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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2012 Air Force **DATE:** February 2011

**APPROPRIATION/BUDGET ACTIVITY**

3600: *Research, Development, Test & Evaluation, Air Force*  
BA 6: *RDT&E Management Support*

**R-1 ITEM NOMENCLATURE**

PE 0605976F: *Facility Restoration and Modernization - T&E*

<b>COST (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	52.190	46.327	44.547	-	44.547	45.723	44.236	40.071	38.191	Continuing	Continuing
6606MC: <i>Facility Restoration and Modernization - T&amp;E</i>	52.190	46.327	44.547	-	44.547	45.723	44.236	40.071	38.191	Continuing	Continuing

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

The program funding includes reductions for efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.148M in FY12.

Restoration includes repair and replacement work to restore damaged facilities due to accident or failure attributable to inadequate sustainment, excessive age, or other causes. Modernization includes alteration of facilities to implement a new, higher standard (including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural components). Other tasks associated with facilities operations (such as custodial services, grass cutting, and the provision of central utilities) are not included. These restoration/modernization funds support the following Air Force test facilities: 46th Test Group (TG) at Holloman AFB, NM, the 46th Test Wing (TW) at Eglin AFB, FL, the Arnold Engineering and Development Center (AEDC) at Arnold AFB, TN and the Air Force Flight Test Center (AFFTC) at Edwards AFB.

Budget Activity Justification: This program element is in Budget Activity 6, RDT&E Management Support, because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
Previous President's Budget	54.809	46.327	47.073	-	47.073
Current President's Budget	52.190	46.327	44.547	-	44.547
Total Adjustments	-2.619	-	-2.526	-	-2.526
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-2.400	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.219	-	-2.526	-	-2.526

**Congressional Add Details (\$ in Millions, and Includes General Reductions)**

**Project:** 6606MC: *Facility Restoration and Modernization - T&E*

<b>FY 2010</b>	<b>FY 2011</b>

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2012 Air Force		<b>DATE:</b> February 2011	
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 6: <i>RDT&amp;E Management Support</i>		<b>R-1 ITEM NOMENCLATURE</b> PE 0605976F: <i>Facility Restoration and Modernization - T&amp;E</i>	
<b>Congressional Add Details (\$ in Millions, and Includes General Reductions)</b>		<b>FY 2010</b>	<b>FY 2011</b>
Congressional Add: <i>Inter-Base Facility Energy Independence (ANG Project)</i>		2.296	-
Congressional Add Subtotals for Project: 6606MC		2.296	-
Congressional Add Totals for all Projects		2.296	-
<b>Change Summary Explanation</b>			
FY12: Reduced funding of \$2.378M for Life extension of A/B Exhaust Plants.			

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605976F: Facility Restoration and Modernization - T&E				PROJECT 6606MC: Facility Restoration and Modernization - T&E			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
6606MC: Facility Restoration and Modernization - T&E	52.190	46.327	44.547	-	44.547	45.723	44.236	40.071	38.191	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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

The program funding includes reductions for efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.148M in FY12.

Restoration includes repair and replacement work to restore damaged facilities due to accident or failure attributable to inadequate sustainment, excessive age, or other causes. Modernization includes alteration of facilities to implement a new, higher standard (including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural components). Other tasks associated with facilities operations (such as custodial services, grass cutting, and the provision of central utilities) are not included. These restoration/modernization funds support the following Air Force test facilities: 46th Test Group (TG) at Holloman AFB, NM, the 46th Test Wing (TW) at Eglin AFB, FL, the Arnold Engineering and Development Center (AEDC) at Arnold AFB, TN and the Air Force Flight Test Center (AFFTC) at Edwards AFB.

