



## Quarterly Status Report

### Fire Program Analysis (FPA) – Preparedness Modules Project

For Reporting Period: January 1, 2004 through March 31, 2004

#### Scope Status

The scope of the project is to design and develop an automated system for wildland fire preparedness resource planning and budgeting to replace the systems currently in use by the five federal wildland fire management agencies.

- The new application system will evaluate the cost effectiveness of alternative initial attack organizations in meeting fire management objectives.
- The FPA system will use an optimization approach to determine the level of effectiveness associated with a range of budgets.

Throughout the past quarter, the FPA Core Team has continued to identify and resolve ongoing and emerging issues. Resolution of some of these issues may affect the scope of FPA. For example, incorporating wildland fire use (WFU) into the optimization model could represent an increase in the scope and may require a contract modification with the development contractor. Another key issue that may affect scope is the budget formulation and allocation. Depending on the complexity of the solution proposed by the subject matter experts, this may also represent an increase in scope.

#### Key Tasks, Milestones and Accomplishments

**Optimization Processor Fully Functional.** The IBM development team has successfully developed the optimization processor within FPA. The optimization processor is the core of the FPA economic analysis. Early on, the optimization model was recognized as the most risky component of the system. IBM's Watson Research Center has been working with the optimization model to improve the solution times. Work continues on additional components within this same task order including the data transformer, data validation routines and the results interpreter. IBM has successfully completed an end-to-end test of the integration of the data transformer, optimization model and the results interpreter.

**Task 7-User Interface Fully Funded -** The task order to design the FPA user interface (7.1) was initiated last July. The tasks to build and test the user interface were funded on January 8, 2004. The initial design of the user interface screens has been completed. The contactors at IBM continue to work on development and testing of the FPA user interface screens.

**Task 8-Reports Initiated** - The reports development task was initiated on January 8, 2004. IBM conducted a kick-off meeting with the FPA Core Team on March 3, 2004. Task 8 includes geospatial display capabilities with FPA.

**Task 10-Documentation Funded** – The task to develop user and system documentation was initiated on January 8, 2004. This task was kicked off on March 3, 2004.

**Task 12-Data Migration Funded** – The task to develop user and system documentation was initiated on January 8, 2004. IBM continues to work to develop data migration routines for units that have legacy data that can feed directly into FPA.

**Testing Hardware Purchased** – A modification was made to the IBM task order to purchase the FPA test hardware and software. The hardware was delivered to IBM-Boulder in the last week of March.

**CPIC status** – The FPA-PM is in the control phase of the CPIC (Capital Planning and Investment Control) process. The latest FPA Exhibit 300 received the highest score of all the major Forest Service IRM investments. The FPA Exhibit 300 received a score of 42 (out of 50) from OMB to garner an overall score of 5 (of 5).

Along with all USDA investments, FPA is implementing the new Worklenz portfolio tracking and IRM budgeting tool. Implementing Worklenz is expected to require significant effort from the FPA project management team. The FPA project management team is working with Forest Service IRM to ensure that CPIC and C&A reporting requirements are met while managing adverse impacts on the project.

**Certification & Accreditation (C&A) Status** - During the time period of February 16, 2004 through March 15, 2004, the FPA security team began exploring contractor options for Security Test and Evaluation (ST&E) activities. This is part of Step 1, Phase 1, Pre-certification. The FPA security team also had discussions regarding development of various required documents (e.g., the Security Features User's Guide or SFUG) and began collecting various USDA templates for such documents. The FPA security team has begun drafting the SFUG following the template provided by USDA.

The FPA team plans to continue exploring contractor options for Security Test and Evaluation (ST&E) activities. In addition, the FPA team will continue working on the SFUG, may begin working on various required documents, and may update the System Security Plan as necessary throughout the design and build phase and the C&A process.

**PCHA Upgrade** – A task order has been initiated for slight modifications to the PCHA application to support FPA. PCHA will analyze historic fire occurrence and historic weather data to develop fire scenarios for input to FPA. The PCHA modifications are expected to be available prior to the FPA beta test in June.

**Two Phase Solution Technique** – The IBM Watson Research Center has developed techniques to improve the solution time. The initial FPA optimization model was experiencing solution times on the order of 8 hours. The new two phased approach reduces solution times to the order of 15 minutes. This addresses key project risks. The two phased approach has been reviewed by Dr. Doug Rideout to validate that this approach continues to incorporate economic theory.

**Requirements Analysis Extended** – We have extended the task order with Commonthread, Inc. and Michele Tae. Ms. Tae has been working with the FPA Core Team to develop and document FPA requirements. Commonthread will continue to work with the FPA project to develop detailed requirements and facilitate development and articulation of the overall FPA conceptual architecture in preparation for FPA Phase II.

**Implementation Planning** – We have formed an “Implementation Coordination Group” (ICG) to help with the effort for field implementation of FPA. The ICG is focusing on policies and procedures, user training and documentation required for successful implementation of FPA.

**Key Communications Events -**

Presentations to Geographic Areas – The FPA Core Team conducted day-long FPA briefings in each geographical area during January and February. In 8 separate sessions around the country the FPA Core Team briefed 999 FPA stakeholders and users.

Prototype Symposium 2 – The prototype areas met with the FPA Team the week of February 26 in Boise. The Prototype areas developed their initial input data sets and established the Fire Management Unit boundaries.

