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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: Research, Development, Test & Evaluation, Air Force I BA 6: RDT&E Management Support					PE 0605976F I Facilities Restoration and Modernization - Test and Evaluation Support							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	44.160	46.955	40.518	-	40.518	42.978	43.795	44.349	45.142	Continuing	Continuing
6606MC: Facility Restoration and Modernization - T&E	-	44.160	46.955	40.518	-	40.518	42.978	43.795	44.349	45.142	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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 organizations and their associated test and evaluation facilities, including: remote locations, 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, the 412th TW at Edwards AFB, CA, 96 TG Landing Gear Test Facility (LGTf) at Wright-Patterson AFB, OH, Hypersonic Wind Tunnel 9 at White Oak, MD, and the National Full-Scale Aerodynamics Complex (NFAC) at Moffett Field, CA.

This program 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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	44.160	46.955	40.787	-	40.787
Current President's Budget	44.160	46.955	40.518	-	40.518
Total Adjustments	-	-	-0.269	-	-0.269
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.269	-	-0.269

C. Accomplishments/Planned Programs (\$ in Millions)

Title: Facility restoration and modernization at the 96 TG	FY 2014	FY 2015	FY 2016
	0.827	0.431	0.740

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Description: Facility restoration and modernization at the 96th TG. FY 2014 Accomplishments: Restored deteriorated High Speed Test Track (HSTT) building. Renovated bathrooms and installation of new windows in 1950s era building at the Central Inertial Guidance Test Facility (CIGTF). Repaired and improved road used to transport weapons from munitions facility to aircraft. Installed a backup set of slip rings for the Central Inertial and Global Positioning System Test Facility 3-Axis Tables (Axis 1 and 3 on 53Y) to meet test support requirements and to mitigate risk should the current slip rings fail during test support. Continued upgrade of the Landing Gear Test Facility (LGTF) 168i Dynamometer control and data acquisition system. The computer used for this system is obsolete (early 1990's vintage) and replacement parts cannot be easily acquired. Also replaced the LGTF 120 Dynamometer mandrel carrier control system for similar reasons. The 120 Dynamometer test system is essential to the continuation of the LGTF's aircraft tire testing mission. FY 2015 Plans: Upgrade and remodel calibration pit at National Radar Cross Section Test Facility (NRTF). Restore and modernize 168i Dynamometer at the Landing Gear Test Facility (LGTF). Install structures to shelter High Power Jammers at Central Inertial Guidance Test Facility (CIGTF). Upgrade trackside rainfield system to include pressure control points and monitors as needed to better maintain constant pressures at nozzles at Holloman High Speed Test Track; begin design of Radar Cross Section Advanced Measurement System Fiber Optic replacement; Replace the hydraulic package that powers the Landing Gear Test Facility (LGTF) Baldwin Load Press; Continue effort to replace the obsolete mandrel carrier control system component of the 120 Dynamometer SC test system. FY 2016 Plans: Implement plan to replace Radar Cross Section Advanced Measurement System Fiber Optics.				
Title: Facility restoration and modernization at the 96 TW Description: Facility restoration and modernization at the 96th TW. FY 2014 Accomplishments: Constructed concrete berms under Air Management Unit-1 (AMU-1) at Climatic Lab. Renovated Room R-139 in Guided Weapon Evaluation Facility (GWEF) to support infrared (IR) test. Installed 3-phase power to Building (Bldg) 628. Replaced wooden steps for Bldg 133. Replaced remaining Flight Motion simulator controllers at GWEF. Replaced roof at Bldg 9307. Repaired fire suppression system for Bldg 12555. Renovated facility for Bldg 961. Replaced windows, fire suppression and lightning protection		2.387	1.210	2.107