Budget Activity Justification: This program element is in Budget Activity 6, RDT&E Management Support, because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012 Base</b>	<b>FY 2012 OCO</b>	<b>FY 2012 Total</b>
<b>Title:</b> Facility restoration and modernization at the 46 TG	1.176	0.462	0.802	-	0.802
<b>Description:</b> Facility restoration and modernization at the 46 TG.					
<b>FY 2010 Accomplishments:</b> The 46 TG had various documented test facility restoration/modernization requirements. These requirements include but are not limited to the following categories: road repair, HVAC repairs and replacements, roof repairs and replacements, test track repairs, minor construction and infrastructure repairs to include underground power lines.					
<b>FY 2011 Plans:</b> The 46 TG has various documented test facility restoration/modernization requirements. These requirements include but are not limited to the following categories: road repair, HVAC repairs and replacements, roof repairs					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011				
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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
and replacements, test track repairs, minor construction and infrastructure repairs to include underground power lines.  <b>FY 2012 Base Plans:</b> The 46 TG has various documented test facility restoration/modernization requirements. These requirements include but are not limited to the following categories: road repair, HVAC repairs and replacements, roof repairs and replacements, test track repairs, minor construction and infrastructure repairs to include underground power lines.  <b>FY 2012 OCO Plans:</b> Not applicable.							
<b>Title:</b> Facility restoration and modernization at the 46 TW  <b>Description:</b> Facility restoration and modernization at the 46 TW.  <b>FY 2010 Accomplishments:</b> The 46 TW has documented over 200 test facility restoration/modernization requirements. These include, but are not limited to, the following categories: range roads, fiber-optic communications grid, roofing, windows, doors, fire protection, erosion control, lightening protection, environmental clean-up, corrosion control, and HVAC. The projects to accomplish also include minor construction/reconstruction of Eglin Test and Training Range test sites and facilities; evaluation and implementation of storm mitigation efforts to protect critical test sites; fiber optic cable installation and interconnectivity to enhance communications, data transfer, and instrumentation across the range and test facilities.  <b>FY 2011 Plans:</b> The 46TW has identified and documented over 320 test facility and range restoration requirements. Most of these requirements are needed to sustain the integrity of the test facility structure or to enhance accessibility to the test ranges. Some examples of these requirements include, but are not limited to the following specific test structures or categories; replace several munitions storage magazines, install emergency back-up power for Radar/Optical tracking testing at the 300' Copeland Tower on Santa Rosa Island, replace air make-up unit #2 on McKinley Climatic Lab, pave range access roads to accommodate external customer testing, replace roofs on several mission critical buildings, install lightning protection to several buildings within the munitions storage areas, install fire suppression systems in specific test facilities, environmental clean-up and disposal and corrosion control of critical structures. In addition, there are over 200 projects identified as minor construction			2.140	2.437	2.316	-	2.316

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 6: RDT&E Management Support		R-1 ITEM NOMENCLATURE PE 0605976F: Facility Restoration and Modernization - T&E		PROJECT 6606MC: Facility Restoration and Modernization - T&E		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
projects, such as replacement of windows, doors, HVAC units, fiber optics, and storm mitigation which will all preserve the Eglin Test and Training Range sites and infrastructure. <b>FY 2012 Base Plans:</b> The 46 TW has documented over 200 test facility restoration/modernization requirements. These include, but are not limited to, the following categories: range roads, fiber-optic communications grid, roofing, windows, doors, fire protection, erosion control, lightening protection, environmental clean-up, corrosion control, and HVAC. The projects to accomplish also include minor construction/reconstruction of Eglin Test and Training Range test sites and facilities; evaluation and implementation of storm mitigation efforts to protect critical test sites; fiber optic cable installation and interconnectivity to enhance communications, data transfer, and instrumentation across the range and test facilities. <b>FY 2012 OCO Plans:</b> Not applicable.						
<b>Title:</b> Facility restoration and modernization at AEDC <b>Description:</b> Facility restoration and modernization at AEDC. <b>FY 2010 Accomplishments:</b> AEDC projects continue revitalizing of the Engine Test Facilities, Propulsion Wind Tunnels, Von Karman Test Facilities, and Space and Missile chambers located at Arnold AFB, TN, the National Full-Scale Aerodynamic Complex (NFAC) located at NASA Ames Research Center, CA, and Tunnel 9 located at White Oak, Maryland. Projects to restore and modernize the supporting plant facilities and to perform project specific planning and design. Also includes large-scale projects that directly support engine development, the Joint Strike Fighter program, hypersonic programs, the Missile Defense Agency, and spacecraft test and evaluation. FY10 included approximately \$5M for one time R&M projects to support engine testing and wind tunnel analysis. <b>FY 2011 Plans:</b> AEDC projects continue revitalizing of the Engine Test Facilities, Propulsion Wind Tunnels, Von Karman Test Facilities, and Space and Missile chambers located at Arnold AFB, TN, the National Full-Scale Aerodynamic Complex (NFAC) located at NASA Ames Research Center, CA, and Tunnel 9 located at White Oak, Maryland. Projects to restore and modernize the supporting plant facilities and to perform project specific planning and		43.213	39.732	37.063	-	37.063

