

AFRL-IF-RS-TR-2004-4
In-House Technical Report
January 2004



ANALYSIS AND SUMMARY OF BUSINESS PROCESSES AND REQUIREMENTS FOR JIFFY R&D PROGRAM MANAGEMENT SOFTWARE CAPABILITIES

Jacqueline D. Smith

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

**AIR FORCE RESEARCH LABORATORY
INFORMATION DIRECTORATE
ROME RESEARCH SITE
ROME, NEW YORK**

STINFO FINAL REPORT

This report has been reviewed by the Air Force Research Laboratory, Information Directorate, Public Affairs Office (IFOIPA) and is releasable to the National Technical Information Service (NTIS). At NTIS it will be releasable to the general public, including foreign nations.

AFRL-IF-RS-TR-2004-4 has been reviewed and is approved for publication.

APPROVED:

/s/

HELEN M. RICO, Acting Chief
Distributed Information Systems Branch
Information Grid Division

FOR THE DIRECTOR:

/s/

WARREN H. DEBANY, JR., Technical Advisor
Information Grid Division
Information Directorate

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 074-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE JANUARY 2004	3. REPORT TYPE AND DATES COVERED In-House, Jan 2003 – Sep 2003	
4. TITLE AND SUBTITLE ANALYSIS AND SUMMARY OF BUSINESS PROCESSES AND REQUIREMENTS FOR JIFFY R&D PROGRAM MANAGEMENT SOFTWARE CAPABILITIES			5. FUNDING NUMBERS C - N/A PE - 62702F PR - ARCH TA - 00 WU - 04	
6. AUTHOR(S) Jacqueline D. Smith				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AFRL/IFGA 525 Brooks Road Rome, NY 13441-4505			8. PERFORMING ORGANIZATION REPORT NUMBER AFRL-IF-RS-TR-2004-4	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) AFRL/IFGA 525 Brooks Road Rome, NY 13441-4505			10. SPONSORING / MONITORING AGENCY REPORT NUMBER AFRL-IF-RS-TR-2004-4	
11. SUPPLEMENTARY NOTES AFRL Project Engineer: Jacqueline D. Smith/IFGA/315-330-2130/Jacqueline.Smith@rl.af.mil				
12a. DISTRIBUTION / AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.				12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 Words) This document describes the methodology and requirements for a subset of the functionality of the JIFFY R&D Program Management software, scheduled for deployment at the Air Force Research Laboratory (AFRL) in September 2003. The incorporation of new capabilities for the Laboratory Management Review process and the AFRL 2913 LMR reporting form required the formation of a focus group to investigate current business processes and make recommendations for the software design, build and testing of new software modules for JIFFY. This document specifically describes the outcome of the focus group's efforts. The purpose of the JIFFY software program is to provide an automated tool that is customized for managing AFRL Research and Development (R&D) program execution and to host a common repository for data elements related to Technical Programs for Scientists and Engineers (S&E), Financial & Administrative, Plans & Programs and Management Staff.				
14. SUBJECT TERMS JIFFY R&D Program, JIFFY Management Software			15. NUMBER OF PAGES 41	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UL	

Table of Contents

1. OVERVIEW	1
2. BACKGROUND	1
3. REGULATORY CITATIONS	2
4. TOP LEVEL REQUIREMENTS	3
5. THE TEAM	10
6. APPROACH.....	10
7. PRODUCTS.....	12
8. CONSTRAINTS & RISKS.....	13
9. INTEROFFICE CONTACTS & COOPERATION.....	13
APPENDIX A-1 AFRL 2913 – LMR REPORT FORM.....	15
APPENDIX A-2 INSTRUCTIONS FOR COMPLETING AFRL FORM 2913	18
APPENDIX B SUGGESTED LMR THRESHOLDS AND FREQUENCIES.....	25
APPENDIX C AFRLI 61-202 AFRL LABORATORY MANAGEMENT REVIEW (LMR) PROCESS	24
APPENDIX D TERMS AND DEFINITIONS.....	25
APPENDIX E BASELINE CHANGE REQUEST (BCR) PROCESS	27
APPENDIX F-1 AFR2913 REQUIREMENTS	29
APPENDIX F-2 IN-HOUSE WORK UNIT REQUIREMENTS.....	34

1. Overview

- 1.1 This document describes the methodology and requirements for a subset of the functionality of the JIFFY R&D Program Management software scheduled for deployment at the Air Force Research Laboratory (AFRL) in September 2003. The incorporation of new capabilities for the Laboratory Management Review process and the AFRL 2913 LMR reporting form required the formation of a focus group to investigate current business processes and make recommendations for the software design, build, and testing of new software modules for JIFFY. This document specifically describes the outcome of that focus group's efforts.
- 1.2 The purpose of the JIFFY software program is to provide an automated tool that is customized for managing AFRL Research and Development (R&D) program execution and to host a common repository for data elements related to Technical Programs for Scientists & Engineers (S&E), Financial & Administrative, Plans & Programs and Management Staff.
- 1.3 The initial requirements definition, design, development and testing of the code necessary to utilize the tasks outlined in 1.2 shall be performed at the United States Air Force Research Laboratory Information Directorate (AFRL/IF) at the Rome Research Site (RRS) located in Rome, NY.
- 1.4 Deployment of these portions of JIFFY to the other AFRL Technical Directorate (TD) organizational elements located at various geographical locations shall be coordinated by the AFRL Corporate Information Officer (AFRL/CCI) using established schedules IAW Standard Management Information System (STD MIS) and Enterprise Business System (EBS) implementation and schedules approved at AFRL corporate level.
- 1.5 The initial deployment of JIFFY was focused on a) enabling a consistent business tool for an automated AFRL Form 2913 generation and periodic updating requirements governed by the AFRL/IF Laboratory Management Review process¹, b) digital case file creation and maintenance to supplement (not replace) the existing requirement for hardcopy case files, c) financial tracking & forecasting for the Laboratory Program Manager (LPM), and d) collaboration and document sharing tools within an individual project at the S&E program execution level.
- 1.6 This requirements document will specifically cover the Laboratory Management Review (LMR) process, In-house & Aggregate Job Order Numbers (JONs), and the transition to and adoption of the corporate prescribed AFRL 2913 within JIFFY.
- 1.7 This requirements document will outline the AFRL corporate requirements for both the LMR process and the AFRL Form 2913 mandated by AFRL 61-203 within JIFFY.
- 1.8 Future JIFFY requirements for Baseline Change Requests (BCR) will also be discussed and briefly outlined in this document.

¹ See Appendix C

2. Background

- 2.1. AFRL/IF was recognized in November 2001 by the R&D Case File Audit Team of the AFRL Records Manager's Office (AFRL/DS) for its R&D Management processes, with the following areas identified as Best Practices. The R&D Case File Audit Team was sponsored directly by the AFRL Commander, Major General Paul Nielsen.
 - 2.1.1. Program Implementation & Authorization and Laboratory Management Review - the use of the RRS2913a form for LMRs and DTIC reporting.
 - 2.1.2. Division Management Offices performance – business offices that provide administrative support and single point of contact proportional to staffing, and divisions with active management involvement have best case files and DTIC reporting.
 - 2.1.3. Prototype JIFFY Web-Based Program Management software - promises capability for automatic entry into DTIC, with single entry point able to generate multiple reports.
 - 2.1.4. RRS Instruction 16-501, Program Implementation Requests & Authorizations and RL Instruction 61-201, Laboratory Management Reviews were lauded as the best written instructions that the audit team had seen whose detailed procedures were clearly and consistently being followed.
 - 2.1.5. Assistant Records Managers (ARM/FARM) process for retirement of R&D case files.
- 2.2. The RRS 61-201 instruction has been adopted, expanded to cover other AFRL TD business elements, and renumbered to AFRLI 61-203, IF Sup 1 to coincide with AFRL Instructions--61-201-Case Files, 202-LMRs, and 203-Work Units. RRS 61-201 was renumbered to 61-202, IF Supplement 1.
- 2.3. As the TD who developed and first deployed JIFFY, AFRL/IF S&E staff directly experienced the cross-over from current TD specific terminology, LMR forms, and R&D work unit specific instructions to the newly published AFRL 61 series instructions.
- 2.4. A decision to deploy JIFFY to all of AFRL's Technology Directorates was made during the 7 November 2002 session of the AFRL Corporate Board.

3. Regulatory Citations

Appendix C provides a table of commonly encountered steps within the AFRL R&D work unit management process. Specific AFRL Instruction references are listed in this section.