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
components throughout the Range complex. Replaced damaged/obsolete site wiring and electrical distribution systems, missing and damaged security signs and fences, corroded/rotten stairs, etc. FY 2015 Plans: Conduct many small R&M projects throughout Range complex (Safety, Security, Electrical, Plumbing upgrades, Minor construction Test Building replacement, etc.). FY 2016 Plans: Continue Range Environmental Protection and small Restoration and Modernization (R&M) efforts across the range complex.				
Title: Facility restoration and modernization at AEDC Description: Facility restoration and modernization at AEDC. FY 2014 Accomplishments: Continued to recertify Pressure and Hazardous Material Systems(PHMS). Procured engine test cell C-1 and C-2 digital temperature scanners. Upgraded power distribution and control for arc heater model positioning system. Replaced Von Karman Facility (VKF) cooler #HPA-HE1-VU (111) and compressor C111. Replaced throttles in engine test cells C-1, C-2, J-1, J-2, SL-2, SL-3 and T-4. Refurbished C-Plant hydraulic systems 1-6 and 9-18. Refurbished 161kV transformers. Sustained oil-filled transformer health by re-gasketing, re-furbishing controls, and painting; Replaced the C-Plant RC1 and RC2 second stage brine refrigeration systems; Continued work on replacing aging H2 (ARC) Diffuser; Replaced C1 Spacers in windtunnel 16T compressors; Restored test network computers to current computer technology levels. FY 2015 Plans: Continue FY14 efforts not completed or that were multiyear. Continue upgrading control systems from analog to digital in the Exhaust Test Facility. Continue planning to improve the exhaust plant cooling systems. Continue work to improve the 16T wind tunnel Foreign Object Damage (FOD) fix effort. Improve balances and calibration systems. Begin planning for AB Exhaust plant system life extension program - ensure A/B exhaust system is operational until strategic direction is executed relative to replacement; Refurbish C Plant mechanical and electrical systems; Continue effort to replace H2 diffuser; Rewind and upgrade Propulsion Wind Tunnel 83,000 HP Motors M4 and M1. FY 2016 Plans: Continue FY15 efforts not completed or that were multiyear, including major service life extension efforts on wind tunnels and exhaust plants.		36.640	43.566	33.302
Title: Facility restoration and modernization at 412 TW Description: Facility restoration and modernization at the 412 TW.		4.306	1.748	4.369

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
<i>FY 2014 Accomplishments:</i> Converted stairs from wood to metal, B1820; replaced 400 Hz Frequency Converters, B1020; replaced A/C chiller #2, B1030; executed Phase 1 and 2 Radar Absorbing Material (RAM) replacement, B1020; replaced 320 KW generator 480/277 volt, B1020; replaced transformers and switch gear design, B1020. <i>FY 2015 Plans:</i> Upgrade BAF electrical hydraulics and cooling to support the B-2 program; Repair asphalt between Hangars 1207 and 1210 (Main Base Airfield); Rebuild Pad 20 (Main Base airfield); Remove 100 identified obstructions in Main Base airfield infield areas; Install lights on Ramp 9, shelter to include conduit, boring if required, all wiring and hardware to make a complete and useable system. <i>FY 2016 Plans:</i> 412 TW will continue projects for Electronic Warfare, Range, and other test and evaluation facilities including, but not limited to, roofing, heating and 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	44.160	46.955	40.518

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• RDTE: BA06: PE 0604256F: <i>Threat Simulator Development</i>	14.786	24.418	23.844	-	23.844	21.846	22.251	22.641	23.045	Continuing	Continuing
• RDTE: BA06: PE 0604759F: <i>Major T&E Investment</i>	31.423	47.232	68.302	-	68.302	66.845	66.142	66.436	67.679	Continuing	Continuing
• RDTE: BA06: PE 0605807F: <i>Test and Evaluation Support</i>	724.958	689.509	673.908	-	673.908	666.993	677.220	684.977	697.626	Continuing	Continuing
• RDTE: BA06: PE 0605978F: <i>Facility Sustainment - T&E Support</i>	29.743	32.965	27.895	-	27.895	28.372	28.914	29.374	29.900	Continuing	Continuing
Remarks											
E. Acquisition Strategy N/A											

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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.		