

UNCLASSIFIED

PE NUMBER: 0604796F
 PE TITLE: Alternative Fuels

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0604796F Alternative Fuels
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.000	54.217	89.020	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5287 Assured Fuels	0.000	54.217	89.020	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

Note: PE 0604796F is a new PE in FY 2009. Previous alternative fuels work was accomplished in the "RDT&E for Aging Aircraft" PE 0605011F and the "Aircraft Engine Component Improvement Program" PE 0207268F.

(U) A. Mission Description and Budget Item Justification

The Alternative Fuels program provides certification for the operational use of alternative fuels in all legacy and future weapons systems, appropriate support equipment, and fuel delivery and storage infrastructure. The alternative fuel types planned for investigation and transition include various synthetic fuels, bio-mass derived fuels, and fuel blend technologies. This effort includes complete system evaluations, studies and analysis, subsystem and system-level testing, safety, environmental analysis, fuel stock purchase, fuel storage and transport and other USAF certification costs. Scope of activities include interaction with all USAF weapon system single managers to accomplish complete certification activities for applicable weapon systems. In sum, this initiative provides assured fuels by decreasing US dependence on foreign oil and securing additional fuel-types on which to conduct world-wide operations.

This program is in Budget Activity 4 - Advanced Component Development and Prototypes (ACD&P) because effort involves advanced fuels development and certification.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget		28.464	47.202
(U) Current PBR/President's Budget	0.000	54.217	89.020
(U) Total Adjustments	0.000	25.753	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.147	
Congressional Increases		25.900	
Reprogrammings			
SBIR/STTR Transfer			

(U) Significant Program Changes:

FY 2009 funding provides initial funding for this new PE and includes a \$25.9M congressional realignment done at the request of the AF to realign associated O&M funds to RDT&E funds to accommodate the purchase of alternative fuel for test and evaluation.

FY 2010 increase reflects full AF funding to the requirement and the realignment of \$17.2M of associated O&M funds to RDT&E funds to accommodate the purchase of alternative fuel for test and evaluation.

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0604796F Alternative Fuels			PROJECT NUMBER AND TITLE 5287 Assured Fuels		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5287 Assured Fuels	0.000	54.217	89.020	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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(U) A. Mission Description and Budget Item Justification

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This program is in Budget Activity 4 - Advanced Component Development and Prototypes (ACD&P) because effort involves advanced fuels development and certification.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Certify Air Force weapon systems (to include appropriate support equipment and base-level fuel delivery and storage infrastructure) to operate using any number of alternative fuel stocks. Includes costs to purchase/store/transport/analyze fuel, perform system analysis/testing, assess safety impacts, and complete required certification activities (to include toxicity, fire protection and ESOH evaluations).		52.331	87.094
(U) Determine compatibility/operability of materials, valves, fuel pumps, Automated Tank Gauging (ATG), distribution pipelines, Fuels Mobility Support Equipment (FMSE) and other applicable storage stability, refueling and full scale filtration equipment evaluations. Determine environmental impacts and requirements satisfaction for new fuel delivery to base storage.		0.724	0.739
(U) Mission Support Costs - costs required to support and manage the program, to include travel and supplies		1.162	1.187
(U) Total Cost	0.000	54.217	89.020

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) Civ Pay - O&M		1.838	1.551							
Alternative Fuels O&M Civ Pay above included in PE 0702806F (Acquisition and Command Support).										

Exhibit R-2a, RDT&E Project Justification

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PE NUMBER AND TITLE

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PROJECT NUMBER AND TITLE

5287 Assured Fuels

(U) **D. Acquisition Strategy**

Funding may be executed internally within the 77th Aeronautical Systems Wing via full and open competition or released to other organizations for alternative fuel certification projects for which they are the Office of Primary Responsibility (OPR). OPRs will determine the most appropriate contract vehicle.

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Exhibit R-3, RDT&E Project Cost Analysis

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04 Advanced Component Development and Prototypes (ACD&P)				0604796F Alternative Fuels					5287 Assured Fuels			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2008 Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) <u>Support</u> Certify Air Force weapon Systems to operate using a variety of alternative fuel stocks, purchase/store/transport/analyze fuel, perform system analysis/testing, assess safety impacts, and complete all other certification requirements	Various	77th AESW/AF				52.331		87.094		Continuing	TBD	
Determine compatibility/operability of materials, valves, fuel pumps, Automated Tank Gauging (ATG), distribution pipelines, Fuels Mobility Support Equipment (FMSE) and other applicable storage stability, refueling and full scale filtration equipment evaluations. Determine environmental impacts and requirements satisfaction for new fuel delivery to base storage.	Various	AFPET				0.724		0.739		Continuing	TBD	
Subtotal Support			0.000	0.000		53.055		87.833		Continuing	TBD	0.000
Remarks:												
(U) <u>Management</u> Management and support costs associated with the Alternative Fuels effort to include travel and supplies	Various					1.162		1.187		Continuing	TBD	
Subtotal Management			0.000	0.000		1.162		1.187		Continuing	TBD	0.000
Remarks:												
(U) Total Cost			0.000	0.000		54.217		89.020		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

