RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE **February 2002**

BUDGET ACTIVITY **07 - Operational System Development**

PE NUMBER AND TITLE **0208031F WRM-EQUIPMENT/SECONDARY ITEMS**

PROJECT **4668**

COST ($ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4668 Shelter Development	1,372	0	0	0	0	0	0	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

SAF/AQPS, HQ USAF/ILSR and HQ USAF/ILEX are in the process of consolidating three small dollar Civil Engineer (CE) readiness R&D programs (PE64617F - Agile Combat Support; PE64708F - Civil, Fire, Environmental, Shelters, and the 3600 portion of PE28031F - War Reserve Materiel) under PE 64617F. PE28031F will be merged into PE64617F effective FY02. This will meet the intent of the House action to eliminate smaller PEs and provide a more cohesive, manageable CE Readiness modernization effort.

(U) A. Mission Description

(U) A. Mission Description

1. This program supports Air Force (AF) Bare Base Mobility Equipment, also known as Harvest Falcon (HF) and Harvest Eagle (HE). Designed and sized to support the current Joint Chiefs of Staff (JCS) wartime planning scenario of two nearly simultaneous Major Theater Wars (2MTW), this equipment provides theater warfighters billeting, industrial, and air field capability to support up to 68,200 combat troops and 822 aircraft at 15 austere locations by building complete temporary bases from the ground up. Of the two systems, HF is the newest and fields the greatest capability (housekeeping plus air base infrastructures). The HF system provides capability directed in the FY90-94 Defense Planning Guidance (DPG) that initially tasked the Air Force to support United States Central Command (USCENTCOM) Rapid Deployment Forces (RDF) and save critical airlift resources through theater prepositioning. Subsequent DPGs have continued this requirement. Harvest Falcon remains a top priority procurement requirement of the Commander-In-Chief/Central Command.

2. The outstanding reputation enjoyed by the AF Bare Base program, established during the Gulf War, has continued to grow in successive Military-Operations-Other-Than-War (MOOTW) throughout the world. These include Operation Southern Watch, Provide Relief, Provide Promise, Provide Comfort, Restore Hope, Sea Signal, Uphold Democracy, Joint Endeavor, Desert Focus, Desert Fox, Noble Anvil and Allied Force. Significant quantities of Harvest Falcon and Harvest Eagle assets were successfully employed during Operations Allied Force and Noble Anvil to support operational and humanitarian requirements in Kosovo, Albania, Italy, and Northern Turkey. The unparalleled success of the AF Bare Base program in providing critically needed austere basing facilities has resulted in continued demand for the equipment to support MOOTW. This high Operational Tempo (OPTEMPO) utilization continues to take its toll on system assets. As a result, the majority of HF and HE sets currently in the inventory require comprehensive repair or replacement. A majority of the equipment has been used for over

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(U) A. Mission Description Continued

three years, well beyond its original design parameters. Equipment modernization and reconstitution funding thus remains a crucial issue.

3. The Air Force Bare Base program has had unparalleled success meeting the demands in support of MOOTW. This has taken its toll on equipment, and as a result the majority of HF and HE equipment has been in use well beyond design parameters and requires comprehensive repair or replacement. In addition, the Expeditionary Air Force concept demands systems that are lighter leaner, more maintainable, and more deployable. Research, Development, Testing, and Evaluation (RDT&E) funds support these modernization and reconstitution requirements.

(U) FY 2001 ($ in Thousands)
(U) $340 Complete EMD for Bare Base Systems Cold Weather Package
(U) $830 Complete EMD for Deployable Power Generation and Distribution System
(U) $202 Continue other technical support
(U) $1,372 Total

(U) FY 2002 ($ in Thousands)
(U) $0 No Activity
(U) $0 Total

(U) FY 2003 ($ in Thousands)
(U) $0 No Activity
(U) $0 Total

(U) B. Budget Activity Justification

This program is in Budget Activity 7 because it supports development of operational HF/HE equipment in modernized configurations which reduce deployment 'footprints', required transport airlift sorties, and increase operational efficiencies.