- 3.1 AFRL Instructions
 - 3.1.1 Corporate document repository on the AFRL Intranet
https://afrl.af.mil/RESOURCES/Library/afrl_all/pubs/default.asp

- 3.1.2 AFRLI 61-201, dated 1 December 2002, Scientific/Research and Development, AFRL Research and Development (R&D) Case Files
- 3.1.3 AFRLI 61-202, dated 1 September 2002, Scientific/Research and Development, AFRL Laboratory Management Review (LMR) Process
- 3.1.4 AFRLI 61-203, dated 1 September 2002, Scientific/Research and Development, AFRL Management of the Research and Development (R&D) Work Units
- 3.1.5 AFRLMAN 61-204, dated 1 February 2003, Scientific/Research and Development, AFRL Scientist and Engineer (S&E) Manual
- 3.2. Air Force Policy Directives
 - 3.2.1 AFPD Documents are available at <http://www.epublishing.af.mil/search.asp?keyword=AFPD61>
 - 3.2.2 AFPD 61-1, dated 31 Aug 1993, Management of Science and Technology
 - 3.2.3 AFPD 61-2, dated 07 Apr 1993, Management of Scientific and Technical Information
- 3.3 RRS Office Instructions
 - 3.3.1 RRS Documents are available at <http://www.if.af.mil/pls/oradata/owa/ifdbpub?p=I>
 - 3.3.2 RRS INSTRUCTION 61-201, dated 1 December 2000, Research & Development (R&D) Case Files
 - 3.3.2 RRS INSTRUCTION 63-103, dated 28 December 1998, Pre-contract Requirements & Procedures
 - 3.3.3 RRS Instruction 16-501, dated 01 June 2001, Program Implementation Requests and Authorizations

4. Top Level Requirements

- 4.1. LMR-2913 process
 - 4.1.1 LMRs are required for all active R&D work units.
 - 4.1.2 JIFFY shall provide the following capabilities to all AFRL LPMs.
 - 4.1.2.1 The capability to plan, execute, and track R&D programs whose progress is reportable under the LMR process and IAW citations outlined in section 2.

- 4.1.2.2 The capability for consistent program management review and reporting to AFRL management.
- 4.1.2.3 The capability of an enterprise level tool, eliminate the usage of diverse applications (current ones in use include Form Flow, MS Word, PowerPoint) by S&E staff to generate 2913s during periodic Laboratory Management Review (LMR) cycles.
- 4.1.2.4 The capability for a Common Repository for R&D program data, specific to the LMR process, within a technology directorate (TD).
- 4.1.2.5 The capability for a consistent AFRL wide format for automated AFRL Form 2913 generation.
- 4.1.2.6 The capability to define and/or adopt EBS generated requirements for future upgrades to JIFFY to ensure compliance with AFRL Instructions 61-201, 61-202, 61-203 (see paragraph 2.1 above) along with corporate and TD specific LMR and 2913 requirements.
- 4.1.2.7 The capability to perform the Laboratory Management Review process, a periodic review of laboratory portfolio via work units or aggregation of work units. LMRs shall be arranged to review all work units within R&D efforts/projects that fit an area of interest. The AFRL Form 2913 is the reporting form for this process.
- 4.1.2.8 The capability to document each work unit review with an AFRL Form 2913, AFRL Laboratory Management Review, to permit electronic review by R&D Effort Managers, Branch Chiefs, and Division Chiefs, and to print out and place the completed form in the R&D case file.
- 4.1.2.9 The duties of Work Unit Managers/S&Es are to prepare new or update an AFRL Form 2913 each time the work unit is reviewed, report cost, schedule, and technical milestone status for management to measure progress, and maintain work unit records IAW all applicable Air Force and AFRL Instructions.
- 4.1.3 Types of LMRs
 - 4.1.3.1 There are three (3) types of LMRs:
 - 4.1.3.1.1. Initial reviews - of work units to get approval to start a work unit, establish its JON(s), and establish a work unit baseline.
 - 4.1.3.1.2. Periodic LMRs
 - 4.1.3.1.2.1. Normal LMRs – conducted throughout the life of the work unit to measure progress and allow management the opportunity to make decisions regarding technical progress, funding cuts, potential work

unit duplications, baseline changes (i.e., scope, schedule, or funding), cost overruns, and schedule slippages.

4.1.3.1.2.2. Follow-up LMRs - when a periodic LMR has a Red (Unsatisfactory) or Yellow (Marginal) rating fields. See Appendix A-1, Block 11 of AFRL 2913 form and Appendix A-2, Block 11 instructions.

4.1.3.1.3. Baseline Change Request (BCR)

4.1.3.1.3.1. Required for all Engineering Change Proposals (ECP) to existing contracts. Rome Research Site guidance for the BCR process is found in RRSI 63-103, "Pre-Contract Requirements/Procedures". Section 4 describes procedures to enact Contract Modifications for BCR activities.

4.1.3.1.3.2. AFRLMAN 61-204 gives detailed instruction for BCR activities in Chapter 3, Implementing Work Units. RRSI 61-201 gives detailed use cases and funding thresholds for BCR exceptions to the LMR process and 2913 requirements in section 1.3.

4.1.3.1.3.3. A quick summary from the two documents is provided in Appendix E.

4.1.3.1.4. Final LMR – conducted when the work unit is ready for close out and the S&E has accomplished/approved the final technical report for the work unit.

4.1.3.2 LMRs shall be conducted so that all work units within an R&D effort of interest are reviewed at the same time. This will allow management to review and assess the total resource requirements of current and planned work units within the R&D effort. The AFRL 2913 shall support this aggregate of JONs type of review.

4.1.3.3 All work units must be reviewed by the responsible R&D effort manager, branch chief, or division chief, per the thresholds and frequencies set up by the directorate (See Appendix D). Reviewers must be present at the review.

4.1.3.4 The R&D effort manager, branch chief, and division chief shall forward a copy of the AFRL Form 2913, information documenting findings and action items, with an overall assessment of the health of the work units reviewed at their level, to the TD director and staff. The case file requires an AFRL 2913 hardcopy printout with original signatures.

4.1.3.5 AFRL Form 2913 is required at the AFRL corporate level, with mandatory compliance for all TDs. It therefore must be supported by Jiffy as an Enterprise tool across all of the AFRL TDs.

4.2 In-house Work Units

4.2.1 Definitions and AFRL Instruction Citations

4.2.1.1 Section 5.2 of AFRLI 61-203 defines In-House Work Units as: “Government civilian, military personnel, or contractor effort to accomplish the technical objective of the work unit within the directorate facilities. In-house work units are characterized as “bench work” experimentation or original study designed to accomplish discrete scientific technical advancement. This includes all resources (labor, supplies, equipment, equipment maintenance, temporary duty) expended in planning, documenting, supporting, fabricating, test support, and evaluating efforts necessary to perform in-house work research.”

4.2.1.2 Section 6.7 of AFRLI 61-201 defines case file² requirements for In-house R&D work units.

4.2.1.3 AFRLI 61-202 defines “technical completeness” within the LMR process for In-House Research as follows: “Work units accomplished by in-house research are technically complete when an LMR shows that the objective has been met or the director terminates the effort before completion. Allowing in-house work units to remain open for years hoping for additional dollars is not permitted. In-house work units must have a measurable product produced within a reasonable period of time (8 years per AFRLI 61-201). Once the scope has been satisfied, the work unit must be closed out. Active JON(s) supporting a work unit should not be officially closed out until the final report is completed, distributed and filed in the R&D case file; and proper disposal of residual supplies and equipment is completed.”

4.2.2 Correlations to JIFFY R&D Program Management Software

4.2.2.1 An in-house work unit cannot be tracked by a contract number within JIFFY because that data field is, by definition, null for in-house work units. Any In-house Work Unit related contracts shall be entered in JIFFY as contractual work units in order to avoid duplication of reporting.

4.2.2.2 The R&D contract number is currently used by JIFFY as the primary criteria for corporate database retrieval of information about an active R&D work unit. However, it will be possible for an in-house work unit to be tracked by its JON and PR# for TDs that use the PR number data element item. The use of JONs already exists across the AFRL organization.

4.2.2.3 In-house programs characteristically have a master JON and potentially several subordinate JONs (see para 3.2.3) for typical in-house work unit support funding lines.

