

**UNCLASSIFIED**

PE NUMBER: 0605306F

PE TITLE: Ranch Hand II Epidemiology Study

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>06 RDT&amp;E Management Support</b>	<b>PE NUMBER AND TITLE</b> <b>0605306F Ranch Hand II Epidemiology Study</b>
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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	4.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.142
2767 Ranch Hand II Epidemiology Study	4.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.142

**(U) A. Mission Description and Budget Item Justification**

As a result of Presidential direction, PE 0605306F was established to conduct a 25-year epidemiology investigation of approximately 1,200 Air Force personnel who were involved with aerial spraying of herbicides in Vietnam from 1962 to 1971 (Operation Ranch Hand). The objective of this investigation is to determine whether long-term health effects exist and can be attributed to occupational exposure to phenoxy herbicides and their associated dioxins.

This project involves a 25-year study, initiated in 1980, that compares United States Air Force (USAF) Ranch Hand personnel to a control group of USAF crew members and support personnel who were not exposed to herbicides while serving in Southeast Asia. Approximately 20,000 individuals (exposed personnel group plus control group) are participating in the annual mortality study, with approximately 2,200 (exposed personnel group plus control group) of these participating in the detailed morbidity study during each physical examination cycle. The detailed physical examination cycle includes follow-up health examinations at the 3-, 5-, 10-, 15-, and 20-year time periods. The study includes examination of the possible occurrence of birth defects in children as determined from children's medical records and family medical histories. The Congressionally-established Ranch Hand Advisory Committee has directed that all study findings be reported to the scientific community as peer-reviewed journal articles. Note: This program is comprised of six cycles and each cycle consists of participant physical examinations followed by data analysis and report generation. The largest expenditure of funds occurred during the physical exam cycles such as in 1997-1998 and 2002-2003. The program is in the final cycle and is scheduled to complete in FY 2006.

This program is in Budget Activity 6, Management and Support, since it includes research and development efforts directed towards support of installations or operations required for general research and development use.

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BUDGET ACTIVITY

06 RDT&E Management Support

PE NUMBER AND TITLE

0605306F Ranch Hand II Epidemiology Study

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	4.128	0.000	0.000	0.000
(U) Current PBR/President's Budget	4.024	0.000	0.000	0.000
(U) Total Adjustments	-0.104			
(U) Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer	-0.104			
(U) <u>Significant Program Changes:</u>				
Reprogramming in FY06 was for fact of life changes.				

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2007**

BUDGET ACTIVITY <b>06 RDT&amp;E Management Support</b>				PE NUMBER AND TITLE <b>0605306F Ranch Hand II Epidemiology Study</b>			PROJECT NUMBER AND TITLE <b>2767 Ranch Hand II Epidemiology Study</b>			
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
2767 Ranch Hand II Epidemiology Study	4.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	39.142
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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This project involves a 25-year study, initiated in 1980, that compares United States Air Force (USAF) Ranch Hand personnel to a control group of USAF crew members and support personnel who were not exposed to herbicides while serving in Southeast Asia. Approximately 20,000 individuals (exposed personnel group plus control group) are participating in the annual mortality study, with approximately 2,200 (exposed personnel group plus control group) of these participating in the detailed morbidity study during each physical examination cycle. The detailed physical examination cycle includes follow-up health examinations at the 3-, 5-, 10-, 15-, and 20-year time periods. The study includes examination of the possible occurrence of birth defects in children as determined from children's medical records and family medical histories. The Congressionally-established Ranch Hand Advisory Committee has directed that all study findings be reported to the scientific community as peer-reviewed journal articles. Note: This program is comprised of six cycles and each cycle consists of participant physical examinations followed by data analysis and report generation. The largest expenditure of funds occurred during the physical exam cycles such as in 1997-1998 and 2002-2003. The program is in the final cycle and is scheduled to complete in FY 2006.

This program is in Budget Activity 6, Management and Support, since it includes research and development efforts directed towards support of installations or operations required for general research and development use.

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

(U) Complete the sixth and final cycle of physical examinations, questionnaires, and participant database. Complete data processing and statistical analysis of examination data. Document all analyses and findings and initiate work on the 3,000 page Sixth Cycle Final Report. Conduct analyses as recommended by the Congressionally-established Ranch Hand II Advisory Committee based on morbidity data trends and findings. Prepare a Specimen Viability Study for the Ranch Hand II biological specimens on a randomly selected basis. Prepare the Ranch Hand II/Air Force Health Study (AFHS) History Project. Complete work on comprehensive longitudinal report in FY06. Establish a relational information warehouse for the AFHS database as recommended by both the Ranch Hand II Advisory Committee and the Institute of Operational Medicine Committee studying the disposition of the AFHS in its Interim Letter Report.

<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
1.061			

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(U) <b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>						
(U) Continue to process and document examination data and to verify the physical examination database. Continue new medical records coding and verify existing medical records coding. Perform the annual mortality analysis of approximately 1,200 Ranch Hand personnel and 19,000 comparison personnel. Conduct data analysis for articles to be submitted to peer-reviewed journals as directed. Process and document Cycle 6 examination data to include updating of the participant database. Complete collaborative studies with other agencies/universities supporting scientific effort; complete morbidity and mortality mathematical modeling. Support the Specimen Viability Study, the Comprehensive Longitudinal Report, the Ranch Hand II History Project, and the Relational Information Warehouse effort. Prepare for project completion and turnover of archives/biological samples to designated agencies. Complete project at the end of FY06.	1.967									
(U) Continue to process and document examination data. Continue archiving previous cycles' examination data and digitize and archive the Cycle 6 data as received. Conduct medical records coding and verification of examination database and Cycles 1 through 6 coding. Perform annual mortality analysis support. Provide Scientific Director support in FY06. Conduct data analysis for journals and reports to Congress. Continue maintenance of Ranch Hand II LAN. Provide support for and complete the transition or turnover of archives and specimens to designated agencies. Complete project at the end of FY06.	0.996									
(U) Total Cost	4.024	0.000	0.000	0.000						
(U) <b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>										
	<u>FY 2006</u> <u>Actual</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Not Applicable.										
(U) <b><u>D. Acquisition Strategy</u></b> Not Applicable.										