PE NUMBER: 0401218F
PE TITLE: KC-135s

Exhibit R-2, RDT&E Budget Item Justification

DATE **February 2007**

BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0401218F KC-135s

Cost ($ in Millions)		FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
	Total Program Element (PE) Cost	1.456	1.122	8.766	7.192	0.000	0.000	0.000	0.000	Continuing	TBD
4494	KC-135 Aging Aircraft Program	1.456	1.122	1.236	1.170	0.000	0.000	0.000	0.000	Continuing	TBD
5261	KC-135 Upgrades	0.000	0.000	7.530	6.022	0.000	0.000	0.000	0.000	0.000	0.000

(U) A. Mission Description and Budget Item Justification

KC-135 Aging Aircraft Program (674494).
This program supports projects that will help to keep the KC-135 viable in to the future. Projects include the analysis and testing efforts in the area of aging aircraft, to include structural, corrosion, fatigue, and stress corrosion cracking. Additionally, the Functional System Integrity Program (FSIP) proactively examines individual aircraft systems for potential impacts due to aging components. The USAF will utilize these activities to improve KC-135 Programmed Depot Maintenance efficiency and to provide direction for future aircraft efforts to sustain the KC-135 as a viable airframe.

KC-135 Upgrades (675261).
Block 45 program - Supports a modification program performing analysis, testing, software development, prototyping, documenting source data, and incorporating a new Digital Flight Director (DFD), Radio Altimeter (RA), Aeromedical Evacuation upgrade (AE), Real Time in Cockpit (RTIC) and Night Vision Imaging System (NVIS).

Mode S Enhanced Surveillance (EHS) - Replaces the current APX-100 radio with the APX-119 radio. Efforts allow integration of new equipment into exiting KC-135 systems.

These efforts support a fielded weapon system and therefore are assigned to Budget Activity 7, Operational System Development.

(U) B. Program Change Summary ($ in Millions)

		FY 2006	FY 2007	FY 2008	FY 2009
(U)	Previous President's Budget	1.498	1.102	1.115	1.117
(U)	Current PBR/President's Budget	1.456	1.122	8.766	7.192
(U)	Total Adjustments	-0.042			
(U)	Congressional Program Reductions	-0.021			
	Congressional Rescissions				
	Congressional Increases				
	Reprogrammings				
	SBIR/STTR Transfer	-0.021			
(U)	Significant Program Changes:				

Exhibit R-2a, RDT&E Project Justification

DATE **February 2007**

BUDGET ACTIVITY **07 Operational System Development**

PE NUMBER AND TITLE **0401218F KC-135s**

PROJECT NUMBER AND TITLE **4494 KC-135 Aging Aircraft Program**

Cost ($ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4494 KC-135 Aging Aircraft Program	1.456	1.122	1.236	1.170	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

This program supports projects that will help to keep the KC-135 viable in to the future. Projects include the analysis and testing efforts in the area of aging aircraft, to include structural, corrosion, fatigue, and stress corrosion cracking. Additionally, the Functional System Integrity Program (FSIP) proactively examines individual aircraft systems for potential impacts due to aging components. The USAF will utilize these activities to improve KC-135 Programmed Depot Maintenance efficiency and to provide direction for future aircraft efforts to sustain the KC-135 as a viable airframe.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
(U) Corrosion/crack growth rate and fatigue determination and testing	0.373	0.121	0.000	0.000
(U) Functional Systems Integrity Program (FSIP)	0.750	0.698	0.963	0.899
(U) Mission support/contractor support	0.333	0.303	0.273	0.271
(U) Total Cost	1.456	1.122	1.236	1.170

(U) C. Other Program Funding Summary ($ in Millions)

	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
(U) None										

(U) D. Acquisition Strategy

The acquisition strategy consists primarily of separate task orders (with separate statements of work) ranging from fixed price to cost plus contracts. These task orders address a myriad of aging aircraft activities against existing contract vehicles, such as the SPO-managed KC-135 Fleet Support Contract and Design Engineering Program contracts managed through the Air Logistics Centers.

Exhibit R-3, RDT&E Project Cost Analysis

DATE **February 2007**

BUDGET ACTIVITY **07 Operational System Development**

PE NUMBER AND TITLE **0401218F KC-135s**

PROJECT NUMBER AND TITLE **4494 KC-135 Aging Aircraft Program**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2006 Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development														
None													0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Support														
Aging Aircraft Studies	C/FP	ARINC, Oklahoma City and other support ctrs.		0.373	Jan-06							Continuing	TBD	
Subtotal Support			0.000	0.373		0.000		0.000		0.000		Continuing	TBD	0.000
Remarks:														
(U) Test & Evaluation														
Corrosion & Fatigue Testing/Functional Systems Integrity Program	Fleet Support, T&M/FFP	Boeing, Wichita KS		0.750	Nov-05	1.050	Dec-06	0.963		0.899		Continuing	TBD	
Subtotal Test & Evaluation			0.000	0.750		1.050		0.963		0.899		Continuing	TBD	0.000
Remarks:														
(U) Management														
				0.333		0.072		0.273		0.271		Continuing	TBD	
Subtotal Management			0.000	0.333		0.072		0.273		0.271		Continuing	TBD	0.000
Remarks:														
(U) Total Cost			0.000	1.456		1.122		1.236		1.170		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE February 2007
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0401218F KC-135s**	PROJECT NUMBER AND TITLE **4494 KC-135 Aging Aircraft Program**