4.2.2.3.1 The in-house master JON is required to be tagged as a Cat 2 JON with the Job Category Code (JCC) = 2 in the AFRL/IF corporate data system. The JCC is a data

² See APPENDIX D, Terms and Definitions, “R&D Case File”

element used to show the Category of Job Order Number³. The job category code identifies the nature of work performed, and is for laboratory JONs only. Subordinate JONs are also required to be identified as a Cat 2 JON unless they are funds used to support an external (to AFRL/IF) organization. In this case they are identified as Cat 3 (JCC=3 or external support).

- 4.2.2.3.2 Analysis of active JONS indicated that the JCC code is not the definitive data item to distinguish between Category (abbreviated “Cat”) 1, 2, and 3 work units. The complexity of the AFRL/IF business and funding base is the main reason for the diversity of JON coding characteristics. No analysis was done for other AFRL TDs pending a near-term planned kick-off meeting to investigate integrating JIFFY to their R&D work unit tracking and reporting business practices. The following discussion is therefore limited to current AFRL/IF business practices and governing RRS and AFRL OIs.

Author’s Note: The diversity of JON assignments in AFRL/IF does not represent a critical limitation to implementing In-house JON tracking/reporting capability via the JIFFY system. The absence of a standardized JON assignment process is a limitation for data retrieval of In-house JONs based on either the JONs or the JCC database field. It has been identified to the AFRL/IF/CIO as a business process that requires modification to align the governing OIs with the existing JON assignment activity.

- 4.2.2.3.3 The focus group discussed a proposed workaround that would require users to identify the master JON and its sub JONs via a new JIFFY user query and input page. The “Project” code in the corporate data system is often used to identify JONs that are part of a larger entity. For the master JON the “Project” (the first four characters of the JON) code could serve as the search criteria for which other active JONs will be subordinate JONs for the master. Additionally, using the 5th and 6th characters to identify other tasks within the project, and the 7th and 8th is the sub-task or work unit within the task are also possibilities for future release of JIFFY.

The focus group made a decision to allow the user to enter multiple JONs to report on a single 2913 was made as a tradeoff to meet the imposed time schedule and use an automated approach at a later time if requested by the JIFFY user community.

- 4.2.2.4 Any category (JCC=1, 2, or 3) of JON can be a candidate for master or sub JONs. Any project that requires a case file should be traceable in Jiffy. In turn, these projects should also be evaluated through the 2913 system.
- 4.2.2.5 Need to identify a method for tracking financial data for both the master JON and the sub JONs. Potentially the master JON should also be put in as the principal search criteria to locate similarly coded subordinate JONs.

³ WebEIS Help, JON REGISTER table definitions, found on-line at the RRS WebEIS Labor and JON Register – Help page at https://rlweb.rl.af.mil/ldap_pls/eisp/help.eishelp?helpname=JON_REGISTER

4.2.3 Associated Subordinate JONs

4.2.3.1 Types and Characteristics (parenthesis indicate commonly used characters for JONs)

4.2.3.2 Travel (TY) funds for R&D work units can consist of one (1) or more JONs for the same work unit if it is funded by multiple sources (AF S&T, customer, Congressional add-on, etc). Travel funds are used by the LPM and additional government S&E staff for off-site visits to customers, contractors, conferences, travel in connection with training, meetings, site visits, etc. Travel expenditures are not individually tracked by JIFFY.

4.2.3.3 Salary (SA) funds for R&D Work Units (WUs) can similarly consist of one (1) or more JONs for the same work unit if it is funded by multiple sources (AF S&T, customer, Congressional add-on, etc). Salary funds are used to pay for the labor hours expended by the LPM and additional government S&E staff for all time charged to the work unit. Salary charges are tracked in the Job Order Cost Accounting System (JOCAS). They are not individually tracked by JIFFY.

4.2.3.4 Contract Maintenance (CM) funds are usually a single JON designated exclusively for the costs associated with repair and replacement of ADPE or equipment items. CM funds may be centrally managed at the branch or division level, i.e. not every R&D work unit will have a dedicated CM JON.

4.2.3.5 Non Credit Card Supply & Equipment (LM for LMCA) funds can be split between multiple JONs within the same work unit to reflect the need to track exact expenditures for multiple external customers and/or multiple in-house laboratory facilities that are supported by the JON. Rules for the purchases of items for particular ranges of dollar amounts are set by individual TDs. Smaller dollar amount purchases are generally charged to the R&D work unit's Supply & Equipment credit card JON.

4.2.3.6 Credit Card (CC) – A government credit card may be issued to an authorized government official or is held centrally by the Logistics Materiel Control Activity (LMCA) for purchases of supplies and equipment of small dollar amounts. One (1) or more JONs for credit card accounts may exist for a given R&D work unit. General use of this type of JON is for ADPE (computer hardware & software licensing), and routine supply and equipment purchases.

4.2.3.7 System Engineering and Technical Assistance (SETA) support – The work unit may require contractor support for laboratory work, testing, installations, field exercise support, etc. One or more JONs may be established for this purpose. Since this is contractual work, the normal handling of Cat 1 work units is already a feature of JIFFY and does not need to be separated out as a subordinate to an In-house JON. Reporting will be as usual for contractual work units.

4.2.3.8 Miscellaneous Contract Services - The work unit may require contractor service support for building experimental prototypes, shop fabrication, engineering study/analysis, site surveys, test equipment, facilities rental, equipment rental/leasing, etc which cannot be

classified as Supply & Equipment or R&D contract work. The work unit may or may not have a JON established for this specialized category. Funds may be centrally managed at the branch or division level, i.e. not every R&D work unit will have a dedicated miscellaneous contract services JON.

4.2.3.9 Shipping – These funds are usually a single JON designated exclusively for the costs associated with transporting items from the TD to destinations for conferences & meetings, marketing displays, customer sites, test ranges, etc. Shipping funds may be centrally managed at the branch or division level, i.e. not every R&D work unit will have a dedicated JON. Typically, there is only 1 JON designated for shipping.

4.2.3.10 Publications & Marketing – These funds are usually a single JON designated exclusively for the costs associated with publishing technical reports and marketing the technology developed by the TD to existing and potential customers. With recent advances in media producing technology available on the S&E's desktop computer system (CD creation and advanced printer capability), this item is no longer needed for technical report generation. If support is required from the TD multimedia department for marketing materials, a supply and equipment JON is generally used to covers production costs. These funds are centrally managed at the branch or division level, i.e. not every R&D work unit will have a dedicated JON. Typically, there is only 1 JON designated for this area.

4.3 Aggregate R&D Efforts

4.3.1 Definitions and AFRL Instruction Citations

4.3.1.1 Section 1.2 of AFRLI 61-202 defines the R&D effort as “a unique technology development activity or project. The responsible TD determines the total scope of the R&D effort/project. R&D effort and project are synonymous. An R&D effort is broken down into one or more work units.”

4.3.1.2 Section 1.3 of AFRLI 61-202 defines the Work Unit as “the smallest segment into which R&D efforts are divided (AFI 61-203, *Definitions*). Each work unit has a specific objective, a definite beginning and end, and a tangible or reportable end product (i.e., a technical report, a piece of hardware or software). It is a technically distinct, in-house or extramural effort (R&D contract, R&D contract subtask/task order, grant, cooperative research and development agreement, etc.). The purpose of the work unit is to define activities that will allow the reporting, measurement, and evaluation of time, work, cost, and productivity. Work units are the basic building blocks of our technology programs and documentation of technical activity (through the R&D Case Files and the Research Summaries; and are submitted to the Defense Technical Information Center (DTIC)). Each work unit will have its own DTIC accession number.”

4.3.1.3 The complexity of the AFRL R&D business base does not conform exactly to these compartmented definitions. Funding sources include not only the basic Air Force Science & Technology (AFS&T) funding allocations, but also a heterogeneous mix of

funding received from and sent to cross-directorate partners within AFRL, AF operational customers, Department of Defense (DoD) services, Non-DoD Federal agencies, Federally Funded Research & Development Centers (FFRDCs), private industry, universities and colleges, foreign governments, coalition partners, NATO partners, etc.

4.3.2 Correlations to JIFFY R&D Program Management Software

4.3.2.1 During the LMR process, reporting on R&D efforts and related work units is often done in an Aggregate fashion, i.e. multiple JONs can be combined on a single LMR report form (historically the RRS2913a for AFRL/IF and the AFRL 2913 for AFRL TDs). The multiple JONs were placed in the Comments section for users of the RRS2913a form. This approach was limited since the S&E had to manually tally up funding amounts listed outside of Block 5a of the RRS2913a (corresponds to Block 7 of the AFRL 2913 in Appendix A-1).

