

# 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 0207412F: Control and Reporting Center (CRC)							
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	-	3.288	8.653	7.029	-	7.029	0.559	0.569	0.579	0.589	Continuing	Continuing
67485L: Theater Air Control System Imp (TACSI)	-	3.288	8.653	7.029	-	7.029	0.559	0.569	0.579	0.589	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		
MDAP/MAIS Code(s): 393												
<sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date												
Note												
A. Mission Description and Budget Item Justification												
<p>The Control and Reporting Center (CRC) program element provides development and modernization of mobile ground-based capabilities. The CRC is a 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 tailorable, modular, transportable, sustainable, 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. Currently USAF CRCs are fully employed in Operations ENDURING FREEDOM, and NOBLE EAGLE. The TACSI project develops and modernizes software and hardware to ensure the CRC remains a robust BMC2 element. These efforts include, but are not limited to, the development and modernization of the AN/TYQ-23 Operations Module (OM) and the AN/TRC-215 Remote Radio Secure Voice System (RRSVS).</p>												
<p>AN/TYQ-23 OM is a low source/high demand (LS/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. AN/TRC-215 RRSVS is a mobile, vehicle-mounted voice radio and OM-interface unit. The RRSVS allows real-time, secure voice communication between aircraft operating in the battlespace and ground-based battle management C2 operators located in the OM of the CRC. Activities to include: studies and analysis supporting current and future program planning/future development open system architecture requirements.</p>												
<p>OMs and RRSVS units are currently deployed world-wide in support of ongoing operations.</p>												
<p>Activities also include studies and analysis supporting current and future program planning and future development of open system architecture requirements.</p>												
<p>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.</p>												

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B. Program Change Summary (\$ in Millions)		FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		3.387	8.653	7.029	-	7.029
Current President's Budget		3.288	8.653	7.029	-	7.029
Total Adjustments		-0.099	0.000	0.000	-	0.000
• 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		-0.099	0.000			
• Other Adjustments		0.000	0.000	0.000	-	0.000
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2012	FY 2013	FY 2014
Title: Modernization Efforts to CRC				0.887	6.408	5.553
Description: Modernization efforts to CRC to include: advanced planning, Modular Control System (MCS) upgrades, enhanced radio/radar/data link remoting, integrating upgrades into CRC, AN/TYQ-23 OM Modification, and other future BMC2 modernization efforts exploring open a architecture applications and capabilities.						
FY 2012 Accomplishments: Performed development & testing of software upgrades to RRSVS; and initial development and risk mitigation analysis of AN/ TYQ-23 OM Modification.						
FY 2013 Plans: Continuing and will complete development & testing of software upgrades to RRSVS and continuing development, testing & risk mitigation analysis of AN/TYQ-23 OM Modification.						
FY 2014 Plans: Will complete development and begin integration/testing of AN/TYQ-23 OM Modification.						
Title: Test Planning				0.405	0.629	0.955
Description: Continue test and evaluation support						
FY 2012 Accomplishments:						

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>
<p>Performed test and evaluation to include, but not limited to: testing changes of software, hardware and transport technology upgrades, and integration and mobility testing for RRSVS; test activities for radio interface with TYQ-23, and AN/TYQ-23 OM Modernization.</p> <p><b>FY 2013 Plans:</b> Performing test and evaluation to include, but not limited to: prototype and feasibility testing and developmental testing of changes associated with software, hardware and transport technology upgrades for RRSVS; and test planning for AN/TYQ-23 OM Modification.</p> <p><b>FY 2014 Plans:</b> Will perform test, integration and evaluation to include, but not limited to, prototype and feasibility testing of changes associated with software, hardware and transport technology upgrades for AN/TYQ-23 OM Modification with CRC legacy systems.</p>				
<p><b>Title:</b> Sys Eng/Tech Support</p> <p><b>Description:</b> Continue Systems Engineering/Technical Support</p> <p><b>FY 2012 Accomplishments:</b> Performed Systems Engineering/Technical Support.</p> <p><b>FY 2013 Plans:</b> Performing Systems Engineering/Technical Support.</p> <p><b>FY 2014 Plans:</b> Will perform Systems Engineering/Technical Support.</p>		0.668	0.630	0.321
<p><b>Title:</b> Program Management and Administration</p> <p><b>Description:</b> Continue Management Services</p> <p><b>FY 2012 Accomplishments:</b> Continued Management Services</p> <p><b>FY 2013 Plans:</b> Continuing Management Services</p> <p><b>FY 2014 Plans:</b> Will continue Management Services</p>		1.328	0.986	0.200
<b>Accomplishments/Planned Programs Subtotals</b>		3.288	8.653	7.029