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
design. Also includes large-scale projects that directly support engine development, the Joint Strike Fighter program, hypersonic programs, the Missile Defense Agency, and spacecraft test and evaluation. <b>FY 2012 Base Plans:</b> AEDC projects continue revitalizing of the Engine Test Facilities, Propulsion Wind Tunnels, Von Karman Test Facilities, and Space and Missile chambers located at Arnold AFB, TN, the National Full-Scale Aerodynamic Complex (NFAC) located at NASA Ames Research Center, CA, and Tunnel 9 located at White Oak, Maryland. Projects to restore and modernize the supporting plant facilities and to perform project specific planning and design. Also includes large-scale projects that directly support engine development, the Joint Strike Fighter program, hypersonic programs, the Missile Defense Agency, and spacecraft test and evaluation. <b>FY 2012 OCO Plans:</b> Not applicable.								
<b>Title:</b> Facility restoration and modernization at AFFTC <b>Description:</b> Facility restoration and modernization at AFFTC. <b>FY 2010 Accomplishments:</b> AFFTC had test facility restoration/modernization projects for Electronic Warfare, Range, and other T&E facilities include, but are not limited to, roofing, heating & air conditioning, windows, doors, and floors, work area rezoning, transformers and power systems, fire suppression systems, seismic upgrades, and RAM replacement. <b>FY 2011 Plans:</b> AFFTC will continue test facility restoration/modernization projects for Electronic Warfare, Range, and other T&E facilities including, but not limited to, roofing, heating & air conditioning, windows, doors, and floors, work area rezoning, transformers and power systems, fire suppression systems, seismic upgrades, and RAM replacement. <b>FY 2012 Base Plans:</b> AFFTC will continue test facility restoration/modernization projects for Electronic Warfare, Range, and other T&E facilities including, but not limited to, roofing, heating & air conditioning, windows, doors, and floors, work area rezoning, transformers and power systems, fire suppression systems, seismic upgrades, and RAM replacement. <b>FY 2012 OCO Plans:</b> Not applicable.				3.365	3.696	4.366	-	4.366
Accomplishments/Planned Programs Subtotals				49.894	46.327	44.547	-	44.547

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	FY 2010	FY 2011
<b>Congressional Add:</b> Inter-Base Facility Energy Independence (ANG Project)	2.296	-
<b>FY 2010 Accomplishments:</b> Inter-Base Facility Energy Independence (ANG Project).		
<b>FY 2011 Plans:</b>		
<b>Congressional Adds Subtotals</b>	2.296	-

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• RDT&E AF: <i>PE 0604256F, Threat Simulator Development.</i>	25.375	21.245	22.420	0.000	22.420	23.234	22.379	20.592	19.923	Continuing	Continuing
• RDT&E AF (1): <i>PE 0604759F, Major T&amp;E Investment.</i>	63.892	61.587	62.206	0.000	62.206	60.038	49.606	46.223	53.760	Continuing	Continuing
• RDT&E AF (2): <i>PE 0605807F, Test and Evaluation Support.</i>	755.992	759.868	654.475	0.000	654.475	578.997	595.567	615.594	613.825	Continuing	Continuing
• RDT&E AF (3): <i>PE 0605978F, Facility Sustainment - T&amp;E support.</i>	29.559	27.579	27.953	0.000	27.953	28.049	27.220	26.416	25.600	Continuing	Continuing

**D. Acquisition Strategy**

Not applicable

**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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