4.3.2.2 The design of the AFRL 2913 will accommodate multiple JON entry and allows the S&E to do aggregate JON reporting for related items.

4.3.2.3 The JIFFY system can exploit the new Block 7 format to allow multiple JONs that fit into an aggregate R&D effort to be properly reported on and totaled horizontally.

4.3.3 Characteristics

4.3.3.1 Any of Cat 2 or 3 JONs may be reported as part of a set of JONs for an aggregate R&D effort. The decision to group JONs resides completely with the LPM.

4.3.3.2 Cat 1 JONs shall remain reportable on a single AFRL 2913 as a contract entity to avoid duplication in the LMR process.

4.3.3.3 Actual requirements for integrating the AFRL2913 form and In-house work units in the format prescribed by the AFRL/CCI office for requirement documents (i.e. written for designers and software programmers for the 30 Sep 03 JIFFY release) may be found in Appendix F. Requirements for future enhancement releases of JIFFY may be obtained by contacting AFRL/IF/SBAPO, email: SBAPO@rl.af.mil.

5. The Team

MEMBERS:

Jackie Smith
Chuck Schultz
Verna Weeden
Frank Born
Wayne Bosco
Maria Rich

ROLES:

Focus Group Leader, User, Tester, Documenter
CIO, Interface to IFF/IFB/IF/AFRL
IFB Consultant for LMR – 2913 Process
Requirements, Designer, Developer, User
Business Process Requirements, User
Oversight Across Focus Groups, Database

Mike Maciolek
Mark Reichman
Lucille Argenzia
Chuck Joesten

Requirements, ASP Developer
AFRL2913 Prototyper, Primary ASP Developer
User, IFK contracting process specialist
IT-SE Lead, AMS Contractor, AFRL/CCI
Enterprise Business System (EBS) Office

6. Approach

The recommended approach used to enable JIFFY to be used for In-house and Aggregate work units and the LMR-2913 reporting process follows:

- 6.1. A dedicated Focus Group was established to determine the scope of the tasks needed to add In-house work units, allow Aggregate JON reporting on the 2913, and to enable the use of the AFRL 2913 form.
- 6.2. The logical first step was to analyze the existing AFRL/IF business processes. A full research effort conducted by the Focus Group Champion started with collecting and reviewing the most recent RRS LMR guidance and the recently published AFRL LMR guidance was initiated. The RRS LMR guidance was selected as a “best practice” business process and consequently became the basis for the AFRL LMR guidance.
- 6.3. The decision to proceed with incorporating the AFRL LMR guidance and 2913 form into JIFFY was made. A cross-check for similarities and differences between existing JIFFY RRS2913a implementation and the AFRL 2913 was performed.
- 6.4. During this review process, the inner workings of JIFFY with respect to AFRL/IF business processes and the degree of change required to transition to the new AFRL 2913 form was analyzed. Other AFRL TD business processes were not included at this stage because JIFFY system deployment dates and capabilities had not yet been discussed between the JIFFY Program Office and the AFRL/CCI EBS Program Office.
- 6.5. A thorough reading was performed in order to extract requirements for each of In-house and Aggregate R&D efforts, and the LMR/2913 process using Regulatory Citations from AFRL Instructions (see Section 2).
- 6.6. A top-level analysis of AFRL/IF division business process similarities and differences for active JONs and respective impacts on JIFFY software system logic and work unit handling was done.
- 6.7. A top-level verification of the match between the RRS-resident TD business process (division S&E “working rules”) and governing RRS and AFRL Instructions by analyzing active JONs using WeBEIS was done.
- 6.8. If there is not a 100% match between AFRL Instruction definitions for JONs and actual active JON values in use in TD divisions, it will be necessary to engage TD management

to mandate enforceable compliance across the board in the Comptroller/Financial Division, Plans & Programs, Mission divisions, etc in order to standardize practices.

- 6.9. Communicate “get-well” process to AFRL/CCI as guidance for other TDs receiving JIFFY after September 2003.
- 6.10. Engage AFRL/IF/CIO to present the case to TD divisions to clean up data for non-standardized JONS and to adopt a standardized JON assignment algorithm to allow for logical tests and data filtering by JIFFY software. This direction will need to propagate via AFRL/CCI to implement an AFRL-wide standard JON assignment business process.
- 6.11. Hire programmers, testers, and tech writers to support transitions and upgrades to JIFFY. Assign government POC from AFRL/IF/SBAPO to train new hires.
- 6.12. Accumulate all JIFFY documentation and analyze for changes to fit terminology found in governing AFRL instructions. Create tracking matrix to list existing docs, design and enforce reporting process to capture any new docs generated. Engage tech writer to start making changes.
- 6.13. Other activities that will support the JIFFY software include: definition of requirements, prioritization and approval of requirements, software design, building, testing, documentation, deployment, bug detection and fixing, training, and support. Details of the master tasks and schedule for JIFFY can be obtained from the AFRL/IF/SBAPO.

7. Products

- 7.1. This document – Analysis & Summary of Business Processes & Requirements for JIFFY R&D Program Management Software Capabilities
- 7.2. Software Design & Development Requirements docs – see Appendix F.
- 7.3. A software tool that allows AFRL S&E staff access to and conformance with the corporate LMR process and AFRL Form 2913 available to all users of the JIFFY application. To date, JIFFY has only been available on the RRS intranet site as an RRS site business tool.
- 7.4. The capability to track and report on In-house and Aggregate JONs within the JIFFY web-based program management tool.
- 7.5. DTIC Capability - Planned Mechanisms of LMR related feeds into DTIC
- 7.5.1. The functional system requirements for the development of a new Jiffy module to allow the RRS STINFO office personnel to submit R&D program information to the Defense Technical Information Center (DTIC) was derived from the user requirements. Only those requirements which are directly related to the LMR process will be summarized

here. Details of the complete set of requirements for JIFFY DTIC capabilities can be obtained from the AFRL/IF/SBAPO.

7.5.2. Periodic Submissions

The DTIC module shall flag for periodic submission those records that are not DTIC exempt, have completed their most recent LMR successfully and have their 2913 submitted with the “periodic” block checked. For the purpose of periodic submission to DTIC, the DTIC module shall pull any information required from the previous/initial DTIC submission and the most recent 2913 form.

7.5.3. Progress Statement

The DTIC module shall queue up progress statements from all prior 2913s for submission to DTIC. The progress statement shall be limited to 5000 characters/80 chars per line using word wrap. If the progress statement exceeds 5000 characters, the DTIC module shall truncate the earliest progress statement(s) in order to stay below the 5000 character limit.

7.5.4. Final Submission Flag

The DTIC module shall flag DTIC reporting as complete once the final submission has been sent to DTIC. This will remove the record from the active records area (2.3.1.4) and is necessary because a final 2913 will be generated and we do not want to flag the effort for DTIC submission again.

8. Constraints and Risks

8.5. Schedule imposed for the Baseline deliverable for 30 Sep 03 will force a streamlined approach and prevent development of anything more than a basic AFRL 2913 capability in JIFFY.

8.6. Manpower available at the time of requirements definition, design, build and test cycles.

8.7. AFRL-wide TD deployment issues and lack of across the board up-front study for AFRL-wide TD in-house, aggregate JON, and LMR business processes.

9. Interoffice Contacts and Cooperation

9.5. Coordination was needed from the following offices:

9.5.1. AFRL/CCI – corporate CIO

9.5.2. AFRL/DS - owner of the AFRL 2913 form and LMR process

9.5.3. AFRL/IF Corporate Information Officer (IFI) - top-level guidance and coordination with AFRL corporate STD MIS planning

<http://www.rl.af.mil/mission/missions.html#IFI>

- 9.5.4. AFRL/IF Strategic Planning & Business Operations Division (IFB) - owner of the AFRL/IF 2913 and LMR process at RRS, provided coordination and alignment of JIFFY with existing business practices employed at the RRS site.
- 9.5.5. AFRL/IF Comptroller (IFF) – coordination and alignment of JIFFY with existing financial practices employed at the RRS site
http://www.rl.af.mil/div/IFF/IFF_home.html
- 9.5.6. AFRL/IF Management Information Systems Section (IFFDS) - coordinating the Standard Systems Integration portion of the JIFFY deployment
http://www.rl.af.mil/div/IFF/IFFD/IFFDS/IFFDS_home.html
- 9.5.7. AFRL/IF Division Management Offices (IFE/IFG/IFS/IFT) – coordination and alignment of JIFFY with division R&D work unit management practices employed at the RRS site
http://www.rl.af.mil/div/IFF/IFF_home.html

