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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 6: *RDT&E Management Support*

R-1 ITEM NOMENCLATURE
PE 0605976F: *Facilities Restoration and Modernization - Test and Evaluation Support*

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	44.547	42.597	44.160	-	44.160	43.765	26.774	28.970	29.492	Continuing	Continuing
6606MC: <i>Facility Restoration and Modernization - T&E</i>	-	44.547	42.597	44.160	-	44.160	43.765	26.774	28.970	29.492	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

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: 96th Test Group (TG) at Holloman AFB, NM, the 96th Test Wing (TW) at Eglin AFB, FL, the Arnold Engineering and Development Complex (AEDC) at Arnold AFB, TN and the 412TW at Edwards AFB, CA.

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. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	44.547	42.597	35.046	-	35.046
Current President's Budget	44.547	42.597	44.160	-	44.160
Total Adjustments	0.000	0.000	9.114	-	9.114
• 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	0.000	0.000	9.114	-	9.114

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Change Summary Explanation FY14: \$9.114M increase restores test infrastructure to align with current AF and DoD priorities.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Title: Facility restoration and modernization at the 96 TG Description: Facility restoration and modernization at the 96 TG. FY 2012 Accomplishments: Refurbished office space and a secure area for National Radar Cross Section (RCS) Test Facility (NRTF) alternative duty location. Replaced Silo Roof airbags at NRTF. Installed electrical power, insulation, and HVAC at Holloman High Speed Test Track munitions storage building. Renovated 120i dynamometer hydraulic power system at Landing Gear Test Facility. FY 2013 Plans: Renovate bathrooms Central Inertial and GPS Test Facility (CIGTF). Remove inoperable radiators in Test Track main hall offices. Repair power system on the 84i Dynamometer at the Landing Gear Test Facility. Upgrade carpet and ceilings in information technology office. FY 2014 Plans: Restoration of Test Track building 1173 damaged after years of a leaking roof. Extension of a Test Track wind fence for rain field test missions. Refurbishment of diffraction ridge at NRTF silo test area. Modernization of the 168i Dynamometer process controller and data acquisition system at Landing Gear Test Facility.		0.796	0.816	0.827
Title: Facility restoration and modernization at the 96 TW Description: Facility restoration and modernization at the 96 TW. FY 2012 Accomplishments: Extended security fencing in munitions storage area. Replaced three Flight Motion Simulator controllers in Guided Weapons Evaluation Facility (GWEF). Installed three-phase power to support test at C-52. Installed sheltered test observation tower at C-52. Relocated CO2 Hydraulic pumps in GWEF. Replaced large overhead door at site A-15. Rewired all electrical service to sled track at C-74. Extended secured test compound at C-1. Replaced 14 range access control gates. Renovated Bldg 22 restrooms. Replaced Bldg 12470 roof. Replaced air handler at A-3. Replaced floor at site A-6. Replaced hoist at metal fabrication bldg. 946. Replaced GWEF 400 Hz generators. Resurfaced lab floor at bldg. 990. FY 2013 Plans: Repaint two Methyl Chloride Tanks at Climatic Lab. Build two additional munitions storage igloos at C-74. Design and plan relocation of HEI Firing range from C-52. Install entry control system for Design and Development Facility at 96 TSS. Install		2.300	2.356	2.387

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
target shelter for target support maintenance and repair. Replace Threat Seekers for STV at the GWEF. Replace three radar C-Band Transponders. Replace 10 range access gates. FY 2014 Plans: Construct concrete berms under AMU-1 at Climatic Lab. Renovate R-139 in GWEF to support IR test. Install 3-phase power to bldg. 628. Replace wooden steps for bldg. 133. Replace remaining Flight Motion simulator controllers at GWEF. Replace roof at bldg. 9307. Repair fire suppression system bldg. 12555. Facility renovation for TSI Pre-flight bldg. 961.				
Title: Facility restoration and modernization at AEDC Description: Facility restoration and modernization at AEDC. FY 2012 Accomplishments: Upgraded Von Karman Facility (VKF) Plant Control System for Tunnels ABC. Continued phased VKF valve refurbishment. Replaced 16T Wind Tunnel C1 compressor Spacers, procured replacement C1 spacers. Refurbished selected parts of Engine Test Facility C-Plant compressors, valves, barowells, lube oils, motors, breakers, and instrumentation and controls until a major service life extension program can be funded. Replaced 4T Wind Tunnel Roll / Inline Roll / Seal Flaps. Replaced J6 Test Unit Support System. Upgraded Fiber Optic Communication Backbone to support Electrical System Modernization. FY 2013 Plans: Continue to recertify Pressure and Hazardous Material Systems (PHMS). Continue planning for Test Utility Power System Upgrades for new supervisory control and data acquisition (SCADA) system. Replace C-Plant RC11 water coils, repair trichloroethylene (TCE) coolant lines, repair R12 Freon systems, replace reefer unit motors and gear sets. Repair C-Plant ventilation in test cells C-1 and C-2. Replace arc heater H2 diffuser, upgrade H2 mixing chamber and upgrade conical high-enthalpy nozzles. Refurbish 5 Plenum Evacuation System compressor rotors. FY 2014 Plans: Continue to recertify Pressure and Hazardous Material Systems (PHMS). Procure engine test cell C-1 and C-2 digital temperature scanners. Upgrade power distribution and control for arc heater H3 model positioning system. Replace VKF cooler #HPA-HE1-VU (111) and compressor C111. Replace throttles in engine test cells C-1, C-2, J-1, J-2, SL-2, SL-3 and T-4. Refurbish C-Plant hydraulic systems 1-6 and 9-18.		37.302	35.175	36.640
Title: Facility restoration and modernization at 412 TW Description: Facility restoration and modernization at 412 TW. FY 2012 Accomplishments:		4.149	4.250	4.306

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Replaced existing Chiller #1 and #2, related piping, wiring, and pumps in the mechanical room (004 ST). Repaired and upgraded the main fire panel. Repaired 3750 KVA Primary 34500V Sec 480/277V transformer and switchgear with A/B sides. Replaced 320 KW generator. Upgraded lighting in hangars with energy efficient lights and secondary electrical system. FY 2013 Plans: Plan to replace the BAF Radar Absorbant Material in two increments. Replace IFAST 400Hz frequency converters. Replace the Polyalphaolefin (PAO) system in B1030. Plan to do a conversion on the deluge system to a high expansion foam system. FY 2014 Plans: 412 TW will continue 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.												
Accomplishments/Planned Programs Subtotals										44.547	42.597	44.160
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• RDTE: BA06: PE 0604256F: <i>Threat Simulator Development</i>	26.473	22.812	17.690		17.690	22.213	22.542	20.523	20.892	Continuing	Continuing	
• RDTE: BA06: PE 0604759F: <i>Major T&E Investment</i>	60.388	42.236	34.841		34.841	47.821	49.479	47.688	48.546	Continuing	Continuing	
• RDTE: BA06: PE 0605807F: <i>Test and Evaluation Support</i>	737.697	722.071	742.658		742.658	698.869	704.063	708.671	714.639	Continuing	Continuing	
• RDTE: BA06: PE 0605978F: <i>Facility Sustainment - T&E Support</i>	27.953	27.301	27.643		27.643	28.698	23.898	24.301	24.739	Continuing	Continuing	
Remarks												
E. Acquisition Strategy N/A												
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.												