<b>Prior Years</b>	<b>FY 2015</b>	<b>FY 2016</b>		<b>FY 2017 Base</b>	<b>FY 2017 OCO</b>	<b>FY 2017 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>	-	0.000	0.557		13.292	0.000	13.292	-	-	-	

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2017 Air Force</b>		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207412F / <i>Control and Reporting Center (CRC)</i>	<b>Project (Number/Name)</b> 67485L / <i>Theater Air Control System Imp (TACSI)</i>

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JM Link 16 Upgrade																												
OM Mod Increment 1																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2017 Air Force		<b>Date:</b> February 2016
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207412F / <i>Control and Reporting Center (CRC)</i>	<b>Project (Number/Name)</b> 67485L / <i>Theater Air Control System Imp (TACSI)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
JM Link 16 Upgrade	4	2016	2	2018
OM Mod Increment 1	2	2017	1	2020

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