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Exhibit R-2, RDT&E Budget Item 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 0702207F: Depot Maintenance (Non-IF)							
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	1.462	1.531	1.588	-	1.588	1.605	1.638	1.683	1.705	Continuing	Continuing
673326: Precision Measurement & Calibration	1.462	1.531	1.588	-	1.588	1.605	1.638	1.683	1.705	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

This program develops, tests, and evaluates national and Air Force measurement standards (hardware) and calibration equipment in support of all Air Force programs and activities, including Precision Measurement Equipment Laboratories (PMELs) worldwide. Metrology research and development provides technology to support systems in all phases of development and acquisition, as well as Air Force R&D laboratories, test ranges, ground test facilities, and operational weapons systems support. Rapidly changing technology requires continuing research and development of measurement standards and calibration equipment to ensure modern weapon systems meet Air Force readiness objectives. This program addresses all metrology disciplines and includes the technology areas of laser, infrared, microwave, millimeter wave, optical, physical, mechanical, electrical, electronic, and ionizing radiation measurements. Metrology is a technical discipline devoted to the science of measurements and to the study and improvement of measurement technology. Measurements are the foundation of military system development, quality assurance, hardware conformance testing and system readiness tests. The integrity of these tests is assured through calibration and traceability assurance schemes. The capability to measure and calibrate must parallel the emergence of new technology, new ranges, and new capabilities of military systems. Lack of new measurement capability impedes or blocks the successful exploitation of new technologies, especially in the movement from development laboratory to production to deployment. R&D efforts are essential within the DoD to pace these requirements, otherwise, these same new systems will suffer time delays, excessive cost, and increased risk due to unreliable test results in all phases of development, production, deployment and operation.

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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B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		1.514	1.531	1.580	-	1.580
Current President's Budget		1.462	1.531	1.588	-	1.588
Total Adjustments		-0.052	-	0.008	-	0.008
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-0.052	-	0.008	-	0.008
Change Summary Explanation						
FY11 Congressional General Reduction of 0.052M in Other Adjustment row.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: Weapons Systems Measurement Standards				0.497	0.544	0.623
Description: Continue development of national measurement standards to support Air Force infrared / laser / electro-optical weapon systems and support equipment.						
FY 2011 Accomplishments: Continue development						
FY 2012 Plans: Continue development						
FY 2013 Plans: Continue development						
Title: Electrical Measurements				0.185	0.185	0.185
Description: Continue development of standards for electrical measurements to support high accuracy electronic test equipment.						
FY 2011 Accomplishments: Continue development						
FY 2012 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
Continue development				
FY 2013 Plans: Continue development				
Title: Radar Support/Communications Description: Continue development of standards for radar support, RF communication systems, and radar cross section range measurements. FY 2011 Accomplishments: Continue development FY 2012 Plans: Continue development FY 2013 Plans: Continue development		0.155	0.155	0.155
Title: Calibration Description: Continue the development of improved calibration standards to support physical, mechanical and electro-mechanical support equipment. FY 2011 Accomplishments: Continue development FY 2012 Plans: Continue development FY 2013 Plans: Continue development		0.320	0.320	0.320
Title: Radiation Hazard Description: Continue the development of national standards for calibration of ionizing radiation hazard instrumentation. FY 2011 Accomplishments: Continue development FY 2012 Plans:		0.045	0.045	0.045

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Continue development			
<i>FY 2013 Plans:</i> Continue development			
<i>Title:</i> Chemical/Biological Measurements <i>Description:</i> Continue development of improved standards and procedures to support chemical/biological measurements <i>FY 2011 Accomplishments:</i> Continue development <i>FY 2012 Plans:</i> Continue development <i>FY 2013 Plans:</i> Continue development	0.160	0.160	0.160
<i>Title:</i> Analytical Metrology <i>Description:</i> Continue development of standards, models and procedures to support analytical metrology applications <i>FY 2011 Accomplishments:</i> Continue development <i>FY 2012 Plans:</i> Continue development <i>FY 2013 Plans:</i> Continue development	0.100	0.122	0.100
Accomplishments/Planned Programs Subtotals	1.462	1.531	1.588

D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

E. Acquisition Strategy Primarily accomplish through intergovernmental transfer between the Department of Defense and other Federal Departments.
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<u>F. Performance Metrics</u> 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		R-1 ITEM NOMENCLATURE		PROJECT	
3600: Research, Development, Test & Evaluation, Air Force		PE 0702207F: Depot Maintenance (Non-IF)		673326: Precision Measurement & Calibration	
BA 7: Operational Systems Development					

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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
A schedule for Depot Maintenance PE is Not Applicable due to the nature of this project.																												

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

Events	Start		End	
	Quarter	Year	Quarter	Year
A schedule for Depot Maintenance PE is Not Applicable due to the nature of this project.	1	2013	4	2014