(U) C. Program Change Summary ($ in Thousands)

	FY 2001	FY 2002	FY 2003	Total Cost
(U) Previous President's Budget	1,475	0		TBD
(U) Appropriated Value	1,475			TBD
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				-9

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(U) C. Program Change Summary ($ in Thousands) Continued

		FY 2001	FY 2002	FY 2003	Total Cost
	b. Small Business Innovative Research	-47			
	c. Omnibus or Other Above Threshold Reprogram	-25			
	d. Below Threshold Reprogram	-18			
	e. Rescissions	-13			-62
(U)	Adjustments to Budget Years Since FY 2002 PBR				
(U)	Current Budget Submit/FY 2003 PBR	1,372			TBD

(U) Significant Program Changes:

FY01 funding for Deployable Waste realigned to support higher priorities in the Deployable Power Generation and Distribution System (DPGDS) program (reference Acquisition Strategy for detailed explanation). PM MEP funded DPGDS support in FY00.

(U) D. Other Program Funding Summary ($ in Thousands)

		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
(U)	AF RDT&E									
(U)	Other APPN									
(U)	Other Procurement, AF, Other Base Maintenance and Support Equipment:WRM-Equipment/ Secondary Items (0208031F) (WSC 845420), P-1: 108	49,671	27,421	26,809	20,148	19,348	20,500	20,700	Continuing	Continuing

(U) E. Acquisition Strategy

1. The SPO is evaluating and testing commercial solutions to determine options for militarizing commercially-available products for cold weather systems and waste management systems. In FY00 it completed and extensive Deployable Waste Management Study, which determined the on-site waste treatment equipment and investigation of emerging technologies. Power requirements were analyzed, along with operatility factors, logistics impacts and cost drivers. Engineering analyses were performed for each candidate technology; specific operational requirements were defined and definitive waste stream data was incorporated. The SPO will also evaluate work performed by Air Force Research Laboratories, which has identified technologies with potential solution to safely, effectively and efficiently incinerate

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(U) E. Acquisition Strategy Continued

medical and hazardous wastes. This capability may also eliminate other waste materials, such as solid wastes/garbage, and other materials placed in landfills. Transition to the SPO in FY04. Contracts will be competitive, firm fixed price.

2. The SPO is also developing the next generation of electrical power generation and distribution equipment to support Harvest Eagle and Harvest Falcon deployable Bare Base encampments and US Army Prime Power Units. This AF-led joint effort with the DOD Program Manager for Mobile Electric Power (PM-MEP) will use state-of-the-art, commercially available equipment and parts support to acheive reduced airlift (38% achieved), reduced fuel consumption (16% achieved) and improved load performance. PM-MEP funded FY00 T&E. Due to new requirements requested by both the Air Force and agreed upon by the Army, FY01 provides funds to complete T&E.

(U) F. Schedule Profile

	FY 2001				FY 2002				FY 2003			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) BARE BASE COLD WEATHER PKG												
(U) - Release RFP												
(U) - Contract Award												
(U) - Conduct Verification Testing			*									
(U) DEPLOYABLE WASTE MGT SYS												
(U) -Complete Waste Management Study												
(U) DEPLOYABLE POWER GENERATION AND DISTRIBUTION SYSTEM (DPGDS)												
(U) - Complete Implementation of New Requirements			*									
(U) - Complete OT&E				X								
(U) - Milestone III Decision				X								
(U) - Award Production Option				X								

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)		DATE February 2002
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(U) A. Project Cost Breakdown ($ in Thousands)

		FY 2001	FY 2002	FY 2003
(U)	Contracts	570	0	
(U)	A&AS Support	540	0	
(U)	Other Government Agencies	50	0	
(U)	Material/Equipment	10	0	
(U)	Other Technical Support	202	0	
(U)	Total	1,372	0	

(U) B. Budget Acquisition History and Planning Information ($ in Thousands)

(U) Performing Organizations:

Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 2001	Budget FY 2001	Budget FY 2002	Budget FY 2003	Budget to Complete	Total Program
Product Development Organizations										
Bare Base Systems Cold Weather Package	C/FP	4Qtr/FY00	910	910	0	340	0		Continuing	TBD
Deployable Waste Management System	C/FP	1Qtr/FY01	3,948	3,948	1,466	202	0		Continuing	TBD
Deployable Power Generation and Distribution System	C/FP	3Qtr/FY98	2,238	2,238	1,690	830	0		Continuing	TBD
Support and Management Organizations										
Test and Evaluation Organizations										

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)	DATE February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
07 - Operational System Development	**0208031F WRM-EQUIPMENT/SECONDARY ITEMS**	**4668**

Subtotals	Total Prior to FY 2001	Budget FY 2001	Budget FY 2002	Budget FY 2003	Budget to Complete	Total Program
Subtotal Product Development	3,156	1,372	0		TBD	TBD
Subtotal Support and Management						
Subtotal Test and Evaluation						
Total Project	3,156	1,372	0		TBD	TBD