

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 07 - Operational System Development					PE NUMBER AND TITLE 0401218F KC-135s						
COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost	
Total Program Element (PE) Cost	2,027	483	5,416	1,500	1,511	1,119	1,546	15,769	Continuing	TBD	
4494 KC-135 Aging Aircraft Program	2,027	483	5,416	1,500	1,511	1,119	1,546	1,147	Continuing	TBD	
4927 KC-X	0	0	0	0	0	0	0	14,622	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0	

FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

674494: KC-135 Aging Aircraft Program: This program supports the aging aircraft corrosion and fatigue project CORAL REACH. CORAL REACH studies 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 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 aging aircraft efforts to maintain the KC-135 as a viable airframe. CORAL REACH results provide accurate data for incorporation into the KC-135 Economic Life Study. The KC-135 Economic Life Study consisted of studies for structure, systems, and component support as well as cost benefit analyses to support an Analysis of Alternatives (AOA). The AOA addresses replacement for the KC-135 based on economic decision points and requirements.

674927: In FY07 RDT&E (\$14.6M) will be applied towards the replacement of the KC-135 based in part on the outcomes of the AOA.

(U) **B. Budget Activity Justification**

Project 674494 is comprised of low technical risk efforts supporting a fielded weapon system and, therefore, is assigned to Budget Activity 7, Operational Systems. Project 674927, while associated with the KC-135 PE, will be assigned to Budget Activity 7, Operational Systems. However, when the KC-X PE is formerly established, it will be assigned a BA that properly reflects the program content and risk.

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DATE

June 2001

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0401218F KC-135s(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	2,268	487		TBD
(U) Appropriated Value	2,268	487		TBD
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-14			TBD
b. Small Business Innovative Research	-72			TBD
c. Omnibus or Other Above Threshold Reprogram	-133			TBD
d. Below Threshold Reprogram	-13			TBD
e. Rescissions		-4		TBD
(U) Adjustments to Budget Years Since FY 2001 PBR	-9		5,416	TBD
(U) Current Budget Submit/FY 2002 PBR	2,027	483	5,416	TBD

(U) **Significant Program Changes:**

In FY02, \$3.045M will fund the Aerial Refueling Analysis of Alternatives. In FY07, \$14.6M will be applied towards the replacement of the KC-135 based in part of the outcome of the AOA.

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PE NUMBER AND TITLE

0401218F KC-135s

PROJECT

4494

COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4494 KC-135 Aging Aircraft Program	2,027	483	5,416	1,500	1,511	1,119	1,546	1,147	Continuing	TBD

FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

This program, in part, supports the aging aircraft corrosion and fatigue project CORAL REACH. CORAL REACH studies 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 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 aging aircraft efforts to maintain the KC-135 as a viable airframe. CORAL REACH results provide accurate data for incorporation into the KC-135 Economic Life Study. The KC-135 Economic Life Study consisted of studies for structure, systems, and component support as well as cost benefit analyses to support an Analysis of Alternatives (AOA). The AOA addresses replacement for the KC-135 based on economic decision points and requirements.

(U) **FY 2000 (\$ in Thousands)**

(U) \$255	Corrosion/crack growth rate and fatigue determination and testing
(U) \$792	Functional Systems Integrity Program (FSIP)
(U) \$233	Mission support/contractor support
(U) \$747	Economic Service Life Study
(U) \$2,027	Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$94	Corrosion/crack growth rate and fatigue determination and testing
(U) \$30	Basic materials test and predictive technique
(U) \$209	Mission support/contractor support
(U) \$150	Economic Service Life Study
(U) \$483	Total

The following net transactions are not reflected in the FY01 program total: SBIR=-\$31K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.

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BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0401218F KC-135s

PROJECT

4494(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands)**

(U) \$980 Corrosion/crack growth rate and fatigue determination and testing
 (U) \$884 Functional Systems Integrity Program (FSIP)
 (U) \$507 Mission support/contractor support
 (U) \$3,045 Analysis of Alternatives
 (U) \$5,416 Total

(U) **B. Project Change Summary**(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2000</u> <u>Actual</u>	<u>FY 2001</u> <u>Estimate</u>	<u>FY 2002</u> <u>Estimate</u>	<u>FY 2003</u> <u>Estimate</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) AF RDT&E										
(U) Other APPN										

(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. The Analysis of Alternatives contracting vehicle has not yet been determined. AOA will be led by AMC/XP.

(U) **E. Schedule Profile**

	<u>FY 2000</u>				<u>FY 2001</u>				<u>FY 2002</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Corrosion & Fatigue Testing (ongoing)												
(U) Materials Test & Predictive Tech.										*		
(U) FSIP (Ongoing- See Note 1)												
(U) Mission Support (Ongoing)												
(U) Economic Service Life Study			X				*					
(U) Analysis of Alternatives											X	

X=Start / *=Complete

NOTE 1: Analysis of flight controls/autopilot will complete in 3rd Qtr FY 02. FSIP will continue at that point with examination of additional aircraft systems as

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
07 - Operational System Development				0401218F KC-135s				4494		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
							<u>FY 2000</u>	<u>FY 2001</u>		<u>FY 2002</u>
(U)	Corrosion/crack growth determination and testing						255	137		980
(U)	Basic materials test and predictive technique						0	50		0
(U)	Functional Systems Integrity Program (FSIP)						792	0		884
(U)	Mission support/contractor support						233	296		507
(U)	Economic service life study						747	0		0
(U)	Analysis of Alternatives						0	0		3,045
(U)	Total						2,027	483		5,416
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
Boeing	C/KC-135 Fleet Support SS/FFP	Oct 97- Mar 03	TBD	TBD	2,022	1,762	359	1,839	Continuing	TBD
<u>Support and Management Organizations</u>										
ARINC, Frontier, other support contractors	Design Engineering Program (DEP) C/FP	Oct 97- Mar 03	TBD	TBD	148	140	124	3,277	Continuing	TBD
<u>Test and Evaluation Organizations</u>										
FAA, Wright Labs, NASA, etc.	Project Order/MPIR	Oct 97- Mar 03	TBD	TBD	100	125	0	300	Continuing	TBD
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE June 2001	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
07 - Operational System Development		0401218F KC-135s				4494
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
<u>Subtotals</u>						<u>Total</u>
Subtotal Product Development		2,022	1,762	359	1,839	TBD
Subtotal Support and Management		148	140	124	3,277	TBD
Subtotal Test and Evaluation		100	125	0	300	TBD
Total Project		2,270	2,027	483	5,416	TBD

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