APPENDIX A-1
AFRL 2913 – LMR REPORT FORM

(excerpt: Attachment 1 of AFRLI 61-202)

AFRL Laboratory Management Review								1. AS OF:	
2. PURPOSE		INITIAL	PERIODIC	FINAL	BASELINE CHANGE		LAST REVIEW		
3. TITLE/DTIC Accession Number/R&D Effort.				4. WORK UNIT MANAGER/S&ES/ORG/PHONE John Doe / IFEC / DSN 587-7433			5. Work Unit Type. Pick type of work unit		
6. FUNDS (\$M)	PRIOR YRS	Current FY	FY+1	FY+2	FY+3	FY+4	FY+5	TO COMPLETE	TOTAL
BL		X.XXX							
REQD		X.XXX							
OBLIG									
7. Work Unit Job Order Numbers (JONs)									
JON Number	PRIOR YRS	Current FY	FY+1	FY+2	FY+3	FY+4	FY+5	TO COMPLETE	TOTAL
Inactive									
8. PROGRAM DESCRIPTION Textual description in "plain text" goes here. Describe the technical objective and approach being taken to address the user need/deficiency. Identify key goals, deliverables, and acceptance criteria.									
9. Deficiency (Mission Need)/Combat Capability/MAJCOM Supported:									
10. PROGRESS/STATUS "Plain text" description of what major events have occurred in this program since the last review									
NEXT MILESTONE: "Plain text" description of next major event scheduled, with estimated date									
11. RATINGS						12. STATUS			
	PRIOR	CURRENT	Ratings Codes: B = Excellent G (Green) = Satisfactory Y (Yellow) = Marginal R (Red) = Unsatisfactory N/A = Not Applicable			Contract Number:			
a. Technical						Contractor:			
b. Financial									
c. Schedule						Start Date:			
d. Contracting						End Date:			
e. Deliverables						% SCHEDULED			
f. Manning						% COMPLETED			
g. Testing						% SPENT			
h. Other(Specify)						TREND-SV		CV:	
SUM RATING			TRANSITION PLAN SIGNED					DATE	
13. REMARKS (Describe Yellow or Red Status, Reason for Baseline Changes, Work Unit Review Major Concern) General remarks and explanation if a less than satisfactory rating is in block 11									
14. REVIEWER COORDINATION									
Gerald C. Nethercott						ORG: AFRL/IFEC		DATE:	
Joseph Camera						ORG: AFRL/IFE		DATE:	
						ORG:		DATE:	

15. REVIEWER COMMENTS/FOLLOW-UP ACTION/SUSPENSES:

APPENDIX A-2

INSTRUCTIONS FOR COMPLETING AFRL FORM 2913

(excerpt: Attachment 3 of AFRLI 61-202)

- Block 1. Enter the as of date that the form is prepared.
- Block 2. Check the appropriate indicator for the type report, i.e., initial, periodic/baseline change, or final. Enter the date of the previous report.
- Block 3. Enter the Title of the work unit being reported, R&D work unit number and its DTIC accession number separated by a slash.
- Block 4. Enter with slashes between each element:
- Work unit manager/S&E name.
 - Work unit manager/S&E office symbol.
 - Work unit manager/S&E DSN phone number.
- Block 5. Select contract or in-house work unit.
- Block 6. Enter all funds in thousands. Provide data for prior year funds, current FY, and FY+1 to 5, cost to complete and the total program funds.
- BL - Show the current baseline totals of all internal and external funds allocated to the effort.
- Required - Show the required funds necessary to complete the work unit. The required funds line shall be changed whenever the work unit manager/S&E projects a change that will have a financial impact on the effort.
- Obligations - Enter actual prior years, current fiscal years, and dollars obligated to date.
- Block 7. Work Unit Job Order Numbers (JONs). Enter the information that corresponds to each column and funds in thousands. Provide data for prior year funds, current FY, and FY+1 to 5, cost to complete and the total program funds. Show the funding for each active JON(s) on a separate line and rollup all inactive JONs into a single line.
- Block 8. Describe the technical objective and approach being taken to address the user need/deficiency. Identify key goals, deliverables, and acceptance criteria.
- Block 9. Give the mission need title and name of the sponsoring command for this operational mission need.

Block 10. Describe the current technical progress and status. Identify corrective actions taken as a result of reviewer comments in the last report. Identify any issues that could impact successful completion of the effort.

Block 11. Complete this area after contract award or in-house work has been started. Rate each of the areas of the assessment as follows: Use B (excellent) if assessment shows exemplary progress and has no problems. Use G (satisfactory) if assessment area has no problems. Use Y (marginal) if known problems or available management information or trend data show that your objectives of the contract or in-house work will not, or may not be met, or action has been taken at the management level making the assessment to correct the deficiency. Use R (unsatisfactory) if problems exist within an assessment area, which are jeopardizing effort objectives and resolution of the problem requires involvement at a higher management level. Financial assessment includes evaluation of funding levels, funds status, and cost performance. The manning assessment rates both manpower and staffing on the work unit.

To expedite the LMR process, it is recommended that the work unit manager fill in each of the applicable assessment areas on the AFRL Form 2913 with a suggested rating. The work unit manager then justifies each rating in the LMR briefing. This will expedite the review process, and management can accept the suggested ratings or make changes as required before signing off on the form.

The overall assessment is for a collective evaluation of all aspects of the work unit. If any of the baseline elements (technical performance, financial, schedule, or manning) are rated less than satisfactory, the total program is given the same assessment. For example, if technical performance is assessed Y and financial is assessed R, the total program is R.

The following are typical questions the Work Unit Review should address in assessing each area.

11.a. - Technical. The achieved performance should be compared with the forecast performance.

- Does the stated objective adequately describe the needed work?
- Is the objective sufficiently specific to allow measurement of progress against that objective?
- Is the end product of this effort clearly defined?
- Is exit criteria adequately defined to be able to recognize completion of the effort?
- Is there a stated requirement for this product?

- Can the user apply the technology?
- Does the technical approach appear to be a logical method of achieving the objective?
- What other alternatives were considered?
- Is the rationale for selection of the stated approach adequate?
- Has a literature search been accomplished? Are there similar/related efforts going on elsewhere? What are the results?

11.b. - Financial.

- Does the cost estimate reflect the total cost of accomplishing the effort (including labor, travel, contracts, environmental analysis, indirect/overhead, etc.)?
- What is/are the source(s) of funds? Do we have written commitments or letters of intent from all of the sources?
- Does the projected rate of spending (forecast of commitments and obligations) agree with the proposed technical plan?
- If funds are required in more than one fiscal year, do out year budgets include this effort?
- If the work is to be contracted; in addition to the contract costs, what are the associated in-house costs for managing the contract (i.e., civilian salaries, travel, indirect/overhead, and other direct costs)?
- Are military construction (MILCON) funds required?
- Are there any shifts in FY funding required?
- Are there any potential contractual overruns?
- For in-house work units, JOCAS labor and expenditure data should be compared with planned estimates.
- For contractual work units, contract cost data should be compared with planned expenditures and percent of work accomplished.
- Variations should be analyzed and documented if there is an impact on the objective, schedule, or the cost of the work unit.

11.c. - Schedule.

- Do the milestones and the projected schedule agree with the technical and financial plan?
- If the effort is to be contracted; does the schedule include a date for the purchase request submission to contracting and a forecast obligation (i.e., award) date?
- If this is a contracted effort, does the schedule provide sufficient time for preparation and processing of the purchase request?
- Does the urgency of the work warrant special attention from support personnel?
- Are technical and contractual milestones being met? If any milestones are more than 30 days late, this should raise a concern. The specific rating should be a joint decision of the work unit manager/S&Es and the reviewer.

11.d. - Contracting.

- Almost all work units require procurement of supplies, equipment or services. Purchase request initiations, obligations, technology investment plan (TIP) processing, cost overruns, and unliquidated obligations are among potential problem areas to be reviewed.
- Have contracting personnel been involved in, or advised of, pending procurement actions?
- If this is to be an R&D contract and Air Force Science and Technology (S&T) funds are being used, has a TIP been approved by SAF/AQR.

11.e. - Deliverables.

- If the effort is to be contracted, what are the deliverables?
- Is there a suspense system set up to monitor the receipt of deliverable items?
- Are deliverables in compliance with the contract data requirements list? If any deliverables are more than 30 days late, this should raise a concern. The specific rating should be a joint decision of the work unit manager/S&Es and the reviewer.