KC-135 R-4 Schedule Profile

Fiscal Year	FY06				FY07				FY08				FY09			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Corrosion & Fatigue Testing												▲				
FSIP (see note 1)																
FSIP will continue to examine additional a/c systems as required while monitoring those that have previously been examined (note 1).																
Contractor/Management Support																

☆ Major Event or Milestone

Planned Ongoing Activity

Ongoing Activity that is Complete

▲ Completed Event

△ Planned Task(s)

Exhibit R-4a, RDT&E Schedule Detail

DATE
February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	**0401218F KC-135s**	**4494 KC-135 Aging Aircraft Program**

(U) Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009
(U) Corrosion & Fatigue Testing	1-4Q	1-4Q	1-4Q	
(U) FSIP	1-4Q	1-4Q	1-4Q	1-4Q

Exhibit R-2a, RDT&E Project Justification

DATE **February 2007**

BUDGET ACTIVITY **07 Operational System Development**

PE NUMBER AND TITLE **0401218F KC-135s**

PROJECT NUMBER AND TITLE **5261 KC-135 Upgrades**

Cost ($ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
5261 KC-135 Upgrades	0.000	0.000	7.530	6.022	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

Block 45 program

Supports a modification program performing analysis, testing and incorporating a new Digital Flight Director (DFD), Radio Altimeter (RA), Aeromedical Evacuation upgrade (AE), Real Time in Cockpit (RTIC) and Night Vision Imaging System (NVIS).

Mode S Enhanced Surveillance (EHS),

Replaces the current APX-100 radio with the APX-119 radio. Efforts allow integration of new equipment into exiting KC-135 systems.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2006	FY 2007	FY 2008	FY 2009
(U) Block 45 - Non-Recurring Engineering efforts/tasks for all Block 45 sub programs			5.348	5.553
(U) Block 45 - Mission/Program Support			0.617	0.469
(U) EHS - Non-Recurring Engineering efforts/tasks for EHS			1.565	
(U) Total Cost	0.000	0.000	7.530	6.022

(U) C. Other Program Funding Summary ($ in Millions)

	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
(U) Block 45 Mod # 8653 3010 BP11 C135 0401218F				1.749	4.628	15.469	36.914	45.275		
(U) EHS Mod # 8653 3010 BP11 C135 0401218F			4.541	5.277	4.003	8.950	4.019			26.790

(U) D. Acquisition Strategy

Block 45 - The strategy is to have a contracted integrator accomplish the task of performing analysis, testing, software development, prototype, documentation of source data, and incorporating a new Digital Flight Director (DFD), Radio Altimeter (RA), Aeromedical Evacuation upgrade (AE), Real Time in Cockpit (RTIC) and Night Vision Imaging System (NVIS). The contractor will be responsible for acquiring the necessary information and personnel to incorporate each item stated above. An RFP will be sent out requesting a contacted integrator as the focal point to integrate Block 45 onto the KC-135. The contractor will be responsible for developing, subcontracting, or a combination of the two for the development of the components DFD, RA, AE, RTIC, and NVIS.

EHS - strategy is to have a single contractor do NRE. Kits will be purchased and installed as a Field Level Modification

Exhibit R-3, RDT&E Project Cost Analysis

DATE **February 2007**

BUDGET ACTIVITY **07 Operational System Development**

PE NUMBER AND TITLE **0401218F KC-135s**

PROJECT NUMBER AND TITLE **5261 KC-135 Upgrades**

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2006 Cost	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development														
Block 45 - NRE, engineering, development, and prototype	TBD	TBD						5.348		5.553			10.901	
EHS - NRE and development	TBD	TBD						1.565					1.565	
Subtotal Product Development			0.000	0.000		0.000		6.913		5.553		0.000	12.466	0.000
Remarks:														
(U) Support														
		TBD						0.617		0.469			1.086	
Subtotal Support			0.000	0.000		0.000		0.617		0.469		0.000	1.086	0.000
Remarks:														
(U) Test & Evaluation														
		TBD											0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Management														
		TBD											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			0.000	0.000		0.000		7.530		6.022		0.000	13.552	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE February 2007
BUDGET ACTIVITY **07 Operational System Development**	PE NUMBER AND TITLE **0401218F KC-135s**	PROJECT NUMBER AND TITLE **5261 KC-135 Upgrades**

Block 45 / EHS								
	FY08				FY09			
	1	2	3	4	1	2	3	4
Block 45 Development, T&E								
Prototype								
EHS Development, T&E								

Exhibit R-4a, RDT&E Schedule Detail

DATE
February 2007

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
07 Operational System Development	**0401218F KC-135s**	**5261 KC-135 Upgrades**

(U) Schedule Profile	FY 2006	FY 2007	FY 2008	FY 2009
(U) Block 45 - NRE Effort			1-4Q	1-4Q
(U) EHS - NRE Effort			2Q	