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<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u> <u>Base</u>	<u>FY 2014</u> <u>OCO</u>	<u>FY 2014</u> <u>Total</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• OPAF: BA07: Line Item # 833040: <i>Control and Reporting Center</i>	22.740	23.483	19.292		19.292	39.852	21.562	10.325	2.510	Continuing	Continuing
<b>Remarks</b>											
<b>E. Acquisition Strategy</b> The CRC program is utilizing evolutionary development to modernize and further advance current and future battlespace awareness and tactical BMC2 capabilities. A variety of contract types will be utilized depending on type of effort. Contracting strategy will include but is not limited to open competition, sole source contracts, and interdepartmental purchase requests.											
<b>F. Performance Metrics</b> 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 0207412F: Control and Reporting Center (CRC)						<b>PROJECT</b> 67485L: Theater Air Control System Imp (TACSI)			
<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>
Remote Radio Spiral 3	MIPR	AFRL:Rome, NY	-	0.450	Dec 2011	0.000		0.000		-		0.000	0.000	0.450	1.550
Remote Radio Spiral 3.2	MIPR	SPAWARSYSCEN Atlantic:North Charleston, SC	-	0.246	Oct 2012	0.400	Dec 2012	0.000		-		0.000	0.000	0.646	4.402
C2 Engine Upgrade	MIPR	SMDC:REDSTONE ARSENAL, AL	-	0.191	Mar 2013	6.008	Mar 2013	5.553	Oct 2013	-		5.553	Continuing	Continuing	
<b>Subtotal</b>			0.000	0.887		6.408		5.553		0.000		5.553			
<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>
Technical Support	Various	Various:Various,	-	0.668	Oct 2011	0.630	Oct 2012	0.321	Oct 2012	-		0.321	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	0.668		0.630		0.321		0.000		0.321			
<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>
46th Test Wing/Other Test Activity	Various	Various:Various,	-	0.405	Dec 2011	0.629	Dec 2012	0.955	Dec 2013	-		0.955	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	0.405		0.629		0.955		0.000		0.955			
<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>
Program Management & Administration	Various	Various:Various,	-	1.328	Oct 2011	0.986	Oct 2012	0.200	Oct 2013	-		0.200	Continuing	Continuing	TBD
<b>Subtotal</b>			0.000	1.328		0.986		0.200		0.000		0.200			

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	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	3.288		8.653		7.029		0.000		7.029			

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 0207412F: Control and Reporting  
Center (CRC)

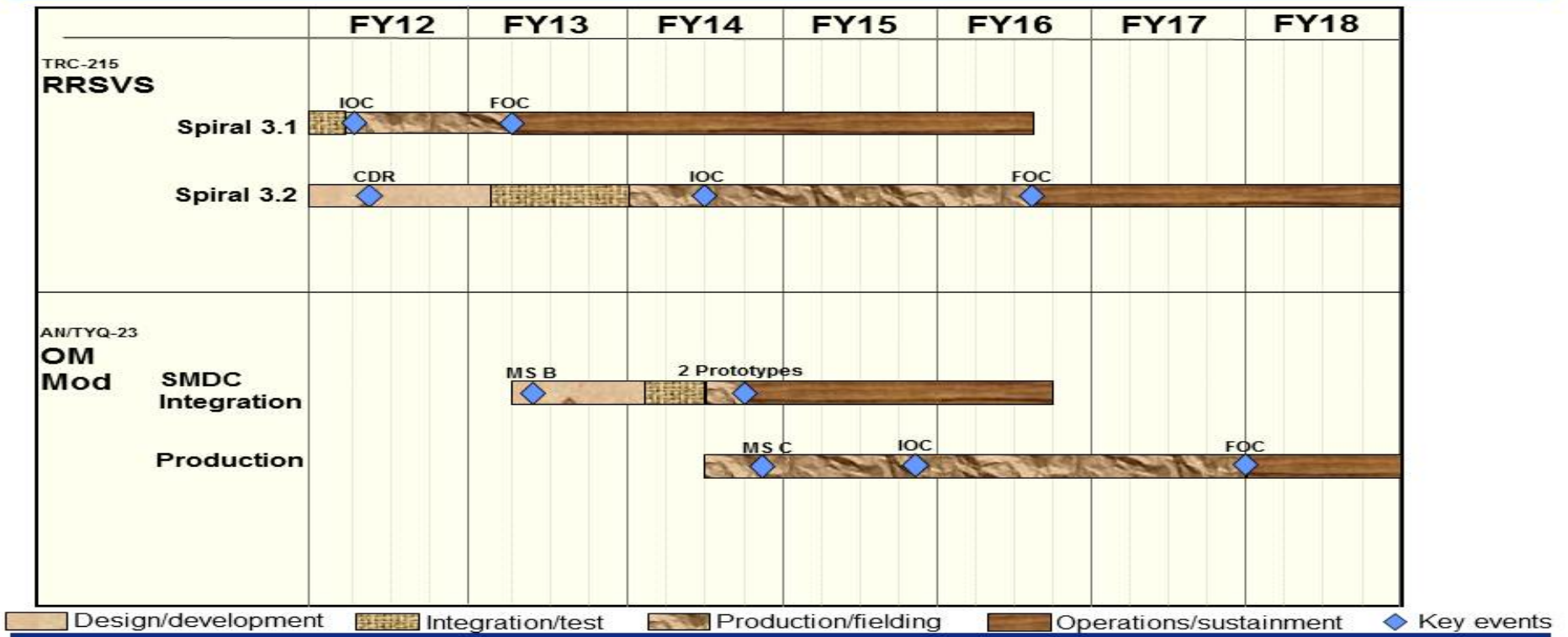
## PROJECT

67485L: Theater Air Control System Imp  
(TACSI)



U.S. AIR FORCE

# CRC Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2014 Air Force			<b>DATE:</b> April 2013
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## Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Remote Radio Secure Voice System (RRSVS) 3.1	1	2012	3	2016
RRSVS 3.1 IOC	2	2012	2	2012
RRSVS 3.1 FOC	2	2013	2	2013
RRSVS 3.2	1	2012	4	2018
RRSVS 3.2 Critical Design Review	2	2012	2	2012
RRSVS 3.2 IOC	3	2014	3	2014
RRSVS 3.2 FOC	3	2016	3	2016
Command & Control Operations Module (C2 OM) Modification SMDC Integration	2	2013	3	2016
C2 OM Modification Milestone B	2	2013	2	2013
C2 OM Modification SMDC Integration 2 Prototypes	4	2014	4	2014
C2 OM Modification Production	3	2014	4	2018
C2 OM Modificaton Milestone C	4	2014	4	2014
C2 OM Modification IOC	4	2015	4	2015
C2 OM Modification FOC	1	2018	1	2018