11.f. - Manning.

- Contractor as well as government manning should be considered.
- How much technology directorate manpower will be required?

- Are other AFRL directorates (including support directorates) involved? If so, do you have their concurrence?
- Is the manpower currently available?
- Does applying manpower to this work unit affect any other ongoing work unit?
- If this is a contracted work unit, who (by name) is being suggested for the technical evaluation team?
- Are actual labor charges consistent with the forecast reimbursables?

11.g. - Testing.

- Will a test plan be prepared?
- Will test equipment, facilities and personnel be available when needed?
- If hardware is a deliverable, is acceptance testing well defined in terms of location, division of responsibility, and procedures?

11.h. - Other.

These are at the discretion of the directorate.

- Identify here one or more additional areas for rating assessments based on the unique aspects of the work unit being reported. Use the reverse of the form if necessary. These could include but are not limited to Logistics, Environmental Facilities, Documentation, Intelligence, etc. The following are representative questions relative to these “other” areas:

- Logistics.
 - Do supportability, producibility, reliability, maintainability, and/or affordability apply? If not, explain.
 - Has this effort been coordinated with your acquisition logistics specialist?
 - Are supportability and affordability requirements consistent with user expectations?
- Environmental.
 - Has the environmental impact of this work unit been considered?
 - What are the results of the preliminary environmental assessment?
 - Review the status of the AF Form 813 approval process.

- If additional environmental analysis is required, has funding been budgeted?
- Facilities.
 - Are current facilities adequate?
 - Will any construction or facility modifications be needed?
 - Is a DD Form 1391, *Military Construction Project Data*, required and has it been initiated with your local technology directorate facilities' manager?
 - Are MILCON funds required?
- Documentation.
 - Is the work unit plan adequate?
 - What procedures or contingency plans exist in the event of a loss of the most critical research data?
 - Has an R&D case file been established?
- Intelligence Requirements. Determine whether the acquisition of technical intelligence and foreign technology is necessary for achieving the objective of the work unit.
- Requirement Validation. Review the relationship to technology planning objectives, foreign threat technology, or other motivating requirements, and validate/revalidate program priority relative to other efforts and the need to continue the effort.
 - Does the technical objective adequately support the identified thrust/subthrust deficiencies and goals?
 - Is the objective consistent with customer direction and agreements?
 - Is this work within the technology directorate's mission?
 - If the work unit involves an external organization, do we have a current budget estimate agreement, memorandum of agreement/understanding or cooperative research & development agreement that covers this effort between the technology directorate and the organization?
- Militarily Critical Technologies List.
 - Has this technology been reviewed to determine military criticality as defined in the militarily critical technologies list (MCTL)?

-- If this effort involves MCTL information, is it being adequately protected and controlled?

Block 12. Enter the contract number, contractor otherwise enter "N/A" in contract number, contractor for in-house efforts.

Enter start date, end date, estimates for percent of schedule complete, estimates for percent of actual work completed, and estimates for percent of funding spent on the effort. Enter the trend status for both schedule variance (SV) and cost variance (CV) using the following criteria:

-- Improving - At least three consecutive months improvement in the appropriate indices.

-- Stable - No discernible trend in the indices over the last three months.

-- Declining - At least three consecutive months decline in the appropriate indices.

Enter an "X" if a transition plan is signed and dated. Enter in block 15 if a transition plan is pending and milestone date projected for signature.

Block 13. If any assessment element or the overall assessment in Block 11 is less than satisfactory, explain the problem and state what effect this has on other programs. State the work unit manager/S&E major concern that he/she feels will negatively impact the work unit if it occurs. This may be any aspect of the work unit and is not necessarily a problem area. This is basically the work unit manager/S&E's best engineering judgment of where he/she may have to be especially vigilant to assure success.

Block 14. Enter reviewer's signature, organization symbol, and date the report was reviewed.

Block 15. Enter reviewer follow-up actions imposed at the review. Also identify in block 15 any key decision(s) that have to be made by higher headquarters that could seriously impact the work unit.

APPENDIX B

SUGGESTED LMR THRESHOLDS AND FREQUENCIES

(excerpt: Attachment 1 of AFRLI 61-202)

REVIEW LEVEL	CRITERIA	REVIEW BY	FREQUENCY
Directorate/2-Ltr	Selected by the director, or nominated by staff or division	Director Deputy Director Chief Scientist	Annual and other times as required
	Contractor direction and in-house efforts greater than \$3M and all in-house efforts	Division Branch R&D Effort Manager	
	All active contractor direction and in-house research efforts rated unsatisfactory by division chief	Finance Contracting	
Division/3-Ltr	Selected by the division chief	Division Chief Branch Chief R&D Effort Manager	Annual and other times as required
	Contractor direction and in-house efforts greater than \$1M and all in-house efforts		
	All active contractor direction and in-house Research efforts rated unsatisfactory by branch chief or R&D effort manager		
Branch Chief/R&D Effort Manager	All active and Contractor Direction efforts less than \$3M and all in-house efforts	Branch Chief R&D Effort Manager	Annual

The \$1M and \$3M are suggested thresholds. Each TD should set thresholds based on its entire portfolio and Work Unit profiles.

APPENDIX C

AFRLI 61-202 AFRL Laboratory Management Review (LMR) Process

Requirement Name	OI Reference	Description	User Type
Create Laboratory Management Reviews (AFRL Form 2913)	AFRLI 61-202, 1.6, 2.2, 2.3.1	A periodic (2+ times if <1 year performance, 1+ if >1 year) review of laboratory portfolio via work units or aggregation of work units.	Work Unit Manager/S&E, R&D Effort Manager, Branch Chief, Division Chief
Create new LMR	AFRLI 61-202, 3.1.1, 2.3.1	Initial reviews of work units to get approval to start a work unit, establish its JON(s), and establish a work unit baseline.	Work Unit Manager/S&E
Edit existing LMR	AFRLI 61-202, 2.3.1, 3.1.2	Periodic Laboratory Management Reviews are conducted throughout the life of the work unit to measure progress and allow management the opportunity to make decisions regarding technical progress, funding cuts, potential work unit duplications, baseline changes (i.e., scope, schedule, or funding), cost overruns, and schedule slippages.	Work Unit Manager/S&E
Create final LMR	AFRLI 61-202, 3.1.3	The final Laboratory Management Review is conducted when the work unit is ready for close out and the S&E has accomplished the final technical report.	Work Unit Manager/S&E
Publish and distribute a Technical Report	AFRLI 61-202, 6.1 AFRLI 61-203, 6.3.1, 6.3.3	The publishing and distribution of the technical report (TR) or final work unit report or technical note (in-house efforts) needs to be completed.	Work Unit Manager/S&E
Create Final Work Unit Report	AFRLI 61-202, 6.1	The publishing and distribution of the technical report (TR) or final work unit report or technical note (in-house efforts), needs to be completed.	Work Unit Manager/S&E
Create an in-house Technical Note	AFRLI 61-202, 6.1 AFRLI 61-203, 6.3.4	The publishing and distribution of the technical report (TR) or final work unit report or technical note (in-house efforts), needs to be completed.	Work Unit Manager/S&E
Submit progress to DTIC	AFRLI 61-202, 6.2 AFRLI 61-203, 6.2	Work units accomplished by contract are technically complete when the final DD Form 250 is signed. A final progress submission must be made to DTIC.	Work Unit Manager/S&E
Dispose of residual supplies and equipment	AFRLI 61-202, 6.2, 6.3	Active JON(s) supporting a work unit should not be officially closed out until the final report is completed, distributed and filed in the R&D case file; and proper disposal of residual supplies and equipment is completed.	
Audit document submission process	AFRLI 61-202, 2.1.3	Ensure that all findings are documented in publications and submitted to DTIC.	Two-letter Director
Establish reporting requirements	AFRLI 61-202, 2.1.4	Establish cost, schedule, and milestone reporting requirements for R&D efforts and work units.	Two-letter Director
Review Work Unit documentation	AFRLI 61-202, 2.2.1	Establish a meaningful work unit review schedule.	R&D Effort Manager, Branch Chief, Division Chief
Report Work Unit problems	AFRLI 61-202, 2.3.2	Report major problems about their work units to the R&D effort manager, branch chief, or division chief as soon as problems arise.	Work Unit Manager/S&E
Brief Work Unit status	AFRLI 61-202, 2.3.3, 2.3.4	Brief the work unit status to the director, deputy director, and staff as required or requested. Report cost, schedule, and milestones status for management to measure progress.	Work Unit Manager/S&E
Obtain management approval	AFRLI 61-202, 2.3.5, 2.3.6	Obtain management approval to establish a new work unit prior to performing any work. Obtain management approval to re-baseline an existing work unit.	Work Unit Manager/S&E

APPENDIX D

Terms and Definitions

Research and Development (R&D)

Research pertains to all effort directed toward increased knowledge of natural phenomena and environment and toward the solution of problems in all fields of science. This includes basic and applied research. A unique technology development activity or project.

