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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 0605978F / <i>Facilities Sustainment - Test and Evaluation Support</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	-	32.965	27.895	28.091	0.000	28.091	28.637	29.093	29.633	30.158	Continuing	Continuing
6606MR: <i>Facility Sustainment-T&E Support</i>	-	32.965	27.895	28.091	0.000	28.091	28.637	29.093	29.633	30.158	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides resources for sustainment activities required for an inventory of Air Force Material Command (AFMC) Test and Evaluation (T&E) facilities. Facility sustainment includes regularly scheduled adjustments and inspections, preventative maintenance tasks, and emergency response and service calls for minor repairs. It also includes major repairs or replacement of facility components that are expected to occur periodically. In addition to standard facility sustainment, such as roof replacement, refinishing of wall and floor surfaces, and repairing and replacing of heating and cooling systems, this work includes inspections and repairs of heavy plant machinery in large industrial facilities. This work includes, but is not limited to, inspection and repair of high-power electrical switching gear, hydraulic, lubrication, forced-air and fluid cooling systems, high pressure vessel health monitoring, facility control and remote monitoring systems, liquid oxygen systems, steam systems, test instrumentation, and fire detection and suppression systems. Other tasks associated with facilities operations (such as custodial services, grass cutting, and landscaping, waste disposal, and the provision of central utilities) are not included. These sustainment funds support the following Air Force 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 412 Test Wing (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 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	32.965	27.895	28.372	0.000	28.372
Current President's Budget	32.965	27.895	28.091	0.000	28.091
Total Adjustments	0.000	0.000	-0.281	0.000	-0.281
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-0.281	0.000	-0.281

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2015	FY 2016	FY 2017
<p>Title: Facility sustainment at the 96 TG.</p> <p>Description: Facility sustainment at the 96 TG.</p> <p>FY 2015 Accomplishments: Sustainment projects included painting buildings, carpet replacement, heating, ventilation, and air conditioning (HVAC) repairs and roof repairs throughout the 96 TG.</p> <p>FY 2016 Plans: Sustainment projects include painting buildings, carpet replacement, heating, ventilation, and air conditioning (HVAC) repairs and roof repairs throughout the 96 TG.</p> <p>FY 2017 Plans: Sustainment projects include painting buildings, carpet replacement, heating, ventilation, and air conditioning (HVAC) repairs and roof repairs throughout the 96 TG.</p>		0.324	0.322	0.324
<p>Title: Facility sustainment at the 96 TW.</p> <p>Description: Facility sustainment at the 96 TW.</p> <p>FY 2015 Accomplishments: Worked through several hundred Direct Scheduled Work Orders (DSWs) within the test infrastructure.</p> <p>FY 2016 Plans: Continue to work through several hundred Direct Scheduled Work Orders (DSWs) within the test infrastructure.</p> <p>FY 2017 Plans: Continue to work through several hundred Direct Scheduled Work Orders (DSWs) within the test infrastructure.</p>		2.110	1.302	1.311
<p>Title: Facility sustainment at the AEDC.</p> <p>Description: Facility sustainment at the AEDC.</p> <p>FY 2015 Accomplishments: Performed calendar based scheduled preventative maintenance on Engine Test Facility Plant and associated engine test cells, Propulsion Wind Tunnel Plant and associated wind tunnels, Von Karman Facility (VKF) Plant Core and associated test cells, arc heaters, rocket test facility, space chambers, and hypersonic engine test facilities, along with associated infrastructure that</p>		28.082	23.838	24.006

UNCLASSIFIED

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C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>supports all test operations. Executed the project to disassemble, inspect, evaluate, refurbish and/or repair and test one helium rotary screw compressor unit for the cryogenic cooling system for space chambers.</p> <p>FY 2016 Plans: Perform calendar based scheduled preventative maintenance on Engine Test Facility Plant and associated engine test cells, Propulsion Wind Tunnel Plant and associated wind tunnels, Von Karman Facility (VKF) Plant Core and associated test cells, arc heaters, rocket test facility, space chambers, and hypersonic engine test facilities, along with associated infrastructure that supports all test operations.</p> <p>FY 2017 Plans: Continue to perform calendar based scheduled preventative maintenance on Engine Test Facility Plant and associated engine test cells, Propulsion Wind Tunnel Plant and associated wind tunnels, Von Karman Facility (VKF) Plant Core and associated test cells, arc heaters, rocket test facility, space chambers, and hypersonic engine test facilities, along with associated infrastructure that supports all test operations.</p>			
<p>Title: Facility sustainment at the 412 TW.</p> <p>Description: Facility sustainment at the 412 TW.</p> <p>FY 2015 Accomplishments: Continued sustainment of test unique infrastructure in 412 TW Electronic Warfare, Range, and other T&E facilities located at Edwards AFB, CA.</p> <p>FY 2016 Plans: Continue sustainment of test unique infrastructure in 412 TW Electronic Warfare, Range, and other T&E facilities located at Edwards AFB, CA.</p> <p>FY 2017 Plans: Continue sustainment of test unique infrastructure in 412 TW Electronic Warfare, Range, and other T&E facilities located at Edwards AFB, CA.</p>	2.449	2.433	2.450
Accomplishments/Planned Programs Subtotals	32.965	27.895	28.091

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2015	FY 2016	FY 2017	FY 2017	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
			Base	OCO	Total						
• RDTE: BA06: PE 0604256F: <i>Threat Simulator Development</i>	24.318	23.844	21.630	0.000	21.630	22.038	22.426	22.839	23.245	Continuing	Continuing

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D. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE: BA06: PE 0604759F: <i>Major T&E Investment</i>	45.985	73.302	66.385	0.000	66.385	65.706	66.001	67.265	68.464	Continuing	Continuing
• RDTE: BA06: PE 0605807F: <i>Test & Evaluation Support</i>	691.977	683.308	661.417	0.000	661.417	672.180	680.576	693.772	706.945	Continuing	Continuing
• RDTE: BA06: PE 0605976F: <i>Facility Restoration and Modernization-T&E</i>	46.955	40.518	134.111	0.000	134.111	135.116	125.388	89.071	69.807	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.