**Schedule & Budget Performance**

During the second quarter of FY’04 these funds were obligated:

<b>FPA Project Obligations 2<sup>nd</sup> Quarter FY2004</b>		
<b>Date</b>	<b>Description</b>	<b>Amount</b>
1/23/04	Funded Tasks 7.2, 7.3 User Interface, 8 Reports, 10 Documentation & 12 Data Migration	\$2,715,349
2/18/04	Hardware and software for the testing system were added to the IBM contract.	\$325,000
2/26/04	PCHA Upgrade	\$50,000
3/15/04	Requirements contract extended	\$99,500
3/26/04	Funded task 13 & 14	\$394,444

Additional obligations are expected to complete funding of the IBM task order in the next quarter. Obligations are dependant on receipt of the remaining project funds.

The FPA project remains on track for implementation in October 2004.

I.H.4 Actual Performance and Variance from OMB approved baseline (Original or Current):													
Description	OMB Approved Baseline						Actual					Delta Over/ (Under)	Cost Variance %
	Schedule		Duration		Planned Cost (BCWS)	Funding Agency	Schedule		% Complete	Actual Budgeted Cost (ACWP)			
	Start Date	End Date	Days	Hrs.			Start Date	End Date					
01. Project Initiation	5/15/2002	6/30/2002	46	-	\$ 115,000	USDA FS & DOI	5/15/02	6/30/2002	100%	\$ 115,000	\$ -		
02. Develop Initial Architecture	5/15/2002	12/30/2002	229	-	\$ 160,776	USDA FS & DOI	5/15/02	12/30/2002	100%	\$ 160,776	\$ 0		
03. Technical Approval & Contract Prep	6/15/2002	4/14/2003	303	-	\$ 150,000	USDA FS & DOI	6/15/02	4/14/2003	100%	\$ 150,000	\$ -		
04. Contract Award	6/15/2002	5/2/2003	321	-	\$ 43,386	USDA FS & DOI	10/15/02	5/2/2003	100%	\$ 43,386	\$ 0		
05. Requirements Specifications	9/15/2002	6/30/2003	288	-	\$ 1,004,024	USDA FS & DOI	9/20/02	6/30/2003	100%	\$ 1,031,827	\$ 27,803		
06. Security Planning	5/7/2003	12/31/2003	238	-	\$ 156,024	USDA FS & DOI	8/1/02	8/20/2003	100%	\$ 156,024	\$ -		
07. Program Management	1/1/2003	5/6/2005	856	-	\$ 489,310	USDA FS & DOI	5/2/03	-	LOE	\$ 700,456	\$ 211,146		
08. Task 6 - Iteration 1 - Optimization Model	7/7/2003	3/16/2004	253	-	\$ 1,872,667	USDA FS & DOI	7/7/03		95%	\$ 1,872,667	\$ -		
09. Implementation of Work Lenz	8/1/2003	6/1/2004	305	-	\$ 10,000	USDA FS & DOI	1/1/04		10%	\$ 10,000	\$ -		
10. Updated Security Planning	6/1/2004	10/7/2004	128	-	\$ 150,000	USDA FS & DOI	3/1/04		30%	\$ 150,000	\$ -		
11. Certification and Accreditation of FPA-P	7/1/2003	9/30/2004	457	-	\$ 200,000	USDA FS & DOI	1/15/04		40%	\$ 200,000	\$ -		
12. Task 7 - Iteration 2 - User Interface	9/15/2003	7/12/2004	301	-	\$ 1,707,019	USDA FS & DOI	9/15/04		25%	\$ 1,707,019	\$ -		
13. Task 8 - Iteration 3 - Reports & Outputs	12/16/2003	10/20/2004	309	-	\$ 1,416,724	USDA FS & DOI	1/8/04		10%	\$ 1,416,724	\$ -		
14. Task 9 - Iteration 4 - National Database	3/4/2004	11/24/2004	265	-	\$ 345,873	USDA FS & DOI				\$ 345,873	\$ -		
15. Field Data Development	6/30/2003	9/30/2004	458	-	\$ 150,000	USDA FS & DOI	6/10/03	-	5%	\$ 150,000	\$ -		
16. Develop Policy & Procedures	8/1/2002	2/1/2005	915	-	\$ 80,839	USDA FS & DOI	8/1/02	-	15%	\$ 80,839	\$ -		
17. Beta Testing	6/3/2004	1/12/2005	223	-	\$ 1,640,446	USDA FS & DOI	-	-	-	\$ 1,667,979	\$ 27,533		
18. Release	6/30/2004	4/6/2005	280	-	\$ 192,791	USDA FS & DOI	4/8/04	-	-	\$ 192,791	\$ -		
19. Training	5/25/2004	2/8/2005	259	-	\$ 201,653	USDA FS & DOI	4/8/04	-	5%	\$ 201,653	\$ -		
20. Data Migration	6/30/2003	11/1/2004	490	-	\$ 210,767	USDA FS & DOI	2/15/04	-	5%	\$ 210,767	\$ -		
21. Implementation	8/1/2004	5/1/2005	273	-	\$ 382,699	USDA FS & DOI	1/15/04	-	5%	\$ 329,422	\$ (53,277)		
22. Operations and Maintenance	9/30/2004	9/30/2007	1,095	-	\$ 1,200,000	USDA FS & DOI	-	-	-	\$ 1,200,000	\$ -		
<b>PROJECT TOTAL:</b>	<b>5/15/2002</b>	<b>9/30/2004</b>	<b>869</b>		<b>\$ 11,879,998</b>					<b>\$ 12,093,203</b>	<b>\$ 213,205</b>	<b>1.8%</b>	