Basic Research = 6.1

Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind. That research activity which has as its goal to increase scientific knowledge rather than its practical application.

Applied Research = 6.2

Systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met. The research activity which follows basic research and attempts to determine or expand the potentialities of new scientific discoveries or improvements in technology, materials, processes, methods, devices and techniques, and advances “the state of the art.”

Advanced Technology Development = 6.3

Includes all efforts that have moved into the development and integration of hardware for field experiments and tests.

Demonstration and Validation = 6.4

Includes all efforts necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology.

Engineering and Manufacturing Development = 6.5

Includes those projects in engineering and manufacturing development for Service use but which have not received approval for full rate production.

RDT&E Management Support = 6.6

Includes R&D efforts directed toward support of installation or operations required for general R&D use. Included would be test ranges, military construction, maintenance support of laboratories, operations and Maintenance of near aircraft and ships, and studies and analyses in support of R&D program.

Operational System Development = 6.7

Includes those development projects in support of development acquisition programs or upgrades still in engineering and manufacturing development, but which have received Defense Acquisition Board (DAB) or other approval for production, or for which production funds have been included in the DoD budget submission for the budget or subsequent fiscal year.

Development Test and Evaluation (no assigned number)

Efforts associated with engineering or support activities to determine the acceptability of a system, subsystem, or component.

Operational Test and Evaluation (no assigned number)

Efforts associated with engineering or support activities to determine the acceptability of a system, subsystem, or component.

Baseline

The initial baseline is defined at the time a work unit, and its associated job order numbers (JON), are set up.

Work Unit

The smallest segment into which R&D efforts are divided (AFI 61-203, Attachment 1, Work Unit Information System). Each work unit has a specific objective, a definite beginning and end, and a tangible or reportable end product. It is a technically distinct, in-house or extramural effort. It defines activities that allow the reporting, measurement, and evaluation of time, work, cost, and productivity. Work units are the basic building blocks of our technology programs and documentation of technical activity (through the R&D Case Files and the Research Summaries; and are submitted to the Defense Technical Information Center (DTIC). Each work unit will have it's own DTIC accession number.

Job Order Number (JON)

An administrative subdivision in the Job Order Cost Accounting System (JOCAS) for accumulating costs, assigning funding, and effecting transfers of funds. One or more JONs may support a work unit. There must only be one work unit per JON. A JON record must maintain traceability to its work unit, its funding source, and its record of expenditures for its entire life. AFRL/IF WebEIS definition: The Job Order Number is a code assigned by a laboratory, directorate, center or range to identify a specific entity of work effort within the organization. The first four characters are the PROJECT, the 5th and 6th characters are the task within the project, and the 7th and 8th is the sub-task or work unit within the task.

R&D Case File

Documents the research from inception to completion of a work unit as described in AFRLI 61-201. The case file uses an index and provides a systematic method of retrieval of the documentation. The R&D case file is a permanent mission record and is retired to the Washington National Records Center. R&D case files are legal records IAW 10 U.S.C., 36 CFR Part 1234, and 44 U.S.C. 3314. The physical case file is the six-part folder used by the LPM to store hard copies of all documents. The digital case file is the electronic storage repository within JIFFY of the computer files that correspond to the hardcopy printouts of the physical case file.

APPENDIX E

Baseline Change Request Process

(excerpts from RRSI 63-103 and RRSI 61-201)

When a BCR is needed for existing contractual work units, guidance is given in RLI 61-201 to initiate a Contract Modification request to the TD Contracting Division.

Business process requirements that apply to future JIFFY capabilities are underlined.

Terminology changes to comply with AFRL 61 series instructions are [bracketed].

1.3 Baseline Change Requests and Approvals. All RL [AFRL] efforts [work units] are baselined for SCHEDULE, FINANCIAL, MANNING, TECHNICAL PERFORMANCE. Baselines are adjusted as required through the life of the effort; the baseline change history gives a complete picture of the history of the program from contract award to current status, and provides a useful audit trail for management.

1.3.1. Baseline change requests will use an “out-of-cycle” Form 2913A [AFRL 2913] with some additional information added on an AF 1768. Instructions for baseline change requests are in attachment 4 (RRS FORM 2857 INSTRUCTIONS). If CC or CD approval of an effort is needed, use AF Form 1768 for staff (FM, PK, JA, XP) coordination prior to forwarding the request to CC or CD. If staff division review is needed, use AF Form 1768 for XPP, PK and FMD coordination before sending the request to the directorate for approval.

1.3.2. Negotiating and exercising an unpriced option is considered a baseline change, requires approval at the appropriate level, and is documented in the baseline change history. Exercising a priced option, a no cost extension, or going from target to ceiling does not need a baseline change request.

1.3.3. If a baseline change request for a schedule extension necessitates second year financing, it must be accompanied by a second year financing request. The Budget Division (FMB), OPR for second year financing requests, will not process these baseline change requests if the second year financing request has not been initiated.

1.3.4. All baseline change request documentation is filed in the R&D case file.

1.3.5. The RL Commander [TD Director] (or Deputy Director) is the baseline change approval authority for baseline change requests to contracts having a face value equal to or greater than \$10M [or TD specific threshold]. RL/CC [AFRL/TD/CC] (or CD) is the approval authority for all change requests to these efforts which exceed the following thresholds:

1.3.5.1. A change in effort face value greater than \$1.5M or cumulative changes that exceed \$2M anytime during the contract duration (e.g., a change for \$1.2M later followed by a \$801K change requires a baseline change request for the \$801K change and documents the previous \$1.2M change).

1.3.5.2. An effort schedule extension in excess of six months. Extensions are cumulative (e.g., a slip of three months followed by another three month slip anytime during the contract duration requires a baseline change request for the second three month change and documents the previous three month change).

1.3.5.3. A change in effort technical scope or decrease in deliverables.

NOTE: An RL Form 2916 [TD specific Program Authorization Request form] is submitted concurrently with requests for CC [AFRL/TD/CC] or CD financial baseline change approval. Block 36 of RL Form 2916 [TD specific Program Authorization Request form] must include the following: "Pending Approval of the Baseline Change Request." The division [was directorate prior to AFRL reorganization in Fall 1997] requesting the change will notify FM and PK when the baseline change request is approved and action may be completed on the RL Form 2916 [TD specific Program Authorization Request form].

1.3.6. The [TD] division [was directorate prior to AFRL reorganization in Fall 1997] is the baseline change approval authority for baseline change requests to contracts having face values less than \$10M. While the [AFRL/TD/CC] Commander's or Deputy Director's approval is not needed for these changes, they should be informed of significant baseline changes which would adversely impact TD [was Laboratory prior to AFRL reorganization in Fall 1997] programs.

APPENDIX F-1

AFRL2913 Requirements

1 Introduction

These are the functional and system requirements for the development of a new Jiffy module that will incorporate the AFRL 2913 Lab Management Review process.

Business Process Rule #1: A person within each of the branches will manually check a box that indicates that the 2913 has been officially signed and it is now ready for storage within the Digital Case Folder and is now the official copy to be used by the STINFO office for DTIC reporting.

Business Process Rule #2: If appropriate, this branch person should add the Directorate Person's name who performed the highest level signature prior to moving the approved 2913 over to the Digital Case Folder. Once moved, 2913s are locked from any additional changes.

Future requirements will include follow up triggers and suspense tracking (based on Ratings) and other business practices.

2 Background

Incorporation of the new AFRL 2913 form in Jiffy involves several changes from the current form. The biggest change is the requirement for reporting of financial expenditures and financial planning by Job Order Number (JON).

Refer to the requirement for the In-House And Aggregate Project for a discussion of the relationships of Job Order Numbers and contracts. The In-house/Aggregate requirements should be considered when accomplishing these AFRL 2913 requirements.

Preparation of an initial 2913 for a project will occur prior to the contract award and not within JIFFY.

3 Requirements

3.1 General Requirements

3.1.1 Data

Jiffy shall allow for overwriting of pre-populated data in any field of the 2913 form.