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Alternative Fuels Certification Office Summary Certification Schedule/Status



Maximizing War-winning Capabilities For... Every Airman... Every Aircraft

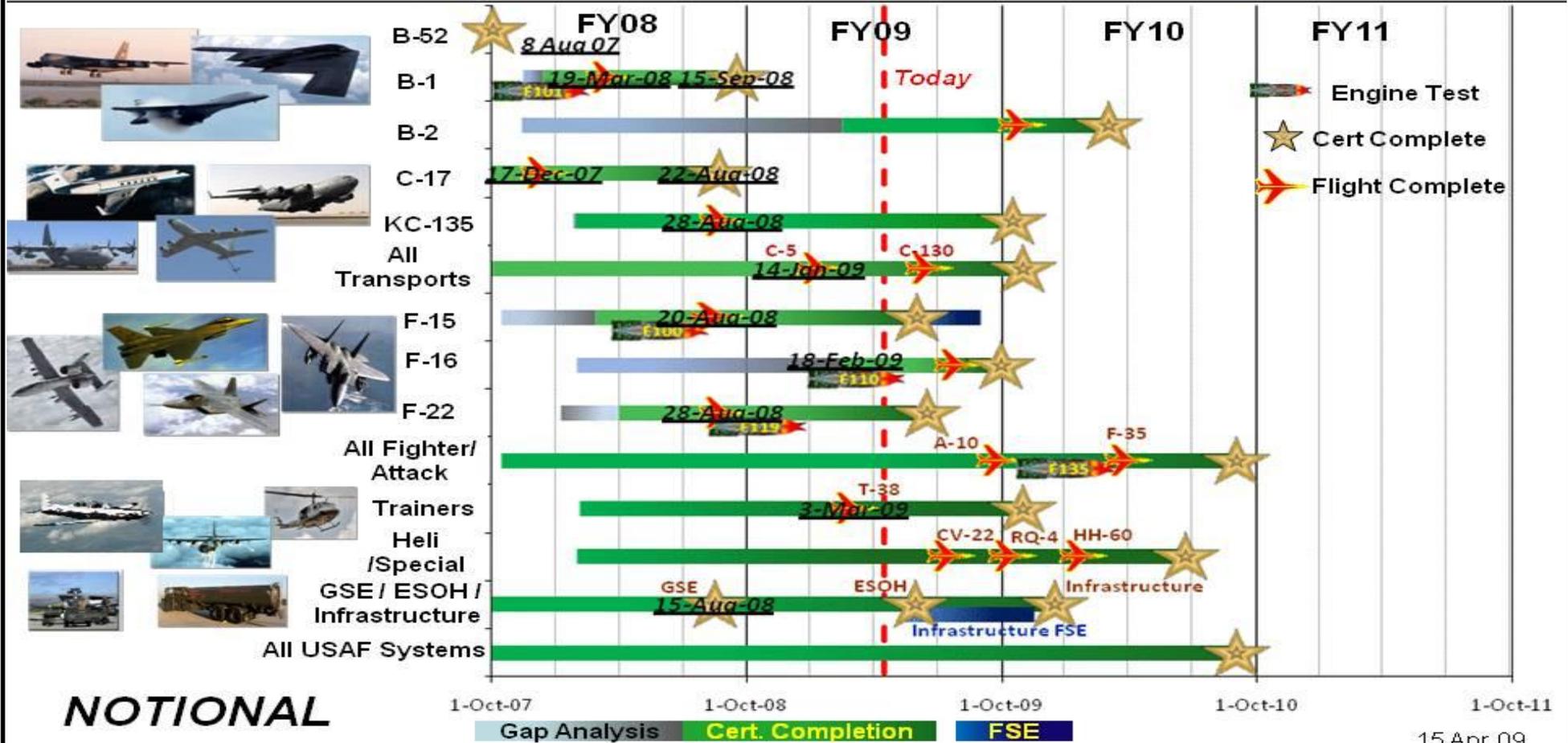


Exhibit R-4a, RDT&E Schedule Detail

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(U) Schedule Profile

FY 2008

FY 2009

FY 2010

(U) Certification Efforts

1-4Q

1-4Q

(U) Flight Tests

1-4Q

1-3Q

(U) Engine Tests

1-3Q

1-2Q