There shall be a set of rules to handle override and when to revert back to standard feed data upon creation of a new 2913.

There shall be a discrepancy report annotating the problem and notifying the appropriate personnel (eg contracting and the LPM)

3.1.2 AFRL 2913 Attributes

The AFRL 2913 form shall be printable from within Jiffy.

The AFRL 2913 form shall be able to generate an email tickler regarding 2913 completion with the option to attach a transmittable version of the 2913 via email from within Jiffy.

Blocks 7, 8, 9, 10 and 13 shall be expandable to allow for more data than would fit on the paper AFRL 2913 document.

The AFRL 2913 form shall be retrievable via the Jiffy Digital Case File.

Jiffy shall retain the ability for user's to utilize the RRS 2913a to view and edit legacy forms concurrently with the newly developed AFRL 2913 during a transition period. The transition period is TBD.

There shall be a 'delete' button on the 2913 start page that will allow a user to delete existing 2913s from the current Project (based on ProjectID).

3.2 Form Requirements

3.2.1 Block 1

3.2.1.1 "As Of"

This data for this field shall be entered by the user when the 2913 is created.

3.2.2 Block 2

3.2.2.1 "Purpose"

One of the following checkboxes shall be 'checked' as appropriate for the type of form being created: Initial, Periodic, Final, Baseline Change.

If Baseline Change is checked, the system shall make Block 13 (Remarks) a mandatory field.

3.2.2.2 "Last Review"

The system shall pre-populate with the latest "as of date" from previously entered 2913s for this ProjectID. 2913s marked "Initial" in "Purpose" field do not have any prior 2913s entered, so the "Last Review" should be blank.

3.2.3 Block 3

3.2.3.1 "Title/DTIC/ Accession Number/R&D Effort"

The system shall pre-populate based on parameters pulled from the Project table.

3.2.4 Block 4

3.2.4.1 “Work Unit Manager/S&Es/Org/Phone”

The system shall pre-populate based on the information available about the Gov’t Technical POC for the project.

3.2.5 Block 5

3.2.5.1 “Work Unit Type”

Prepopulate based on project parameters pulled from Contract Type in the Project table

3.2.6 Block 6

3.2.6.1 “Funds”

The system shall pre-populate based on data in the corporate data feed and the Jiffy database when there is a corporate Data Feed.

If there is no corporate Data Feed then the system shall pre-populate based on data from the FiscalYear table. (This is the case for those JIFFY projects that chose manual entry vs. std data feeds.)

The As Of Date, as represented in Block 1, shall form the basis for determining the fiscal year represented in the “Prior Yr” and Current FY”, etc... FY starts on Oct 1.

The As Of Date shall be used as the cut off date for reporting obligations. No obligations received after that date should be reported as obligated.

All Entries shall be in \$K rounded to the nearest 1 decimal place. Displayed as a number with no units.

3.2.6.1.1 “BL Row”

The “BL” row shall show a mixture of previously obligated funds and future planned funds in order to show the entire funding profile for the project.

“Prior Yrs” shall show obligated funds. “FY+1” – “To Complete” shall show future planned funding. CurrentFY shall show a mixture of obligated funds and future planned funds for the current fiscal year not yet obligated.

3.2.6.1.2 “REQD Row”

This shall be left blank by default.

3.2.6.1.3 “OBLIG Row”

The “OBLIG” row shall show the funds that have been obligated to the project.

Prior Yrs” shall show obligated funds. Current FY shall show obligated funds for this fiscal year. Since future planned funds cannot be obligated, “FY+1” to “To Complete” will be populated with zeroes.

3.2.7 Block 7

3.2.7.1 “Work Unit Job Order Numbers (JONS)”

The system shall pre-populate the data for this section based on data in the Jiffy database for a prior 2913 for this Project ID.

The system shall validate (i.e. ensure that the JON exists) a manually entered JON number against the data from the JOCAS database. A non existent JON will not be permitted to be added into the 2913 module.

The system shall total up the data in the columns into the Total column.

3.2.8 Block 8

3.2.8.1 “Program Description”

This block shall be pre-populated with data from previous 2913s for this Project ID (either RRS or AFRL). If not available, then the data will be populated from the “Objective” field for that ProjectID.

3.2.9 Block 9

3.2.9.1 “Deficiency (Mission Need)/Combat Capability/MAJCOM Supported”

Jiffy shall pull the data for this block from a previous 2913 for this Project ID if available.

F. If we have the time we could pull the data from the Mission Need database and have a drop-down for the selection. (future build)

3.2.10 Block 10

3.2.10.1 “Progress/Status”

The engineer will fill in this block as desired. The data shall be stored in the Jiffy database.

3.2.10.2 “Next Milestone”

The engineer will fill in this block as desired. The data shall be stored in the Jiffy database.

3.2.11 Block 11

3.2.11.1 “Ratings”

All rating categories shall have select box choices of Blue, Green, Yellow, Red, N/A, and blank (null).

“Prior” ratings shall be pulled off of the last 2913 form for this ProjectID. If none is available, then they shall be defaulted to N/A.

“Current” ratings shall be defaulted to Null.

If any rating in the Prior or Current column is either red or yellow then Block 13 (Remarks) shall become a required field.

3.2.12 Block 12

3.2.12.1 “Status”

Contract parameters: “Contract No”, “Contract”, “Start Date”, “End Date” shall be pulled from the Project table.

Jiffy shall enter the accrued amount into the “% Spent” field, from the Month table – Actual Allocation field, for those months that precede the As Of date on the form.

“% Scheduled and % Completed” shall be left blank by default.

The amount spent shall be reflected to the user in some way that lets them know the date at which the percentage was current... i.e. “...Spent As Of.....” (Consider some text next to the input box that states this rule clearly. Not to be displayed in the final printout.

“Transition Plan Signed” shall be a drop-down with 3 fields; “Yes, No, N/A”.

“End Date” shall be the Performance Period End Date.

3.2.13 Block 13

3.2.13.1 “Remarks”

The field shall be left blank by default.

The system shall make this field mandatory if this AFRL 2913 is a baseline change or if any rating from Block 11 (Ratings) is either yellow or red.

3.2.14 Block 14

3.2.14.1 “Reviewer Coordination”

First line shall show the Branch Chief and ORG/Branch Symbol for the engineer that is listed in Block 4 (Work Unit Manager).

Second line shall show the Division Chief and ORG/Branch Symbol for the engineer that is listed in Block 4 (Work Unit Manager).

3.2.15 Block 15

3.2.15.1 “Reviewer Comments”

The system shall leave this blank, by default.

APPENDIX F-2

In-house Work Unit Requirements

1 Introduction

These are the functional and system requirements for the development of a new Jiffy capability; In-House and aggregate Program support project management.

2 Background

The ability to manage in-house projects is required in Jiffy. The October release will not include automatic data feeds for in-house projects due to the fact that full utilization of automatic feed data for these projects would require fundamental changes in the structure of a Jiffy project and potentially require business practice changes at the lab.

3 Requirements

3.1 Current Requirements

Jiffy shall allow a new type of project to be created; "In-House Effort" and "Aggregate Program Support". The latter shall be mapped to the In House module.

Jiffy shall allow for a Jiffy project category that requires no contract number or JON.

Jiffy shall disallow a user from going to the "Enter Financial Info" page or the graphing page for this type of project. Turn off links to these pages on the project.asp, and menu.asp "Actions" drop-down boxes.

Jiffy shall disallow "Contractor" POC entries for this type project.

Jiffy shall allow an infinite number of "Other Govt" entries for all types of projects.

No quarterly report due dates shall be generated for this type project.

Schedule (also on status.asp page) shall not show quarterly report due dates.

Since the "Enter Financial Info" page (update.asp) is disabled, there shall be no need for the fiscal year table or the month table data entries for this type of project.

DTIC reporting (with respect to the DTIC module) shall be able to be selected or deselected and accessible to the STINFO user.

Digital Case File shall be available for this type of project.

Financial screens (ie projectinfo.asp) shall show N/A where appropriate.

View Financial Data screen shall not be available for this type project.

The JIFFY system shall allow for generation of a 2913 when no contract is available for association.

Jiffy shall allow for zero \$ contract face value.

Questions regarding whether the contract has web based reporting written in it, report due dates, and final report due date shall not be shown to the user.

JIFFY system shall pull, display, and store end dates in support of In-House via JON end date.

3.2 Future Requirements

3.2.1 F. Live feed for Aggregate Program support

The JIFFY system shall allow for pull of live data from standard systems in support of the Aggregate Program to include financial data.